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## THE IMPACT OF MARKETING MIX ON PATIENT LOYALTY AND SATISFACTION IN INPATIENT SERVICES

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### Abstract

The impact of the marketing mix appeared to be one of the most important elements in influencing patient loyalty and satisfaction. The marketing mix consists of many variables, namely product, price, place, promotion, physical evidence, and process. Building on well-known frameworks such as the SERVQUAL model and the Theory of Planned Behaviour, this study suggests a mediating role of patient satisfaction between specific marketing mix elements and loyalty. A quantitative technique was used and data was collected from inpatients using structured questionnaires. The results show that physical evidence and process have a positive and significant effect on satisfaction and loyalty; however, the effect of product, price, place, and promotion on loyalty is direct and not mediated by satisfaction. These findings are consistent with previous literature emphasizing the role of service quality and customer experience in the healthcare setting. However, the study does not focus on any other specific methodology to identify other factors that can predict a patient's satisfaction in a hospital environment. It provides a theoretical and practical basis for future health service marketing movements.

**Keywords:** Marketing Mix, Patient Satisfaction, Patient Loyalty, Healthcare Marketing, Service Quality

## INTRODUCTION

In the healthcare industry, patient loyalty and satisfaction have emerged as critical indicators of service quality, especially in the context of inpatient services. The rise of competition among healthcare institutions in the last few years has made it a necessity for them to rely on different aspects of their marketing mix strategy to gain the loyalty of patients. Kasiri et al. (2017), Salman et al. (2017). Implementing the marketing mix will boost satisfaction when services match expectations. In addition, healthcare promotion methods such as the personalization of services have had a positive effect on patient loyalty (Kasiri et al., 2017; D. Wu et al., 2021). Studies conducted recently highlight that incorporating digital promotion tools and a patient-centric approach result in improved service outcomes (Keikhosrokiani et al., 2018; Tortorella et al., 2022). Nonetheless, the widespread adoption of these strategies is still partly inadequate, especially in developing countries, where traditional practices still prerogative (Licastro & Sergi, 2021). The aim of this study is to examine the content of the existing literature to provide actionable information to improve the services offered to inpatients, focusing on the relationships between the elements of the marketing mix and patient loyalty/satisfaction.

Although efforts are made by healthcare organizations to cater to patient needs, the impact of various marketing mix elements on patient satisfaction and loyalty remains unclear. This is evident in areas such as pricing strategies which frequently neglect patients' perception of value, resulting in discontentment even when rates are competitive (Polak et al., 2019; Rahban et al., 2024). Likewise, fragmentation in service provision, for example in terms of waiting times or a lack of adequate physical facilities, diminishes the overall patient experience (Haleem et al., 2021, 2022; McColl-Kennedy et al., 2017). Moreover, promotional strategies are often poorly aligned with the needs of diverse patient populations, leading to ineffective outreach (Asi & Williams, 2018; Chehade et al., 2020). A growing body of research has shown that such challenges can be made worse by the absence of standardization and monitoring mechanisms within healthcare systems (Adlhart et al., 2018; Maier-Hein et al., 2022). To overcome this challenge there need to be an in-depth analysis of the traditional marketing mix model for any potential gap in the methods of services delivered to patients as well as the means of patient centric engagement.

This study is based on the marketing mix theory, which identifies seven characteristics product, price, place, promotion, people, process, physical evidence that define consumer satisfaction and loyalty (Fu et al., 2018; Othman et al., 2021). This framework has been used in different industries such as the healthcare industry to study the interaction effect between service features and the behaviour of service consumers (Lupo, 2016; Martínez-Caro et al., 2018). This framework has recently been applied to emphasize its relevance to the dynamics of patient loyalty, and show how customized interventions across these five types of quality help improve service quality and competitive advantage (Kannan & Li, 2017; Masud et al., 2024). Building on this theory, the current study aims to provide empirical evidence of how marketing mix elements impact patient outcomes in an inpatient context.

Due to the increasing demand for healthcare services to meet patients' needs, the basis of this research is to develop patient-centered service models. Current research reported inconsistent results in the effects of marketing mix elements on patient satisfaction and loyalty. (Aliman & Mohamad, 2016; Meesala & Paul, 2018a, 2018b; Vogus & McClelland, 2016) reported that product quality has a positive impact on patient satisfaction, while Kim, (2019), Matsuoka (2022), Picón-Berjoyo et al. (2016), M. Wu et al. (2022) that pricing strategies had no significant impact on loyalty in certain conditions. Additionally, Brown et al. (2021) found that promotional campaigns greatly affect patient perceptions with other studies noting minimal effect in resource constrained settings (Drossman et al., 2021; Kelly et al., 2017; Papandony et al., 2017). These opposing trajectories suggest the importance of a contextualised analysis that accounts for evolving trends and context-specific factors. Additionally, this research offers a new migration to the literature by combining compare-across marketing mix tools into a single framework in investigating their influence on patient repertoire-MT and on improving patients' outcomes. This study adds to the body of knowledge on patient-centered healthcare marketing by addressing gaps in previous literature and explicitly considering satisfaction and loyalty. Results from this research will be used to advise policies and practices for service delivery and patient retention, with a long-term view to improving comprehensive systems of healthcare.

