

THE EFFECT OF HEALTH SERVICES MARKETING MIX ON PATIENT LOYALTY WITH PATIENT TRUST AS AN INTERVENING VARIABLE

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Abstract:

The purpose of this study was to determine: (1) obtain findings regarding the effect of the marketing mix on patient trust at the Puskesmas Tanjungsiang, (2) obtain findings regarding the effect of the marketing mix on patient loyalty at Tanjungsiang Health Center (3) To obtain findings regarding the effect of trust on patient loyalty at Tanjungsiang Health Center (4) To obtain findings regarding the effect of marketing mix on patient loyalty through trust at the Tanjungsiang Health Center. The research method used in this research is quantitative, and the type of research is descriptive verification. The sampling technique used was purposive sampling, namely, 140 patients who had visited the Tanjungsiang Health Center > twice. The analysis technique uses path analysis. The results of this study are that the Marketing Mix has a significant positive effect on Patient Trust, the Marketing Mix has a significant favorable influence on Patient Loyalty, Patient Trust has a significant favorable influence on Patient Loyalty, and There is a significant favorable influence on the Marketing Mix to Patient Loyalty through Trust at Tanjungsiang Health Center.

Keywords: Marketing Mix, Customer Loyalty, Customer Trust.

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INTRODUCTION

West Java had the most national Community Health Centers (Puskesmas) in 2020. Based on data from the Ministry of Health, the Community Health Centers in West Java have reached 1,083 units. In detail, 299 units are Community Health Centers with inpatient facilities and 784 non-inpatient units. The number of Community Health Centers in the province reaches 10.61% of the total 10,205 units throughout Indonesia. (<https://pusdatin.kemkes.go.id/>)

Subang Regency has 40 health centers, with 19 non-inpatient health centers and 21 inpatient health centers. (Profile of the Subang District Health Office. 2018) One of them is the Tanjungsiang Health Center. Tanjungsiang Health Center is one of the Level 1 Health Facilities with Inpatient Care in Subang Regency. Tanjungsiang Health Center UPT has a working area in the Tanjungsiang sub-district, south of Subang district, with an area of 14,963 Km². In providing health services to patients, Tanjungsiang Health Center's health services consist of patient registration, patient treatment, and recording of patient medical records. The Tanjungsiang Health Center also has several types of services, such as outpatient care, inpatient care, dental and oral health, maternal health and family planning (KB), Emergency Room (IGD), Basic Essential Neonatal Obstetric Services (PONED), and nutrition.

The number of health facilities in Tanjungsiang District continues to grow every year. Therefore with more and more level 1 health facilities, the more excellent opportunity for the community to choose Level 1 Health Facilities to register for BPJS or seek treatment. Thus, the

Tanjungsiang Health Center must update everything related to services to make patients trust and loyal to the Tanjungsiang Health Center.

As the spearhead of health services, the Tanjungsiang Health Center must certainly assist the community in providing first aid with good health service standards and quality services. The quality of health services must be oriented towards patient satisfaction in the hope that patient satisfaction will create trust, which results in patient loyalty. Today the service sector has experienced very rapid development, as has happened in the health service industry, whether a hospital or a health center, so that this business can develop, knowledge about good service and trust from patients is needed. (Randy, 2016).

Trust is a belief that one of the parties involved in the exchange has reliability and integrity that can give positive results. Trust is the most crucial variable in building a long-term relationship between one party and another. (Randy, 2016) Patient loyalty, in general, can be interpreted as a person's loyalty to a product, both for certain goods and services. Patient loyalty is a manifestation and continuation of patient satisfaction in using the facilities and services provided by the hospital and remaining a patient of the hospital. Loyalty proves that patients are always customers with power and a positive attitude toward the hospital. From the explanation above, it can be seen that each patient has a different basis of loyalty. This depends on their respective objectivity. (Lovelock, 1991: 44) explains that the level of loyalty of patients to a particular brand of goods or services depends on several factors: the cost of switching to another service brand, the similarity in quality, quantity or service of the type of substitute goods or services. , there is a risk of changes in costs due to substitute goods or services and changes in the level of satisfaction obtained from new brands compared to the experience with previous brands that have been used. (Frimayasa & Suratriadi, 2017).

