

***The Effect of Marketing Mix on Patients' Satisfaction and Loyalty
in Hospital Inpatients***

Catherine Budiman, Hendra Achmadi**

**Faculty of Management, Universitas Pelita Harapan*

**email: catherinebudiman@gmail.com*

ABSTRACT

Hospital is a medical institution that provides comprehensive individual health assistance through continuous service quality improvement and active marketing management. To handle global competition, this institution needs to consider marketing, which should emphasize a patient's needs, wants, and demands. In this case, the most universal and popular concept is the marketing mix, which is a set of tools capable of influencing patients' satisfaction and loyalty. By using the 4P (product, price, place, and promotion), this marketing concept is found to affect the satisfaction and loyalty level. Therefore, this study aimed to examine the effects of the marketing mix on patients' satisfaction and loyalty. This quantitative and hypothetical analysis obtained data from 165 Siloam Hospital Lippo Village inpatients, by filling out online questionnaires and processing the information through the PLS-SEM technique. The results showed that the 4P provided an R2 value of 0.519 for satisfaction as a mediating variable. This variable successfully and positively influenced loyalty at an R2 value of 0.499 and mediated the impact of the independent determinant. The 4P also significantly and positively affected satisfaction, which then affected loyalty relevantly and affirmatively.

Keywords: *Marketing Mix, Patients' Satisfaction, Patients' Loyalty*

INTRODUCTION

Hospital is an essential part of the health system's development and a platform for treatment coordination and integration. This medical institution often organizes several activities, to educate doctors, nurses, and other health professionals about healthcare management. According to healthcare delivery organizations and each hospital's specific role in the system, the functions and organizational structure of the medical institutions varied

significantly. To provide high-quality care, a good management structure needs to ensure coordination between the employees, services, infrastructure, and supply chain.¹ Based on the Indonesian Health Profile (2021), the number of hospitals within the country was continuously increasing. In this case, a total of 3,042 medical institutions were observed, with 2,522 and 520 being General and Specialist Hospitals, respectively.² This shows that the hospital

institution in Indonesia is increasingly experiencing intense competition, with each institution attempting to retain old customers (patients) and compete to obtain new ones.

To handle global competition, hospitals need to consider marketing, which should emphasize customers' needs, wants, and demands. In this case, the most universal and widely developed concept is the marketing mix, which contains the 4P, namely product, price, place, and promotion.³ This marketing strategy is observed to often add value to customers' experience and satisfaction.⁴ From this context, a hospital need to be able to adjust its marketing mix to the requirements and desires of patients, to achieve satisfaction and ultimately improve loyalty.⁵ This accumulation of loyalty is very crucial for the survival and growth of a medical institution.⁶ Regarding this concept, the loyalty of patients is based on the satisfaction levels, which are also positively influenced by the perceptions of service quality in the healthcare institution. In this process, patients are declared satisfied when the services match the expectations.⁴ This indicates that the development of patients' satisfaction often leads to the establishment of loyalty and forms word-of-mouth recommendations beneficial to the hospital.⁷

According to Sudari, the marketing mix variables (4P) positively influenced patients' satisfaction.³ This explained that their satisfaction levels with the service quality of hospital led to the emergence of loyalty.⁸ In some empirical analyses, satisfaction directly influenced the intention to revisit medical institution.⁹ Putu also indicated that patients' loyalty increased with the satisfaction levels influencing the retention and acquisition of old and new patients.¹⁰ From this context, the increasing number of visits was a determinant for the survival of a hospital during related industrial competition. Based on these descriptions, the medical institution managers need to concentrate on

all service aspects affecting patients' satisfaction.

Therefore, this study aims to examine the effects of the marketing mix on patients' satisfaction and loyalty. In this study, the implemented model was empirically tested on hospitalized people. The model developed by Sudari et al. was also adopted, regarding the use of four independent variables, namely product, price, place, and promotion, with satisfaction then implemented as a mediating factor. Subsequently, the independent variable was tested for its effect on patients' loyalty, to obtain more outputs. Since this model has not been previously conducted in a hospital, the results obtained are expected to provide a new contribution to medical care services, which are related to satisfaction and loyalty development. Several integrations into hospital care management are also expected, regarding the improvement of more effective inpatient health services.

