

The Effect of Service Quality and Price Perception on Patient Loyalty Mediated by Patient Satisfaction

Muhammad Ichsan Fathillah

Universitas Kristen Krida Wacana, Jakarta, Indonesia

E-mail: dr.musaalisabana@gmail.com

Article Information

Received: February 19, 2023

Revised: February 28, 2023

Approved: March 20, 2023

Online: March 24, 2023

ABSTRACT

This study aims to see the effect of service quality and price perception on patient loyalty which is mediated by patient satisfaction. Respondents in this study were patients who came to the PUSPIPTEK Medical Center. Hypothesis testing was carried out using quantitative research with a sample size of 100 respondents. Data were obtained through electronic questionnaires that were digitally administered to respondents. The analysis technique used is Partial Least Square - Structural Equation Modeling (PLS-SEM) using the SmartPLS program. Based on the results of data processing and data analysis it was found that there is a significant effect of service quality on patient satisfaction, there is an effect of Price Perception on patient satisfaction, there is no effect of service quality on patient loyalty, there is a significant effect of price perception on patient loyalty, indirectly there is the effect of service quality on patient loyalty mediated by patient satisfaction, and indirectly there is a significant effect of price perception on patient loyalty by mediating patient satisfaction. The PUSPIPTEK medical center is one of the existing ones in the South Tangerang area. With this, the management can update other health service measures, such as the practice of specialist doctors along with increasing consumer desires and increasing consumer needs.

Keywords

*Service quality; price perception;
patient loyalty; patient satisfaction*

INTRODUCTION

The need for health services is currently very much needed since the COVID 19 pandemic, this development in the health sector has resulted in many health facilities being created in every sector of the residential area. Health services are efforts that can be carried out by individuals or groups with the aim of improving and maintaining as well as prevention and recovery of individual or community disease treatments (Wanti et al., 2016).

Selection of health service facilities is important for every individual to get healing from illness or just routine checks. Private clinics are one of the initial facilities from a more complex level of health services to services to hospitals. The right service will meet the needs of patients so that the satisfaction of each patient is fulfilled (Calundu, 2018). Patient demands for quality services are not only related to issues regarding disease recovery, but also regarding patient satisfaction with the overall service including the convenience of facilities, trust in clinical staff and others.

Patient trust in the clinic can be seen based on the patient's interest in coming back to use the clinic's services. Customer trust can be considered as a factor influencing customer or patient loyalty (Adji, 2014). This is in accordance with research by Alrubaice (2011), stating that patient satisfaction appears to play an important mediating role in increasing the strength of the relationship between the quality of patient health

services. To retain customers, service providers, in this case the clinic, are required to always maintain patient trust and pay close attention to patient needs in an effort to meet expectations for the services provided.

According to data recorded on the website of the South Tangerang City Health Office, there are a total of more than 130 health facilities in the city of South Tangerang that have obtained permits to provide health services and of these there are 26 PUSKESMAS providing health services and 86 clinics.

Based on the results of an initial survey of the number of health service facilities located in residential areas around the researcher, there are many choices. However, researchers are interested in researching the PUSPIPTEK medical center. This clinic is a primary clinic that existed in 1976. The Ministry of Health for primary clinics has standards for general practitioner services, general dentist services, simple surgical services, simple midwifery services and medical record administrative services. On the other hand, in fact the PUSPIPTEK Medical Center also has complete laboratory facilities and X-ray services to an emergency room that is large enough for the primary clinical criteria.

