P-ISSN: 2808-0467
E-ISSN: 2808-5051
Homepage: https://iss.internationaljournallabs.com/index.php/iss

# SERVICE QUALITY AND PATIENT TRUST ON PATIENT LOYALTY MEDIATED BY PATIENT SATISFACTION ON INPATIENTS

**Pillipus Resar Andreano, Ratlan Pardede**
*Master of Management, Universitas Bunda Mulia, North Jakarta, Jakarta, Indonesia*
*resar.andreano@gmail.com*

***PAPER INFO***

***Received:***
*September 2023*
***Revised:***
*September 2023*
***Approved:***
*September 2023*

***ABSTRACT***

**Background:** The competition in the health industry is currently very fierce, coupled with the emergence of Private Hospitals equipped with complete facilities. This makes hospitals must realize the need to provide quality health services to their customers.
**Aim:** The purpose of this study was to investigate the effect of service quality and patient trust on patient loyalty mediated by patient satisfaction in patients who hospitalized at "CDE" Hospital, Bogor, West Java.
**Method:** A Google Forms online survey on inpatients at "CDE" Hospital, Bogor, West Java was used to collect the data of this study. Data analysis was performed using the Partial Least Square Structural Equation Modeling (PLS-SEM) method to measure the relationship between variables with the help of Smart PLS 3.0 software.
**Findings:** The results of the study prove that service quality has not a positive and significant effect on patient loyalty. Other results prove that patient trust has a positive and significant effect on patient loyality, service quality has a positive and significant effect on patient satisfaction, patient trust has a positive and significant effect on patient satisfaction, patient satisfaction has a positive and significant effect on patient loyality, service quality has a positive and significant effect on patient loyality mediated by patient satisfaction, and patient trust has a positive and significant effect on patient loyality mediated by patient satisfaction.

***KEYWORDS***

*service quality, patient trust, patient satisfaction, patient loyality*

© The author(s). This work is distributed under the terms of the Creative Commons Attribution-ShareAlike 4.0 International License (CC BY-SA 4.0)

## INTRODUCTION

The Health Sector is an important indicator in order to achieve public welfare in a country. The existence of health facilities is a priority that must be considered in the country. Based on CEIC, the development of the number of General Hospitals in Indonesia has greatly increased since 1995 and what is interesting is that there has been a significant increase since 2009, which has continued until 2021.

In the last 10 years, from 2002 to 2021, there was an increase in the number of hospitals in Indonesia by 169.73% to 2,522 hospitals, and with the onset of the Covid 19 pandemic in 2019, the number of hospitals increased again by 2.98%. When viewed in terms of hospital ownership, it is dominated by private hospitals with a total of 1,496 in 2021. This number shows an increase in hospitals by 83.55% since 2012.

In addition to private hospital ownership, there was also an increase in the number of District/City Government Hospitals by 36.61% from 2012 to 2021. The West Java region according to the Regency/City Office in West Java in 2021 with the total number of hospitals is 331 or an increase of 6.34%, while for the Bogor Regency area has 29 hospitals, both private and government-owned. The need for hospital facilities when compared to the population in

Bogor Regency according to WHO still needs to be increased, because the population in Bogor Regency is around 5.4 million people, while the ratio set by WHO for the availability of hospital beds is 1/1000 population, while with the existence of health facilities both hospitals and health centers, the total available beds are 4,120, where there is still a shortage of beds in health facilities according to WHO for Bogor Regency amounting to 1,257 beds.

The competition in the health industry is currently very fierce, coupled with the emergence of Private Hospitals equipped with complete facilities. This makes hospitals must realize the need to provide quality health services to their customers. Service quality is defined as a discrepancy between customer expectations and accepted reality. Hospitals are part of the national health system that is always expected to improve the quality of provision of facilities, services, and independence.

Fadhilah and Diansyah (2018) said that Service Quality is an effort to fulfill wants and needs supported by the right delivery, in order to meet customer expectations. So there are two factors that affect the quality of services provided, namely expected service and perceived service.

