



# Satisfaction as a Mediation in the Relationship Between Service Quality and Price Perception to Customer Loyalty in Bantul Retail Store

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**Abstract.** This study aims to examine the effect of service quality and price perception on customer loyalty with satisfaction as a mediating variable in Bantul retail stores. The research data was conducted through a survey by collecting questionnaires. The research sample was taken from 100 retail store customers in Bantul using convenient sampling technique. Furthermore, the data were analyzed by multiple linear regression. The results showed that service quality had a positive effect on customer satisfaction, but price perception had no effect on customer satisfaction. Furthermore, service quality has a positive effect on customer loyalty, but price perception has no effect on customer loyalty. Satisfaction only mediates the relationship between service quality and customer loyalty. This research has implications for retail store business people that service quality is a variable that cannot be ignored in the retail business so that customers become loyal.

**Keywords:** service quality · price perception · customer satisfaction · customer loyalty

## 1 Introduction

The traditional and modern retail industry has experienced significant development, starting from small-scale to large-scale retail. Modern retail such as supermarkets, hypermarkets, shopping centers and convenience stores is growing rapidly throughout the country, especially in big cities [1]. Bantul is one of the regency cities in the Special Region of Yogyakarta Province which is experiencing retail growth. This causes retail competition to become more competitive. The retail business in Indonesia achieved 10% growth in 2016 [2].

The emergence of the Covid-19 Pandemic has affected the existence of the retail business in Indonesia. A number of retail businesses experienced losses and not a few closed several outlets and some even went out of business [3]. This condition requires that the retail business be managed professionally so that consumers are still interested in making purchases. A consumer-oriented marketing strategy needs to be built to attract consumers through fulfilling needs that drive consumer purchases. Retailers provide services that give a sense of security and comfort so that consumers trust and are satisfied

to buy. In addition, the pricing strategy can be a source of consumer satisfaction because consumers will perceive what they spend with what they get. Therefore customer orientation is needed to ensure customer satisfaction and loyalty. Both of these are the desired results in the retail business [4]. Customer loyalty is also a source of competitive advantage and an important intangible asset for the organization [5].

Empirical evidence shows that service quality has a positive effect on customer satisfaction [6–9] and loyalty [8]. However, several studies have shown the opposite result, that service quality has no effect on customer satisfaction [10, 11] and loyalty [12, 13]. Previous research still shows the inconsistency of the relationship between price perceptions and satisfaction. Several studies have shown that there is a positive effect of perceived price on satisfaction [7–9, 12, 14] and customer loyalty [8]. However, price perceptions also have a negative effect on customer satisfaction [15] and prices have no effect on loyalty [12, 15]. Likewise, there is an inconsistency in the results between satisfaction and loyalty. Research [8, 13–15] stated that there was an influence, but the research of [16] stated that there was no effect.

The inconsistency of previous research findings has the opportunity to do this research. Therefore this study aims to examine the effect of service quality and price perceptions on customer satisfaction and customer loyalty. In addition, this research is to determine the mediating effect of customer satisfaction in the relationship of the variables studied.

## 2 Literature Review

### 2.1 Loyalty

Loyalty has been defined as a deeply held commitment to rebuy or re-patronize a preferred product or service in the future despite situational influences and marketing efforts having the potential to cause switching behavior [17]. Customers who make repeat purchases are the core of a business, the end effect of loyal customers is repeat purchases [6].

Loyalty can be measured using indicators, namely: [18].

1. Intention to continue shopping
2. The option selected as the first choice when shopping
3. Feeling comfortable when shopping.

### 2.2 Customer Satisfaction

In general, satisfaction is a person's feelings of pleasure or disappointment resulting from comparing the perceived product or service performance (or results) with expectations. If performance or experience falls short of expectations, the customer is dissatisfied. If it matches expectations, the customer is satisfied. If it exceeds expectations, the customer is very satisfied or happy [17]. Customer satisfaction can be measured using several indicators, namely: [19].

