Marketing Mix 7P Application to Increase Patient Re-visits

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Keywords: Hospital, Marketing Mix, Visit Rate.

Abstract: Started from the many phenomena of patient dissatisfaction with the services provided, every hospital must design the best possible service marketing program. For this reason, it is necessary to have a tool or design so that the products offered by the hospital get more response from the target market. The intended design was the marketing mix (7P). Marketing mix is a set of marketing tools that can be used by companies to achieve marketing objectives in the target market, besaides that consumers or satisfied patients will tend to use these service providers again. This study aims to see the extent of the effect of marketing mix (7P) on increasing patient return visits. This type of research used in this study was a type of quantitative survey, using a cross-sectional approach. The population in this study the outpatient services, with a total sample of 82 respondents. The method of data analysis uses logistic regression analysis. The analysis showed that the marketing mix variable had an effect of 70.65% on the increase in patient visits. These results indicate that the marketing mix (7P) has proven to be very helpful for hospitals in increasing the number of patient visits.

1 INTRODUCTION

In recent years business in the health service sector, especially hospitals in Indonesia, has grown very rapidly. The emergence of various private hospitals in big cities to remote areas with various marketing models offered, some are individualized, networked hospitals, to hospitals that are internationally labeled. In its publication, if in the past it was very rare to find a hospital that carried out promotional activities in the mass media, but now there are many large hospitals in Indonesia, especially in the Capital City that really use print, radio and television as a means of their promotion (Setiawan, 2011).

Marketing focuses on the basic practices that every hospital should do by identifying customers, examining patient needs and preferences, analyzing factors that influence purchasing decisions and persuading patients to buy products and services from hospitals rather than competitors. All this requires a strategy that is coordinated, considered, and realistic in terms of making the most effective use of resources and budgets. Planning a marketing strategy starts with a detailed and ongoing investigation of the market and its sub-markets or segments.

The hospital should need to design a marketing program so that the product gets more response from the target market. Therefore it is necessary to have a tool or design so that the program can achieve its goals. The design intended here is a program that can be controlled by the organization, the design is often referred to as a marketing mix (7P). The elements of service marketing consist of seven elements, namely: product, price, promotion, place, people, process, and physical evidence (Lupiyoadi, 2011). Kotler (2015) argues that the marketing mix is a set of marketing tools that can be used by companies to achieve marketing objectives in the target market, besides that customers or satisfied patients will tend to use these service providers again.

With the development of private hospitals, of course there is competition between private hospitals and government-owned hospitals. A hospital must retain patients and snatch from its competitors. Hospitals that do not want to make the latest innovations and do not improve the quality of services will sooner or later be left behind by the health service user community (Turnip et al, 2020; Wijaya et al, 2019).

The initial survey results that have been conducted by researchers, found the level of general patient visits in hospitals moving fluctuatively every year. That is because more and more private hospitals have services with higher attractiveness compared to government-owned hospitals. Some of the patient's assumptions about the product (service) at the

Tarihoran, U., Girsang, E., R. Nasution, S. and Ginting, C.
Marketing Mix 7P Application to Increase Patient Re-visits.
DOI: 10.5220/0010287400730079
In *Proceedings of the International Conference on Health Informatics, Medical, Biological Engineering, and Pharmaceutical (HIMBEP 2020)*, pages 73-79
ISBN: 978-989-758-500-5
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hospital provided are still unsatisfactory. In terms of determining the price (price) provided, some say satisfactory and some say less satisfactory because it is not in accordance with the services provided. In terms of the place given some patients consider the location to be quite strategic and easy to reach.

Different things are shown in terms of promotion (promotion) which according to patients is lacking, because some patients think they have never seen or heard of any promotional activities carried out by the hospital. Viewed from the aspect of the process (process), patients assume registration or registration must wait a while so that patient handling is usually slow. In terms of people / HR (people), some patients think it is good enough but there are some assumptions regarding medical and non-medical personnel who provide less friendly services or lack empathy towards patients or visitors. Furthermore, in terms of service in terms of physical appearance (physical evidence) is considered to be quite good, but the parking area is less extensive so many patients complain about it.

The survey findings indicate that the concept of marketing carried out in hospitals is still not running optimally. In fact, if marketing is carried out properly, it will be able to increase patient satisfaction, which continues to form patient loyalty so that patients will always choose the hospital as their primary health facility. Departing from these phenomena and problems, researchers felt interested in conducting a deeper study of "Marketing Mix 7p on increasing patient return visits".