This study aims to analyze the impact of the marketing mix on patient satisfaction and loyalty to inpatient services. More specifically, it explores how the partial effect of product,

price, place, promotion, people, process, and physical evidence affects patient satisfaction and its subsequent impact on satisfaction loyalty. Hence, the primary objective is to deliver actionable insight to healthcare providers to improve marketing efforts and enhance patient experience specifically regarding inpatient visits

## **RESEARCH METHOD**

The objective of this study is to analyze the influence of the marketing mix on patient loyalty in the Inpatient Installation of RSIA Restu Ibu Sragen. This study is quantitative, namely research that collects primary data by distributing questionnaires to patients utilizing the hospital's services. The quantitative approach was selected in this study because this type of study is suitable for exploring, understanding, and describing the interaction and relationship between the variables in this study which include: marketing mix (product, price, promotion, place, people, process, physical evidence), patient satisfaction as an intervening variable and patient loyalty as a dependent variable (Sugiyono, 2018). There be the research design they use which is a sorta cross-sectional design, where the data is all collected within the same time period. The method used in this research was collecting data at RSIA Restu Ibu Sragen from January to June 2024. In this case, information was gathered via a survey and dispersed utilizing Google Form to patients who had gotten inpatient assistance. The cross-sectional method was selected because of its ability to enable timely data collection from respondents in the field and its potential to provide a snapshot of the relationship between the study variables at a particular point in time. The primary data is the main data source in this study, this data is obtained directly from respondents, namely patients who have undergone treatment at RSIA Restu Ibu Sragen. Data were collected by distributing questionnaires including Marketing mix, patient satisfaction, and patient loyalty questions. The findings from this research are anticipated to offer novel insights into how the marketing mix affects patients' loyalty, and to make practical recommendations for hospital administration concerning how to enhance quality and patient satisfaction. This type of research design will be able to find out which elements of service in the marketing mix have a more significant effect on patient loyalty so that it can also be expected to improve and improve the quality of service at RSIA Restu Ibu Sragen.

The research was held on Inpatient Installation of RSIA Restu Ibu Sragen January - June 2024 with the purpose to analyze the impact of marketing mix on patient loyalty. The study was based on the population of patients that had used inpatient services during that time frame, which amounted to 963 patients. To provide a minimum representative sample size, the research sample was calculated using the Slovin formula. Using the calculation, the sample required was 91 respondents who met the inclusion criteria, ie, subjects aged more than 18 years and had used inpatient services during the study period. This research was carried out using a quantitative approach, by using primary data obtained from questionnaires through Google Form. A cross-sectional design was used to analyse the relationship between variables where data were collected simultaneously. This study was conducted in all classes in the Inpatient RSIA Restu Ibu Sragen Installation, which certainly gives a more comprehensive picture of the influence of the marketing mix on patient loyalty in hospitals.

This study would use quantitative questionnaires for the data collection. These are validated and reliable tools to measure the variables of our study. Patient Loyalty Questionnaire adapted from the study entitled “How Does Employee Commitment Affect Customer's Attitudinal Loyalty?” by Agyeiwaah et al. (2022). It is based on the loyalty theory proposed by Olivier (1999), which assesses different dimensions of patient loyalty. Marketing Mix (7Ps) Questionnaire: The marketing mix questionnaire was adapted from “How Marketing Mix (7Ps) Affects Patients’ Selection of a Hospital: Experience of a Low-Income Country” by Ravangard et al. (2020). This is a questionnaire to assess the 7Ps of marketing of healthcare services.

Studies have validated and supported the indicators employed in assessing patient loyalty. For instance, Homburg et al. For example, using the SERVQUAL methodology (2006), the quality of personalised interactions with hospital staff has been identified as the externally observable facet that most strongly influences patient satisfaction and loyalty. Tailored interactions can help build an emotional bond between patients and healthcare providers, making it more likely that patients will remain loyal to their providers (Homburg et al., 2006). In addition, Berry (1995) argued customer loyalty was also derived from technical quality and physical environment of service. Facility management will greatly affect patients' perspectives on service quality, hence increase their loyalty. When building

patient loyalty, employee commitment is another aspect that is very crucial as well. This includes providing a patient positive experience, promoting patient loyalty to the hospital, one of the study outcomes, which Schneider & Bowen (1993) highlight is heavily influenced by committed service employees. According to Oliver (1999), the customer satisfaction indicator used in this study is one of the strongest predictors of customer loyalty; customers with a high degree of satisfaction can use it as the basis for wanting to return and recommend a service to other customers. Zeithaml et al. Similarly, in the healthcare context, Cooil et al. (1996) recommended that intentions to act, including recommending patients to family and friends, are powerful measures of loyalty. So, all the parameters that are used in this questionnaire is based on the previous research which has been relevant and important in measuring the patient loyalty in the hospitals.

**Table 1**  
**Patient Loyalty Questionnaire Development**

No.	Indicator	Questions
1	Personal Interaction	The staff at RSIA Restu Ibu understands the specific needs of their patients. The staff at RSIA Restu Ibu has the best interests of the patients in mind. The staff at RSIA Restu Ibu provides personalized attention.
2	Physical Environment	Marketing materials (such as brochures or statements) related to services at RSIA Restu Ibu are visually appealing. RSIA Restu Ibu maintains a clean and orderly physical environment.
3	Technical Quality	RSIA Restu Ibu ensures error-free records and provides services on time as promised.
4	Employee Commitment	The staff at RSIA Restu Ibu is committed to helping patients and always responds to requests.
5	Customer Satisfaction	The service performance at RSIA Restu Ibu meets my expectations.
6	Behavioral Intention	I would recommend RSIA Restu Ibu's services to my friends and family.