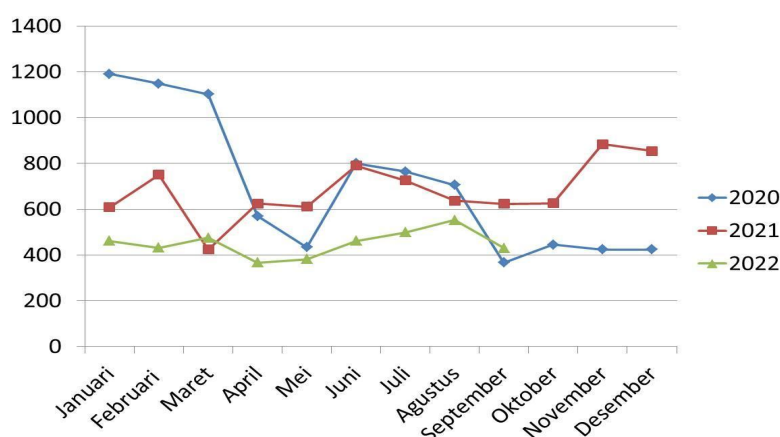


Figure 1. Patient Visit Chart

From the graph of patient visits in the last 3 years has decreased significantly, it was recorded that in January 2020 the number of patient visits was 1191 people, in 2021 the number of patient visits was 608 people and in 2022 it was 461 people. From the number of patients in other months, it was also seen that significant results decreased as seen from the 2022 curve chart, which is below the previous year's curve on average, although the type of services provided has not decreased. The facilities available at the PUSPIPTEK Treatment Center include general poly, dental poly, pharmacy, laboratory, MCH, ER, ambulance, Papsmear, ECG, and general check-up. The following is the price data applied at the PUSPIPTEK Medical Center.

Table1 Price comparison list according to the Government Regulation of the Republic of Indonesia in 2014 and 2014

Types of Services	2014	2015
Dentist Services	IDR 40.000,00	IDR 75.000,00
General Medical Services	IDR 25.000,00	IDR 75.000,00

Based on the data above, it can be seen that the price charged for a visit to a general practitioner is IDR. 25,000.00 and a dentist is IDR. 40,000.00, which is different from the nominal applied by surrounding health facilities that use the basis of Government Regulation in 2015, for visits to general practitioners are charged a rate of IDR. 75,000.00 and with that nominal is three times the nominal offered by the Medicine Center PUSPIPTEK.

Based on the state of service facilities offered, this study tries to examine whether there is a relationship between the current service facilities offered with a decrease in the number of patient visits and how customers (patients) assess the quality of service and price perceptions of patient loyalty. Thus, based on the background of the phenomenon of decreasing the number of patient visits in the last 3 years, researchers took the

title "The Effect of Service Quality and Price Perception on Patient Loyalty mediated by patient satisfaction (Case study in PUSPIPTEK Treatment Center patients)."

Moreover, the purpose of study are; (1) to find out the effect of Service Quality on patient satisfaction, (2) to find out the effect of Price Perception on patient satisfaction, (3) to find out the effect of Service Quality on patient loyalty, (4) to find out the effect of Price Perception on patient loyalty, (5) to find out the effect of patient satisfaction on patient loyalty, (6) to find out the effect of Service Quality on patient loyalty through patient satisfaction as an intervening variable, and (7) to find out the influence of Price Perception on patient loyalty through patient satisfaction as an intervening variable.

METHODS

Object of research

This quantitative study has variable loyalty of outpatients at the PUSPIPTEK Medical Center which is influenced by service quality, price perception and patient satisfaction. The researcher will give the patient a questionnaire to fill out and the data will be analyzed. With this research source based on primary data, direct answers from respondents and other patient data sources were provided by the administration section of the PUSPIPTEK Medical Center.

Population and Sample

Population is defined as a complete group of elements which can be in the form of people, objects, transactions to an event, which is interesting to study as an object of research (Creswell & Creswell, 2017).

Another assumption is that the population is the quantity of objects or subjects from a particular area that is applied by researchers to be analyzed to lead to conclusions from a study that is made.

The sample to be taken is based on the non-probability sampling method in which the sample does not have the same opportunity for each element or other member of the population to be selected as a sample (Sugiyono, 2017). In this study, every outpatient who visited for treatment would get one opportunity to fill out the existing questionnaire within one month of the study period.

Because the population size is difficult to know with certainty and seen from the curve of the decrease in the number of patient visits each year, the researchers quoted from (Sugiyono, 2017), a minimum sample size of 100 respondents with a maximum number not exceeding 400 respondents. The sample is the number of lifts and a character obtained from the population (Sugiyono, 2017). Another assumption cited by Hair et al (2021), the number of samples is 5-10 times the indicators in the research variables.

$$\begin{aligned} N &= (5 \text{ to } 10 \times \text{Number of indicators used}) \\ &= 5 \times 20 \text{ indicators} \\ &= 100 \text{ samples} \end{aligned}$$

With the criteria that can be used as respondents in the form of participants are outpatients who are adults or old enough to provide research, patients have visited a treatment center $\leq 1x$ in their lifetime and have taken treatment within 1 year for at least more than 1 visit to receive health services, male and female patients, and are willing to be respondents in this study. Criteria that cannot be included in the respondent category are outpatients who are not willing to be respondents in the study and are visiting for treatment for the first time.

