

The Influence of Service Quality and Brand Image on Patient Loyalty Mediated by Patient Satisfaction (An Empirical Study on Patients at “X” Hospital in East Bekasi)

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ABSTRACT

This study aims to examine the effect of service quality and brand image on patient loyalty, with customer satisfaction as a mediating variable at X Hospital, East Bekasi, Indonesia. A quantitative survey was conducted using an online questionnaire distributed to 154 respondents who had received services at the hospital more than twice and were aged 17 years or older. Data were analyzed using Smart PLS 3. The results show that service quality and brand image significantly influence patient satisfaction, which, in turn, has a strong effect on patient loyalty. Both service quality and brand image also directly influence patient loyalty, with service quality identified as the strongest contributor, followed by brand image. Furthermore, patient satisfaction mediates the relationship between the independent variables and loyalty, confirming its critical role in shaping patient behavior. The study concludes that delivering high service quality and maintaining a positive brand image are essential strategies to enhance patient satisfaction and loyalty. Limitations of this study include its relatively small sample size and focus on a single hospital, restricting generalizability. Theoretically, the study contributes to the literature on patient loyalty by emphasizing the mediating role of satisfaction. Practically, it provides insights for hospital management to prioritize service improvements and strengthen brand perception. Future research is recommended to expand the sample across multiple hospitals and to explore additional mediating variables such as corporate reputation, perceived value, and revisit intention to provide a more comprehensive understanding of loyalty drivers.

Keyword: *Service Quality, Brand Image, Patient Satisfaction, Patient Loyalty.*

INTRODUCTION

In a dynamic and competitive business environment, including the ever-evolving healthcare sector, hospitals are required to retain existing patients while attracting new ones through the creation of positive impressions, satisfaction, and loyalty (Agarwal & Dhingra, 2023; Chaysiri et al., 2023; Lu & Lu, 2009; Supriyanto et al., 2021). Increasingly fierce competition encourages hospital management to design patient-based strategies to gain a competitive advantage, especially since the private sector now plays an important role in meeting better healthcare expectations for the upper middle class (Hai et al., 2021; Nguyen et al., 2021). In Indonesia, hospitals have a strategic role as regulated in *Law No. 17 of 2023* and *Law No. 44 of 2009*, which emphasize providing comprehensive services, ranging from prevention to patient recovery (Abutar & Wuisan et al., 2024). However, patient visits are generally limited to medical needs, so loyalty becomes a significant challenge amid the increasing number of healthcare facilities (Liu et al., 2021; Hai et al., 2021).

Patient loyalty is an important commitment in the healthcare sector because it is key to a hospital's success in retaining patients as loyal customers. This loyalty is influenced by various factors such as service quality, brand image, and patient satisfaction. Good service quality exceeds the expectations of patients, creating comfort and positive perceptions that lead to loyalty (Parasuraman et al., 1985). Additionally, a positive brand image is a strategic element in maintaining hospital competitiveness and has proven to play an important role in shaping patient loyalty (Sofia, 2023; Hai et al., 2021). Patient satisfaction itself arises when service performance meets or exceeds expectations, while performance that does not meet expectations results in dissatisfaction (Sofia, 2023). However, this satisfaction is dynamic because it can change with external conditions. Therefore, hospitals need to continue to adjust service strategies to be effective in increasing patient loyalty (Liu et al., 2021; Chaysiri et al., 2023; Abutar & Wuisan et al., 2024).

The hospital industry in Indonesia continues to experience rapid growth. Based on data from the 2024 national socio-economic survey (*Susenas*), West Java recorded a growth in the number of hospitals, including private hospitals, with an increase of 37 units in the last five years. Bekasi City is the area with the highest number of hospitals, with 41 units, followed by Depok City with 21 units and Bogor Regency with 29 units. The people of West Java prefer private hospitals for hospitalization, with a percentage of 45.41%, compared to government hospitals, which account for only 34.83%.

Table 1. Distribution of the Number of Hospitals in the city of Bekasi by Hospital Class Type

No.	Type of Hospital Class	Sum
1	B	7
2.	C	28
3.	D	6
Total		41

Hospital "X" is a Type B private hospital in East Bekasi, established in 2004 with the vision of becoming a leading healthcare provider focused on customers. Carrying the cultural values of GREAT (Caring, Respect, Excellent, Innovative, Teamwork) and DNA Service (Trustworthy, Caring, Informative, Convenient), RS "X" achieved Plenary accreditation from KARS in 2023 and ISO 9001:2015 certification in 2024. The hospital has 65 specialist and subspecialist doctors, 490 non-medical personnel, and various support committees. With a capacity of 201 beds, RS "X" provides inpatient, outpatient, ER, ICU, hemodialysis, surgical, and specialized services such as the Heart and Vascular Center, Radiotherapy and Oncology Center, and Brain and Spine Center. "X" Hospital also innovates in the digitization of services through electronic medical records, online registration, and telemedicine, and is equipped with modern equipment such as CT-Scan, MRI, PCI, and EEG.