Source of Data; Processed in the Author's Observation 2024

Contemporaneously, Kupfer, Arey, and Coyle\* conducted research investigating the degree to which financial literacy informs end-of-life care progression, finding that the less

financially literate were less likely to engage in planning and that this negatively influenced care. as (2015) revealed that all elements in the marketing mix (7Ps) play a very important role in attracting and retaining patients within the healthcare sector. People take into consideration both product quality (health services) and competitive price, and they consciously decide what hospital to select in the context of hospitals. Furthermore, promotion and proper communication by the hospital team are equally important for providing follow-up care to gain a long-term trust of the patient. Berry (1995) reminds us that elements such as people (the hospital personnel) and service processes have great importance in providing a pleasant experience for patients. A highly efficient process and skilled, courteous staff can enhance a patient's loyalty toward the hospital and increase the chances that they would recommend the hospital to their attendants. Similarly, physical evidence (the appearance of the facilities and how clean and comfortable they are) should make a good first impression on the patients which could lead to satisfaction and loyalty.

**Table 2**  
**Development of Marketing Mix Questionnaire (7Ps) for Hospitals**

No.	Indicator	Questions
1	Product	The hospital provides appropriate medication.
2		The hospital offers quality clinical services.
3	Price	The pricing policy is transparent, and payment options are clear.
4		The cost of services is affordable with available insurance or assistance programs.
5	Promotion	The staff uniforms are clean and professional.
6		There is effective communication between the staff and patients.
7	Place	The hospital's location is convenient for patients.
8		The services are tailored to meet local needs.
9	People	The healthcare staff demonstrates professionalism and empathy.
10	Process	The hospital has clear administrative processes and uses efficient information technology.
11	Physical Evidence	The hospital maintains a clean and well-organized environment with modern medical equipment.

Participants will complete the instruments, which will be assessed for content validity by experts in the field, ensuring relevance, face validity, and their ability to capture the constructs it strives to measure. We will assess construct validity to confirm that the questionnaire reflects the underlying theoretical abstract, and criterion validity by testing

results against other jobs. To determine reliability, a pilot study was performed, and Cronbach's Alpha was calculated. Reliability and validity are among the most important parameters of any quantitative data collection Sekaran (2016), Cronbach's Alpha is widely cited as a valid measure of reliability, and researchers have suggested that an acceptable value for Krisis scale internal consistency to be above 0.7 (Tavakol & Dennick, 2011).

In quantitative research, the process of analyzing data generally consists of several sequential steps. The method used in this study is multiple linear regression analysis with the help of Smart PLS 3.2.9 software, which examines the effect of independent variables on the dependent gas to the gas. The validity and reliability of the questionnaire will be evaluated before data collection, using Pearson Correlation for validity and Cronbach's Alpha for reliability, with all values greater than 0.70 considered acceptable reliability (Tavakol & Dennick, 2011). The data will be summarized using descriptive analysis, and the classical assumption tests of normality, multicollinearity, heteroscedasticity, and autocorrelation will determine the appropriateness of the regression model (Field, 2013). Additionally, hypothesis testing will use t-tests, and F-tests alongside the calculation of the coefficient of determination ( $R^2$ ) of whether there is a relationship between each variable or not alongside the explanatory power of the model (Hair et al., 2019). In summary, the analytical methodologies add strength and precision to the findings, shedding light on the drivers of patient loyalty.

## **RESULTS AND DISCUSSION**

Results This part describes the responses of the respondents on the variables used in the study including product, price, place, promotion, people, physical evidence, process, customer satisfaction, and customer loyalty. Such description will be based on a statistical descriptive analysis through a score range index, which was calculated using the formula:

$$RS = 0.80$$

The score range calculations are used to classify this data into five categories that reflect the quality of responses provided by the respondents toward each variable of this research. This means that the resulting scale goes from:

4.21 - 5.00: Very Good

3.41 - 4.20: Good

2.61 - 3.40: Fair

1.81 - 2.60: Poor

1.00 - 1.80: Very Poor

We define our own categories to see the distribution of data under our way of thinking to make it easy to understand the perceptions of respondents about the different factors of the same entity like marketing mix and customer satisfaction and how they are related to customer loyalty. This scale allows to systematically interpret the findings based on respondents' evaluations. The table presented shows an analysis of the various variables that influence service quality and customer satisfaction in a business context. From the average calculation results (average 4.30), it can be seen that product quality, service, price, and distribution channels all show high scores, indicating that respondents tend to give positive assessments of these factors. This is in line with previous research showing that product and service quality are key determinants in customer satisfaction and loyalty (Zeithaml, Berry, & Parasuraman, 1996). Product quality, as reflected in the indicators of 'Product Quality' and 'Service Quality', strongly influences consumers' perceptions, which in turn increases their satisfaction with the company (Kotler & Keller, 2016).

In this context, attention to the physical elements of the process, physical evidence, as well as interactions with customers are important aspects in creating a superior customer experience. For example, the variables 'Physical Process' and 'Physical Evidence' show an excellent level in terms of interaction with customers and the quality of the physical environment that influences consumer decisions (Berry, 2000). In another study, it was found that satisfied customers are more likely to return and show high loyalty to the company, as shown in the variable 'Customer Loyalty' with an average score of 4.33. A company's performance in maintaining a consistent, high-quality customer experience will directly affect customer loyalty (Oliver, 1999). Thus, companies that successfully improve the quality of physical processes and direct interactions with customers can strengthen long-term relationships with consumers and encourage greater loyalty.

**Table 3**  
**Variable and Indicator Tables**

No.	Variable	Total Score
1	Product Quality	1715
2	Service Quality	1715
3	Price Perception	1715
4	Distribution Channels	1715
5	People	1715
6	Physical Evidence	1715
7	Physical Process	2155
8	Customer Satisfaction	1715
9	Customer Loyalty	1734
<b>Total</b>	<b>-</b>	<b>15475</b>

Source of Data; Processed in the Author's Observation 2024

The outcome of the Outer Model Test for discriminant-validity (AVE) is detailed as such: CUST\_LOY=0.748, CUST\_SAT=0.765 People variable AVE 0.695 Physical Evidence AVE 0.662 AVE value = 0.668 AVE value = 0.622 AVE value = 0.707 Place Price Process The Product variable has an AVE equal to 0.728 while the Promotion has an AVE equal to 0.691. These values suggest that the constructs have adequate discriminant validity, given that the values of AVE are higher than the recommended threshold of 0.50, which verifies the reliability and validity of the measurement model.