RESEARCH METHOD

This study categorized product, price, place, and promotion as the independent variables, with patients' loyalty and satisfaction observed as the dependent and mediating factors, respectively. The selected participants also emphasized the patients hospitalized in the Siloam Hospital Lippo Village. Furthermore, some mandatory criteria were implemented for the selection of participants, namely (1) people aged 18 years or older at the time of treatment, (2) ill individuals treated for at least one night, and (3) patients that were not family members of hospital staff. This cross-sectional, quantitative, and correlational study did not subsequently establish a cause-and-effect relationship between the analyzed variables. It was also a non-interventional report, indicating that no intervention was conducted on the selected participants. In addition, a 5-point Likert Scale was implemented,¹¹ with patients promoted to be more precise in conveying their agreement for each submitted statement.

The followings are the conceptual definitions and operationalization of the variables in this study. Firstly, product is the health services and beneficial activities provided to patients.¹² The indicators of this variable include PD1 = *Services provided by doctors are appropriate for the patients' need*, PD2 = *Services provided by nurses are appropriate for the patients' need*, PD3 = *Services provided by administrative officers are appropriate for the patients' need*, and PD5 = *Patients derive an explanation of the action plan obtained*.⁴ Secondly, price is the fees or rates that should be paid by patients after acquiring medical services.¹³ The indicators of this variable contain PC1 = *The hospital costs are worth the services provided*, PC2 = *The hospital costs are reasonable*, and PC3 = *Service fees are informed in print/electronic media*.⁴ Thirdly, place is the location where the hospital services are provided.¹³ The indicators of this variable include PL1 = *The hospital location is in a strategic area*, PL2 = *The hospital location is not far from the patients' residence*, PL3 = *The hospital location is not far from the patients' workplace*, and PL4 = *The hospital location is easily accessible by public transportation*.¹⁴

Fourthly, promotion is the form of communication used to provide information and persuades/attract people's empathy.¹² The indicators of this variable include PM1 = *The promotions performed by the hospital are helpful for people in need*, PM2 = *I obtain information about hospital services through print and electronic media*, PM3 = *I obtain information about hospital services through the administration officer*, and PM4 = *I obtain information about hospital services through family/other people*.⁴ Fifthly, patients' satisfaction is the occurrence prioritizing the comparative analysis between the services obtained and their expectations.¹⁵ The indicators of this variable contain SAT1 = *I am satisfied with the service quality*, SAT2 = *I am satisfied with the service price*, SAT3 = *I am*

satisfied with the hospital promotion, SAT4 = *I am satisfied with the hospital environment*, and SAT5 = *I am satisfied with the service process*.⁴ Sixthly, patients' loyalty is the intentional attitude portrayed toward the continuous use of services for the long term and its recommendation to other people.¹⁶ The indicators of this variable include LOY1 = *I have the desire to continue obtaining health services at this hospital*, LOY2 = *I prefer this hospital to other medical centres*, LOY3 = *This hospital is my first choice in seeking treatment and health services*, and LOY4 = *I will recommend this hospital to others*.¹⁷

The selected population and sample emphasized all the hospitalized patients at Siloam Hospital Lippo Village, Indonesia, with the sampling data obtained in September 2022. To calculate the number of samples needed in an unknown population, a balanced formula was implemented, with a minimal approach adopted for the Partial Least Square-Structural Equation method.¹⁸ By using the inverse square root method, the PLS-SEM modelling from Kock & Hadaya required a minimum sample of 160 participants, to provide optimal outputs. In this present study, the number of samples that met the requirements was 165 participants, through a random sampling method.

One of the mandatory criteria prioritized hospitalized patients or their families obtaining inpatient care. Furthermore, a link invitation to an online questionnaire was immediately transmitted to the participants after meeting the requirements and agreeing to participate in the experiment. Since the proposed experimental model was quite complex and used latent variables/constructs, a multivariate analysis was then implemented for data processing.¹¹ In this analysis, a total of six variables with five paths and one mediator was observed, indicating the necessity to use an analytical technique capable of evaluating the effects of multiple determinants on the dependent factor. Therefore, the multivariate analysis method

was selected using the variance-based PLS-SEM technique.

	Outer Loading
SAT2	0,821
SAT3	0,781
SAT4	0,805
SAT5	0,761

RESULT AND DISCUSSION

This quantitative study explored the effects of product, price, place, and promotion on the loyalty of Siloam Hospital Lippo Village patients. From this analysis, a total of 165 participants were willing to participate in the September 2022 survey.