For more than 20 years of operation, RS "X" has won prestigious awards, including Best Provider of Garda Medika, Admedika, and Best Hospital in the health services sector at the Bisnis Indonesia Award 2022. As part of its social responsibility, "X" Hospital routinely holds blood donation activities, mass circumcision events, free health checks, and health seminars. Patient satisfaction is measured through Google Review with a rating of 4.8/5 and a Net Promoter Score (NPS) survey that reached 89.83% in the first semester of 2025, exceeding the target of 80%. These results show a very high level of patient satisfaction and loyalty. However,

internal data indicates a decrease in the volume of outpatient and inpatient visits throughout 2022–2024, which presents a challenge for the sustainability of "X" Hospital services.

Table 2. Inpatient and Outpatient Volume at "X" Hospital Period 2022 – 2024

No.	Types of Visits	Year		
		2022	2023	2024
1.	Outpatient	134.486	127.219	121.600
2.	Inpatient	10.229	10.284	10.052

Source: Hospital Internal Data

Previous studies have shown that both service quality and brand image are central to shaping patient loyalty in healthcare. Meesala and Paul (2018) demonstrated that service quality strongly influences satisfaction and loyalty in hospitals, but their study did not account for the role of brand image or test satisfaction as a mediating factor within a branding framework. On the other hand, Taneja (2021) confirmed that brand image significantly affects patient loyalty through satisfaction, yet this study did not integrate service quality as a parallel driver, nor did it focus on private hospitals in the Indonesian context. This research addresses these gaps by simultaneously examining the influence of service quality and brand image on patient loyalty, with satisfaction as a mediator, in a private hospital setting in East Bekasi.

This study focuses on four variables: Service Quality, Brand Image, and Patient Satisfaction as a mediator to analyze Patient Loyalty. The two independent variables, Service Quality and Brand Image, will be studied both partially and independently in relation to Patient Satisfaction and Patient Loyalty. The specific research concept related to this topic has never been studied by other researchers at "X" Hospital in East Bekasi.

The purpose of this study is to analyze the relationship and influence of Service Quality and Brand Image on Patient Loyalty, with Patient Satisfaction as a mediating variable, in patients at "X" Hospital in East Bekasi. In detail, this study examines the influence of Service Quality and Brand Image on Patient Satisfaction, as well as the influence of both on Patient Loyalty, both directly and through the mediation of Patient Satisfaction. The benefits of this research include theoretical contributions in the form of enrichment of strategic management literature related to patient loyalty in the hospital industry, practical contributions to the health industry as a reference for developing business strategies to increase patient loyalty, and contributions to policy regulators in formulating health regulations that are more in line with actual conditions and changes in the field.

RESEARCH METHOD

This research method uses a quantitative approach with an experimental research design and causal analysis to test the influence between variables. Data were collected through a survey using an online questionnaire distributed to respondents who met the criteria of having used services at *East Bekasi "X" Hospital* more than twice and being aged 17 years or older. The sampling technique used was purposive sampling, with a minimum number of respondents set at 145, referring to the number of research indicators. The variables studied included Service Quality and Brand Image as independent variables, Patient Satisfaction as a mediating variable, and Patient Loyalty as dependent variables. The research instrument used a five-point

Likert scale, while data analysis was carried out using Structural Equation Modeling (SEM) with SmartPLS to test validity, reliability, the measurement model, and relationships between latent variables through hypothesis testing with bootstrapping.

RESULT AND DISCUSSION

Instrument Validity Test Results

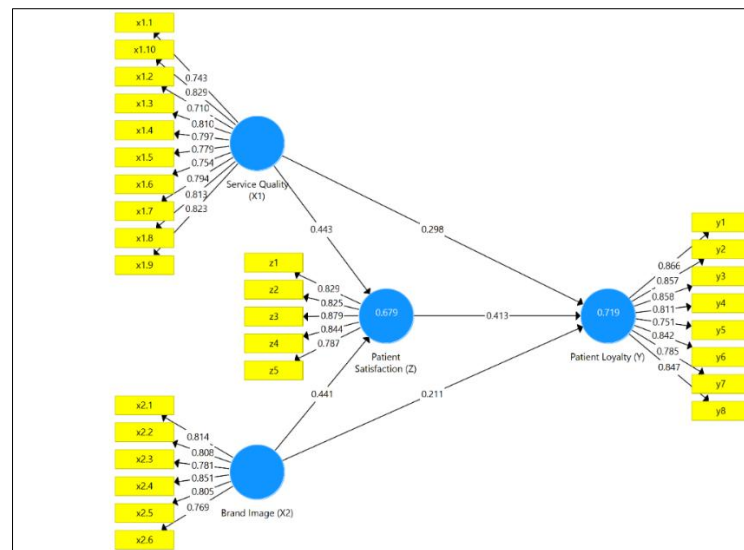


Figure 1. Complete SEM Model

Source: Data Processing Results (2025)

