

## The Influence of Product Quality and Prices on Customer Loyalty in The Tough Factory in Dusun I Panca Bakti, South Marbau Village, Marbau District, Labuhanbatu Utara District

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### ABSTRACT

A This research aims to find out whether product quality has an influence on factory customer loyalty, product price on customer loyalty and to find out whether product quality and price have an influence on customer loyalty. The research was conducted in hamlet 1 Panca Bakti, South Marbau Village, Marbau District, North Labuhanbatu Regency, North Sumatra Province. The data collection method was carried out through surveys and questionnaires with the population in this study being all consumers of tofu factories in hamlet 1 Panca Bakti. The method for determining the sampling technique used is nonprobability sampling with an accidental sampling technique for a sample size of 41 people. The analysis used is multiple linear regression. The research results showed that product quality had a significant and positive effect on the level of customer loyalty with a t-count value of  $4.797 > t\text{-table value of } 2.01$  with sig.  $0.004 < 0.05$  at the 95% confidence level. Product price influences the level of customer loyalty, where the t-count is  $3.600 > t\text{-table value } 2.01$  and the significance is smaller than 0.05 ( $0.017 < 0.05$ ) at the 95% confidence level. Product quality and price simultaneously influence tofu customer loyalty in the research area where the F-count value is  $4.125 > F\text{-table } 3.21$  and the significance value is  $0.023 (< 0.05)$  at the 95% confidence level.

**Keywords:** Customer loyalty; Product quality; Product Price; Consumer; Tofu Factory

### 1. Introduction

The One of the most common agro-industrial activities in Indonesia is the tofu processing agro-industry. The tofu processing agro-industry is quite developed in Indonesia because the demand for tofu is quite large every day. For the general public, the name tofu is certainly familiar to hear, because it is a staple food (fish substitute) and one of the favorite foods. As a product of processed soybeans, tofu is a mainstay food for improving nutrition because it has the best quality vegetable protein, the most complete amino acid composition and high digestibility (85% -98%). The nutritional content of tofu is still less than animal side dishes, such as eggs, meat and fish. However, with cheaper prices, people tend to prefer to consume tofu as a substitute for animal protein to meet nutritional needs and



tofu is very easy to find throughout the archipelago, besides that tofu has the advantage of having a delicious taste and high nutritional content [1].

The tofu factory is a business that has high income or profits, tofu is also a basic need for every individual. In Hamlet 1 Panca Bakti, South Marbau Village, there is one MSME that has opened a tofu factory industrial business even though in that village there is only one tofu factory business. Customer loyalty is a core goal that marketers strive for. This is because with loyalty as expected, it is certain that the company will make a profit. Long-term customer loyalty is a goal for strategic market planning, apart from that it is also used as a basis for developing sustainable advantages, namely various advantages that can be realized through marketing efforts. In Maula Nasrifah's research (2022), customer loyalty is generated by satisfaction. Customer satisfaction can be achieved in terms of the quality of the products offered. The better the quality of a product, the higher the consumer satisfaction. Apart from product quality, price is also a factor that plays an important role in consumer satisfaction. Product quality is the overall characteristic of a product that is able to meet various consumer needs in accordance with consumer expectations[2].

Consumers or customers who choose the tofu industry as their choice not only pay attention to the quality of the tofu but also the quality of service, therefore the tofu industry owner must provide quality service, product quality and the right price in order to compete with other tofu factories, because in increasing capacity The attraction and loyalty of customers of a factory or company must prioritize this. Considering that there are so many tofu industry business actors, especially around the area in Dusun 1 Panca Bakti, South Marbau Village, this will certainly lead to competition between business actors, every tofu factory business actor will maintain the loyalty of every consumer. or its customers. Loyalty will be obtained from consumer satisfaction with the quality and price of the tofu offered. Product quality will be one of the factors that influences whether consumers will buy tofu or not. Consumers will consider the ingredients of tofu products both in terms of durability and taste.