Patient loyalty is obtained by increasing the satisfaction and trust of each patient and maintaining this level of satisfaction in the long term. Forming patient loyalty is generally considered a primary task for managers of health services. According to Portal and Lang (2015), in their research, customers loyal to a product will intend to repurchase it. Indirectly, customer loyalty can increase the competitiveness of a company. Seeing the role of customer loyalty as very crucial for companies, many experts have examined the critical contribution of customer loyalty to companies. (Harahap & Amanah, 2019).

METHODS

The research method used in this research is the Quantitative Research Method, and the type of research is Descriptive Verification. The sampling technique used was purposive sampling, namely, 140 patients who had visited the Tanjungsiang Health Center > twice. Data collection techniques in this study used a questionnaire. The steps for collecting data in this study are: (1) The author will explain the purpose of the research and the steps for filling out the questionnaire to patients who fall into the criteria (2) The questionnaire will be distributed to patients using two methods: First, using the Google form for data collection including testing validity & reliability test, this applies to patients who use mobile phones and both questionnaires are distributed in printed form and distributed to patients. (3) The author will help patients who have difficulty/confusion in filling out the questionnaire. The analysis technique of this research uses Path Analysis.

RESULT AND DISCUSSION

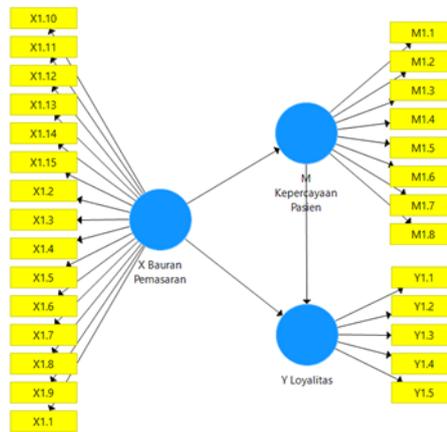


Figure 1. Research Model

Research Model. Based on the research model, it can be seen that in the research model, there are three latent variables with one independent variable, one mediating variable and one dependent variable. The variables are X Marketing Mix, M Patient trust, and Y Loyalty. The research model was then analyzed in outer, inner, model and hypothesis testing using SmartPLS 3.3.3 Software.

Outer Model 1. Outer Model or Outer Measurements is also a measurement model. The outer model test aims to specify the relationship between latent variables and their indicators. This outer model test uses the help of the PLS Algorithm procedure. The following are the results of the Outer Test of the research model.

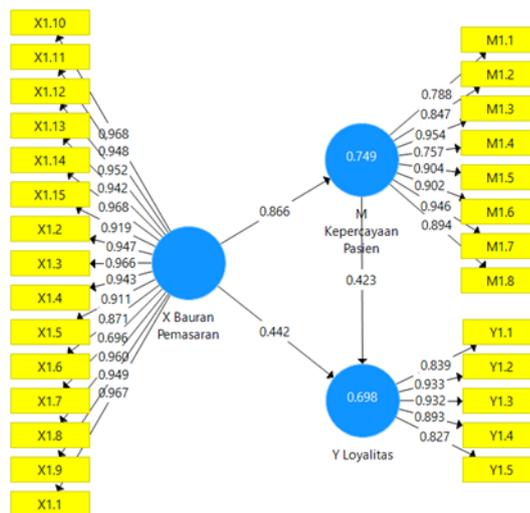


Figure 2. Outer model 1 calculation result of research path analysis

Validity (Outer loadings) and Convergent Validity (AVE) Model 1 indicators can be measured using the outer loading score. The indicator can be used if the outer loading value is more than 0.70 (> 0.70). The Average Variance Extracted (AVE) value that meets the minimum criteria is more significant than 0.50 (> 0.50). Suppose in the test. There is an outer loading value below 0.70. In that case, the indicator can still be used, provided that the minimum loading value is more



significant than 0.40 (Loading > 40) and the AVE value is more than 0.50 (AVE > 0.5), so the variable can be said to be valid. If it is less than 0.40, then it must be omitted from the model (Joseph, 2017).