Based on Figure 1 which displays the complete SEM model, all indicators in this study meet the validity criteria with an outer loading value of > 0.5 , so that they can be declared valid in measuring their respective latent constructs. The service quality indicator of ten items has an outer loading value between 0.710–0.829, the brand image indicator of six items is in the range of 0.769–0.851, the patient satisfaction indicator of five items is in the range of 0.787–0.879, and the patient loyalty indicator of eight items is in the range of 0.751–0.866. These results show that all indicators are able to explain the constructs they measure well, so that the model can be used to test the relationships between variables in the study.

The results of this validity test provide strong evidence that all indicators in the SEM model have good validity. Thus, the 29 indicators in this study can be used because they are valid for measuring latent variables.

Table 3. Validity Test Results

Variable	Item Code	Outer Loading	Information
Service Quality	x1.1	0.743	Valid
Service Quality	x1.2	0.710	Valid
Service Quality	x1.3	0.810	Valid
Service Quality	x1.4	0.797	Valid

Variable	Item Code	Outer Loading	Information
Service Quality	x1.5	0.779	Valid
Service Quality	x1.6	0.754	Valid
Service Quality	x1.7	0.794	Valid
Service Quality	x1.8	0.813	Valid
Service Quality	x1.9	0.823	Valid
Service Quality	x1.10	0.829	Valid
Brand Image	x2.1	0.814	Valid
Brand Image	x2.2	0.808	Valid
Brand Image	x2.3	0.781	Valid
Brand Image	x2.4	0.851	Valid
Brand Image	x2.5	0.805	Valid
Brand Image	x2.6	0.769	Valid
Patient Satisfaction	z1	0.829	Valid
Patient Satisfaction	Z2	0.825	Valid
Patient Satisfaction	Z3	0.879	Valid
Patient Satisfaction	z4	0.844	Valid
Patient Satisfaction	z5	0.787	Valid
Patient Loyalty	y1	0.866	Valid
Patient Loyalty	y2	0.857	Valid
Patient Loyalty	y3	0.858	Valid
Patient Loyalty	y4	0.811	Valid
Patient Loyalty	y5	0.751	Valid
Patient Loyalty	y6	0.842	Valid
Patient Loyalty	y7	0.785	Valid
Patient Loyalty	y8	0.847	Valid

Source: Data Processing Results (2025)

Validity testing for indicators uses the correlation between the item's score and its construct score. The indicator is said to be valid if *the loading factor* value is above the recommended value, which is 0.5. From the table above, it can be seen that all indicators have a *loading factor* value of ≥ 0.5 , so it is said that the indicator is valid, so that the constructs for all variables are no longer eliminated from the model.

Reliability Test Results

Table 4. Composite Reliability Test Results

Variable	Composite Reliability	Information
Service Quality	0.942	Reliable
Brand Image	0.917	Reliable
Patient Loyalty	0.946	Reliable
Patient Satisfaction	0.919	Reliable

Source: Data Processing Results (2025)

The table above shows that the *composite reliability* value for all variables shows a *composite reliability* value above 0.7 which indicates that all constructs in the estimated model meet the *discriminant validity* criteria. The research instruments used have good internal consistency, where the items in each variable are measured consistently and accurately reflecting the underlying construct. The *composite reliability* value exceeding 0.7 also shows the strong internal consistency of the research instrument and the very reliable reliability as a research instrument.