**Table 4**  
**Discriminant Validity (AVE)**

Average Variance Extracted (AVE)	
CUST_LOY	0.748
CUST_SAT	0.765
PEOPLE	0.695
PHYSICAL	0.662
PLACE	0.668
PRICE	0.622
PROCESS	0.707
PRODUCT	0.728
PROMOTION	0.691

**Table 5** presents the Composite Reliability (CR) values for the various constructs in the model. The CR values are as follows: Customer Loyalty (CUST\_LOY) has a value of 0.947, and Customer Satisfaction (CUST\_SAT) shows a value of 0.958. The People variable has a CR of 0.953, while Physical Evidence has a CR of 0.921. For Place, the CR is 0.889, Price shows a CR of 0.908, and Process has a CR of 0.951. The Product variable has the

highest CR at 0.964, and Promotion has a CR value of 0.930. All these CR values exceed the recommended threshold of 0.70, indicating that the constructs possess good internal consistency and reliability.

**Table 5**  
**Composite Reliability**

<b>Variable</b>	<b>Composite Reliability</b>
CUST_LOY	0.947
CUST_SAT	0.958
PEOPLE	0.953
PHYSICAL	0.921
PLACE	0.889
PRICE	0.908
PROCESS	0.951
PRODUCT	0.964
PROMOTION	0.930

Source of Data; Processed in the Author's Observation 2024

Table 6 shows the value of Cronbach's Alpha for the different constructs in the study. Cronbach's Alpha for the variables are as follows (CUST\_LOY = 0.932 and CUST\_SAT = 0.949). It signifies that the Cronbach's Alpha value for the People construct is 0.945 and also for Physical Evidence the value is 0.897. The Place has a reliability value of 0.836, the Price is 0.878, and the Process has 0.941. The value for the Product variable is the highest at 0.958 and Promotion Cronbach's Alpha is 0.910. These values are higher than the acceptable limit of 0.70 (Hair et al., 2016), thus indicating that both constructs possess excellent internal consistency and reliability.

**Table 6**  
**Cronbach Alpha**

<b>Variable</b>	<b>Cronbach's Alpha</b>
CUST_LOY	0.932
CUST_SAT	0.949
PEOPLE	0.945
PHYSICAL	0.897
PLACE	0.836
PRICE	0.878
PROCESS	0.941
PRODUCT	0.958
PROMOTION	0.910

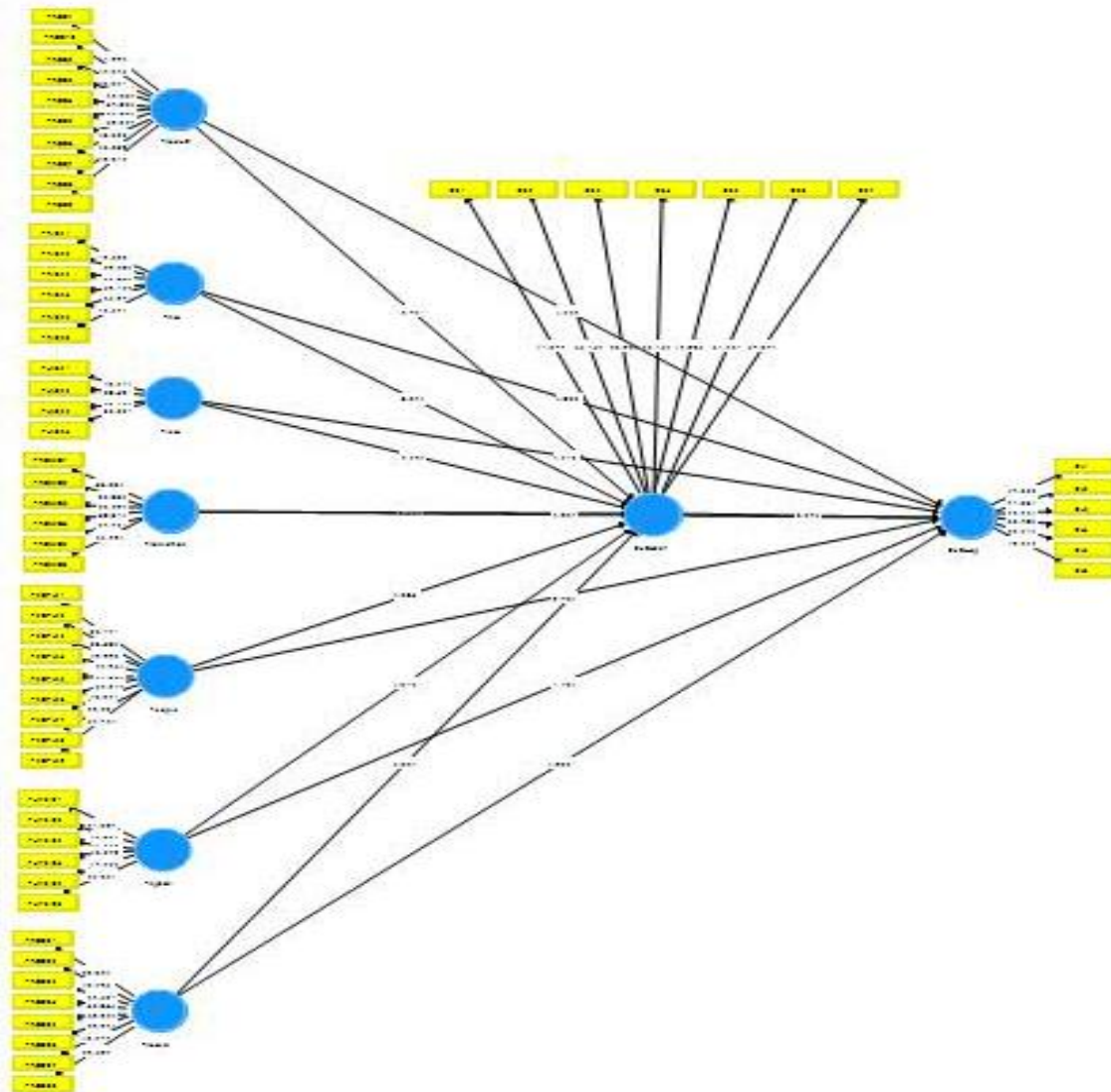
Source of Data; Processed in the Author's Observation 2024