Consumer confidence in the product, that the product purchased is a quality product in accordance with consumer expectations and loyalty will arise from consumers. Consumers will tell friends, family or people around them about the product about their satisfaction with using the product. It is important for companies to know whether consumers have high loyalty or not. From research conducted by Kthlyya, the research results show that there is an influence of product quality on customer satisfaction, there is an influence between price and product quality on customer loyalty through customer satisfaction as a mediating variable. However, there is no influence between price on customer satisfaction and customer loyalty and product quality on customer loyalty [3][4] With advances in the world of technology, business people are competing to attract consumers [5]. In terms of quality, the products produced by the tofu factory in Dusun 1 Panca Bakti, South Marbau Village, when compared with tofu products from competitors from other areas, do not show much difference in terms of taste and texture, the same as tofu generally marketed in that area. Even though in terms of texture and taste it is similar to tofu products in general, the tofu factory in Dusun 1 Panca Bakti, South Marbau Village has very loyal customers, this is proven by the survival of the factory's business to this day after five years of existence. Every product produced always sells well on the market, especially around the Marbau District area.

Price is the most important point in making a product in a company. This will result in price competition between various brands available on the market, so that consumers who are sensitive to price changes will tend to switch to other, cheaper brands. However, the phenomenon that occurs in the field is in the marketing of tofu factory production in Dusun 1 Panca Bakti, South Marbau Village, the prices offered by business actors are the same as the market price with the size of the tofu being relatively smaller than other tofu products. However, even with the same price and smaller size, customers still know the products from Dusun 1 Panca Bakti, South Marbau Village. The importance of customer satisfaction in companies, where the presence of good product quality in a company, will create satisfaction for its customers [6], [7].

The price and quality of the product is closely related to the customer. If the price and quality of the product provided is in accordance with the customer's wishes, it will be impossible for the customer not to use the product [8]. However, from the description above, it can be seen that the tofu products produced by the tofu factory in Dusun 1 Panca Bakti, South Marbau Village, in terms of quality and price, are no different from their competitors, but the products produced still have loyal customers. Given this phenomenon, the author felt interested in conducting research entitled "The Influence of Product Quality and Price on Customer Loyalty of Tofu Factory in Dusun 1 Panca Bakti, South Marbau Village, Marbau District, North Labuhanbatu Regency".

## 2. Materials and Method

This research uses a quantitative approach with a survey research design. This approach was chosen to collect data regarding customer perceptions and behavior related to the independent variables (product quality and price) and the dependent variable (customer loyalty). The collected data was analyzed using multiple linear regression techniques to test the simultaneous influence of product quality and price on customer loyalty. Apart from that, descriptive statistical analysis was also carried out to get a general idea of the data distribution and characteristics of respondents and this analysis will provide information about the significance and strength of the relationship between these variables.

## 3. Result

This section may be divided by subheadings. It should provide a concise and precise description of the experimental results, their interpretation, as well as the experimental conclusions that can be drawn.

### ***Reliability Test***

In the reliability test, there is a criterion, namely if the reliability value of each instrument is greater than 0.60, then the instrument is considered reliable, in accordance with the opinion of Kuncoro (2013), who says that if the Cronbach alpha value is  $> 0.600$ , then the instrument is reliable to use. The results of reliability testing in this research can be seen in the table below.

**Table 1.** Reliability Test Results of research instruments

Research Variables	Cronbach's Alpha	Reliability Limits	Description
Product quality	0,779	0,60	Reliable
Product Price	0,79	0,60	Reliable
Customer loyalty	0,774	0,60	Reliable

Source: Primary Data Processed at SPSS 22, 2023

From the table above, it can be seen that the Cronbach's Alpha value of the three instruments submitted is greater than 0.60, so it can be concluded that the statement items of each instrument in this study are reliable or every question asked from the questionnaire about the variables of factors that affect customer loyalty in the study is an appropriate or valid indicator as a measuring tool.

### **Classic Assumption Test**

The classical assumption test aims to determine the condition of the data used in the research. One way is to test the normality of the data.