Outer Model Test Results

Table 5. Results of Cross Loading Discriminant Validity Test

Item Code	Service Quality (X1)	Brand Image (X2)	Patient Satisfaction (W)	Patient Loyalty (Y)
x1.1	0.743	0.562	0.574	0.551
x1.2	0.829	0.601	0.522	0.601
x1.3	0.710	0.570	0.561	0.570
x1.4	0.810	0.549	0.588	0.549
x1.5	0.797	0.564	0.601	0.564
x1.6	0.779	0.555	0.612	0.555
x1.7	0.754	0.540	0.598	0.540
x1.8	0.794	0.595	0.580	0.595
x1.9	0.813	0.601	0.612	0.605
x1.10	0.823	0.645	0.749	0.645
x2.1	0.590	0.814	0.621	0.622
x2.2	0.536	0.808	0.614	0.524
x2.3	0.546	0.781	0.599	0.612
x2.4	0.627	0.851	0.632	0.659
x2.5	0.671	0.805	0.652	0.599
x2.6	0.584	0.769	0.585	0.585
z1	0.623	0.588	0.829	0.589
Z2	0.626	0.591	0.825	0.640
Z3	0.650	0.682	0.879	0.674
z4	0.684	0.667	0.844	0.706
z5	0.613	0.658	0.787	0.724
y1	0.680	0.629	0.753	0.866
y2	0.675	0.619	0.699	0.857
y3	0.630	0.630	0.726	0.858
y4	0.564	0.535	0.567	0.811
y5	0.530	0.484	0.500	0.751
y6	0.661	0.674	0.661	0.842
y7	0.649	0.681	0.655	0.785
y8	0.683	0.663	0.710	0.847

Source: Data Processing Results (2025)

Based on the results of *the discriminant validity* test after model modification as seen in the table above, it shows that all indicators have a *cross loading* value for their constructs greater than the *cross loading* values for other constructs so that they are declared valid. It can be concluded that all constructs have *good discriminant validity*. Thus, the results of the discriminant validity test show that each indicator is more strongly correlated with its original construct than other constructs so that it is better able to explain the variance of the construct that is its purpose than the variance of other constructs.

Table 6. Average Variance Extracted (AVE) Test Results

Variable	AVE	Information
<i>Service Quality</i>	0.618	Valid
<i>Brand Image</i>	0.648	Valid
<i>Patient Satisfaction</i>	0.694	Valid
<i>Patient Loyalty</i>	0.685	Valid

Source: Data Processing Results (2025)

Table 6 presents the results of *the Average Variance Extracted* (AVE) test used to measure the convergent validity of the four latent constructs in this study, namely *service quality*, *brand image*, *patient satisfaction* and *patient loyalty*. The results of the AVE test showed that all constructs had an AVE value of ≥ 0.5 which is the threshold used to demonstrate sufficient convergent validity so that it can be concluded that the indicators convergently measure the corresponding latent constructs.

Table 7. Cronbach's Alpha Test Results

Variable	Cronbach's Alpha	Information
<i>Service Quality</i>	0.931	<i>Reliable</i>
<i>Brand Image</i>	0.891	<i>Reliable</i>
<i>Patient Satisfaction</i>	0.890	<i>Reliable</i>
<i>Patient Loyalty</i>	0.934	<i>Reliable</i>

Source: Data Processing Results (2025)

Based on Table 7, all variables obtained Cronbach's Alpha values above 0.7, indicating that the indicators used to measure this construct have good reliability, where the question items in this construct are consistent with each other. This indicates that the research instrument used has high internal consistency, where the items in each construct are measured consistently and accurately reflect the underlying construct.

Inner Model Test Results

Table 8. Determination Coefficient Test Results

Variable	Coefficient of Determination (R^2)	Information
<i>Patient Satisfaction</i>	0.679	Moderate Relationship
<i>Patient Loyalty</i>	0.719	Strong Relationship

Source: Data Processing Results (2025)

Based on table 8, the results of the determination coefficient (R^2) test show that the research model has a moderate-strong ability to explain the variance of dependent variables. The R^2 value in the *Patient Satisfaction* variable of 0.679 indicates that 67.9% of the *Patient Satisfaction* variable can be influenced by the variables of *Service Quality* and *Brand Image*. This suggests that there are still other factors outside the model that affect the likelihood of patient satisfaction with healthcare services at Hospital "X".

The *Patient Loyalty* variable has an R^2 value of 0.719, indicating that 71.9% of the *Patient Loyalty* variable can be influenced by the variables *Service Quality*, *Brand Image* and *Patient Satisfaction*. This suggests that there are still other factors outside the model that affect the likelihood of patient loyalty to healthcare services at Hospital "X". Overall, the results of the determination coefficient test show that the research model has a moderate and strong construct prediction ability.

Table 9. Predictive Relevance Test

Variable	Predictive Relevance (Q^2)	Information
<i>Patient Satisfaction</i>	0.679	Valid
<i>Patient Loyalty</i>	0.719	Valid

Source: Data Processing Results (2025)

Table 9 presents the results of the predictive relevance test (Q^2) for two variables: *Patient Satisfaction* and *Patient Loyalty*. Both exogenous variables in this model had good predictive relevance ($Q^2 > 0$) to endogenous variables. This means that the model being tested has a good ability to explain empirical data and can be considered valid.