The level of service quality, especially in the field of services, can be seen from several dimensions, namely the dimensions of reliability, responsiveness, assurance, empathy, and physical appearance/tangible. The quality of health services can also be seen from the dimensions of respect and caring, effectiveness and continuity, appropriateness, information, efficiency, meals, first impression, and employee composition (staff diversity) (Kotler & Keller, 2016).

Satisfaction in the field of services according to Crotts and Magnini (2011) will be achieved if the services received exceed customer expectations, and if the opposite happens, it will cause disappointment. Various studies related to Service Quality and Satisfaction, one of which is research conducted by Kitapci et al. (2014) states that Empathy and Assurance are important predecessors that lead to satisfaction. This research, in contrast to other studies that show that there is a significant relationship between the dimensions of Reliability, Responsiveness, Empathy and Assurance to Patient Satisfaction but for the Tangible dimension there is no significant relationship.

Patient trust is a type of emotional reflection for the healthcare business world. This is very dependent on the level of fulfillment of expected needs, the level of consistency of expectations and actual results. If the patient expects a service at a certain level, and what he feels is that the service received is higher than what he expected, then the patient can be said to believe. Conversely, if the quality of service received is lower than the expected quality of service, then the patient is dissatisfied and does not believe (Fadhila & Diansyah, 2018).

Patient loyalty is the pinnacle of achievement in the health sector, especially hospitals and retaining loyal patients is a top priority, so patient loyalty is the key to the success of a business in establishing long-term relationships between the company and its patients (Fadhila & Diansyah, 2018).

In connection with the results of previous studies that are very diverse, research that measures the effect of Service Quality and Patient Trust on Patient loyalty mediated by Patient Satisfaction in Inpatients at "CDE" Hospital, Bogor, West Java is very useful and can enrich reference materials or literature in the field of hospital services, especially private hospitals.

With a significant impact of the dimensions of Service Quality and Patient Trust or Patient Trust, on Patient Loyalty mediated by Patient Satisfaction in Inpatients at "CDE" Hospital, Bogor, West Java. Based on this description, it is necessary to conduct a survey related to Service Quality and Patient Trust in Inpatients at "CDE" Hospital, Bogor, West Java whose data can be used to determine Patient Satisfaction and Patient Loyalty in patients who have been hospitalized at "CDE" Hospital Bogor, West Java.

This study aims to generally measure the level of satisfaction and loyalty of patients who have experienced health services at the "CDE" Hospital, which begins with the quality of service felt by patients and patient trust in the quality of the Hospital through surveys of inpatients at the Hospital. The special purpose is to determine the quality of services applied and the trust of inpatients at "CDE" Hospital, Bogor, West Java. The results of the study are expected to contribute and benefit the scientific development of Consumer Behavior for the Health Industry in this case Private Hospitals, for policy makers and for other researchers.

## METHOD

The research design in this study was quantitative research correlational method where this research examines the topic of Patient Loyalty in the field of Consumer Behavior. Research time in data collection is cross-sectional because data must be collected once in a period of daily/weekly/monthly to answer research statements.

Data sources in this research were primary and subordinate data sources. The main data source was obtained by collecting data from respondents using an online questionnaire (Google Form) to inpatients at the "CDE" Hospital Bogor, West Java, and subordinate data sources were obtained from medical record studies and library data. This research uses an ordinal scale, namely the Likert scale.

The population in this study was inpatients of Hospital "CDE" Bogor, West Java. The number of indicators in this study is 24 indicators as a sample size using a ratio of 5. Then the minimum sample size that must be collected in this study was 24 x 5 = 120 samples.

Data analysis is carried out using the Partial Least Square Structural Equation Modeling (PLS-SEM) method to measure the relationship between variables with the help of Smart PLS 3.0 softwar, which were then processed into statistical data.