What is Inner Model Measurement in EM? The Inner Model represents the relationship between the constructs (i.e., the endogenous and exogenous variables) indicated in the SEM model. Essentially, this is what is needed to assess the strength, direction, and significance of the relationships between the variables in the model. The outer model describes the relationships between the constructs of the model under this research, namely Customer Loyalty, Customer Satisfaction, Product, Price, Promotion, People, Physical Evidence, Place, and Process. Path coefficients evaluate the strength and significance of relationships between latent constructs, while R-squared ( $R^2$ ) values determine the percentage of variance that can be explained by the respective independent variables. According to Hair et al. (2014), a properly specified inner model should contain path coefficients greater than 0.20 and  $R^2$  values that represent substantive proportions of explained variance. Using bootstrapping techniques, the path coefficients are tested for their significance which is essential for obtaining robust results. Confirming if there is validity for the relationships between the incorporated constructs is possible only with the inner model, making it crucial for the study to ascertain if a specific theoretical framework holds for the data.

**Table 7** shows the results of hypothesis testing based on the path coefficient, which measures the direct effect between the variables involved in this study. The interpretation of the test results is given below:

- 1) PRODUCT -> CUST\_SAT: The path coefficient of 0.167 with a t-statistic of 2.827 and a p-value of 0.005 ( $< 0.05$ ) indicates that there is a significant effect of the product on customer satisfaction.
- 2) PRICE -> CUST\_SAT: Path coefficient 0.013 with t-statistic 0.265 and p-value 0.791 ( $> 0.05$ ) indicates that price has no significant effect on customer satisfaction.
- 3) PLACE -> CUST\_SAT: The path coefficient of 0.139 with t-statistic 2.239 and p-value 0.026 ( $< 0.05$ ) indicates a significant effect of location on customer satisfaction.
- 4) PROMOTION -> CUST\_SAT: Path coefficient 0.081 with t-statistic 2.413 and p-value 0.016 ( $< 0.05$ ) indicates a significant effect of promotion on customer satisfaction.
- 5) PEOPLE -> CUST\_SAT: Path coefficient of 0.104 with a t-statistic of 2.154 and p-value of 0.032 ( $< 0.05$ ) indicates a significant effect of people on customer satisfaction.

- 6) PHYSICAL -> CUST\_SAT: Path coefficient 0.221 with t-statistic 4.831 and p-value 0.000 (<0.05) indicates a highly significant effect of physical evidence on customer satisfaction.
  - 7) PROCESS -> CUST\_SAT: The path coefficient of 0.295 with a t-statistic of 4.751 and a p-value of 0.000 (< 0.05) indicates a highly significant effect of the process on customer satisfaction.
  - 8) PRODUCT -> CUST\_LOY: The path coefficient of 0.234 with a t-statistic of 4.628 and a p-value of 0.000 (<0.05) indicates a significant effect of the product on customer loyalty.
  - 9) PRICE -> CUST\_LOY: The path coefficient of 0.082 with a t-statistic of 1.974 and a p-value of 0.049 (<0.05) indicates a significant effect of price on loyalty.
  - 10) PLACE -> CUST\_LOY: The path coefficient of 0.137 with a t-statistic of 2.220 and p-value of 0.027 (<0.05) indicates a significant effect of place on loyalty.
  - 11) PROMOTION -> CUST\_LOY: The path coefficient of 0.113 with a t-statistic of 3.248 and a p-value of 0.001 (<0.05) indicates a significant effect of promotion on customer loyalty.
  - 12) PEOPLE -> CUST\_LOY: The path coefficient of 0.039 with a t-statistic of 0.802 and a p-value of 0.423 (>0.05) indicates that people do not have a significant effect on customer loyalty.
  - 13) PHYSICAL -> CUST\_LOY: The path coefficient of 0.046 with a t-statistic of 1.101 and p-value of 0.272 (>0.05) indicates that Physical has no significant effect on Loyalty.
  - 14) PROCESS -> CUST\_LOY: The coefficient of 0.120 with a t-statistic of 2.122 and a p-value of 0.034 (<0.05) indicates a significant effect of the process on customer loyalty.
- CUST\_SAT -> CUST\_LOY: The path coefficient of 0.256 with a t-statistic of 2.572 and p-value of 0.010 (<0.05) indicates a significant effect of satisfaction on loyalty.



**Figure 1**  
**Inner Model**

Product, place, promotion, people, tangibles and process significantly influence customer satisfaction. Product, price, place, promotion and process significantly influence loyalty. Customer satisfaction also has a significant impact on customer loyalty.