Table 10. Effect Size Test Results

Variable	Effect Size (f^2)	Information
<i>Service Quality</i> → <i>Patient Satisfaction</i>	0.279	Moderate Effects
<i>Brand Image</i> → <i>Patient Satisfaction</i>	0.276	Moderate Effects
<i>Service Quality</i> → <i>Patient Loyalty</i>	0.112	Small Effects
<i>Brand Image</i> → <i>Patient Loyalty</i>	0.057	Small Effects
<i>Patient Satisfaction</i> → <i>Patient Loyalty</i>	0.195	Small Effects

Source: Data Processing Results (2025)

Based on table 10 above, it is known that *the service quality* variable has a moderate influence on *patient satisfaction* ($f^2 = 0.279$), and *service quality* has a small influence on *patient loyalty* ($f^2 = 0.112$). The *brand image* variable also had a moderate effect on *patient satisfaction* ($f^2 = 0.276$) and *brand image* had a small effect on *patient loyalty* ($f^2 = 0.057$). The *patient satisfaction* variable had a small effect on *patient loyalty* ($f^2 = 0.195$).

Table 11. Direct and Indirect Hypothesis Test Results

Construct	Original Sample (O)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
SQ → PS	0.443	0.127	3.503	0.001
BI → PS	0.441	0.127	3.483	0.001
SQ → PL	0.298	0.067	4.446	0.000
BI → PL	0.211	0.076	2.791	0.005
PS → PL	0.413	0.073	5.648	0.000
SQ → PS → PL	0.183	0.063	2.890	0.004
BI → PS → PL	0.182	0.058	3,].147	0.002

Source: Data Processing Results (2025)

The results of the path coefficient test showed that all variables in this study had a positive influence, both directly and indirectly. Service quality had a significant effect on patient satisfaction (0.443) and patient loyalty (0.298), while brand image also had a positive effect on patient satisfaction (0.441) and patient loyalty (0.211). In addition, patient satisfaction has been shown to have a strong effect on patient loyalty (0.413). In indirect influences, service quality and brand image through patient satisfaction contributed 0.183 and 0.182 respectively to patient loyalty. Thus, the better the quality of service and brand image of "X" Hospital, the higher the patient satisfaction which ultimately increases patient loyalty both directly and through patient satisfaction mediation.

From the 7 hypotheses tested, it can be concluded that all of these pathways have a positive correlation or influence. Furthermore, the hypothesis test was carried out by comparing the p-Value value with the level of significance of 95% ($\alpha = 0.05$). The determination of whether a hypothesis is accepted or rejected is based on the following criteria (Hair, 2024):

1. If $p\text{-value} \leq 0.05$ and the $T\text{-statistic} \geq 1.967$, then: H_0 is rejected, H_a is accepted.
2. If $p\text{-value} > 0.05$ or the $T\text{-statistic} < 1.967$, then: H_0 is accepted, H_a is rejected.

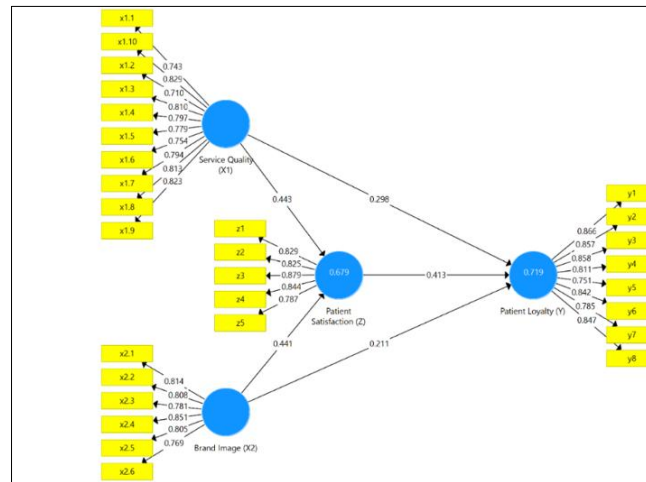


Figure 2. Model Bootstrapping

Source: Data Processing Results (2025)

Figure 2 shows a structural model that illustrates the relationship between variables in this study, while the results of the hypothesis test in table 19 and figure 6 prove that all seven hypotheses proposed are accepted. Service quality has been proven to have a positive and significant effect on patient satisfaction (H1) and patient loyalty (H3), while brand image also has a positive and significant effect on patient satisfaction (H2) and patient loyalty (H4). In addition, patient satisfaction has a significant influence on patient loyalty (H5), and acts as a mediator that strengthens the influence of service quality (H6) and brand image (H7) on patient loyalty. All hypothesis test results showed a p-value of < 0.05 and a T-statistic of > 1.96 , which confirms the existence of a strong and significant relationship, both directly and indirectly, between service quality, brand image, patient satisfaction, and patient loyalty.

