

The effect of customer experience on patient loyalty through the mediating role of patient satisfaction in inpatient services at Santa Clara Hospital Madiun



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ABSTRACT

In an increasingly competitive healthcare environment, enhancing patient loyalty has become a strategic priority for hospitals seeking to ensure service sustainability and long-term patient retention. This study examines the effect of Customer Experience on Patient Loyalty, with Patient Satisfaction serving as a mediating variable, in inpatient services at Santa Clara Hospital Madiun, Indonesia. A quantitative research design was employed using a survey method involving 139 non-BPJS patients selected through purposive sampling. Data were collected using a Likert-scale questionnaire and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4.0. The findings indicate that Customer Experience has a positive and significant effect on Patient Satisfaction and Patient Loyalty. Patient Satisfaction also positively influences Patient Loyalty and partially mediates the relationship between Customer Experience and Patient Loyalty. The structural model demonstrates substantial explanatory power, with Customer Experience accounting for 77.3% of the variance in Patient Satisfaction, while Customer Experience and Patient Satisfaction jointly explain 78.6% of the variance in Patient Loyalty. These results suggest that delivering superior patient experiences is essential for fostering patient satisfaction and strengthening loyalty in healthcare settings. The study contributes to the healthcare service management literature by providing empirical evidence on the mechanisms through which patient experiences shape loyalty outcomes in hospital environments. The findings offer practical implications for healthcare managers seeking to improve patient retention through integrated strategies that prioritize service quality, patient-centered care, and satisfaction enhancement.

Keywords: *Customer Experience; Patient Satisfaction; Patient Loyalty; Inpatient Services; PLS-SEM*



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INTRODUCTION

Hospitals are healthcare institutions expected not only to produce favorable clinical outcomes but also to provide services that are safe, comfortable, accessible, timely, and humane. The paradigm shift from provider-centered care to patient-centered care has positioned patient experience as a critical component of service quality assessment (World Health Organization, 2021; Porter, 2010). In inpatient services, patient experience is formed through a relatively long sequence of interactions, including registration and access to services, communication with physicians and nurses, responsiveness, room comfort, administrative processes, complaint handling, and discharge procedures (World Health Organization, 2021; Lemon & Verhoef, 2016).

Customer Experience in this study refers to the overall experience of patients during their interactions with Santa Clara Hospital Madiun. This concept encompasses service accessibility, service speed, staff interactions, facility comfort, and attentiveness in service delivery (Lemon & Verhoef, 2016; Schmitt, 1999). Positive experiences shape perceptions that the hospital can meet patients' needs, thereby increasing satisfaction (Oliver, 1980; Kotler & Keller, 2022). Subsequently, satisfaction can encourage revisit intentions, preferences for choosing the hospital again, recommendations to others, positive reviews, and trust in healthcare services (Griffin, 2005; Marlina et al., 2022; Suciantoro et al., 2023).

The purpose of this study is to: (1) analyze the effect of Customer Experience on Patient Satisfaction; (2) analyze the effect of Customer Experience on Patient Loyalty; (3) analyze the effect of Patient Satisfaction on Patient Loyalty; and (4) analyze the mediating role of Patient Satisfaction in the relationship between Customer Experience and Patient Loyalty in inpatient services at Santa Clara Hospital Madiun.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Customer Experience is a construct that describes customers' perceptions and cognitive, emotional, behavioral, sensory, and social responses throughout the service journey (Schmitt, 1999; Lemon & Verhoef, 2016). In healthcare settings, this concept is translated into patient experience, which includes all interactions from accessing healthcare services to completing treatment (World Health Organization, 2021).

Patient Loyalty refers to a patient's commitment to continue using hospital services and recommending them to others (Griffin, 2005; Tjiptono, 2021). In this study, loyalty is operationalized through six indicators: intention to revisit, preference for the hospital, willingness to recommend, referrals to family and friends, positive reviews, and trust in the hospital (Marlina et al., 2022; Putri et al., 2023).

Patient Satisfaction is defined as an evaluation formed after patients compare their expectations with their actual experiences. When service performance meets or exceeds expectations, satisfaction increases; otherwise, dissatisfaction may occur (Oliver, 1980; Kotler & Keller, 2022).

Previous studies have consistently demonstrated that Customer Experience significantly influences Patient Satisfaction and Patient Loyalty. Marlina et al. (2022) found that patient experience positively affects loyalty through emotional attachment and trust. Similarly, Putri et al. (2023) reported that patient satisfaction mediates the relationship between service quality and patient loyalty. Furthermore, Martini et al. (2021) showed that patient satisfaction acts as an intervening variable that strengthens long-term relationships between hospitals and patients. Therefore, Patient Satisfaction is expected to play a mediating role in the relationship between Customer Experience and Patient Loyalty.

Based on Customer Experience Theory and Expectation Confirmation Theory, the following hypotheses are proposed:

H1: Customer Experience has a positive and significant effect on Patient Satisfaction.

H2: Customer Experience has a positive and significant effect on Patient Loyalty.

H3: Patient Satisfaction has a positive and significant effect on Patient Loyalty.