Operational Variables

By adopting the knowledge from the research of Ramadhani et al, (2017), the questionnaire will be used as a measuring tool in seeing the effect of existing variables to see their effect on the level of patient loyalty at the PUSPIPTEK Medical Center. In this study, there were two independent variables, namely service quality and price perception, and one dependent variable, namely patient loyalty, mediated by patient satisfaction.

Table 1. Research variable

Variable	Information	Indicator	Measurement
Service quality (X1)	Service quality is a comparison between the desired service and what the customer receives	physical evidence (tangible), reliability (reliability), responsiveness (responsiveness). Competence.	Ordinal

Variable	Information	Indicator	Measurement
		Manners (courtesy). Security Tjiptono (2014), Ramadhani et al, (2017)	
Price perception (X2)	Price perception is the customer's view of the price offered for an existing product/service which affects the purchasing power or consumption of the product	affordable prices, price competition, quality suitability, suitability for use. Kotler and Armstrong (2018), Ramadhani et al, (2017)	Ordinal
Patient satisfaction (Z)	Patient satisfaction is a reciprocal of what has been received seen from the fulfillment of expectations and conformity with what is offered.	fulfilled expectations, fulfilled conditions, fulfilled needs, handling problems, feeling satisfied with the products offered. Tjiptono (2014), Ramadhani et al, (2017)	Ordinal
Patient Loyalty (Y)	Patient loyalty is defined as repetition to use or consume a product/service offered	Difficulty in influencing consumers by other products, consuming more than one type when achieving convenience, recommending product actions, selecting top choices. Sangadji and Sopiah (2013), Ramadhani et al, (2017)	Ordinal

Data collection technique

Quoting Saporso (2018) data collection techniques are a simple way of obtaining data for a study that reflects a situation and contains information that is in accordance with the scope of the research. By obtaining data through giving questionnaires to respondents (Sekaran & Bougie, 2017), which directly and make it the primary research data source.

This study uses a non-probability sample method with unknown sample subjects in the existing population, convenience sampling is used as a sampling method with consideration of the time, effort and costs incurred during the study. With the nature of minimal interference and non-contrived settings, data collection can be carried out at all locations where the respondents are located.

Researchers use electronic media in the form of a Google Form questionnaire which will be given in its entirety to respondents through WhatsApp messaging media and meet in person during the visit, for messages sent will contain a questionnaire link site containing a number of questions to respondents. Data that is successfully filled in will be processed by researchers and can be monitored on an ongoing basis.

The list of questions to respondents as research objects consisting of columns and rows to fill in an answer that is asked is an explanation of the questionnaire according to Supranto (2003). With the indicators that have been adjusted in this study, divide them by several points according to the Likert scale, namely in the form of: strongly agree, agree, neutral, disagree, and strongly disagree. With the points that apply as follows:

Strongly Disagree (STS) = score 1

Disagree (TS) = Score 2

Neutral (N) = score 3

Agree (S) = score 4

Strongly Agree (SS) = score 5

Data analysis technique

In this study, the researcher will use quantitative research with SEM PLS (Structural Equation Modeling) technical analysis in which data analysis is assisted by Smart PLS version 3.0 software which will be applied with the help of gadgets. Structural Equation Modeling (SEM) is a statistical tool that is used to solve multilevel models temporarily which are not solved by the existence of a linear regression equation.

SEM (Structural Equation Modeling) is the main analytical tool in examining cause-and-effect relationships with latent variables, while PLS is a measure for predicting relationships between variables (Hair Jr et al., 2021). The evaluation was carried out using two models, namely the outer model and the inner

model. With the help of literacy the Otter model algorithm will assess the form of validity and reliability of a data with parameters such as convergent discriminant validity, composite reliability and Cronbach alpha. By bootstrapping, we can predict the causality relationship obtained from the t-statistic test (Abdillah & Hartono, 2015).