Direct influence is the relationship between two variables without intermediate variables. In this study, there are several significant direct influences, namely:

Service Quality → *Patient Satisfaction* (0.443)

Brand Image → *Patient Satisfaction* (0.441)

Service Quality → *Patient Loyalty* (0.298)

Brand Image → *Patient Loyalty* (0.211)

Table 12. Direct Influence Versus Indirect Influence

SQ → PL	0.298	The direct hypothesis is better
SQ → PS → PL	0.183	
BI → PL	0.211	The direct hypothesis is better
BI → PS → PL	0.182	

From table 12 above, the *patient satisfaction* variable successfully mediates service quality to patient loyalty and also successfully mediates the brand image variable to patient loyalty, therefore the *patient satisfaction* variable is a *fully mediating variable*.

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

The results of this study show that hypothesis 1 is accepted, which states that *service quality* has a positive and significant influence on *patient satisfaction*. This means that the higher the quality of services provided to patients, the higher the level of patient satisfaction with the "X" Hospital. These findings are in line with the theory of customer satisfaction put forward by Kotler & Keller (2022) that customer satisfaction is a dynamic emotional and cognitive condition that is influenced by various factors such as service quality and personal experience. Customer satisfaction is a subjective evaluation of the performance of a service based on a comparison between customer expectations and perceptions.

The results of this study are also in line with previous empirical studies. As research by Chaysiri (2023) found that the causal factor that directly affects patient satisfaction in private hospitals in Thailand is the quality of service factor. In addition, Woo & Choi's (2021) research examines the quality of service consisting of the service dimensions of doctors' practices, the friendliness and consideration of medical staff and the physical environment of hospitals have a positive and significant effect on patient satisfaction. Another study by Hai (2021) found that the quality of service has a positive relationship directly to patients. Service quality is a variable that requires attention and improvement in the private hospital environment.

The quality of services can be improved in various dimensions such as providing timely services, providing complete and modern medical equipment, providing clear information to patients regarding products and services, and providing fast and precise administrative and medical services. Overall, the acceptance of hypothesis 1 is supported by a strong theoretical foundation, empirical evidence from previous research. The high quality of healthcare services can improve patient satisfaction at Hospital "X".

The Influence of *Brand Image* on *Patient Satisfaction*

The results of this study show that hypothesis 2 is accepted, which states that *Brand Image* has a positive and significant influence on *Patient Satisfaction*. This means that the more positive the brand image of RS "X", the higher the level of patient satisfaction with RS "X". This is in line with theory.

The results of this study are in line with previous empirical studies. Wu (2011) stated that brand image plays an important role in influencing customer decisions. Research by Dayan et al (2022) found that hospital brand image has a positive impact on patient satisfaction. Research by Trisno and Berlianto (2023) also found that *hospital brand image* has a significant influence on patient satisfaction.

The Influence of *Service Quality* on *Patient Loyalty*

The results of this study show that hypothesis 3 is accepted, which states that *Service Quality* has a positive and significant influence on *Patient Loyalty*. This means that the higher the quality of the services of Hospital "X", the higher the level of patient loyalty to Hospital "X" the better. This is in line with the theory according to Oliver (1999) which states that

loyalty is a deep emotional and behavioral bond between consumers and a product or brand that encourages consumers to consistently choose the product or service. This commitment is formed from repeated positive experiences and high trust in the brand.

The results of this study are in accordance with various empirical studies that have been conducted previously. Research by Hai et al (2021) found that the quality of service has a significant effect on patient loyalty. Research by AlOmari & Hamid (2022) found that quality has a positive effect on patient loyalty. Research by Lin & Yin (2022) found that the quality of service has a positive effect on patient loyalty. Research by Gou et al (2020) also shows that the quality of medical services has a direct positive influence on patient loyalty.

The Influence of Brand Image on Patient Loyalty

The results of this study show that hypothesis 4 is accepted, which states that *Brand Image* has a positive and significant influence on *Patient Loyalty*. This means that the more positive the brand image of RS "X", the higher the level of patient loyalty to RS "X". As defined by Fornell et al. (1996), the image of a hospital is a component of the European Customer Satisfaction Index (ECSI). In an effort to achieve sustainable hospital performance, the image of the hospital plays an important role as an intangible asset that is valuable and difficult to replicate.

The results of this study are in line with several previous empirical studies. Lin & Yin (2022) found that hospital brand image has an effect on patient loyalty. Research by Dayan et al (2022) also found that hospital brand image has a positive effect on patient loyalty. Another study by Hai et al (2021) found that hospital brand image has a direct positive effect on patient loyalty.