Table 1. Validity indicators (Outer loadings) and Convergent Validity (AVE) Model 1

Latent variable	Indicator	Loading (>0.70)	AVE(>0.5)
X Marketing Mix	X1.1	0.967	0.864
	X1.10	0.968	
	X1.11	0.948	
	X1.12	0.952	
	X1.13	0.942	
	X1.14	0.968	
	X1.15	0.919	
	X1.2	0.947	
	X1.3	0.966	
	X1.4	0.943	
	X1.5	0.911	
	X1.6	0.871	
	X1.7	0.696	
	X1.8	0.96	
X1.9	0.949		
M Patient Confidence	M1.1	0.788	0.768
	M1.2	0.847	
	M1.3	0.954	
	M1.4	0.757	
	M1.5	0.904	
	M1.6	0.902	
	M1.7	0.946	
	M1.8	0.894	
Y Loyalty	Y1.1	0.839	0.785
	Y1.2	0.933	
	Y1.3	0.932	
	Y1.4	0.893	
	Y1.5	0.827	

Source: Research data processed using SmartPLS 3.3.3 software in 2022

Based on the table above, the following information can be seen:

- An indicator with a loading factor value below 0.70 is marked with a red number.
- The AVE value of the constructed variable for all latent variables is above 0.50.
- Based on the calculation of the loading factor and Average Variance Extracted (AVE) values, there are still variables and indicators that do not meet the Reliability criteria (Outer loadings) and cannot be used for further tests. The construct variable indicators must be reduced to meet the test criteria. Therefore it is necessary to test the outer model to 2.

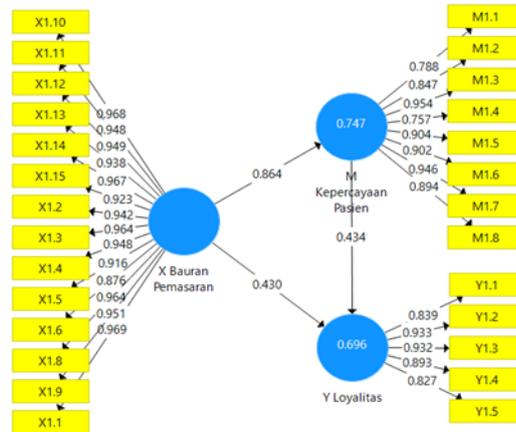


Figure 2. Outer Model 2 Outer model 2 calculation result of research path analysis.
Source: research data processed using SmartPLS 3.3.3 Software in 2022

Table 2. Validity indicators (Outer loadings) and Convergent Validity (AVE) Model 2

Latent variable	Indicator	Loading (>0.70)	AVE(>0.5)
X Marketing Mix	X1.1	0969	0893
	X1.10	0968	
	X1.11	0948	
	X1.12	0949	
	X1.13	0938	
	X1.14	0967	
	X1.15	0923	
	X1.2	0942	
	X1.3	0964	
	X1.4	0948	
	X1.5	0916	
	X1.6	0876	
	X1.8	0964	
	X1.9	0951	
	M Patient Confidence	M1.1	
M1.2		0847	
M1.3		0954	
M1.4		0757	
M1.5		0904	
M1.6		0902	
M1.7		0946	
M1.8		0894	
Y Loyalty	Y1.1	0839	0785
	Y1.2	0933	
	Y1.3	0932	
	Y1.4	0893	
	Y1.5	0827	

Source: Research data processed using SmartPLS 3.3.3 software in 2022

Based on the table above, the following information can be seen:

- The loading factor value for all indicators is above 0.70.
- The Average Variance Extracted (AVE) value for all variables is above 0.50.
- Based on the results of calculating the loading factor and Average Variance Extracted (AVE) values, all variables and indicators have met the construct validity criteria. Moreover, it can be used for further testing.