In this study, researchers used PLS-SEM to analyze the relationship between variables to be tested using the SmartPLS 3.0 program

Data Validity Test

In this case, there is an explanation of whether there is a relationship between the two variables based on cause and effect (Saunders et al., 2009). The validity test contains a questionnaire which is tested in the form of content validity, face validity, construct validity and criterion validity. The internal validity test is required to fulfill the form of construct validity and content validity (Sugiyono, 2017).

Table 2. Test Validity Parameters

Validity test	Parameters	Role of thumbs
Convergent	Loading Factor	More than 0.7
	Average variance Extracted(AVE)	More than 0.5
Discriminant	Communality	More than 0.5
	AVE Roots and Correlation of latent variables	Root AVE>latent variable correlation
	Cross Loading	More than 0.7 in one variable

RESULTS

1. Analysis

This chapter will discuss the calculation results using *Partial Least Square* (PLS). The analysis is carried out by evaluating the outer model measurement results and evaluating the structural model (*inner model*). Outer PLS model to determine the validity and reliability of indicators that measure latent variables. Validity test criteria in research on *outer loading* of each indicator against latent variables. Researchers use *SmartPls* 3.0 in data processing.

1) Characteristics of Respondents

The study used questionnaires, which were given to 100 respondents with characteristics such as gender, age, education level and income. The results of the respondents' descriptive test are as follows:

a) Characteristics by gender

Table 3 Description of Respondents by Gender

Gender	Frequency	Percentage
Man	48	48%
Woman	52	52%
Total	100	100%

Source : primary data processed by researchers 2023

Based on the data above in table 3 out of 100 respondents were divided into men as much as 48% and women 52% or men as many as 48 people and women 52 people. Results showed that the majority of respondents were female.

2) Characteristics by Age

Table 4 Description of Respondents by Age

Age group	Frequency	Percentage
18-25 years	10	10%
26-32 years	11	11%
33-40 years	12	12%
>40 years	67	67%
Total	100	100%

Source : primary data processed by researchers 2023

Based on the data in table 4, out of 100 respondents were divided into 4 age groups, namely 10 people or 10% aged 18-25 years, 11 people or 11% 26-32 years old, 12 people or 12% 33-40 years old, and 67 people or 67% over 40 years old. The results showed that the majority of respondents were over the age of 40 years, namely adulthood.

3) Characteristics By Education Level

Table 5 Description of Respondents Based Education Level

Education Level	Frequency	Percentage
High School / Vocational School	4	4%
Diploma	11	11%
S1	56	56%
S2	9	9%
Other	20	20%
Total	100	100%

Source : primary data processed by researchers 2023

Based on the data in table 5, out of 100 respondents were divided into five categories of education levels, namely SMA / SMK as many as 4 people or 4%, Diploma as many as 11 people or 11%, S1 as many as 56 people or 56%, S2 as many as 9 people or 9%, and others as many as 20 people or 20%. The results showed that the majority of respondents with S1 or undergraduate education levels.

4) Characteristics by Income

Table 6 Description of Respondents by Income

Total Earnings	Frequency	Percentage
Less 5,000,000.00	49	49%
5.000.000-12.000.000,00	43	43%
12.000.000-20.000.000,00	3	3%
More than 20,000,000.00	5	5%
Total	100	100%

Source : primary data processed by researchers 2023

Based on the data in table 6, out of 100 respondents were divided into 4 categories of total income, namely less than Rp5,000,000.00 as many as 49 people or 49%, Rp5,000,000.00 – Rp12,000,000.00 as many as 43 people or 43%, Rp12,000,000.00 – Rp20,000,000.00 as many as 3 people or 3%, more than Rp20,000,000.00 as many as 5 people or 5%. The results showed that the majority of working respondents had an income of less than Rp 5,000,000.00.

5) Characteristics of respondents based on domicile

Table 7 Description of Respondents by Domicile

Domicile	Frequency	Percentage
South Tangerang	77	77%
Outside South Tangerang	23	23%
Total	100	100%

Source : primary data processed by researchers 2023

Based on the data above, in table 7 out of 100 respondents are divided into 77% domicile in South Tangerang and 23% outside South Tangerang as many as 23 people. The results show that the majority of respondents are domiciled in the South Tangerang region.