2 METHOD

The design in this study is quantitative with a cross-sectional approach. The study was conducted at Dr. R.M. Djoelham City of Binjai in July-September 2019. The population in this study were 82 patients who were hospitalized. Samples were taken using accidental sampling technique, with the inclusion criteria of patients who were undergoing hospitalization when collecting data, did not have a communication disorder and were willing to be respondents.

Primary data collection is done by using questionnaires and interviews. Interviews were conducted based on a questionnaire that had previously been tested for validity and reliability. In this research, the independent variable is the marketing mix which includes 7 indicator variables, namely product, price, place, promotion, resources, and physical appearance. For the dependent variable is the level of patient return visits.

Evaluation of answers in research using the Guttman scale, this scale developed by Louis Guttman is a scale that requires firm answers from respondents, such as yes or no, true or false, ever or never, and others. The Guttman scale is used if you want to get a firm answer to a research question (Sugiyono, 2014). In the answers are converted into percent. If the answer is yes given a score of 1 = 1 x 100% = 100%, while the answer is not given a score of 0 = 0 x 0% = 0%. To anticipate the measurement results that are not absolute 100% or 0%, the researchers used a range of percentage scales. The percentage range in this study is <70% which means no role and> 70% is meant to play a role (Sugiyono, 2014).

Next, the data were analyzed using the chi-square test to see the relationship between the independent variables and the dependent variable. Followed by logistic regression tests to see the effect of the entire independent variable on the dependent. The research scheme can be seen in Figure 1.

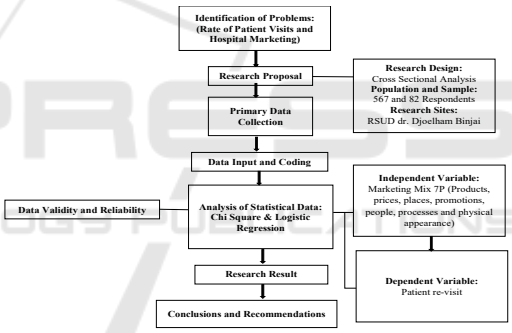

Figure 1: Scheme of Research Process Result

2.1 Validity and Reliability

Validity test shows the extent to which a measuring device can measure what will be measured. While the data reliability test is an instrument test used to state the level of confidence of the instrument so that it can be used as a data collection tool. Calculations are made using the product moment correlation formula then compare the correlation values or r arithmetic of the research variables with r tables.

The results of the validity test of each question item have a value> 0.361 so that all questions on this questionnaire were declared valid. Based on the results of the validity of this research questionnaire, all statements in each variable were declared to have been valid. In the reliability test results, if the Cronbach alpha value of> 0.60 is obtained, the questionnaire is considered to be reliable and can be

distributed to respondents to be used as research instruments. Based on the results of the reliability test, it was known that all variables have the value of r results> r table so it can be concluded that the instruments used in this study are reliable.

2.2 Univariate Analysis

Univariate analysis basically aims to describe each variable including respondent characteristics, independent variables and dependent variables using the frequency distribution table. Frequency distribution of respondent characteristics based on demographic data which includes gender, age, education, occupation and income. Based on its characteristics, from 82 respondents observed the majority of respondents are female, that is 48 people (58.5%), aged> 40 years there were 74 people (90.2%), there are 26 types of entrepreneurial jobs (31.7%), with income> Rp. 3,000,000 there are 63 people (76.8%). (See Table 1).

Table 1 Characteristics of Respondents

No	Characteristics	n	%
1	**Sex**		
	Female	48	58,5
	Male	34	41,5
2	**Age**		
	≤40 years old	8	9,8
	>40 years old	74	90,2
3	**Level of education**		
	High School	54	65,9
	College	28	34,1
4	**Type of work**		
	Government employees	22	26,8
	Entrepreneur	26	31,7
	Housewife	13	15,9
	Other types of work	21	25,6
5	**Income**		
	≤ Rp. 3.000.000	19	23,2
	> Rp. 3.000.000	63	76,8

While the product variable as many as 61 people (74.4%) rated good, as many as 66 people (80.5%) rated the price good, as many as 64 people (78.0%) rated the place as good, 48 people (58.5%) rated promotions as not good, as many as 66 people (80.5%) rated people as good, 49 people (54.9%) rated the process good, 67 people (81.7%) rated good physical appearance and 58 people (70.7%) rated high return visits. (See Table 2).