H4: Patient Satisfaction mediates the effect of Customer Experience on Patient Loyalty.

METHODS

This study employed a quantitative survey approach (Sugiyono, 2022). The object of the study was inpatient services at Santa Clara Hospital Madiun, while the unit of analysis consisted of patients or their family members who met the respondent criteria. Data collection was conducted from May 1 to May 31, 2026, using an online questionnaire distributed through Google Forms.

The population consisted of non-BPJS inpatient service users. Internal hospital data indicated a population of 213 patients during March–April 2026. Using Slovin's formula with a 5% margin of error (Sugiyono, 2022), the required sample size was determined to be 139 respondents. Respondents were selected using a purposive sampling technique based on inclusion criteria established by the researchers (Sugiyono, 2022).

Customer Experience (X) was measured using ten indicators, Patient Satisfaction (Z) using five indicators, and Patient Loyalty (Y) using six indicators. Data analysis employed PLS-SEM using SmartPLS 4.0. The outer model was evaluated through outer loading, Average Variance Extracted (AVE), Cronbach's Alpha, rho_A, and Composite Reliability. The inner model was assessed using R-Square, F-Square, Q-Square, and path coefficients. Significance testing utilized bootstrapping with criteria of t-statistic > 1.96 and p-value < 0.05 (Hair et al., 2022).

RESULTS AND DISCUSSION

Descriptively, respondents' assessments of all constructs were in the high category. Patient Satisfaction had an overall mean score of 4.37, while Patient Loyalty had an average score of 4.39.

All indicators demonstrated outer loadings above 0.700. Customer Experience indicators ranged from 0.710 to 0.818, Patient Satisfaction from 0.743 to 0.829, and Patient Loyalty from 0.740 to 0.850. Reliability measures also indicated excellent instrument quality.

The R-Square value for Patient Satisfaction was 0.773, indicating that Customer Experience explained 77.3% of the variance in Patient Satisfaction. The R-Square value for Patient Loyalty was 0.786, indicating that Customer Experience and Patient Satisfaction jointly explained 78.6% of the variance in Patient Loyalty.

The hypothesis testing results are summarized as follows:

Table 1
Hypothesis Testing Results

Relationship	β	t-statistic	p-value	Decision
Customer Experience → Patient Satisfaction	0.879	39.847	<0.001	H1 Accepted
Customer Experience → Patient Loyalty	0.484	4.164	<0.001	H2 Accepted
Patient Satisfaction → Patient Loyalty	0.430	3.725	<0.001	H3 Accepted
Customer Experience → Patient Satisfaction → Patient Loyalty	0.378	3.623	<0.001	H4 Accepted (Partial Mediation)

Source: SmartPLS 4.0 Output (2026)

Discussion

This study provides empirical evidence regarding the relationships among Customer Experience, Patient Satisfaction, and Patient Loyalty in inpatient services at Santa Clara Hospital Madiun. The findings demonstrate that Customer Experience significantly influences Patient Satisfaction and Patient Loyalty, while Patient Satisfaction also significantly affects Patient Loyalty and partially mediates the relationship between Customer Experience and Patient Loyalty.

The Effect of Customer Experience on Patient Satisfaction

The findings indicate that Customer Experience has a positive and significant effect on Patient Satisfaction. This result suggests that patients evaluate hospital services not only based on clinical outcomes but also on the quality of interactions experienced throughout the service journey. Elements such as responsiveness, communication, empathy, service accessibility, administrative efficiency, and environmental comfort collectively contribute to patients' overall evaluations of healthcare services.

These findings are consistent with the studies conducted by Andriani et al. (2024), which identified reliability, responsiveness, and empathy as significant determinants of patient satisfaction in healthcare settings. Similarly, Wulandari et al. (2023) reported that positive patient experiences contribute to improved perceptions of healthcare service quality and patient satisfaction. The consistency of these findings reinforces the argument that Customer Experience is a fundamental determinant of Patient Satisfaction in healthcare organizations.

From a theoretical perspective, the results support the Customer Experience Theory proposed by Schmitt (1999), which emphasizes that customers develop emotional and cognitive responses throughout their interactions with service providers. In the context of healthcare, patients who perceive services as timely, caring, and patient-centered are more likely to experience satisfaction. Furthermore, the findings are aligned with the patient-centered care framework promoted by the World Health Organization (2021), which highlights the importance of delivering healthcare services that prioritize patients' needs and experiences.

No contradictory findings were identified when compared with previous studies. Therefore, this study strengthens existing evidence that Customer Experience consistently contributes to Patient Satisfaction across different healthcare contexts.

The Effect of Customer Experience on Patient Loyalty

The results further reveal that Customer Experience has a positive and significant effect on Patient Loyalty. This finding indicates that patients who have favorable experiences during inpatient services are more likely to revisit the hospital, recommend its services to others, and maintain trust in the institution.

This result is consistent with Marlina et al. (2022), who found that patient experience positively influences loyalty through the development of trust and emotional attachment. Similarly, Putri et al. (2023) demonstrated that positive service experiences strengthen patients' commitment to healthcare providers. These studies collectively suggest that Customer Experience serves as an important antecedent of patient loyalty.