2. Data Analysis

Results of data processing with smart pls 3.0 with the following chart:

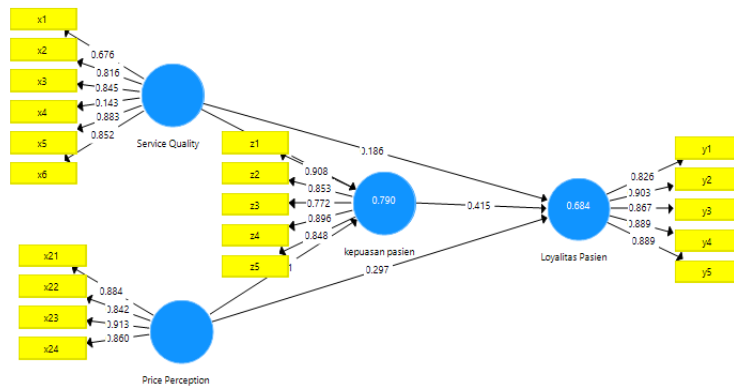


Figure 2
Processing Results smart PLS *loading factor*

a) Discriminant Validity

Discriminant Validity model is considered good if at each loading value of each indicator of a *latent variable* has the greatest loading value with another loading value of other *latent variables*. To test *discriminant validity* can be done by *cross loading*.

Table 8 Nilai Discriminant Validity (cross loading)

	Service Quality	Price Perception	Patient Satisfaction	Patient Loyalty
X2	0,810	0,473	0,634	0,523
X3	0,864	0,523	0,683	0,634
X5	0.900	0,537	0,749	0.605
X6	0.870	0.630	0,757	0.663
X2.1	0,550	0,884	0,709	0,650
X2.2	0,488	0,842	0,645	0,725
X2.3	0,597	0,913	0,686	0,601
X2.4	0,576	0,860	0,673	0,598
Y1	0,574	0,611	0,644	0,826
Y2	0,596	0,622	0,698	0,903
Y3	0,641	0,702	0,689	0,866
Y4	0,611	0,576	0,668	0,888
Y5	0,701	0,697	0,783	0,889
Z1	0,812	0,673	0,908	0,709
Z2	0,744	0.635	0,853	0,681
Z3	0,572	0,704	0,771	0,598
Z4	0,739	0,649	0,896	0,693

Z5	0,658	0,670	0,848	0,736
-----------	-------	-------	--------------	-------

Source : primary data processed by researchers 2023

Based on table 8 that the loading factor value for indicators of latent variables has a *greater loading factor value* than the value of other latent variables. This means that the latent variable has good *discriminant validity*.

b) Reliability and AVE (Average Variance Extracted)

In reliability tests and validity criteria can also be seen from the construct and value of *Average Variance Extracted* from each construct. The construct is said to have high reliability if the value is 0.70 and AVE is above 0.50.

Table 9 Composite Reliability, Cronbach Alpha and AVE

Variable	Composite Reliability	Average Variance Extracted	Cronbach alpha
Service Quality	0,920	0,743	0,884
Price Perception	0,929	0,766	0898
Patient Loyalty	0,942	0,765	0,923
Patient Satisfaction	0,932	0,734	0,908

Source : primary data processed by researchers 2023

Based on table 9 it can be said that all constructs meet the reliable criteria, this is shown by the results of *Composite Reliability* >0.70 and reinforced by the *Cronbach alpha* value of each variable >0.7, so it can be concluded that all variables have a high level of reliability.

c) Structural Model Hypothesis Test (Inner Model)

The structural model in PLS processing is evaluated using R Square for the dependent variable and the path coefficient value for the independent variable.

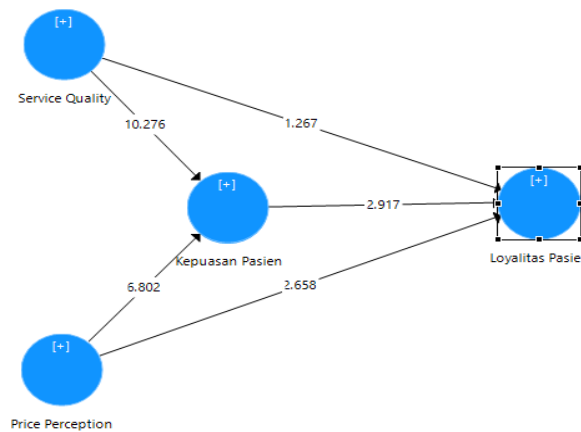


Figure 3. *Boothstrapping (Inner Model)*

To see the significance value of the model can be seen in table 8 as follows:

Table 9 *P ath Coefficients (Original sample, T-Statistic, P-Value)*

Hypothesis	Influence	Original Sample	T-Statistic	P-Value	Result
H1	Service quality to patient satisfaction	0,552	10,276	0,000	Accepted
H2	Price perception of patient satisfaction	0,428	6.802	0,000	Accepted
H3	Service quality to patient loyalty	0,159	1,267	0,208	Not accepted

H4	Price perception of patient loyalty	0,295	2,658	0,009	Accepted
H5	Patient satisfaction with loyalty	0,440	2,917	0,004	Accepted
H6	Service quality to patient loyalty in mediating patient satisfaction	0,243	2,940	0,004	Accepted
H7	Price perception of patient loyalty mediates patient satisfaction	0,188	2,662	0,009	Accepted

Source : primary data processed by researchers 2023

DISCUSSION

1. The Effect of Service Quality on Patient Satisfaction

The results of the analysis in table 8 show a p value of $0.000 < 0.05$, this shows that there is a positive and significant influence of service quality on patient satisfaction. So it can be interpreted that by providing quality service will increase patient satisfaction. It can be interpreted that the service quality carried out at the PUSPIPTEK treatment center has been good, it is proven that patients are satisfied with the existing services. In theory that service is an indicator of patient satisfaction. If the services provided are as expected by the patient, satisfaction will increase.

This result is in accordance with research conducted by Kiky Jenitha Rosalia & Ni Ketut Purnawati (2018) that service quality variables have a positive and significant effect on patient satisfaction at RSU Surya Husadha Denpasar. This research is also supported by research by Jarliyah Harfika & Nadiya Abdullah (2017) showing that the quality of service has a significant effect on patient satisfaction at RSU Aceh Barat Daya Regency. Chen et al (2016) stated that service quality has a positive effect on overall customer satisfaction.

2. The Effect of Price Perception on Patient Satisfaction

The results of the analysis in table 8 hypothesis testing (H2) are accepted by showing a p value of $0.000 < 0.05$, this shows that there is a positive and significant influence of Price perception on patient satisfaction. So it can be interpreted that paying attention to the price will provide satisfaction to patients at the PUSPIPTEK treatment center. This is in accordance with research conducted by Lily and Yurike in (2015), which stated that service quality and price perception have a significant effect on satisfaction.

Similar research by Devi & Harry (2016) also found that price perception has a positive and significant effect on customer. Xia et al (Lee & Lawson-Body, 2013) suggest that price perception is a customer assessment and an associated emotional form of whether the price offered is appropriate. This is also in line with Fuad's (2016) research which states that there is a positive relationship between price perception and customer satisfaction. The existence of a positive relationship between price perception and satisfaction can mean that the higher the level of price perception a person has, the higher the satisfaction that customers have. This explains that price perception is one that can affect customer satisfaction.

3. The Effect of Service Quality on Patient Loyalty

The results of data analysis show that the p value of $0.208 > 0.05$ can be interpreted that there is no effect of *service quality* on patient loyalty. This means that the services provided by the PUSPIPTEK Treatment Center have not been optimal and have not given patients hope so that they cannot be loyal to the PUSPIPTEK Treatment Center. This research shows that the services provided by the PUSPIPTEK Treatment Center have not been maximized, but there are other factors such as patient trust in the Treatment Center that make patients ultimately remain loyal to the PUSPIPTEK Treatment Center. The results of this study are in accordance with previous research by Suratno et al (2016), that service quality has no effect on customer loyalty. As well as Devaraj et.al's (2011) research, that loyalty is not only influenced by service but also trust and brand image.