## RESULTS AND DISCUSSION

Here are the results of bootstrapping testing from using PLS:

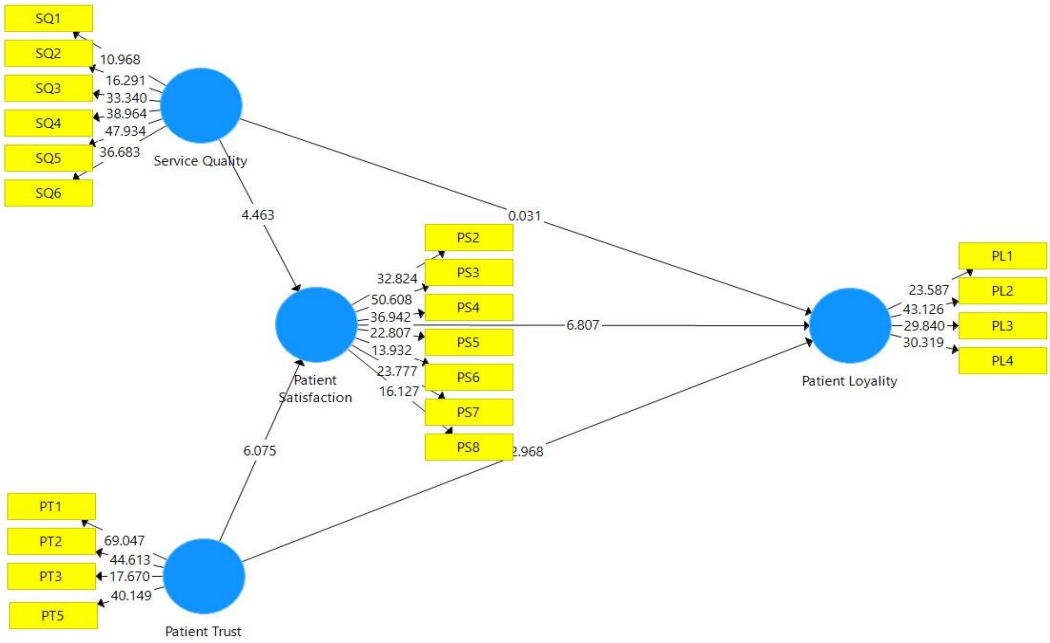


**Figure 1.** Bootstrapping Model

*Source: SmartPLS 3 data processing results (2023)*

After doing bootstrapping testing as in Figure 1, the next step is to do a *Path Coefficients* analysis to see the results of the direct influence calculation below:

**Table 1.** Hypothesis Testing of Direct Influence

| | Original Sample | T Statistics | P Values |
|---|---|---|---|
| Patient Satisfaction -> Patient Loyality | 0,642 | 6,807 | 0,000 |
| Patient Trust -> Patient Loyality | 0,269 | 2,968 | 0,003 |
| Patient Trust -> Patient Satisfaction | 0,550 | 6,075 | 0,000 |
| Service Quality -> Patient Loyality | -0,003 | 0,031 | 0,976 |
| Service Quality -> Patient Satisfaction | 0,345 | 4,463 | 0,000 |

*Source: SmartPLS 3 data processing results, (2023)*

Based on Table 1 is the result of calculations between constructs contained in the model by taking into account the values of P Value and T Statistics. If the P Value is less than 0.05 and the T Statistics is greater than 1.96, then the relationship between variables is stated to have a direct and significant influence relationship. Based on Table 4.12 it can be stated as follows:

1) The table above shows the p-value of the Patient Satisfaction (PS) variable to Patient Loyalty (PL) of 0.000 ≤ 0.05, and the t-statistic value of 6.807 ≥ 1.96 shows a significant value, so H0 is rejected and H5 is accepted. This indicates that Patient Satisfaction (PS) has a positive and significant influence on Patient Loyalty (PL).

2) The table above shows the p-value of the Patient Trust (PT) variable to Patient Loyalty (PL) of 0.003 ≤ 0.05, and the t-statistic value of 2.968 ≥ 1.96 shows a significant value, so H0 is rejected and H4 is accepted. This indicates that Patient Trust (PT) has a positive and significant influence on Patient Loyalty (PL).
3) The table above shows the p-value of the Patient Trust (PT) variable to Patient Satisfaction (PS) of 0.000 ≤ 0.05, and the t-statistic value of 6.075 ≥ 1.96 shows a significant value, so H0 is rejected and H2 is accepted. This indicates that Patient Trust (PT) has a positive and significant influence on Patient Satisfaction (PS).
4) The table above shows the p-value of the Service Quality (SQ) variable to Patient Loyalty (PL) of 0.976 > 0.05, and the t-statistic value of 0.031 < 1.96 shows an insignificant value, so H0 is accepted and H3 is rejected. This indicates that Service Quality (SQ) has no influence on Patient Loyalty (PL).
5) The table above shows the p-value of the Service Quality (SQ) variable to Patient Satisfaction (PS) of 0.000 ≤ 0.05, and the t-statistic value of 4.463 ≥ 1.96 shows a significant value, so H0 is rejected and H1 is accepted. This indicates that Service Quality (SQ) has a positive and significant influence on Patient Satisfaction (PS).