Construct Reliability Test Construct reliability test as measured by composite reliability and Cronbach's alpha. The variable construct is declared reliable if it has a composite reliability value above 0.70 and Cronbach's alpha above 0.70 (Joseph, 2017).

Table 3. Construct Reliability (Cronbach's Alpha and Composite Reliability)

Latent variable	Cronbach's Alpha	Composite Reliability
M Patient Confidence	0.956	0.963
X Marketing Mix	0.991	0.991
Y Loyalty	0.931	0.948

Source: Research data is processed using SmartPLS 3.3.3 in 2022

Based on the results of the reliability test in the table above, the following information can be obtained:

- The Cronbach's Alpha value of all research variables is above 0.70.
- The Composite Reliability value of all construct variables is above 0.70.
- Based on this value, it can be decided that all latent variables in the study have fulfilled the reliability assumption then all variables can be used in further testing.

Discriminant Validity Test Discriminant Validity testing is carried out to prove whether the indicator in a construct will have the most significant loading factor in the construct it forms compared to the loading factor in other constructs. This can be known through the Fornier-lacker criteria values or you can use the values in the cross-loadings table. (Joseph, 2017). In this study, the values from the Fornier-lacker criteria table were used.

Table 4. Discriminate Validity value Fornier-lacker criteria.

Latent variable	M Patient Confidence	X Marketing Mix	Y Loyalty
M Patient Confidence	0.877		
X Marketing Mix	0.864	0.945	
Y Loyalty	0.806	0.805	0.886

Source: Research data is processed using SmartPLS 3.3.3 in 2022

Based on the results of the discriminant validity test in the table above, the following information can be obtained:

- All construct variables have a higher correlation value than their variables.
- Based on the calculation results in the analysis, it can be seen that there is no multicollinearity problem between latent variables.

Inner Model, The inner model is a structural model used to predict causal relationships (causation relationships) between latent variables or variables that cannot be measured directly. The structural model (inner model) describes the causal relationship between latent variables built based on the substance of the theory in testing the structural model (inner model) using the help of the Bootstrapping procedure.

Collinearity assessment The collinearity assessment in the structural model has the same concept as the formative measurement model by considering the VIF value. VIF value must be less than 5.0. this indicates that the model is free from multicollinearity symptoms on all predictors for all responses, so testing can be carried out to the next stage. (Joseph, 2017)

Table 5. collinearity assessment Inner VIF

Latent variable	M Patient Confidence	Y Loyalty
M Patient Confidence		3,954
X Marketing Mix	3,954	3,196

Source: Research data processed using SmartPLS 3.3.3 software in 2022

Based on the table above, the following information can be seen:

- The VIF value for each construct variable as a whole is less than 5.0
- Based on these results, it can be decided that the model does not have symptoms of multicollinearity

Coefficient of determination (R2) the coefficient of determination is used to measure the accuracy of predictions (estimation). In general, an R2 value of 0.75 is considered to have a significant estimation accuracy, an R2 of 0.50 has a moderate estimation accuracy, and an R2 value of 0.25 has a low estimation accuracy. (Joseph F Hair et al., 2017; p. 211). The results of the coefficient of determination can be seen in the following table.

Table 6. coefficient of determination (R2)

Latent variable	R Square	R Square Adjusted
M Patient Confidence	0.747	0.745
Y Loyalty	0.696	0.692

Source: Research data processed using SmartPLS 3.3.3 software in 2022

Based on the table above, the following information can be seen:

- The estimation accuracy of the R2 model Patient Confidence is equal to 0.747. Based on this value, it has an estimation of moderate accuracy. In other words, variable X Marketing Mix affect variable M Patient Confidence at big74.7% while other factors outside the research model influence the remaining 25.3%.
- The estimation accuracy of the R2 model Y Loyalty is as big0.696. Based on this value, it has an estimation of moderate accuracy. In other words, variableX Marketing MixandM Patient Confidenceaffect variablesY Loyalty69.6% while other factors outside the research model influence the remaining 30.4%.