4. The Effect of Price Perception on Patient Loyalty

The results of data analysis show that price perception affects patient loyalty. This is indicated by a p value of $0.009 < 0.05$. The results of this study show that patients' perceptions for prices at the PUSPIPTEK treatment center more or less influence patients to visit and conduct examinations. This research is in line with research conducted by Laely (2016) which revealed that empirical price perception is an important variable to increase customer loyalty. Price perception has a view of a value determined by the seller to the buyer based on the quality of the product and the brand regarding the value of a product. The findings of

this study are in line with Dewi's (2020) research which revealed that price perception is empirically proven to be an important variable in increasing loyalty. Kurniasih (2012) and Suwandi et al (2015) stated that price has a positive and significant effect on customer loyalty. This result is reinforced by research by Hermawan et.al (2017) that price perception has a positive and significant effect on customer loyalty.

5. The effect of patient satisfaction on patient loyalty

The results of data analysis show that the p value is $0.004 < 0.05$ which means there is patient satisfaction with patient loyalty. This result is in accordance with research conducted by Sondakh (2014), that customer satisfaction has a positive and significant influence on customer loyalty. Irawan and Japariato (2013) and Sofyan et al (2013) found the same thing that satisfaction affects customer loyalty. The satisfaction of patients who seek treatment at the PUSPIPTEK Treatment Center is one of the variables that make patients loyal to the PUSPIPTEK treatment center.

6. The effect of *service quality* on patient loyalty with patient satisfaction as a mediating variable

The results of the study found that the p value of $0.004 < 0.05$, this proves that *service quality* has an indirect effect on customer loyalty in this case is the patient through patient satisfaction as an *intervening variable*. This proves that the quality of services carried out by the PUSPIPTEK Treatment Center will further strengthen patient satisfaction, especially for residents of the community around South Tangerang and surrounding areas who seek treatment at the PUSPIPTEK treatment center. Strong patient satisfaction will have an impact on customer loyalty, in accordance with research conducted by Hasyim (2017) who said that customer satisfaction affects customer loyalty very strongly. While the indirect effect of service quality on customer loyalty through customer satisfaction, this finding is in line with research conducted by Laely (2016), there is an intervening effect of patient satisfaction on the relationship with service quality on customer loyalty. This research is also in line with research conducted by Situmorang and Jushermidan (2017) which states that there is a very strong influence indirectly on service quality on customer loyalty mediated by consumer satisfaction.

7. The effect of *price perception* on patient loyalty with patient satisfaction as a mediating variable

The results of the study showed that *price perception* has an indirect effect on patient loyalty through patient satisfaction as an *intervening variable*. The higher the intensity and quality of *price perception* will strengthen patient satisfaction and have a positive impact on customer loyalty. According to the results of research conducted by Hashim (2016), which states that consumer satisfaction affects customer loyalty strongly, and the relationship between the indirect influence of price perception on customer loyalty through customer satisfaction is in line with research conducted by Laely (2016), that the intervening effect of consumer satisfaction on the relationship of price perception on customer loyalty.

CONCLUSION

Based on the results of testing and analysis of the effect of service quality and price perception on patient loyalty through patient satisfaction as an intervening variable at the PUSPIPTEK Treatment Center, are; (1) Service Quality affects patient loyalty at PUSPIPTEK Treatment Center, (2) Price Perception affects patient loyalty at PUSPIPTEK Treatment Center, (3) Service Quality affects patient satisfaction at PUSPIPTEK Treatment Center, (4) Price Perception affects patient satisfaction at PUSPIPTEK Treatment Center, (5) Patient satisfaction affects patient loyalty at PUSPIPTEK medical center , (6) Service quality indirectly influences patient loyalty through patient satisfaction as an intervening variable at PUSPIPTEK medical center, and (7) Price perception indirectly influences patient loyalty through patient satisfaction as an intervening variable at Balai PUSPIPTEK Treatment.

REFERENCES

- Abdillah, W., & Hartono, J. (2015). Partial Least Square (PLS): an alternative structural equation modeling (SEM) in business research. *Yogyakarta: Andi Publishers*, 22, 103–150.
- Adji, J. (2014). The Effect of Satisfaction and Trust on Purchase Interest at Starbucks The Square Surabaya. *Journal of Marketing Strategy*, 2(1), 1–10.
- Alrubaiee, L., & Alkaa'ida, F. (2011). The mediating effect of patient satisfaction in the patients' perceptions of healthcare quality-patient trust relationship. *International Journal of Marketing Studies*, 3(1), 103.
- Calundu, R. (2018). *Health Management* (Vol. 1). Legitimate Media.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