**Table 7**  
**Hypothesis Test Results Based on Path Coefficient**

Variable	(O)	(M)	S D	T Statistics (OSTDEV)	P Values
PRODUCT -> CUST_SAT	0.167	0.163	0.059	2.827	0.005
PRICE -> CUST_SAT	0.013	0.016	0.050	0.265	0.791

Variable	(O)	(M)	S D	T Statistics (OSTDEV)	P Values
PLACE -> CUST_SAT	0.139	0.131	0.062	2.239	0.026
PROMOTION -> CUST_SAT	0.081	0.081	0.034	2.413	0.016
PEOPLE -> CUST_SAT	0.104	0.111	0.048	2.154	0.032
PHYSICAL -> CUST_SAT	0.221	0.221	0.046	4.831	0.000
PROCESS -> CUST_SAT	0.295	0.296	0.062	4.751	0.000
PRODUCT -> CUST_LOY	0.234	0.229	0.051	4.628	0.000
PRICE -> CUST_LOY	0.082	0.083	0.041	1.974	0.049
PLACE -> CUST_LOY	0.137	0.129	0.062	2.220	0.027
PROMOTION -> CUST_LOY	0.113	0.116	0.035	3.248	0.001
PEOPLE -> CUST_LOY	0.039	0.047	0.049	0.802	0.423
PHYSICAL -> CUST_LOY	0.046	0.042	0.041	1.101	0.272
PROCESS -> CUST_LOY	0.120	0.123	0.057	2.122	0.034
CUST_SAT -> CUST_LOY	0.256	0.257	0.099	2.572	0.010

Source of Data; Processed in the Author's Observation 2024

Table 8. displays the output of the mediation test that indicates the mediating role of customer satisfaction (CUST\_SAT) in the relationship of product, price, place, promotion, people, physical evidence, and process to customer loyalty (CUST\_LOY). Here is how to read the test results:

- 1) PRODUCT -> CUST\_SAT -> CUST\_LOY: As shown by the t-statistic value of 1.807 and p-value of 0.071 (> 0.05), customer satisfaction is not a significant mediator on the effect of the product on customer loyalty.
- 2) PRICE -> CUST\_SAT -> CUST\_LOY: the t-statistic value of 0.261 and p-value of 0.794 (> 0.05) indicate customer satisfaction does not significantly mediate price effects on customer loyalty.
- 3) PLACE -> CUST\_SAT -> CUST\_LOY: the t-statistic value is 1.402 and p-value 0.162 (> 0.05), meaning that since the results value is >0.05 so we indicate that CUST\_SAT can\cannot significantly mediate the influence of PLACE on CUST\_LOY.
- 4) PROMOTION -> CUST\_SAT -> CUST\_LOY: The t-statistic value of 1.603 and p-value of 0.110 (> 0.05) indicates customer satisfaction cannot significantly mediate the effect of promotion on customer loyalty.

- 5) PEOPLE -> CUST\_SAT -> CUST\_LOY: t-statistic value of 1.637 and p-value of 0.102 (> 0.05) confirms that customer satisfaction does not significantly mediate the influence of people on customer loyalty.
- 6) PHYSICAL -> CUST\_SAT -> CUST\_LOY: The 2.306 t-statistics value and 0.021 p-value (CUST\_SAT -> CUST\_LOY: Its t-statistic value 2.558 and p-value 0.011 (<0.05) show that customer satisfaction could significantly mediate process on customer loyalty.

Overall, customer satisfaction only mediates the significant relationship of physical evidence and process with customer loyalty, the mediation analysis results for product, price, place, promotion, and people were not significant only between the dependent variable of customer loyalty.

**Table 8**  
**Mediation Test Results**

Variable	(O)	(M)	STDEV	STDEV	P Values
PRODUCT -> CUST_SAT -> CUST_LOY	0.043	0.043	0.024	1.807	0.071
PRICE -> CUST_SAT -> CUST_LOY	0.003	0.003	0.013	0.261	0.794
PLACE -> CUST_SAT -> CUST_LOY	0.035	0.037	0.025	1.402	0.162
PROMOTION -> CUST_SAT -> CUST_LOY	0.021	0.021	0.013	1.603	0.110
PEOPLE -> CUST_SAT -> CUST_LOY	0.027	0.028	0.016	1.637	0.102
PHYSICAL -> CUST_SAT -> CUST_LOY	0.057	0.056	0.025	2.306	0.021
PROCESS -> CUST_SAT -> CUST_LOY	0.075	0.074	0.029	2.558	0.011

These findings contribute to a better understanding of the role of the marketing mix in shaping patient satisfaction and loyalty in the context of RSIA Restu Ibu Sragen's inpatient services. This part explains the interpretation of the findings that correlates it with relevant theories and justifies the emergence of results. The conversation structure is about the direct relationship between marketing mix and customer satisfaction and loyalty, then followed by customer satisfaction mediation.

A positive relationship between product and customer satisfaction (CUST\_SAT) is expected, as previous research highlights the direct link between healthcare product and service quality and patient satisfaction (Liu et al., 2020; Pendergast et al., 2021). In inpatient services, the product is both the health services and treatments provided to the patient as well as the totality of the experience of the patient during a hospital stay. Patients have a right to expect high-quality care that includes not only effective treatments but also compassionate and attentive service from healthcare providers. Research of this nature supports many branches of this theory, SERVQUAL, which states that service quality (one of the five dimensions in the model as the product dimension) is essential to customer satisfaction (Parasuraman et al., 1988). These findings can be useful for healthcare providers as they strive for patients to have higher expectations regarding product and service offerings.