Based on Table 1, all indicators had reliable values for measuring the construct, proving that the outer loading coefficient was greater than 0.708 as the required limit.²⁰ This showed that all the implemented indicators were reliable for the measurement of the construct.

Table 1. Outer Loading

	Outer Loading
LOY1	0,760
LOY2	0,843
LOY3	0,810
LOY4	0,925
PC1	0,786
PC2	0,938
PC3	0,891
PD1	0,859
PD2	0,924
PD3	0,927
PD5	0,927
PL1	0,902
PL2	0,924
PL3	0,813
PL4	0,921
PM1	0,849
PM2	0,916
PM3	0,817
PM4	0,861
SAT1	0,719

Table 2. Construct Reliability

	Composite Reliability	Average Variance Extracted (AVE)
Patients' Loyalty	0,903	0,700
Patients' Satisfaction	0,885	0,606
Place	0,939	0,794
Price	0,906	0,764
Product	0,950	0,828
Promotion	0,920	0,742

In Table 2, all the indicators were declared reliable and valid for measuring the construct, with the composite reliability values ranging from 0.7 to 0.95. As required, the average variance extract (AVE) on all variables was also greater than 0.50.²⁰

Table 3. Discriminant Validity

	Patients' Loyalty	Patients' Satisfaction	Place	Price	Product	Promotion
Patients' Loyalty						
Patients' Satisfaction	0,827					
Place	0,344	0,496				

	Patients' Loyalty	Patients' Satisfaction	Place	Price	Product	Promotion
Price	0,626	0,683	0,375			
Product	0,516	0,504	0,415	0,389		
Promotion	0,548	0,653	0,451	0,431	0,400	

From Table 3, the discriminant validity test was observed, where the heterotrait-monotrait ratio (HT/MT) value of each variable was less than 0.9. This indicated that all indicators in the experimental model were appropriately discriminated against for the measurement of their respective constructs. In this case, each indicator accurately or precisely measured its construct.

This experimental model had six variables with five paths marked as arrows, to describe the study hypothesis. Figure 1 shows an overview of the hypotheses and model, which was adopted from the previous analysis.³ In this process, loyalty was the dependent variable influenced by patients' satisfaction as a mediating factor. Meanwhile, product, price, place, and promotion were the antecedents affecting the overall satisfaction levels.

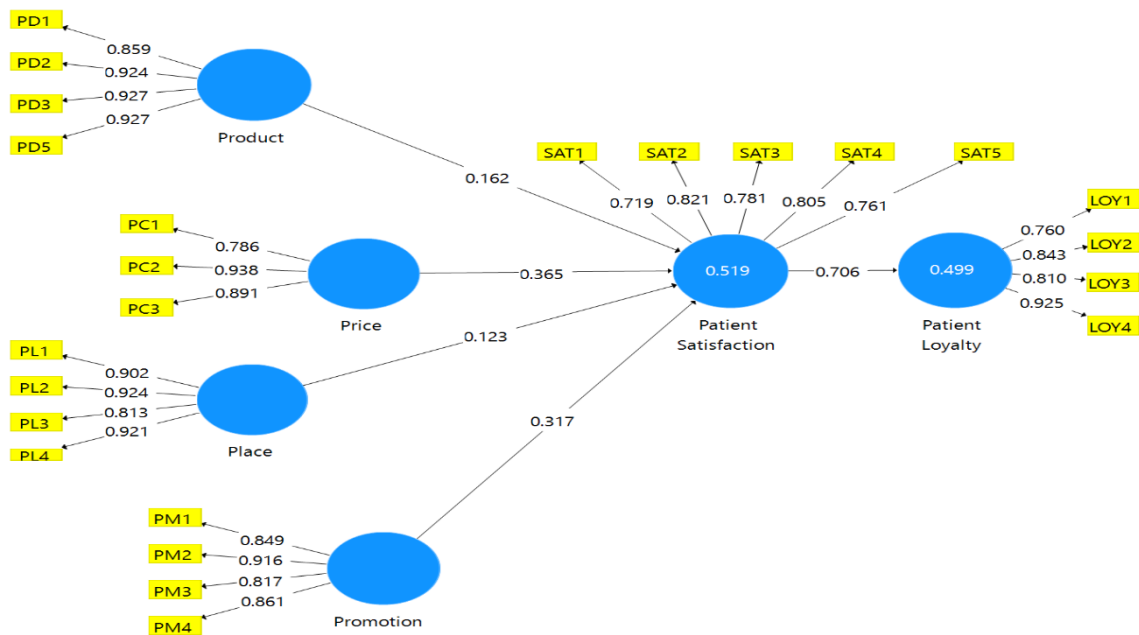


Figure 1. R²

Based on Figure 1, product, price, place, and promotion provided an R² value of 0.519 to patients' satisfaction as a mediating variable. This mediator successfully and positively affected patients' loyalty with an R² value of 0.499

and mediated the effect of the independent variable. This result aligned with a previous report, where overall patients' satisfaction increased the loyalty level.³