As for the analysis of the influence of mediation variables can be seen in the table below. The following are the results of the Mediation Test in this study:

**Table 2.** Testing the Indirect Influence Hypothesis

| | **Original Sample** | **T Statistics** | **P Values** |
|---|---|---|---|
| Patient Trust (PT)-> Patient Satisfaction (PS) -> Patient Loyality (PL) | 0,353 | 4,006 | 0,000 |
| Service Quality (SQ) -> Patient Satisfaction (PS) -> Patient Loyality (PL) | 0,221 | 4,306 | 0,000 |

*Source: SmartPLS 3 data processing results (2023)*

1) Patient Satisfaction (PS) which is the mediating variable for the Patient Trust (PT) variable on the Patient Loyalty (PL) variable shows a t-statistic value of 4.006 ≥ 1.96 and p-values of 0.000 ≤ 0.05 so that it meets the criteria and it can be said that the effect of Patient Trust (PT) on Patient Loyalty (PL) is mediated by Patient Satisfaction (PS), then the seventh hypothesis is accepted.
2) Patient Satisfaction (PS) which is the mediating variable for the Service Quality (SQ) variable against the Patient Loyalty (PL) variable shows a t-statistic value of 4.306 ≥ 1.96 and a p-value of 0.000 ≤ 0.05 so that it meets the criteria and it can be said that the effect of Service Quality (SQ) on Patient Loyalty (PL) is mediated by Patient Satisfaction (PS), then the sixth hypothesis is accepted.

**Service Quality Has a Positive and Significant Effect on Patient Satisfaction**

The Service Quality (SQ) variable has a t-statistic value of 4.463 where > 1.96, p-value 0.000 < 0.05, then H1 is accepted, meaning that the Service Quality (SQ) variable has a positive and significant effect on the Patient Satisfaction (PS) variable.

The results of this study are in line with the results of research conducted by Fadhila and Diansyah (2018) and Selvakumar (2015) who examined the quality of service has a significant effect on patient satisfaction, as well as the results of Susilowati and Yasri's research (2019) which stated that good service quality will increase patient satisfaction.

**Patient Trust Has a Positive and Significant Effect on Patient Satisfaction**

The Patient Trust variable has a t-statistic value of 6.075 where > 1.96, p-value 0.000 < 0.05, then H2 is accepted, meaning that the Patient Trust variable has a positive and significant effect on the Patient Satisfaction variable.

The results of this study are in line with the results of research by Fasochah and Harnoto (2013) which states that trust and service quality have a significant effect on customer loyalty and satisfaction. The results of this study are also in line with the results of Andervazh et al.'s (2013) research which states that trust in brands and customer satisfaction have a significant impact on customer loyalty.

**Service Quality Does Not Affect Patient Loyalty**

The Service Quality variable has a t-statistic value of 0.031 where <1.96, p-value 0.976 > 0.05, then H3 is rejected, meaning that the Service Quality variable has no effect on the Patient Loyalty variable.

The results of this study are not in line with the results of Patawayati (2013) research which states that a significant relationship or interaction between service performance and customer satisfaction can contribute strongly to customer loyalty. The results of this study are also not in line with the research of Kesuma et al. (2013) which said there was a positive and significant influence between service quality and patient loyalty. However, the results of this study are supported by the results of Kusuma and Indriyani (2018) research that service quality does not affect customer loyalty, or in this study it is patients. This is due to patient concerns that the quality of service that will be provided in the future is not the same as the quality of service received today, which causes the quality of service to directly have no influence on patient loyalty.