Notably, price did not affect patient satisfaction in this study. This finding is inconsistent with some prior research suggesting that healthcare costs can influence patient perceptions (Anderson et al., 2019). Yet the lack of a significant effect may reflect the nature of health care, particularly as it relates to inpatient care, where patients may care more about the quality of care, than the price. Patients may not evaluate the price of inpatient services against satisfaction directly, as they may be suffering from health problems. This finding corroborates the findings of Bowen and Jones (2019), who suggest that intangible aspects of care, such as the professionalism of medic team and the degree of individual attention, are often more important in regards to a patients concern with payments than cost alone.

In terms of accessibility and convenience, the positive impact of place (location) on customer satisfaction is well understood. The address is an important factor to draw the patients to arrive promptly to the hospital when any treatment procedure is required. Indeed, prior work has shown that patients are most likely to return to facilities closer to them (Fisher et al., 2021). The results also show that hospitals that are not only easy to get to but also located in more connected areas are linked to a more positive experience. This is consistent with concepts like the extended marketing mix for services, where 'place' has been identified as a direct driver of customer satisfaction (Bitner, 1992).

This means that promotion does not only refer to more marketing and PR, but rather, all the information that a hospital gives to potential customers about its services and the

benefits of receiving care there. Promotional activities: Promotional activities such as advertising and public relations are effective when it comes to promoting hospital services. Kim et al. (2019) positive promotion promotes patient satisfaction by providing patients with sufficient knowledge about the services available. In other words, the internal customers are the best ambassadors of the brand of the healthcare facility, therefore, it is essential for healthcare facilities to invest in their patients with better communication, aligning how much the service and management is provided by the organization.

The positive impact of individuals on overall customer satisfaction lends credence to the notion that healthcare staff, including doctors, nurses, and office staff, are a core part of the patient experience. However, the other job points referenced here also affect positive patient experiences in conjunction with healthcare teams and staff. Interactions between healthcare providers and patients have long been deemed a major contributor to patient satisfaction (Stein et al., 2020) In healthcare environments, this people dimension is especially important, where personal care and attention may be valued at least as much as, if not more than, medical expertise. The human side of care plays an important role in helping create a welcoming environment filled with compassion, greatly impacting patient satisfaction.

This finding that physical evidence affects customer satisfaction significantly is also consistent with previous studies emphasizing the importance of the tangible components of service delivery in the healthcare context (Kotler et al, 2017). Patients also be likely to what they see and the state of the healthcare facility. Thus, a pleasant and well-functioning environment is part of a feeling of comfort and safety that improves levels of satisfaction. Other physical evidence is medical equipment and other parts of the actual infrastructure of the facility, which patients rate as signs of the quality of the care they are about to receive.

Customer satisfaction is heavily influenced by process, so getting service delivery right to feel smooth and seamless is important. Processes in healthcare settings such as patient admission, treatment, discharge, and follow-up care require proper organization and patient-centered attention. A streamlined and transparent process is very important to reduce patient frustration and provide a positive experience. This is consistent with service operations literature, which posits that customer satisfaction is driven primarily through efficient

processes (Heizer & Render, 2017). All facilities should continually assess and refine their processes to be as lean and patient-centered as possible. Customer satisfaction has a substantial impact on customer loyalty according to one of the main discoveries of this study. This is following the general belief that satisfied customers are less likely to switch and will use the same service offered in the future (Oliver, 2014). In healthcare, patient loyalty is essential in that it ensures there is always a stream of patients, but it can also be influenced by anything from quality of care to hospital reputation, to the patient experience as a whole. Healthcare providers need to improve their patient experience at every touchpoint to ensure long-term loyalty.

### **Mediation of Customer Satisfaction**

In the mediation analysis performed in this study, customer satisfaction is shown to be a significant mediator in the relationship between some elements of the marketing mix (physical evidence and process) and customer loyalty. This mediation outcome aligns with established service marketing theories, e.g. the service-profit chain theory (Heskett et al., 1994), highlighting customer satisfaction as a fundamental factor connecting service quality and customer loyalty. In healthcare, patient satisfaction can be conceptualized as an emotional and cognitive assessment of their comprehensive encounter with a healthcare professional(s). It is a mirror of how a healthcare facility fulfills the needs of its patients, and that affects the availability of them to turn up again whenever needed. The results indicate that physical evidence and process are the most important factors impacting patient satisfaction, which directly impacts patient loyalty. How patients perceive their interactions with the healthcare facility is fundamentally influenced by the physical evidence, which comprises the environment perceived by a patient (Berry, 2000). Patients tend to make quality judgments from what they can see, feel, and experience – the so-called proximal elements and these perceptions may seriously impact their overall satisfaction. This is consistent with "servicescape" (Bitner, 1992), where the created physical environment impacts customers' interactions and satisfaction.

Interestingly, however, the process capturing the ease and speed at which the service was delivered—had a significant impact on patient satisfaction. In the context of the health service, efficient service processes lead to positive patient experiences that translate into

loyalty (Zeithaml et al., 2006). This is especially important when it comes to healthcare, where patients frequently endure stress and discomfort. When processes are efficient and streamlined it reduces these negative feelings which creates higher satisfaction and can in turn lead to higher loyalty. The mediation analysis also revealed that product, price, place, and promotion were not significantly mediated by customer satisfaction to patient loyalty. This indicates that these factors of the marketing mix are closer to the patient decision-making process and influence their loyalty more directly than others. It means the combination of product (here healthcare services), place (facility) and promotion (advertising, communication) factors and price (value for money) can act as an antecedent of loyalty without customer satisfaction acting as a mediator (Hadyan et al., 2021). In summary, these variables, while important contributors to overall patient satisfaction, played a more significant role in terms of loyalty indeed, likely due to their tangible and readily observable content.