1. Discrepancy between service and customer expectations

2. Shopping satisfaction
3. The choice of shopping in one place is a wise choice
4. The desire to shop elsewhere
5. Not happy shopping
6. Shopping as a good experience

### 2.3 Service Quality

Service quality is a measure of how well the level of service delivered matches customer expectations. Delivering quality service means consistently meeting customer expectations. (Lewis and Booms 1983 in [20]. Perceived service quality results from a comparison of consumer expectations with actual service performance. Service quality can be measured by the following indicators: [19].

1. Dimensions of reliability: provide the service as promised, reliable in providing services, true service to customers, timely service.
2. Dimensions of responsiveness: provide information on the service to be performed, fast service, willingness to help customers, ready to respond to customer requests
3. Guarantee dimensions: Instill trust in customers, create a sense of security in transactions, employees are polite, employees have the knowledge to answer customer questions
4. Dimensions of empathy: give individual attention to customers, provide service with great care, understand customer needs, comfortable working hours,
5. Dimensions of physical form: modern shop equipment, interesting shop facilities, employees are neat and professional, visually appealing services.

### 2.4 Price Perception

Price is the sum of all the money values that consumers can exchange for the benefits of owning or using products and services [17]. Price perceptions can be measured by the following indicators: [18].

1. normal price
2. very reasonable price
3. prices according to the capabilities of the customer

Previous studies have shown inconsistent findings between service quality, perceived price, satisfaction and loyalty. Thus this study develops the following hypotheses:

- H1: Service quality has a positive effect on customer satisfaction
- H2: Perceived price has a positive effect on customer satisfaction
- H3: Service quality has a positive effect on customer loyalty
- H4: Price perception has a negative effect on customer loyalty.
- H5: Customer satisfaction has a positive effect on customer loyalty

### 3 Research Methodology

#### 3.1 Research Variables and Measurement

The variables of this study include service quality and price perception as independent variables, customer satisfaction as a mediating variable and customer loyalty as the dependent variable. Customer loyalty is measured by 3 indicators adopted from [18] study. Service quality is measured by 20 indicators adopted from [19]. Price perception is measured by 3 indicators adopted from [18]. Then, customer satisfaction is measured by 6 indicators adopted from [19].

Research data was collected through a questionnaire compiled in Googleform. Each questionnaire answer uses a 5-point Likert scale. The Likert scale is used to measure opinions, attitudes and perceptions of individuals or groups about social phenomena. Each question item has five answers that range from “strongly agree” to “strongly disagree”.

#### 3.2 Population and Sample

The population of this study is all retail store customers in the Bantul district. The number of research samples is determined using the Lemeshow formula because the population of the research object is too large and the number is constantly changing. The number of samples taken was 100 respondents. Furthermore, the sampling technique was carried out by convenience sampling by selecting samples based on willingness to become respondents. The sample of this research is a portion of retail store customers who have shopped more than once at the same retail store located in the Bantul Regency area.

#### 3.3 Instrument Test

Survey method with a questionnaire is used to see the relationship between service quality, price perception, satisfaction and loyalty. Furthermore, each question item in the questionnaire was tested for validity and reliability. The results of the validity test showed that the KMO value for each variable was above 0.50 between 0.700 and 0.867, except for empathy which was 0.500. However, the significance value using Bartlett's test of sphericity for each variable is below 0.05. This means that all questions are declared valid.

Furthermore, the reliability test showed that all research variables had Cronbach alpha values above 0.70 ranging from 0.734 to 0.928. This means that all variables are declared reliable. Furthermore, before the data is analyzed, the data is tested assumptions. The results of the assumption test show that there are no deviations from the assumptions in the regression model, both in terms of normality, multicollinearity and heteroscedasticity. The normality test results show a Monte Carlo value of 0.053 above 0.05. The results of the multicollinearity test obtained a tolerance value greater than 0.1, namely service quality of 0.682, perceived price of 0.730 and satisfaction of 0.833. This means that there is no multicollinearity. Furthermore, the VIF value is less than 10 where service quality is 1.467, price perception is 1.370 and satisfaction is 1.201. This means that there are no symptoms of multicollinearity. The results of the Glejser test show

that the significance value of the service quality variable is 0.856, the price perception variable is 0.507 and the satisfaction variable is 0.413 more than 0.05. This means that there are no symptoms of heteroscedasticity. Furthermore, the scatterplot graph shows the points spread randomly and spread both above and below the number 0 on the Y axis.