Table 2. Characteristics of Marketing Mix

No	Variabel	n	%
	Marketing Mix		
1	**Product**		
	Good	61	74,4
	Not good	21	25,6
2	**Price**		
	Good	66	80,5
	Not good	16	19,5
3	**Place**		
	Good	64	78,0
	Not good	18	22,0
4	**Promotions**		
	Good	34	41,5
	Not good	48	58,4
5	**Resources**		
	Good	66	80,5
	Not good	16	19,5
6	**Process**		
	Good	49	54,9
	Not good	33	40,2
7	**Physical appearance**		
	Good	67	81,7
	Not good	15	18,3
	Patient Visit Rates		
8	Good	58	70,7
	Not good	24	29,3

2.3 Bivariate Analysis

Analysis was performed using the Chi Square test with a significance level (α) = 0.05. The purpose of this analysis is to see whether there is a relationship between the independent variables (product, price, place, promotion, person / HR, process, and physical appearance) with the dependent variable (the level of patient visits). The results of the analysis can be seen in Table 3.

Table 3. Chi square analysis results

Marketing Mix	Patient Visit Rates				*p-value*
	High		Low		
	n	%	n	%	
Product					
Good	51	83,6	10	16,4	0,001
Not Good	7	33,3	14	66,7	
Price					
Good	52	78,8	14	21,2	0,001
Not Good	6	37,5	10	62,5	
Place					
Good	50	78,1	14	21,9	0,273
Not Good	8	44,4	10	55,6	
Promotions					
Good	30	88,2	4	11,8	0,015
Not Good	28	58,3	20	41,7	
Resources					
Good	15	93,8	1	6,2	0,190
Not Good	43	65,2	23	34,8	
Process					
Good	44	89,8	5	10,2	0,001
Not Good	14	42,4	19	57,6	
Physical appearance					
Good	55	82,1	12	17,9	0,004
Not Good	3	20,0	12	80,0	

In the product variable, of the 82 respondents observed, there were 61 respondents who rated the product as good with 83.6% of them in the high visit group, while the remaining 16.4% were in the low visit group. Furthermore, there were 21 respondents who rated the product not good with 66.7% of them in the low visit group, while the remaining 33.3% were in the high visit group. In the results of the analysis with chi square obtained p value of 0.001 <0.05, it can be interpreted that there is a significant relationship between product variables with the level of patient visits.

In the price variable, there were 66 respondents who rated the product as good with 78.8% of them in the high visit group, while 21.2% in the reverse group. Furthermore, as many as 16 people rated the product not good with 62.5% of them in the low-visit group, while 37.5% in the opposite group. The results of analysis with chi square obtained p value of 0.001 (p <α), it can be concluded that there is a significant relationship between the price variable with the level of patient visits.

Place variable, there were 64 respondents who rated the product as good with 78.1% of them in the high visit group, while 21.9% in the low visit. Furthermore, there were 18 respondents who rated the product not good with 55.6% of them in the low visit group, while 44.4% in the high visit. The results of analysis with chi square obtained p value of 0.273 (p> α), it can be concluded that there is no significant relationship between the place variables with the level of patient visits.

Promotion variable, there were 34 respondents who rated the product as good with 88.2% of which were in the high visit group, while 11.8% were on a low visit. Furthermore, there were 48 respondents who rated the product not good with 41.7% of them in the low visit group, while 58.3% in the high visit group. The results of analysis with chi square obtained p value of 0.015 (p <α), it can be concluded that there is a significant relationship between promotion variables with the level of patient visits.

The resource variables contained 16 respondents who rated the product good with 93.8% of whom were in the high visit group, while 6.2% in the low visit group. Furthermore, there were 66 respondents who rated the product not good with 34.8% of them in the low group, while 65.2% were in the high group. The results of analysis with chi square obtained p value of 0.190 (p> α), it can be concluded that there is no significant relationship between resource variables with the level of patient visits.

Process variable, there were 49 respondents who rated the product well with 89.8% of them in the high visit group, while 5 10.2% in the low visit group. Furthermore, there were 33 respondents who rated the product not good with 57.6% of whom were in the low visit group, while 42.4% were in the high visit group. The results of analysis with chi square obtained p value of 0.001 (p <α), it can be concluded that there is a significant relationship between the process variables with the level of patient visits.