After all, the cost of healthcare services is one of the key criteria defining whether patients return or refer to the healthcare institution. The price should be set at such level that is perceived by the patients as reasonable for the value gained, which in turn makes them more satisfied with the healthcare service, and consequently most likely loyal (Keller, 2003). Aside from that, the place of a healthcare center is one of the significant reasons affecting delight and loyalty. Conveniently positioned as well as conveniently available premises improve a patient's tendency to use the service again in the future. Patient perceptions and loyalty are also directly influenced by promotions and advertising. Promotions raise awareness, attract new patients, and encourage existing patients to continue with the same healthcare provider (Kotler et al., 2015) Although this marketing mix should bring satisfaction to the patients, their direct and tangible effects are mainly decisive in bringing patient loyalty.

### **Theoretical Implications**

These findings provide significant contributions to the theoretical framework of customer loyalty for healthcare services. Second, the fact that customer satisfaction mediates the physical evidence, process, and its effect on loyalty is evidence in favor of the customer satisfaction theory (Oliver, 1999), which claims that satisfaction is critical in predicting

loyalty. Thus, this study argues that patient satisfaction is not only used to assess healthcare delivery but also contributes to service quality as an outcome variable and fulfills a mediating role by strengthening or weakening the impact of service quality aspects on loyalty. Additionally, for the relationship between other marketing mix elements (product, price, place, and promotion) and customer loyalty not being mediated, it might indicate that these factors are more directly related to customer behavior. This is following the direct-impact theory of customer loyalty that analyses how brand attributes directly affect customer decisions (Dick & Basu, 1994). This implies that healthcare providers should not only concentrate on improving patient satisfaction but also take into consideration the more immediate and tangible aspects of the marketing mix influence on patient loyalty in a direct way.

### **Practical Implications**

From a practice perspective, the results indicate that healthcare service providers need to focus more on the physical appearance and process of the medical services to increase patient satisfaction, which, in turn, will generate higher patient loyalty. With the numerous healthcare accessible, the healthcare suppliers should work on the factors and surroundings you might be offering the healthcare amenities. Moreover, the optimization of service processes like wait times, satisfactory patient flow, and administrative processes can play an essential role in enhancing the patient experience, contributing to increased patient satisfaction and loyalty. It is also important for healthcare providers to keep in mind that price, product, place, and promotion are able to impact loyalty without customer satisfaction acting as a mediator. Attracting new patients and keeping existing patients returning requires competitive pricing strategies, strategic location selection, and effective promotional campaigns. Both can function as strong drivers of patient loyalty in their own right, independent of any further mediation by customer satisfaction. Also, healthcare delivery, NGOs, and other service-providing organizations should utilize satisfaction tools that assess satisfaction, like surveys, feedback collection, or business needs in the evaluation process for their service provision. Regularly measuring patient satisfaction is important for healthcare institutions because it helps them pinpoint areas for improvement and implement strategies

that improve the overall patient experience. As a result, this will translate into greater patient loyalty and long-term success.

Although this paper offers important insights into the mediating role of customer satisfaction, several limitations must be acknowledged. First, this study is limited to this hospital (RSIA Restu Ibu Sragen), so its generalization to other hospitals is limited. Future studies should expand their samples with multiple healthcare institutions from separate regions to better the external validity of results. Moreover, this study used quantitative methods, which are well-suited for establishing causal relationships but may not explain the intricate phenomenon of patient loyalty and satisfaction. A qualitative study such as in-depth interviews or focus groups might help better understand influences on patient satisfaction and loyalty, which can help improve healthcare marketing strategies. Finally, future research could also examine the role of other potential mediators, like perceived value or trust, in the link between the marketing mix and patient loyalty. It may be, thus, to offer a more complete understanding of the elements that determine patient loyalty in the healthcare context.

## **CONCLUSION**

This provides evidence that patient satisfaction is an important mediator in the media on the relationship between some parts of the marketing mix, especially for physical evidence and process, on patient loyalty. This finding echoes the customer satisfaction theory asserting that satisfaction mediates the service quality-customer loyalty relationship. Those who had positive perceptions of the hospital's service processes and its structure reported higher patient satisfaction, which plays a role in increasing loyal patient numbers. Yet, this study also found evidence supporting other aspects of the marketing mix, like product, price, place, and promotion, affecting patient loyalty which did not include satisfaction as a mediator. This result indicates that although these factors drive patient satisfaction, their influence on loyalty is more immediate and direct.

There were some limitations to this study as the used a sample was limited to a single health facility, limiting the generalisability of the results. Thus, it is suggested to conduct additional researches by covering more samples in various health facilities across multiple regions to enhance the external validity of the outcome. Moreover, future study could employ

qualitative methods to explore reasoning behind patient satisfaction and loyalty, and uncover other factors that may have an impact on the patient loyalty. The past decade or more has witnessed a growing number of advanced research agendas with healthcare marketing, not only in the area of customer related aspects, but also in the wider areas of integrated patient service delivery systems, and patient cooperation and collaboration with healthcare providers (Ng, & Smith et al., 2013; Aaker et al., 2010). Further research also required to find out other mediators e.g. perceived value, or trust would be more significant mediating variable, that provide a holistic view of variables that are influencing patient loyalty in healthcare domain.

#### **Author contribution**

Indah Sri Astuti: Conceptualization, methodology, data collection, analysis, original draft writing. Burhannudin Ichsan: Data collection, data analysis, review and editing of the manuscript. Muzakar Isa: Methodology, writing and revising the manuscript and supervision of overall research process.

#### **Declaration of Competing Interest**

There are no conflicts of interest declared by the authors in relation to this study. This research was performed with no commercial or financial interests that could be perceived as potential influence on the research results.

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