#### **a. Normality test**

The normality test is used to determine whether the data is normally distributed or not normally distributed. The normality test was carried out by looking at the Kolmogorov-Smirnov Z and Asymp rows. Sig. (2-tailed). It has the condition that if Asymp Sig > 0.05 then the data is normally distributed, if Asymp Sig < 0.05 then the data distribution is not normal. A summary of the residual normality test results is shown in the following table

**Table 2.** Kolmogorov-Smirnov Z Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		45
Normal Parameters <sup>a,b</sup>	Mean	,0000000
	Std. Deviation	1,53421236
Most Extreme Differences	Absolute	,073
	Positive	,049
	Negative	-,073
Test Statistic		,073
Asymp. Sig. (2-tailed)		,200 <sup>c,d</sup>

Source: Primary Data Processed in SPSS 22, 2023

Based on the data above, it can be seen that the 2-tailed significant value is 0.989. The 2-tailed significant value is  $0.200 > 0.05$ . This can be interpreted as meaning that based on the results of the normality test above, it can be stated that all variables in this study have a normal distribution. By fulfilling the normality prerequisites, analysis can be carried out using parametric statistics.

### b. Multicollinearity Test

The multicollinearity test aims to find out whether the independent variables have the same high relationship or not. To find out whether there is multicollinearity or not, you need to look at the Variance Inflation Factor (VIF) value. With the criterion that if the Tolerance value is  $> 0.1$  or the same as the VIF value  $< 10$ , it can be concluded that there is no multicollinearity between the independent variables in the regression model of this research (Gozali, 2015). The summary of the multicollinearity test results can be shown in the following table:

**Table 3.** Multicollinearity Test Results

Model	Coefficients <sup>a</sup>							
	Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics			
	B	Error	Beta	Std.	t	Sig.	Tolerance	VIF
(Constant)	12,792	4,173			3,065	,004		
Product Quality	,304	,169			,266	4,797	,004	,910 1,098
Product Price	,326	,204			,237	3,600	,017	,910 1,098

a. Dependent Variable: Customer loyalty

Source: Primary Data Processed in SPSS 22, 2023

Based on the data above, it can be seen that the tolerance value of each research variable is greater than the tolerance value  $> 0.1$  and the VIF value  $< 10$ , so it can be concluded that all variables in this study are free from multicollinearity.

### c. Heteroscedasticity Test

To find out the difference in error variance for each variable value. This heteroscedasticity test is tested using the Glesjer test by looking at the results of the F test. If the F test is significant ( $\text{sig F} \leq 0.05$ ) then it indicates heteroscedasticity occurs, whereas if  $\text{sig F} \geq 0.05$  then heteroscedasticity does not occur. The condition for this research is that heteroscedasticity does not occur. The summary of the heteroscedasticity test results is as follows:

**Table 4.** Heteroscedasticity Test

Model	Coefficients <sup>a</sup>							
	Unstandardized Coefficients		Standardized Coefficients					
	B	Std. Error	Beta		T		Sig.	
1 (Constant)	1,860	2,579			,721		,475	
Product Quality	-,029	,104			-,044	-,274		,786
Product Price	-,011	,126			-,015	-,091		,928

a. Dependent Variable: Abs\_Ras

Source: Primary Data Processed in SPSS 22, 2023

Based on the results of the analysis above, it was found that the sig value of the product quality variable was 0.786, the sig value of the product price variable was 0.928. Because the sig value of all these variables is  $> 0.05$  with an F value of 1.455, it can be concluded that heteroscedasticity does not occur. Thus, the prerequisites for regression analysis in this research are fulfilled.

### **Multiple Linear Regression**

To test the influence of the independent variable on the dependent variable, it was analyzed using multiple linear regression analysis. The following are the results of the regression analysis of the influence of the independent variable on the dependent variable.