### 3.4 Data Analysis

This study emphasizes the relationship between service quality, price perception, customer satisfaction and customer loyalty. This research model can be described as follows:

$$\text{Model 1 : } Z = \beta_0 + \beta_1 X_1 + \beta_2 X_2$$

$$\text{Model 2 : } Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 Z$$

where:

$X_1$  = Quality of Service

$X_2$  = Price Perception

$Z$  = Customer Satisfaction

$Y$  = Customer Loyalty

The research data were analyzed using multiple linear regression supported by the F test, t test and the coefficient of determination ( $R^2$ ). Regression analysis is used to determine whether there is influence of service quality, price perception, customer satisfaction on customer loyalty. Furthermore, to determine whether there is a mediating influence of customer satisfaction in the relationship between service quality, price perceptions on customer loyalty are used Sobel test.

## 4 Results

### 4.1 Statistic Descriptive

The description of the data presented is the distribution of statistics related to respondents' rating intervals for the variables of service quality, price perception, customer satisfaction, and customer loyalty. The assessment uses frequency statistics with 3 categories of rating intervals, namely 1 for poor judgment, 2 for good and 3 for very good. The rating score on service quality is 2.69 between 2.34–3.66 with a good interval, perceived price is 2.83 between 2.34–3.66 with a good interval, satisfaction is 2.29 between 1 to 2.33 with less intervals and loyalty of 2.44 between 2.34 to 3.66 with good intervals.

### 4.2 Multiple Regression Analysis

The results of the multiple linear regression test of model 1 in Table 1 show that the coefficient of determination ( $R^2$ ) is 0.167, which means that the ability of service quality variables and price perceptions to explain customer satisfaction is 16.7%, the remaining

**Table 1.** Regression Analysis Model 1

Model		Unstandardized Coefficients	t	Sig.
		B		
1	(Constant)	9.236	4.844	0.000
	Service Quality	0.075	2.958	0.004
	Price Perception	0.202	1.330	0.187
	R	0.409 <sup>a</sup>	F	9.755
	R Square	0.167	Sign. F	0.000 <sup>b</sup>
	Adjusted R Square	0.150		

a. Dependent Variable: Satisfaction

b. Predictors: (Constant), Price perception, Service quality

83.3% is influenced by variables outside of both. Model 1 produces a calculated F value of 9.755 with a significance of 0.000. This means that service quality and price perception simultaneously and significantly influence customer satisfaction variables. The influence of these two variables is not due to chance alone.

Furthermore, from model 1 it is known that the regression coefficient for the service quality variable is 0.075 with a t-count value of 2.958 and a significance value of 0.004 which is less than 0.05. The statistical test results show that the service quality variable has a positive and significant effect on customer satisfaction. Therefore the first hypothesis which states that service quality has a positive effect on customer satisfaction is statistically supported. While the regression coefficient for the price perception variable is 0.202 with a t-value of 1.330 and a significance value of 0.187 greater than 0.05. Statistical test results show that the price perception variable has no effect on customer satisfaction. Therefore the second hypothesis which states that price perception has a negative effect on customer satisfaction is not supported statistically. The multiple linear regression equation from model 1 is as follows:  $Y = 9.236 + 0.075 X_1 + 0.202 X_2$ .

The results of the model 2 multiple linear regression test in Table 2 show that the coefficient of determination ( $R^2$ ) is 0.331, which means that the ability of service quality variables and price perceptions to explain customer satisfaction is 33.1%, the remaining 66.9% is influenced by variables outside the three independent variables. Model 2 produces a calculated F value of 15.810 with a significance of 0.000. This means that service quality, price perception and satisfaction simultaneously and significantly affect customer loyalty variables. The influence of these three variables is not due to chance alone.