Table 4. Hypothesis Test

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Patients' Satisfaction -> Patients' Loyalty	0,706	0,712	0,049	14,436	0,000
Place -> Patients' Satisfaction	0,123	0,122	0,060	2,054	0,020
Price -> Patients' Satisfaction	0,365	0,359	0,061	6,001	0,000
Product -> Patients' Satisfaction	0,162	0,168	0,061	2,644	0,004
Promotion -> Patients' Satisfaction	0,317	0,322	0,074	4,302	0,000

According to Table 4, all the significant and positive coefficient values complying with the suggested hypothesis were observed. This showed that the product significantly affected patients' satisfaction, with a p-value of 0.004. Products or services are often provided to customers by traders or companies, for continuous patronization and requests. In hospitals, the products provided are in the form of services, ranging from preventive, diagnostic, and therapeutic activities to other duties.²¹ This result aligned with a previous report, where a good product led to consumers' satisfaction due to their desires. From this context, customers often assumed that the services provided were maximized with a complete product.²² Besides doctors, the services provided by nurses were also very important because of their frequent face-to-face contact with patients. In this case, most patients were very comfortable and satisfied with their friendly services.²³

Based on the results, price significantly influenced patients' satisfaction, with a p-value of 0.000. Price or cost is a factor that relevantly affects the interest in public health services. This factor is the amount of money buyers need to spend to claim, buy, or use various goods and services presented by a company. Moreover, the pricing strategy for a product

produced often affects customer decision-making in purchasing.¹² In a hospital, price is the total cost patients need to spend to obtain medical services.²¹ This result was supported by a previous study, where the price of quality treatment attracted a person to select a specific hospital. From this context, the service fees need to be adjusted to the existing facilities.²²

In Table 4, a place also significantly affected patients' satisfaction, with a p-value of 0.020. For service institution, a place is the location where appropriate assistance is provided to patients, depending on their best modes of delivery and areas. From this description, the location of the facility is very essential in determining the success of a service.²¹ This result was in line with a previous analysis, where the hospital's strategic location increased patients' satisfaction, due to being publicly known and accessible, as well as having a comfortable and spacious parking lot.²⁴

According to the results, promotion significantly influenced patients' satisfaction, with a p-value of 0.000. Promotion is the most important part of the company's marketing mix strategies, which is a communication activity suggesting and influencing buyers to buy specific products. This focuses on persuading the buyers toward being aware of the products or

services provided by the company. Promotion is also the last activity that displays the mix, due to being the most capable pattern implemented to attract and retain buyers. Furthermore, the presentation of all kinds of goods/services and the attraction of buyers are part of the promotional objectives within the country.¹² This result was supported by a previous report, where better promotion perception caused the increased elevation of patients' satisfaction levels, compared to the poor marketing perspectives.¹⁵

From the results, patients' satisfaction significantly affected loyalty, with a p-value of 0.000. Satisfaction is a person's perception of a product's performance after several expected comparisons. This variable is the level where product performance matches customers' expectations.¹⁰ These results were in line with a previous report, where a higher level of satisfaction led to more patients' loyalty. In addition, positive word-of-mouth about hospital services and a desire to reuse them was the most considerable loyalty assessment.²⁵

CONCLUSION

Based on the results, product, price, place, and promotion significantly and positively affected patients' satisfaction. Subsequently, this satisfaction level relevantly and positively influenced patients' loyalty. These results showed that hospitals increased satisfaction by completing medical support facilities, reducing service fees, maintaining environmental cleanliness, as well as improving the attitude and communication of officers and doctors. From these descriptions, subsequent analysis is required to identify other mediating variables, such as trust and commitment. These variables need to be highly influential on loyalty and other related factors enhancing quality hospital services.

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