

# Satisfaction and Loyalty of Consumers of Dried Mackerel (*Scomberomorus commersoni*) In Bengkulu City

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**ABSTRACT:** Dried mackerel fish is a type of processed mackerel fish. Even though Mackerel is in dry form, many people consume it. To analyze the level of consumer satisfaction and loyalty and the factors that influence the level of satisfaction and loyalty of dried Mackerel in the city of Bengkulu. CSI (Customer Satisfaction Index) analysis tool to analyze satisfaction levels, Loyalty Pyramid to analyze Loyalty levels and Structural Equation Modeling (SEM) to analyze the influence between variables. The results of the CSI calculation are 79.59%. Consumer loyalty for dried Mackerel in Bengkulu City, with the highest score, lies in the Liking the Product category, with a value of 143%. These results indicate the level of consumer satisfaction for dried Mackerel in Bengkulu City is included in the satisfaction criteria with CSI values between 66% -80.99%. Loyalty levels produce an inverted pyramid shape. In the simultaneous test, the direct effect of the product quality, price and place variables significantly affect satisfaction. Still, the service quality variable does not affect satisfaction. In the simultaneous test, the direct effect of product and service quality variables significantly affects customer loyalty. In contrast, the price and place variables do not significantly affect customer loyalty. The indirect effect analysis showed that the service quality variable has no significant effect on loyalty through satisfaction, and product quality, price and place variables significantly affect consumer loyalty Dried Mackerel through satisfaction. Dried Mackerel traders can maintain the taste of dried Mackerel through salting and drying processes using the PEHI LING drying concept (Practical Economical and Hygienic with an Environmental Insight).

**Keywords:** Satisfaction, Loyalty, Dry Mackerel

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## INTRODUCTION

Bengkulu is located very close to the coastal area and directly faces the Indian Ocean. This city has an area of 144.52 km<sup>2</sup> with an average height of less than 500 meters. (BPS, 2020). The increase in production in the fisheries sector causes the demand for fresh fish to increase. The fish that have been caught will be handled as best as possible so that they remain fresh until they reach the hands of consumers. Still, quite a few fish are mismanaged, experiencing a decrease in quality, low consumer interest for consumption and a low selling price so that fishermen do not get a high profit. Should get. Post-capture processing can overcome the above

problems, namely preserving fish so that fishery products can last longer. In addition to maintaining the quality of fishery products, fish processing is carried out to add economic value to fish and increase the selling price of fish (Sari, 2011).

Salted or dried fish is one type of processed fish that can help overcome spoilage and increase the selling price of fish. In terms of fulfilling nutrition, dried fish also plays a vital role in meeting animal protein needs because it contains high protein value. With a relatively cheap price compared to other animal protein sources, it is very possible for low-income people to meet their protein needs. The upper middle class has accepted dried salted fish; even particular

dried salted fish products are considered luxury food (Ruslan, 2016).

Various fishery products are processed and preserved into salted or dried fish, including Mackerel Fish (*Scomberomorus commersoni*). Mackerel fish is the leading marine fishery commodity that has high commercial value. Mackerel can be used for commercial and recreational needs because it can produce many processed products compared to other types of fish, and the processing of dried Mackerel is a promising business. (Bhattacharya, 2012). Dried Mackerel has a high protein content and low water content compared to fresh Mackerel; this difference occurs due to drying at high temperatures and the salting process's influence. (Almatsier, 2010) immaculate's research (2013) says that a decrease in the material's water content will increase the protein content; the drier the water content, the higher the protein content.

Processed mackerel fish products in the form of dried fish are one form of processed fish food that is in demand by Indonesian people, especially people in Bengkulu City. The city of Bengkulu is also one of the central areas which is famous in Bengkulu Province for its dried Mackerel. The high demand for Mackerel has also driven the growth of the Mackerel drying business because dried Mackerel has a crunchy and tasty taste, is easy to obtain, has thick flesh, is available all year round and has a more extended storage period. Nabila (2019) says the price of dried Mackerel is higher than the price of fresh Mackerel and several other types of dried fish, which are standard at dried fish traders in Bengkulu City, such as the Geleberan fish (*Opisthopterus tardoore*), Kase (*Thryssa dussumieri*), Kerong (*Johnius borneensis*) and other. Even though the price of dried Mackerel is higher than the price of Mackerel and other types of dried fish, many people still want to buy dried Mackerel.