Physical appearance variable, there were 67 respondents who rated the product well with 82.1% of them in the high visit group, while the remaining 17.9% were in the low visit group. Furthermore, there were 15 respondents who rated the product not good with 80.0% of them in the low group, while the remaining 20.0% were in the high group. The results of analysis with chi square obtained p value of 0.004 (p <α), it can be concluded that there is a significant relationship between physical appearance variables with the level of patient visits.

2.4 Multivariate Analysis

Multivariate analysis was carried out with the aim of finding out which independent variables most influenced the dependent variable. Variables that can be carried out by multivariate analysis were variables which on the results of bivariate analysis have p values <0.25. Multivariate analysis used was multiple logistic regression analysis with prediction models.

In Table 4 the final model of the effect of product, price, promotion, process, and physical appearance can be seen on the level of patient visits. The results show that all variables have a value of p <0.05. This means that all independent variables significantly influence the dependent variable.

Table 4. Analysis Results Logistic Regression

Variabel	B	S.E	Wald	Df	p *value*	OR
Product	0,215	1,101	2,701	1	0,001	3,203
Price	0,521	1,342	5,421	1	0,001	3,952
Promotion	0,286	0,981	6,245	1	0,020	3,409
Process	0,350	0,210	3,162	1	0,001	3,431
Physical Evidence	0,421	1,911	3,001	1	0,004	3,251

Prediction of the high level of patient visits that are influenced by the product, price, promotion, process, and physical appearance can be explained as follows: the product value of the regression coefficient (β) or OR is positive, meaning that the better the product has the opportunity to increase patient visits by 3,203 times higher when compared to less good products. In the price variable the value of the regression coefficient (β) or OR is positive, meaning that the better the price then the opportunity

to increase patient visits is 3.952 times higher than the unfavorable price.

In the promotion variable the value of the regression coefficient or OR is positive, meaning that the better the promotion has the opportunity to increase patient visits by 3.409 times higher when compared to promotions that were considered less good. In the process variable the value of the regression coefficient (OR) or OR was positive, by mean that the better the process has the opportunity to increase patient visits as much as 3,431 times higher when compared to the better process. In the physical appearance variable the value of the regression coefficient (β) or OR was positive, meaning that the better the physical appearance then the opportunity to increase patient visits about 3.251 times higher when compared to physical appearance which was considered less good.

3 DISCUSSION

3.1 Effect of Hospital Service Products on Patient Re-Visit

The results of the logistic regression analysis showed that the service products provided by the hospital had a significant effect on patient return visits. From the prediction results the value of the odds ratio is positive at 3.203. This means that the better hospital products or services a patient receives, the greater the chance of increasing patient visits 3 times higher when compared to hospital products or services. In hospital marketing, products are the main component which is defined as a set of services offered to patients. In general, the form of hospital products or services can be classified into line services (inpatient, outpatient, emergency, and operative actions), support services (laboratory services), and additional services that assist key services such as administrative services.

From the findings of researchers at the hospital, related to the service products offered by the hospital were considered good by the majority of patients. It is also known that the most prominent services of the hospital are access to emergency services and specialist services. Nearly 91.5% of patients, especially users of inpatient services, assess hospitals to be able to provide doctors who are competent in their fields. In addition to these primary services, at least 87.8% of patients rated the hospital as having adequate support services such as radiology laboratory services, medical rehabilitation and pharmacy that were fully available. This finding is also supported by the results of interviews with the majority of patients, that indeed the service offered by the hospital is the main reason for patients to choose the hospital as their health facility. So that, in the last few years the number of patient visits at the hospital was recorded to continue to increase especially at general patient visits. The same results were found in the research of Mohammadi (2018) & Zulhit (2019), that a company's service products directly influence the level of patient satisfaction.

3.2 Effect of Hospital Service Prices on Patient Re-visit

The next indicator that also significantly influences patient return is the price of hospital services. The results of logistic regression analysis showed a p value of 0.001 ($p < \alpha$) which means that there is a corresponding effect between the price of hospital care and patient visits.

Where of the 82 inpatients observed, there are 66 people assessing the price given according to 52 patients including patients with repeat visit status.

After the product, price is the most important element in hospital marketing. The price in question can not only be in the form of a tariff for one type of examination or service, but the total cost that must be incurred by the patient for the service he receives. The price that is affordable by the community will lead to a sense of satisfaction in patients so that they continue to choose the hospital as its primary health facility.

From the results of the questionnaire related to the price offered by the hospital services were assessed in accordance with the services provided to patients. Patients admit that the price of care is quite affordable with the ability of patients, both in terms of treatment services to the price of drugs in hospital pharmacies. In addition, researchers also found many patients feel happy because the hospital apparently also gave a period of payment for certain patients and provide relief for patients who are considered unable.