- Hair Jr., J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial least squares structural equation modeling (PLS-SEM) using R: A workbook*. Springer Nature.
- Harfika, J., & Abdullah, N. (2017). The effect of service quality and facilities on patient satisfaction at public hospitals in Southwest Aceh Regency. *BALANCE: Economic, Business, Management and Accounting Journal*, 14(01).
- Harjati, L., & Venice, Y. (2015). The effect of service quality and price perception on customer satisfaction on Tiger Air Mandala. *E-Journal Widya Ekonomika*, 1(1), 36791.
- Irawan, D., & Japariato, E. (2013). Analysis of the effect of product quality on loyalty through satisfaction as an intervening variable in por kee surabaya restaurant customers. *Journal of Marketing Management*, 1(2), 1–8.
- Kotler, P., & Armstrong, G. (2018). *Principles of Marketing*. Pearson.
- Laely, N. (2016). Analysis of the effect of trust and price on customer loyalty mediated satisfaction at pt. Telkomsel in Kediri City. *Jmm17*, 3(02).
- Lee, S., Illia, A., & Lawson-Body, A. (2011). Perceived price fairness of dynamic pricing. *Industrial Management & Data Systems*.
- Mahartika, R., & Anton Agus, S. (2016). *The Effect of Service Quality, and Price Perception on Consumer Loyalty (Survey at Sambal Solo Special Restaurant)*. University of Muhammadiyah Surakarta.
- Ramadhani, Z. P., & Rahardjo, M. (2017). Analysis of the effect of compensation and physical work environment on employee work loyalty through employee job satisfaction as an intervening variable (study at the Office of the Board of Directors of PT Perkebunan Nusantara IX Annual Plant Division). *Diponegoro Journal of Management*, 6(4), 1052–1063.
- Rosalia, K. J., & Retired, N. K. (2018). *The Effect of Service Quality on Patient Satisfaction at RSU Surya Husadha in Denpasar*. Udayana University.
- Safitri, E., Rahayu, M., & Indrawati, N. K. (2016). The Effect of Service Quality and Company Image on Customer Satisfaction and Service Center Customer Loyalty [Study on Samsung Service Center Customers in Malang City]. *Business Economics*, 21(1), 90–104.
- Sangadji, E. M., & Sopiah, S. (2013). The Effect of Organizational Culture On Lecturers' Job Satisfaction and Performance: A Research in Muhammadiyah University throughout East Java. *International Journal of Learning & Development*, 3(3), 1–18.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*. Pearson education.
- Sekaran, U., & Bougie, R. (2017). *Research Methods for Business: A Skill Development Approach 6th Edition Book 2*.
- Situmorang, I. L. (2017). The Effect of Product Quality and Advertising on Brand Image and Purchasing Decisions of Pond's Brand Beauty Products in Teenagers in Pekanbaru City. *Online Journal of Students (JOM) in Economics*, 4(1), 72–86.
- Somantari, M. A., & Rastini, N. M. (2019). The role of satisfaction mediates service quality and price perception of WOM on Go-Jek services in Denpasar. *E-Journal of Management Unud*, 8(4), 2473–2474.
- Sondakh, C. (2015). Service quality, brand image and its influence on customer satisfaction and savings customer loyalty (study on Taplus BNI Manado Branch customers). *Journal of Business and Management Research*, 3.
- Sugiyono. (2017). *Quantitative, Qualitative and R&D Research Methods*. Alfabeta, CV.
- Tjiptono, & Diana. (2014). *Total Quality Management (TQM)*. Andi Offset.
- Wanti, Y., Widianti, E., & Fitria, N. (2016). Overview of Family Coping Strategies in Caring for Family Members Suffering from Fallow Mental Disorders. *Padjadjaran Journal of Nursing*, 4(1).
- Zakaria, S. I., & Sri, R. T. A. (2013). *Analysis of Factors Affecting Consumer Satisfaction with Transportation Service Users (Case Study on Trans Jogja Bus Users in Yogyakarta City)*. Faculty of Economics and Business.
- Zameer, H., Tara, A., Kausar, U., & Mohsin, A. (2015). Impact of service quality, corporate image and customer satisfaction towards customers' perceived value in the banking sector in Pakistan. *International Journal of Bank Marketing*, 33(4), 442–456.