Consumers of dried Mackerel certainly have tastes and product ratings as well as a level of satisfaction with dried mackerel products compared to other types of dried fish. Hence, consumers still buy dried Mackerel even at a higher price. From the consumer's assessment, a recommendation or suggestion will be obtained, which can later be learned by dried fish craftsmen in making dried Mackerel according to consumer wishes. Business actors are expected to be able to study the needs and desires of consumers, either now or in the future (Kotler, 2012). According to Lupiyoadi and Nurul (2022), poor quality will cause dissatisfaction with consumers, not only consumers who enjoy the dish but also have an impact on other people. The advantage that dry fish business actors receive after creating consumer satisfaction is the close relationship between consumers and business actors.

It is a good start for the dried fish business because consumers tend to re-purchase a dried mackerel product and create loyal consumers. Business actors will benefit from the response of consumers who will make recommendations to their friends by word of mouth (Tjiptono, 2008). Consumer loyalty is undoubtedly caused by several things related to consumer satisfaction itself. Therefore, consumer satisfaction needs to be maintained by dried fish craftsmen, especially the type of dried Mackerel in Bengkulu City. Based on several previous studies such as research (Nidanawati, 2021) regarding dry fish consumer satisfaction in the province. This study differs because previous researchers have never examined consumer satisfaction and loyalty for dried Mackerel in Bengkulu City. Based on this update, the author is interested in researching consumer satisfaction and loyalty to mackerel fish and the factors that influence consumer satisfaction and loyalty to dried mackerel fish

in Bengkulu City and, of course, with a measurement concept different from previous studies.

## MATERIALS AND METHODS

### Description of the Study Site

This research used a quantitative type, which was carried out in Bengkulu City, Bengkulu Province. This location was chosen with consideration because it is an area that has the potential for dry Mackerel to develop well for research. Based on the initial survey in the study area, it is known that the total population is 96 dried fish processors in Bengkulu City who sell dried Mackerel. There were 86 dried fish traders in Sumber Jaya Village, Kampung Melayu District and 10 in Malabero Village, Teluk Segara District. This research used purposive sampling in its sampling. Determination of Respondents for populations that are difficult to know in advance is determined using the Virtucio formula to obtain a total of 96 respondents.

### Research Materials

Primary and secondary are the data used in this research. Primary data was obtained through a questionnaire and contained a list of questions interviewed by respondents, namely dried mackerel consumers in Bengkulu City. In contrast, secondary data was obtained indirectly by studying related agencies' literature, books and documents. Related agencies include Sumberjaya Village and Teluk Segara Village in 2021 and the Central Bureau of Statistics in 2020

### Ethical Approval

This experiment was carried out based on the approval of Badan Kesatuan Bangsa dan Politik [070/2527/B.Kesbangpol/2022].

### Methods Data Analysis

#### Satisfaction Level Analysis

The CSI (Customer Satisfaction Index) method determines the level of satisfaction with a product or service that consumers have used. There are four steps used to determine the CSI value, namely (Siagian, 2020):

1. First, calculate the WF (Weighted Factor) value by changing the average value of the importance level of each attribute into a per cent number to get a total WF of 100%.
2. Second, calculating the Weighting Score (WS) value, the WS value is the multiplication value between the average performance level value and the WF.

The formula:  $WS = WF \times \frac{\sum Xi}{N}$

3. Third, calculate the Weighted Total (WT) value by adding up the Weighted Score values of all attributes.
4. Fourth, calculate the Customer Satisfaction Index (CSI) value by calculating WT divided by the maximum consumer satisfaction scale used (in this research, the maximum consumer satisfaction scale used is 5, which can be seen in Table 3 and then multiplied by 100%.