This is what makes many patients always choose the hospital if the patient or other family members of patients need hospital care. The same result was also found by Marlina (2018), where the suitability of prices had an impact on the return of customers using the services again.

3.3 Effect of Hospital Service Promotion on Patient Re-visit

From the analysis and interview results it is known that hospitals have conducted various forms of service promotion which are considered to have

contributed to the decision making of patients in choosing the hospital as a health facility. The form of promotion the hospital does among other things, it only provides information about services in the form of posters that are posted on each wall of the hospital building. Hospitals do not facilitate TV in every patient waiting room, where hospitals should be able to take advantage of these TV shows by displaying advertisements that contain information about health services provided by hospitals such as consulting services and caring services. Apart from inside the hospital building, promotion is also done through internet media (website) that can be easily accessed by every community. The website presents a special telephone number for customer service so that patients can easily ask questions, submit suggestions or complaints. Some patients admit, promotion efforts undertaken by the hospital did not attract the attention of patients, so that service information is not delivered optimally. Zulhit (2018) also found interesting promotional activities can attract more customers.

3.4 Effect of Hospital Service Process on Patient Re-visit

As with service products, the service process is also a major factor in the service marketing mix. Based on the results of logistic regression analysis showed a p value of 0.004 ($p < \alpha$), this means that there is a significant influence between the hospital service process on patient visits. The hospital service process starts from providing information to customers, registration, examinations, supporting examinations, and payments to referrals to other hospitals. Known at the hospital under study, the service process has a clear flow and is not too confusing to the patient. As much 98% of patients rated the process of receiving ER very satisfying, this was seen from patients who came immediately handled quickly and precisely. Likewise, when patients are hospitalized, the nurses work systematically and on time. However, in some service processes it is still considered to be less than optimal by some patients, such as doctors who are often late for examinations and patients who are too long waiting to receive drugs from hospital pharmacy officers. From these complaints, it is important for the hospital management to improve and evaluate every service process so that patients are always satisfied so that they will be loyal to the hospital. The same result was also revealed by Novela (2018), that the service process that was easy for customers to understand would be more satisfying to customers and increase the selling value of service products.

3.5 Effect of Hospital Service Physical Evidence on Patient Re-visit

The last marketing mix factor that also affects the patient's return is the physical appearance of the hospital. The physical building of a hospital is a tangible form that can be directly seen by patients. The appearance of the hospital's physical building is considered to have influenced the patient's decision to use the products offered. The important elements relating to the physical appearance of a hospital building include, the physical environment, in this case the physical building, equipment, equipment, logos, colors and appearance of employees and health workers while on duty at the hospital. In the hospitals studied, the majority of patients rated the cleanliness of the treatment room very awake. The room is equipped with facilities such as a comfortable and safe bed, neat curtains, a clean toilet and a functioning air conditioner. Also visible is the well-organized hospital garden, this provides comfort for visitors. Mohemmedi's research results (2018) prove that the physical appearance of a good company, also contributes to customer decisions that have an impact on increasing the number of customer visits.

4 CONCLUSIONS

Based on the results of the analysis it can be concluded that the implementation of marketing mix at the hospital has a significant effect to an increase in patient return visits. The most influential indicators include, hospital products, prices, promotions, processes and physical appearance. Some idea conclusions obtained by researchers include:

- On the product indicators, the most prominent service of the hospital is access to emergency services and specialist doctor services. Predicted OR values indicate patient visits will increase by 3.203 times higher if product quality is improved.
- On the price indicator, prices offered by hospitals are assessed according to the services provided to their patients. The predicted OR value indicates that patient visits will increase by 3,952 times higher if the quality of service is adjusted to the price.
- On the promotion indicator, promotion efforts carried out by the hospital were considered less attractive to patients, so that service information was not conveyed optimally. Predicted OR values indicate patient visits will

increase by 3.409 times higher if the quality of promotion is further improved.

- On the e process indicator, the service process at the hospital studied has a clear flow and is not too confusing to the patient. Predicted OR values indicate patient visits will increase by 3,431 times higher if the quality of the service process flow is improved.
- On the physical evidence indicator, the cleanliness of the hospital treatment room is considered very awake so as to provide comfort for patients and visitors. Predicted OR values indicate patient visits will increase by 3.251 times higher if the quality of the hospital's physical appearance is improved.

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