However, the present study found that the direct effect of Customer Experience on Patient Loyalty ($\beta = 0.484$) was lower than its effect on Patient Satisfaction ($\beta = 0.879$). This finding suggests that loyalty is a multidimensional construct that is not solely determined by service experiences. Factors such as trust, perceived value, hospital reputation, and service quality may also contribute to the development of patient loyalty.

Unlike some previous studies that primarily examined direct relationships, this study offers additional insights by demonstrating that Customer Experience influences Patient Loyalty both directly and indirectly through Patient Satisfaction. Consequently, hospitals should adopt comprehensive patient experience management strategies that address all touchpoints throughout the patient journey.

The Effect of Patient Satisfaction on Patient Loyalty

The findings indicate that Patient Satisfaction has a positive and significant effect on Patient Loyalty. Patients who are satisfied with inpatient services are more likely to continue utilizing hospital services and recommend them to family members, friends, and colleagues.

This finding is consistent with Martini et al. (2021), who reported that patient satisfaction significantly contributes to loyalty in healthcare settings. Likewise, Griffin (2005) argued that customer satisfaction is a prerequisite for establishing long-term customer loyalty. The consistency of these findings suggests that satisfaction remains one of the strongest predictors of loyalty across various service industries, including healthcare.

Furthermore, the findings support the Expectation Confirmation Theory developed by Oliver (1980), which explains that satisfaction occurs when customers perceive that service performance meets or exceeds their expectations. In the case of Santa Clara Hospital Madiun, patients who perceive the hospital as capable of fulfilling their expectations regarding communication, responsiveness, and service quality tend to exhibit stronger loyalty behaviors.

No significant contradictions with previous empirical findings were observed. Instead, this study provides additional support for the proposition that Patient Satisfaction is a critical mechanism underlying the development of Patient Loyalty within healthcare institutions.

The Mediating Role of Patient Satisfaction

One of the most important findings of this study is the significant mediating role of Patient Satisfaction in the relationship between Customer Experience and Patient Loyalty. The results indicate that Patient Satisfaction acts as a partial mediator, suggesting that Customer Experience affects Patient Loyalty both directly and indirectly through Patient Satisfaction.

This finding is consistent with previous studies by Marlina et al. (2022), Martini et al. (2021), and Putri et al. (2023), all of which identified Patient Satisfaction as an important intervening variable in healthcare service relationships. Nevertheless, this study contributes additional empirical evidence by demonstrating that the mediation effect is partial rather than full.

The implication of partial mediation is that hospitals cannot rely solely on improving satisfaction scores to build patient loyalty. Instead, hospitals should focus on managing the entire patient experience, including interpersonal interactions, service accessibility, complaint handling, facility quality, and communication effectiveness. Positive experiences can directly generate trust and emotional attachment while simultaneously increasing satisfaction levels that subsequently enhance loyalty.

Therefore, the findings of this study do not contradict previous literature. Instead, they extend existing knowledge by confirming the mediating role of Patient Satisfaction within the specific context of inpatient services at Santa Clara Hospital Madiun.

Theoretical and Managerial Implications

From a theoretical perspective, this study enriches the literature on healthcare service management by integrating Customer Experience Theory and Expectation Confirmation Theory into a single conceptual framework. The findings demonstrate that Customer Experience serves as an important antecedent of Patient Satisfaction and Patient Loyalty, while Patient Satisfaction functions as a critical mediating mechanism.

From a managerial perspective, the findings emphasize the need for hospitals to implement integrated patient experience management strategies. Since Customer Experience explains a substantial proportion of the variance in Patient Satisfaction (77.3%) and, together with Patient Satisfaction, explains 78.6% of the variance in Patient Loyalty, hospital administrators should prioritize initiatives aimed at improving service accessibility, responsiveness, communication quality, and patient-centered care practices.

Practical initiatives may include simplifying administrative procedures, strengthening complaint-handling systems, enhancing staff communication competencies, improving inpatient facilities, and conducting regular patient experience evaluations. In addition, hospitals should encourage interdepartmental collaboration involving physicians, nurses, pharmacists, administrative personnel, and support staff to ensure that patients receive consistent and high-quality experiences throughout their healthcare journey.

Overall, this study confirms that Customer Experience is a strategic resource for enhancing Patient Satisfaction and Patient Loyalty. By delivering meaningful and positive patient experiences, hospitals can strengthen long-term relationships with patients and improve organizational sustainability in an increasingly competitive healthcare environment.

CONCLUSION AND SUGGESTIONS

This study concludes that Customer Experience has a positive and significant effect on Patient Satisfaction and Patient Loyalty. Patient Satisfaction also positively and significantly affects Patient Loyalty and partially mediates the relationship between Customer Experience and Patient Loyalty.

These findings reinforce the importance of implementing patient-centered care strategies that emphasize responsiveness, communication, facility comfort, and continuous patient feedback management (World Health Organization, 2021; Porter, 2010). Future studies are recommended to include additional variables such as trust,

perceived value, hospital image, and service quality, as well as to employ longitudinal or mixed-method approaches to provide a deeper understanding of patient loyalty in healthcare settings.

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