**Table 5.** Statistical Test Results Using Multiple Linear Regression

Model	Coefficients <sup>a</sup>					
	Unstandardized Coefficients		Standardized Coefficients		T	Sig.
	B	Std. Error	Beta	Std.		
1 (Constant)	12,792	4,173			3,065	,004
Product Quality	0,304	0,169	0,266	4,797		,004
Product Price	0,326	0,204	0,237	3,600		,017

Source: Primary Data Processed in SPSS 22, 2023

Based on the results above, it can be seen that the equation for the multiple linear regression function includes:

$$Y = 12.792 + 0.3041 + 0.3262 + e$$

#### **a. Partial test (t test)**

The partial test (t test) is a test used to determine the significance of the contribution between each independent variable to the dependent variable. From the processed SPSS output data above, it shows that there is a link between the independent variables partially and the dependent variable. The t-table value with a 95% confidence level ( $\alpha = 0.05$ ) is 2.01. A partial explanation of the relationship between each variable and the independent variable is as follows:

1. The constant is 12.792, which means that if the product quality and product price variables are equal to zero, then the customer loyalty variable in the research area will experience an increase of 12.792 t-count values.
2. The product quality variable (1) is  $4.797 > t\text{-table value } 2.01$  and the significance is smaller than 0.05 ( $0.004 < 0.05$ ), so it can be concluded that  $H_1$  is accepted and  $H_0$  is rejected, meaning that the product quality variable has a partial effect significant or real impact on customer loyalty in the research area. The value of 0.304 in the unstandardized coefficient (b) shows that the regression coefficient (parameter) of the product quality variable has a positive sign with a value of 0.304. This indicates that if there is an increase in the product quality value by 1 (one), it will increase customer loyalty by 0.304 with the ceteris paribus assumption.

3. The calculated t-value for the product price variable (2) is  $3.600 > t$ -table value 2.01 and the significance is smaller than 0.05 ( $0.017 < 0.05$ ), so it can be concluded that  $H_1$  is accepted and  $H_0$  is rejected, meaning that partial product price variables have a significant or real effect on customer loyalty at the research location. The value of 0.326 in the unstandardized coefficient (b) shows that the regression coefficient (parameter) of the product price variable has a positive sign with a value of 0.326. This indicates that if there is an increase in the return time by one year, it will increase customer loyalty by 0.326 with the *ceteris paribus* assumption.

### b. Simultaneous test (F test)

Simultaneous test (F test) is a test used to determine the significance of the contribution between the independent variables as a whole and the dependent variable. To find out how the contribution between the independent and dependent variables is, here are the test results:

**Table 6.** Test Result Values – F

ANOVA <sup>a</sup>					
Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	20,344	2	10,172	4,125	,023 <sup>b</sup>
Residual	103,568	42	2,466		
Total	123,911	44			

a. Dependent Variable: Customer loyalty  
b. Predictors: (Constant), product price, product quality

Source: Primary Data Processed in SPSS 22, 2023

From the results of the table above based on simultaneous tests, it is known that the calculated F value is 40,809, while the F table is known to be  $df_1 = 2$  and  $df_2 = 42$  with a confidence level of 95%, so the F table is 3.28. Therefore, F count is  $4.125 > F$  table 3.21 and the significance value is 0.023 ( $< 0.05$ ). From the SPSS calculation results above, it shows that  $H_0$  is rejected and  $H_1$  is accepted. This means that there is a simultaneous influence between product quality and product price variables on tofu customer loyalty in the research area.

### c. Determination Test

The Determination Coefficient is a regression test which functions to determine how closely the relationship between the independent variable and the dependent variable is. The regression coefficient value can be seen in the R Square column as in the following table:

**Table 7.** Determination Coefficient Values

Model Summary <sup>b</sup>					
Model	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	
1	,805 <sup>a</sup>	,6480	,6080	1,5703	2,025

Source: Primary Data Processed in SPSS 22, 2023

Based on the results of data processing via SPSS for the coefficient of determination (R<sup>2</sup>) in the table above, an R Square value of 0.6480 is produced, which means that customer loyalty to豆腐 at the research location is influenced by product quality and product price, namely 64.80%, while the remaining 35.2% is influenced by other factors outside the variables studied. Meanwhile, the Multiple-R value has a value of 0.805, meaning that there is a close relationship between product quality and product price variables on豆腐 customer loyalty in the research area with a closeness level of 80.5%.