Effect Size (f2) As for evaluating the valueR2 of all endogenous variables using f2. The difference between f2 and R2 is that f2 is more specific for each exogenous variable. In general, a value of 0.02 is considered to have a negligible effect size, 0.15 has a medium effect size, and 0.35 has a significant effect size. (Joseph F Hair et al., 2017; p. 211). The following is a table of f2 values.

Table 7. Effect Size value of f2

Latent variable	M Patient Confidence	Y Loyalty
M Patient Confidence		0.157
X Marketing Mix	2,954	0.154

Source: Research data processed using SmartPLS 3.3.3 software in 2022

Based on the table above, the following information can be seen:

- Effect Size value M Patient Confidenceas big0.157toY Loyalty classified as a moderate category estimation value.
- Effect Size value X Marketing Mixas big2,954toM Patient Confidence has a considerable category estimation value.
- Effect Size value X Marketing Mixas big0.154toY Loyalty classified as a moderate category estimation value.

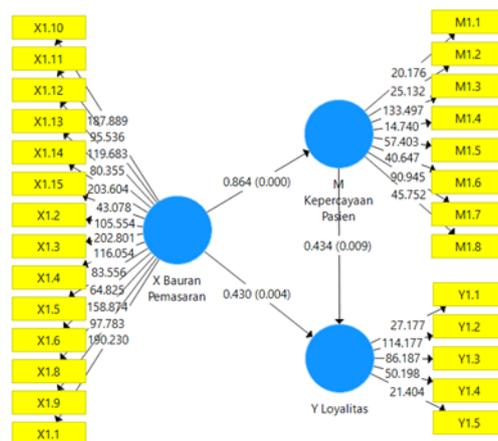


Figure 3. The results of calculating bootstrapping hypotheses for the research path analysis

Source: research data processed using SmartPLS 3.3.3 Software in 2022

A structural model coefficient analysis tests the hypothesis by knowing which relationships have a significant effect. The relationship is significant if the p-value < a (0.05). Otherwise, if the p-value > a (0.05), then the relationship is not significant. (Joseph F Hair et al., 2017).

Table 8. Test the hypothesis of the direct influence of the research model

hypothesis	Path Coefficient	Original Sample (O)	T Statistics (O/STDEV)	P Values	Information
H1	X Marketing Mix -> M Patient Trust	0.864	31,321	0.000	Received
H2	X Marketing Mix -> Y Loyalty	0.43	2,866	0.004	Received
H3	M Patient Trust -> Y Loyalty	0.434	2,614	0.009	Received

Source: Research data processed using SmartPLS 3.3.3 software in 2022

Based on the table above, the following information can be seen:

- 1) X Marketing Mix -> M Patient Trust Original Sample value (O) of 0.864 and P Values 0.000 smaller than 0.05. Based on this value, it can be seen that there is a significant positive effect of the Health Services Marketing Mix on Patient Trust. This is in line with research conducted by Aep Nurbani et al. (2019) that the marketing mix positively affects trust. These results are also consistent with the theory by Cronin (2000), where the marketing mix significantly affects trust. The same findings are also found in the research conducted by Heru Mulyanto (2013) and Erwinsyah Putra., et al. (2012), where the marketing mix significantly affects trust. Based on the explanation above, it can be concluded that the Tanjungsiang Health Center has carried out the marketing mix well enough so that the response obtained is the patient's trust in the Tanjungsiang Health Center. From the point of view of the patient or the patient's point of view, the marketing mix is a way out of the patient's problem, the costs that must be incurred by the patient (Radfan et al., 2015)
- 2) X Marketing Mix -> Y Loyalty Original Sample value (O) of 0.43 and P Values 0.004 smaller than 0.05. Based on these values, it can be seen that there is a significant positive effect of Health Services Marketing Buran on Patient Loyalty. This is in line with the research