The Effect of Patient Satisfaction on Patient Loyalty

The results of this study show that hypothesis 5 is accepted, which states that *Patient Satisfaction* has a positive and significant effect on *Patient Loyalty*. This means that the more positive the brand image of RS "X", the higher the level of patient loyalty to RS "X". This is in line with *the marketing* theory put forward by Kotler et al (2024) which states that people tend to choose products and services that they believe will provide the highest benefits, value and satisfaction. Patient satisfaction has a direct impact on the sustainability of a hospital. When patients are satisfied, they are more likely to choose the hospital for future treatment and recommend it to others. Patient satisfaction is an important benchmark in assessing healthcare services and is considered a key indicator of success in healthcare organizations.

These findings are in line with previous studies that show that patient satisfaction has a positive and significant effect on patient loyalty. Research by Kotler & Keller (2022) found that satisfied customers exhibit positive behaviors such as repeat purchases and providing recommendations to others. In addition, satisfaction also triggers the formation of strong emotional bonds with service providers. Research by AlOmari & Hamid (2022) and Garem et

al (2023) found that patient satisfaction has a direct positive and significant effect on patient loyalty.

The Effect of Service Quality on Patient Loyalty Mediated by Patient Satisfaction

The results of this study show that hypothesis 6 is accepted, which states that *Patient Satisfaction* has a positive and significant effect on *Patient Loyalty* mediated by *Patient Satisfaction*. The quality of service does not only directly affect the loyalty of patients, but also indirectly through the satisfaction they feel with the health services they receive.

Several previous studies have shown that patient satisfaction is one of the important factors that affect patient loyalty. Research by Gareem et al (2023) says that patient satisfaction fully mediates the relationship between perceived service quality and patient loyalty. Another study by AlOmari & Hamid (2022) said that patient satisfaction mediates the relationship between the dimensions of service quality, *assurance*, *reliability*, and *financial* aspects and patient loyalty. Gou et al (2020) found that patient satisfaction plays a mediating role between service quality and patient loyalty.

Overall, the acceptance of this hypothesis 6 confirms that patient satisfaction plays an important role as an important mechanism in explaining how service quality can affect patient loyalty. The quality of services such as adequate physical hospital facilities, comprehensive health services, the availability of medical professionals, complete and modern medical equipment, timely service, clear product and service information, fast service waiting times, accurate and reliable billing systems, and responsive attitude of medical and non-medical staff to patients not only have a direct impact on patient loyalty but can also indirectly increase patient satisfaction with health services which ultimately encourages the patient's behavior of wanting to make repeated visits and being willing to recommend "X" Hospital to others.

The Influence of Brand Image on Patient Loyalty Mediated by Patient Satisfaction

The results of this study show that hypothesis 7 is accepted, which states that *Brand Image* has a positive and significant effect on *Patient Loyalty* mediated by *Patient Satisfaction*. *Brand image* not only directly affects patient loyalty, but also indirectly through the satisfaction they feel with the health services they receive. Studies on branding show that a good corporate brand image will increase customer satisfaction and loyalty. According to the business dictionary in Dertwinkel-Kalt & Köster (2022), *Brand Image* is the impression in the consumer's mind of the real and imaginative qualities and shortcomings of the brand, as well as the quality of the product that the consumer perceives.

The results of this study are in line with research by Belda & Irawan (2024) that there is a significant relationship between hospital image and patient loyalty through patient satisfaction. A positive hospital image builds brand awareness, patient trust, and organizational development, so it is important to manage. A positive image increases patient satisfaction and loyalty, crucial to maintaining and improving the quality of services in private hospitals. Another study by Dayan et al (2022) said that hospital image has an effect on the development

of loyalty. These results show that hospital image has a positive influence on patient satisfaction and loyalty simultaneously.

Overall, the acceptance of this hypothesis 7 confirms that patient satisfaction is an important mechanism in explaining how brand image can affect patient loyalty. A positive hospital image builds brand awareness, patient trust, and organizational development, so it is important to manage. The image of a hospital is formed from the beliefs, ideology, and impressions of patients when comparing it to other hospitals. To build a positive image, hospitals need to improve communication with patients, train healthcare staff, implement effective advertising strategies, and establish good public relations. This brand image is heavily influenced by the perception and experience of patients directly. Thus, a good hospital brand image affects patient satisfaction thereby encouraging patients to choose healthcare services at the hospital.

CONCLUSION

Based on the results of the analysis, this study concludes that service quality and brand image have a positive and significant effect on patient satisfaction and patient loyalty, both directly and through patient satisfaction mediation. The study, which involved 154 respondents at "X" Hospital in East Bekasi, showed that patient satisfaction is an important mechanism that strengthens the relationship between service quality and brand image in fostering patient loyalty. The strongest indicator in the service quality variable is the priority placed on patient safety, while the brand image is supported by the hospital's positive reputation. Patient satisfaction is reflected in the right decision to choose a hospital, while patient loyalty is seen in the tendency to recommend and convey positive feedback about "X" Hospital. Overall, the results of this study confirm the importance of service quality and brand image in increasing patient satisfaction and loyalty, which ultimately supports the sustainability and competitiveness of hospitals.