Furthermore, the regression coefficient for the service quality variable is 0.094 with a t-value of 3.858 and a significance value of 0.000 which is less than 0.05. The statistical test results show that the service quality variable has a positive and significant effect on customer loyalty. Therefore the fourth hypothesis in this study which states that service quality has a positive effect on customer loyalty is statistically supported. But the regression coefficient for the price perception variable is 0.165 with a t-value of 1.174 and a significance value of 0.243 which is greater than 0.05. The statistical test results

**Table 2.** Regression Analysis Model 2

Model	Unstandardized Coefficients	t	Sig.
	B		
1 (Constant)	-2.793	-1.430	0.156
Service quality	0.094	3.858	0.000
Price perception	0.165	1.174	0.243
Satisfaction	0.211	2.257	0.026
R	0.575 <sup>a</sup>	F	15.810
R Square	0.331	Sig.	0.000 <sup>b</sup>
Adjusted R Square	0.310		

a. Dependent Variable: Loyalty

b. Predictors: (Constant), Satisfaction, Price perception, Service quality

show that the price perception variable has no effect on consumer loyalty. Therefore the fifth hypothesis in this study which states that price perceptions have a negative effect on consumer loyalty is not supported statistically.

While the regression coefficient for the variable customer satisfaction is 0.211 with a t-value of 2.257 and a significance value of 0.026 which is less than 0.05. The statistical test results show that the variable customer satisfaction has a positive and significant effect on customer loyalty. Therefore the third hypothesis in this study which states that customer satisfaction has a positive effect on customer loyalty is statistically supported. The 2nd model of multiple linear regression is as follows:  $Y = - 2.793 + 0.3.858 X1 + 0.165 X2 + 0.211 Z$ .

### 4.3 The Mediation Effect of Customer Satisfaction

In this study the Sobel test was used to determine the effect of the mediating variable, namely customer satisfaction. The mediating variable of customer satisfaction is indicated to influence the relationship between the independent variables (service quality and price perception) and the dependent variable customer loyalty. The test results of the mediating effect of satisfaction on the variables of service quality and customer loyalty are shown by the Sobel test statistic value of 2.192 and the probability value of 0.014, less than 0.05. This means that there is a mediating effect of satisfaction on service quality and customer loyalty variables. The results of the test of the mediating influence of satisfaction on price perception and loyalty variables indicated that the Sobel test statistic was 0.866 and the probability value was 0.193 which was greater than 0.05. This means that the satisfaction variable is not successful in mediating the relationship between price perception variables and customer loyalty.

### 4.4 Discussion

The results of multiple linear regression analysis in model 1 show that service quality has a positive and significant effect on customer satisfaction. The results of this study

support research [7–9, 21], but do not support research [10, 11]. Furthermore, the results of the study show that price perceptions have no effect on customer satisfaction. The results of this study are in contrast to research [7–9, 12, 14]. The results of this study state that service quality has a positive effect on customer loyalty. These results are supported by research [8]. However, the results of this study are contrary to research [12, 13]. The results show that price perceptions have no positive effect on customer loyalty. These results support research [12, 15]. The results of this study state that customer satisfaction has a positive effect on customer loyalty. These results support research [8, 13–15]. However, the results of this study do not support the research of [16].

#### 4.5 Conclusion

The results showed that service quality has a positive effect on customer satisfaction and customer loyalty. However, price perception has no effect on customer satisfaction and customer loyalty. Satisfaction has a positive effect on customer loyalty. Customer satisfaction mediates the effect of service quality on loyalty. However, customer satisfaction does not mediate the effect of price perceptions on customer loyalty. It is hoped that further research can be developed using sequential analysis to see the simultaneous effect of the variables studied and to observe variables that have not been observed in this study.

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