conducted by Rezki Amelia., et al. (2014), which states that the Marketing Mix affects patient loyalty in the Unhas Hospital Outpatient Installation. Also, research conducted by Cahaya Citra (2014) states that the marketing mix strongly correlates with patient loyalty. The marketing mix contributed to the influence of outpatient loyalty at Awal Bros Pekanbaru Hospital by 80.5%. (Sari, Light, 2014)

- 3) M Patient Trust -> Y Loyalty Original Sample value (O) of 0.434 and P Values 0.009 smaller than 0.05. Based on these values, it can be seen that there is a significant positive effect on Patient Trust on Patient Loyalty. Trust is all the knowledge possessed by the customer and all the conclusions the customer makes about the object, its attributes and benefits. Since belief is our cognitive knowledge about an object, attitude responds to our feelings or views about objects (Mowen and Minor 2002:322). The relationship between trust and customer loyalty is that the higher customer trust in a product, the higher the loyalty to a brand. Customer commitment to a product is a belief in using a product, including recommendations and trust from Wahyu Nugroho., et al. (2013). In line with the theory of Swan and Nolan (1985), which says that long-term customer loyalty will be realized if the customer has a high level of trust in the product or company. This is in line with the results of research conducted by Lately (2016), showing that customer trust has a positive and significant effect on customer loyalty. (Supertini et al., 2020).

Table 9. Test the t-test of the indirect effect of the research model

Research Model					
hypothesis	Path Coefficient	Original Sample (O)	T Statistics (O/STDEV)	P Values	Information
H4	X Marketing Mix -> M Patient Trust -> Y Loyalty	0.375	2,648	0.008	Received

Source: processed using SmartPLS 3.3.3 software in 2022

Based on the table above, the following information can be seen:

- 4) X Marketing Mix -> M Patient Trust -> Y Loyalty have Original Sample (O) of 0.375 and P Values 0.008 smaller than 0.05. Based on these results, it can be seen that there is a significant favorable effect of marketing Mix on patient loyalty through trust in the Tanjungsiang Health Center. The marketing mix is the essence of marketing. This marketing mix includes product, place, people, promotion, price, process and physical evidence. Implementation of a good marketing mix will benefit the company. In this modern era of business competition, every company must be responsive to changes made by competing companies to foster a sense of patient trust. Trust is a must in a relationship. If a company wants to establish relationships with customers successfully, the company must pay attention to the critical success factors of efforts to build customer relationships, namely trust and commitment. This is to Fandy Tjiptono's theory which states that decisions regarding each element of the marketing mix are interrelated (Tjiptono, F, 2007, p. 30-32). Increased loyalty can save company costs, including reduced marketing costs, transaction costs, customer turnover, cross-selling success, increased word-of-mouth notification, and more optimism, assuming loyal customers are also satisfied and the cost of failure is reduced. Loyalty is a fundamental commitment which is the behavior of repurchasing a product, not only the behavior but also the attitude towards the product (Griffin, 2007). Consumer expectations are influenced by their previous buying experience, the advice of friends or colleagues, and promises and information from marketers and competitors. If marketers raise expectations too high, buyers

are likely to be disappointed. However, if the company sets expectations too low, buyers will not be interested, even if they buy or are satisfied (Kotler, 2006). (prasetyo kusumo, 2016).

CONCLUSION

Based on the results of the research conducted by the author, several conclusions are put forward from this study, namely as follows:

1. Health Services Marketing Mix has a significant favorable influence on patient trust
2. Health Services Marketing Mix has a significant positive effect on patient loyalty
3. Patient Trust has a significant favorable influence on Patient Loyalty
4. There is a significant positive effect of the Health Services Marketing Mix on Loyalty through Trust at the Tanjungsiang Health Center.

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