REFERENCES

- Agarwal, R., & Dhingra, S. (2023). Factors influencing cloud service quality and their relationship with customer satisfaction and loyalty. *Heliyon*, 9(4), e15177. <https://doi.org/10.1016/j.heliyon.2023.e15177>
- AlOmari, F., & Hamid, A. B. A. (2022). Strategies to improve patient loyalty and medication adherence in Syrian healthcare setting: The mediating role of patient satisfaction. *PLoS ONE*, 17(11), e0272057. <https://doi.org/10.1371/journal.pone.0272057>
- Chaysiri, S., Leecharoen, B., & Sangthong, T. (2023). A causal relationship model of factors influencing customer loyalty in private hospitals in Thailand. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4647671>
- Lu, J., & Lu, Y. (2009). Dimensions and influencing factors of customer loyalty in the intermittent service industry. *Frontiers of Business Research in China*, 3(1), 14–26. <https://doi.org/10.1007/s11782-009-0004-4>

- Supriyanto, A., Wiyono, B. B., & Burhanuddin, B. (2021). Effects of service quality and customer satisfaction on loyalty of bank customers. *Cogent Business & Management*, 8(1), 1937847. <https://doi.org/10.1080/23311975.2021.1937847>
- Abutar, A. U., & Wuisan, D. S. S. (2024). The influence of service quality, word of mouth, patient physician trust on revisit intentions mediated by patient satisfaction in Primaya Hospital patients. *Jurnal Ilmiah Manajemen*, 12(2), 591–601. <https://doi.org/10.56457/jimk.v12i2.591>
- Dayan, M., Al Kuwaiti, I. A., Husain, Z., Ng, P. Y., & Dayan, A. (2022). Factors influencing patient loyalty to outpatient medical services: An empirical analysis of the UAE's government healthcare system. *International Journal of Quality & Reliability Management*, 39(1), 176–203. <https://doi.org/10.1108/IJQRM-11-2020-0373>
- Garem, R. A. A. E., Fuad, A., & Muhammad, H. (2023). Factors associated with patient loyalty in private healthcare sector in Egypt. *Journal of Humanities and Applied Social Sciences*, 6(2), 181–206. <https://doi.org/10.1108/JHASS-08-2022-0103>
- Gou, Y., Zhou, Y., Xing, X., & Li, X. (2020). Exploring the relationship between service quality of private hospitals and patient loyalty from the perspective of health service. *Iranian Journal of Public Health*, 49(6), 1097–1105. <http://ijph.tums.ac.ir/>
- Hai, P. T., Cuong, N. T., Nguyen, V. C., & Thuong, M. T. (2021). Sustainable business development of private hospitals in Vietnam: Determinants of patient satisfaction, patient loyalty and revisit intention. *Problems and Perspectives in Management*, 19(4), 68–81. [https://doi.org/10.21511/ppm.19\(4\).2021.06](https://doi.org/10.21511/ppm.19(4).2021.06)
- Hair Jr, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2022). *Multivariate data analysis* (8th ed.). Cengage Learning.
- Kotler, P., Armstrong, G., & Balasubramanian, S. (2024). *Principles of marketing* (19th ed.). Pearson.
- Kotler, P., Keller, K. L., & Chernev, A. (2022). *Marketing management* (16th ed.). Pearson Education.
- Lin, W., & Yin, W. (2022). Impacts of service quality, brand image, and perceived value on outpatient's loyalty to China's private dental clinics with service satisfaction as a mediator. *PLoS ONE*, 17(5), e0269233. <https://doi.org/10.1371/journal.pone.0269233>
- Oliver, R. L. (1999). Whence consumer loyalty? *Journal of Marketing*, 63(4_suppl1), 33–44. <https://doi.org/10.1177/00222429990634s105>
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49(4), 41–50. <https://doi.org/10.1177/002224298504900403>
- Sofia, T. A. (2023). Dampak kepuasan pasien dan loyalitas pasien dimediasi oleh kepercayaan pasien dan citra merek rumah sakit pada rumah sakit pendidikan gigi dan mulut Jakarta. *Journal of Social Research*. <http://ijsr.internationaljournallabs.com/index.php/ijsr>

Woo, S., & Choi, M. (2021). Medical service quality, patient satisfaction and intent to revisit: Case study of public hub hospitals in the Republic of Korea. *PLoS ONE*, 16(4), e0252241. <https://doi.org/10.1371/journal.pone.0252241>



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