**Patient Trust has a positive and significant effect on Patient Loyalty**

The Patient Trust variable has a t-statistic value of 2.968 where > 1.96, p-value 0.003 < 0.05, then H4 is accepted, meaning that the Patient Trust variable has a positive and significant effect on the Patient Loyalty variable.

The results of this study are in line with the results of Bahrudin and Zuhro's (2016) research which states that customer trust has a positive effect on customer loyalty, and in line with the results of Nguyen et al. (2013) research which states that trust will form high-value reciprocal relationships, which can also be said loyalty is a continuous process as a result of the formation of trust. Good service quality is one of the factors forming patient trust and loyalty to the health services received, which will have an impact on repeated and sustainable use of services. The results of this study are also supported by the results of research Patawayati et al. (2013) which said patient trust will have a positive and significant impact on patient loyalty, which means the higher patient trust, the higher patient loyalty to the use of a health service.

**Patient Satisfaction Has a Positive and Significant Effect on Patient Loyalty**

The Patient Satisfaction variable has a t-statistic value of 6.807 where > 1.96, p-value 0.000 < 0.05, then H5 is accepted, meaning that the Patient Satisfaction variable has a positive and significant effect on the Patient Loyalty variable.

The results of this study are in line with Kotler and Keller (2016) who say that satisfied customers will generally re-transact both goods or services and provide recommendations to relatives. Customer satisfaction will foster a high emotional connection with the service provider of the product or service.

**Service Quality Has a Positive and Significant Effect on Patient Loyalty Mediated by Patient Satisfaction**

The mediating variable, namely Patient Satisfaction, has a t-statistic value of 4.306 where > 1.96, p-value 0.000 < 0.05, then H6 is accepted, meaning that the Patient Satisfaction variable has a positive and significant effect on mediating the variable Service Quality on Patient Loyalty.

The results of this study are in line with the results of research from Khan and Khan (2014) which states the quality of health services received by patients, will have a positive and significant effect on patient trust and satisfaction, which will have a strong impact on patient loyalty to health care providers. Quality of service in hospitals, including the process of services provided by doctors, nurses and hospital staff to patients.

**Patient Trust Has a Positive and Significant Effect on Patient Loyalty Mediated by Patient Satisfaction**

The mediating variable, namely Patient Satisfaction, has a t-statistic value of 4.006 where > 1.96, p-value 0.000 < 0.05, then H7 is accepted, meaning that the Patient Satisfaction variable has a positive and significant effect on mediating the Patient Trust variable on the Patient Loyalty variable.

The results of this study are in line with the results of Pramudyo's (2016) research which states that the image of a brand has a significant effect on customer loyalty with customer satisfaction as an intervening variable and the results of Srivastava and Rai's (2013) research which states customer satisfaction as a mediating variable in service quality to customer loyalty has a significant impact. The results of Patawayati et al's study also stated the influence of positive and significant interactions between trust, satisfaction and patient loyalty.

There is an interesting thing in this study, namely the Service Quality research variable does not have a direct impact on the Patient Loyalty variable, but when added with the mediation variable, namely the Patient Satisfaction variable, the Service Quality will have an impact on Patient Loyalty. So that the Patient Satisfaction variable as a mediating variable is very important to the relationship between the Service Quality variable and the Patient Loyalty variable.

## CONCLUSION

The study demonstrates that service quality significantly influences patient satisfaction, particularly in inpatient health services. Patient trust also plays a role in enhancing satisfaction, especially in inpatient health services. However, the study rejects the H3 hypothesis, indicating

that service quality does not directly impact patient loyalty. The H4 hypothesis suggests that patient trust increases loyalty, particularly in inpatient health services. The H5 hypothesis supports the H6 hypothesis, indicating that patient satisfaction mediates the relationship between service quality and patient loyalty. The H7 hypothesis, however, suggests that patient satisfaction mediates the relationship between trust and loyalty, indicating that if satisfaction with inpatient health services increases, the relationship between trust and loyalty will also increase.

Further research can analyze more deeply the variables of patient loyalty seen from different mediating variables, other variables that can affect the variable of Patient Loyalty, examine with a larger number of respondents and it would be even better if research is carried out at several hospitals in an area, and examine with outpatient respondents or inpatients who use government insurance guarantee facilities.