#### 4. Discussion

##### 4.1 The Influence of Product Quality on Customer Loyalty

Based on the findings of this research regarding the influence of product quality on豆腐 customer loyalty, the results show that product quality has a positive and significant effect on豆腐 customer loyalty. Based on data from questionnaires distributed to respondents, respondents stated that they agreed that quality products would be able to increase customer loyalty. Where the most dominant indicators according to respondents are the durability and taste of the product. When consumers choose a product, they also really pay attention to its quality so that as their desire to get good quality goods is fulfilled, the level of loyalty of consumers who have become customers will also be higher. If consumers feel they are not getting a product with good quality, they will easily look for alternatives that they feel can meet their wishes.

From the research results, the product quality variable (1) is  $4.797 > t$ -table value 2.01 and the significance is smaller than 0.05 ( $0.004 < 0.05$ ), so it can be concluded that H<sub>1</sub> is accepted and H<sub>0</sub> is rejected, meaning that partially the product quality variable has a significant or real effect on customer loyalty in the research area. These results are in accordance with Candra's (2022) research, which states that the quality of the products produced by the豆腐 factory will influence the level of customer loyalty where from the results of the t test the t count is 19.781 with a level significant 0.000. Because the probability is  $< 0.05$ , then H<sub>a2</sub> is accepted and H<sub>o2</sub> is rejected, it has been proven that there is an influence of product quality on customer loyalty or the second hypothesis has been proven. This can be interpreted as the fact that Mr. Samino's豆腐 customer loyalty is also influenced by product quality.

##### 4.2 Effect of Product Price on Customer Loyalty

Based on the results of statistical tests, it can be seen that there is a positive and significant influence of product prices on customer loyalty of豆腐 factories in the research area. From the results of interviews with respondents, the results obtained were that according to the respondents, the price of豆腐 really determines respondents' purchasing decisions, where prices that match the quality will make consumers continue to respond. buying the product over a long period of time, the price of the product contributes to customer loyalty, where the conformity of price with product quality will increase consumer loyalty, you know.

Of the nine indicators regarding product price variables, the indicator that received the highest research average was the suitability of price to product quality. According to respondents, even though the price of the goods has increased, consumers will still buy them because they are satisfied with the quality of the product. However, based on the law of demand, if prices increase, demand will

decrease. A decrease in demand for these goods will not have a significant effect on the level of customer loyalty, this is because consumers continue to make purchases in smaller quantities. This phenomenon can be interpreted as meaning that consumers are still loyal to consuming tofu products in the research area.

Meanwhile, according to research by Candra (2022), the t-test shows that the t-count is -.981 with a significance level of 0.330. Because the probability is  $> 0.05$ , then  $H_a$  is rejected and  $H_0$  is accepted, it has been proven that there is no effect of price on customer loyalty or the second hypothesis has been proven. This can mean that tofu customer loyalty is also influenced by the price of tofu. Consumers are willing to spend a certain amount of money to get a product, of course accompanied by the hope that they will get a product that meets their expectations in various aspects. Of course, when these expectations can be met, then price is no longer a problem but becomes a choice.

When producers provide more price choices to consumers, consumers will be freer to choose based on their needs. If consumers want tofu at a low price then they can easily get it and vice versa, if they want tofu at a high price then they can easily get it too. Currently, tofu is available at various price options so that when consumers choose for the first time and finally feel satisfied, they will become customers and when their needs continue to be met, they will become loyal customers. But other producers are also getting more creative by providing various alternatives so that when consumers are not satisfied with tofu, they will immediately change brands.

## 5. Conclusions

Based on the results and discussion of this research, the conclusions in this research are as follows: Product quality has a significant and positive effect on the level of loyalty of tofu customers in the research area where the t-count value is  $4.797 > t$ -table value 2.01 and the significance is smaller than 0.05 ( $0.004 < 0.05$ ), at a confidence level of 95%. Product price has an effect significantly and positively on the level of tofu customer loyalty in the research area where the t-count is  $3.600 > t$ -table value 2.01 and the significance is smaller than 0.05 ( $0.017 < 0.05$ ) at the 95% confidence level. Product quality and product price simultaneously or simultaneously influence the know customer loyalty in the research area where the calculated F value is  $4.125 > F$  table 3.21 and the significance value is 0.023 ( $< 0.05$ ) at the 95% confidence level.

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