## REFERENCES

Andervazh, L., Gaskari, R., Tarakmeh, S., & Vafazadeh, S. (2013). The Influence of Brand Trust and Customer Satisfaction on Customer Loyalty by SEM. *J. Basic. Appl. Sci. Res*, *3*(9).

Bahrudin, M., & Zuhro, S. (2016). Pengaruh kepercayaan dan kepuasan pelanggan terhadap loyalitas pelanggan. *BISNIS: Jurnal Bisnis Dan Manajemen Islam*, *3*(1), 1–17.

Crotts, J. C., & Magnini, V. P. (2011). The customer delight construct. *Annals of Tourism Research*, *38*(2), 719–722. https://doi.org/10.1016/j.annals.2010.03.004

Fadhila, N. A., & Diansyah. (2018). Pengaruh Kualitas Pelayanan dan Kepercayaan terhadap Loyalitas dengan Kepuasan Pasien sebagai Variabel Intervening di Klinik Syifa Medical Center. *Media Studi Ekonomi*, *21*(1).

Fasochah, F., & Harnoto, H. (2013). Analisis Pengaruh Kepercayaan dan Kualitas Layanan terhadap Loyalitas Pelanggan dengan Kepuasan Konsumen sebagai Variabel Mediasi (Studi pada RS Darul Istiqoma Kaliwangu Kendal). *Jurnal Ekonomi Manajemen Akuntansi*, *2*(34).

Kesuma, I., Hadiwidjojo, D., Wiagustini, N. L., & Rohman, F. (2013). Service Quality Influence on Patient Loyalty : Customer Relationship Management as Mediation Variable ( Study on Private Hospital Industry in Denpasar ). *International Journal of Business and Commerce*, *2*(12).

Khan, M. M., & Khan, A. H. (2014). Impact of service quality on patient's trust: A case of health-care in Pakistan. *J Quality Technol Manage*, *10*(1).

Kitapci, O., Akdogan, C., & Dortyol, İ. T. (2014). The Impact of Service Quality Dimensions on Patient Satisfaction, Repurchase Intentions and Word-of-Mouth Communication in the Public Healthcare Industry. *Procedia - Social and Behavioral Sciences*, *148*. https://doi.org/10.1016/j.sbspro.2014.07.030

Kotler, P., & Keller, K. L. (2016). *A framework for marketing management*. Pearson Boston, MA.

Kusuma, D. S., & Indriyani, S. (2018, October). THE EFFECT OF ONLINE TRANSPORTATION CUSTOMER SERVICE QUALITY ON CUSTOMER

LOYALTY IN BANDAR LAMPUNG. *Proceeding International Conference on Information Technology and Business*.

Nguyen, N., Leclerc, A., & LeBlanc, G. (2013). The Mediating Role of Customer Trust on Customer Loyalty. *Journal of Service Science and Management*, *06*(01). https://doi.org/10.4236/jssm.2013.61010

Patawayati, P. (2013). Patient Satisfaction, Trust and Commitment: Mediator of Service Quality and Its Impact on Loyalty (An Empirical Study in Southeast Sulawesi Public Hospitals). *IOSR Journal of Business and Management*, *7*(6). https://doi.org/10.9790/487x-0760114

Pramudyo, A. (2016). Pengaruh Citra Merek terhadap Loyalitas melalui Kepuasan Sebagai Intervening ( Studi pada Mahasiswa Perguruan Tinggi Swasta di Yogyakarta). *Jurnal Bisnis, Manajemen, Dan Akuntansi*, *1*(1).

Selvakumar, J. J. (2015). Impact of Service Quality on customer satisfaction in public sector and private sector banks. *Purushartha*, *8*(1).

Srivastava, M., & Rai, A. K. (2013). Investigating the mediating effect of customer satisfaction in the service quality-customer loyalty relationship. *Journal of Consumer Satisfaction, Dissatisfaction & Complaining Behavior*, *26*.

Susilowati, Y., & Yasri, Y. (2019). *The Effect of Service Quality and Customer Satisfaction Toward Word of Mouth Intention*. https://doi.org/10.2991/piceeba2-18.2019.52