The formula:  $\times 100\%$

An explanation of the formula can be seen in table 1.

**Table 1.** Customer Satisfaction Index (CSI)

Attribute	I	P	S
	Scale 1-5	Scale 1-5	(S) = (I) x (P)
.....	...	...	...
Total Score	Total (I) = (Y)		Total (S) = WT

Description: I (Interest), P (Performance), S (Score), WF (Weighted Factor), WS (Weighting Score), (WT (Weighted Total) (Bhote, 1996)

There are 16 attributes used in this study, namely the color of dried Mackerel (striking or not) (1) and the cleanliness of the place where dried Mackerel is sold (2). Appropriate price of dried Mackerel (3), availability of the number of fish when buying (4), choosing the size of dried Mackerel (5), choice of type of dried Mackerel (6), cleanliness of dried Mackerel, (7), smell/aroma of dried Mackerel (scorching or not) (8), degree of crispiness of dried Mackerel (9), the texture of dried Mackerel (hard or soft) (10), packaging of dried Mackerel (11), service of dried mackerel traders (fast, friendly, communication skills) (12), side effects from body condition after consuming (itching) (13), health service permits (14), taste of dried Mackerel (15), accuracy of scales when weighing dried Mackerel purchased (16). The consumer satisfaction scale used in this study can be seen in Table 2.

**Table 2.** Satisfaction Level Criteria

No.	CSI Value (%)	Description (CSI)
1	81-100	Very satisfied
2	66 – 80.99	Satisfied
3	51 – 65.99	Quite satisfied
4	35 – 50.99	Less satisfied
5	0 – 34.99	Not satisfied

Description: CSI (Customer Satisfaction Index) (Widodo, 2018)

## Loyalty Level Analysis

The loyalty level of dried fish consumers in Bengkulu City was analyzed using a loyalty pyramid with several levels of categories. The measurement of consumer loyalty describes the percentage categories of switchers or price buyers, habitual buyers, satisfied buyers, those who like the brand and committed buyers from dried fish consumer respondents in Bengkulu City. According to David (2009), Switchers are buyers who switch brands because of low prices. Habitual buyers are buyers who consume a product brand for reasons of habit. Satisfied buyers are categories of buyers who are satisfied with the brands they consume. Liking of the brand is a category of buyers who like the brand based on associations related to symbols, a series of experiences using the brand before, or high-quality perceptions. Committed buyers are categories of buyers who are loyal, proud, and willing to promote a brand voluntarily and then determined using the calculations as in Table 3.

Analyzing loyalty based on the loyalty pyramid category consisting of Switcher Buyers, Habitual Buyers, Satisfaction Buyers, Liking the brand, and Committed Buyers is measured using the Likert scale method using a questionnaire.

**Table 3.** Calculation indicator of loyalty pyramid

Switcher Buyer/Habitual Buyer/ Satisfaction Buyer/Liking the product /Committed Buyer					
Product	Answer	X	F	FX	%
Dried Fish	Strongly disagree	1			
	Disagree	2			
	undecided	3			
	Agree	4			
	Strongly agree	5			
Total =					

Description: X (Category value), F (Frequency of Answers) (Duriyanto, 2004)

$$\text{Average} = \frac{\sum F}{\sum FX}$$

$$\text{Loyalty Level} = \frac{\text{Number of respondents } 4 + 5}{\text{Total respondents}} \times 100\%$$

Knowing the value of each category, namely switcher, habitual, satisfied, liking the brand and committed buyer, it is adjusted to the pyramid of brand loyalty. According to Durianto (2004), the levels (hierarchy) of brand loyalty are from switcher (the lowest level to the most significant portion), habitual buyers, satisfied buyers, liking of the brand, and committed buyers (highest level to the highest portion). The smallest is very suitable for brands that do not yet have substantial brand equity. In contrast, for brands with strong brand equity, the levels or hierarchy of brand

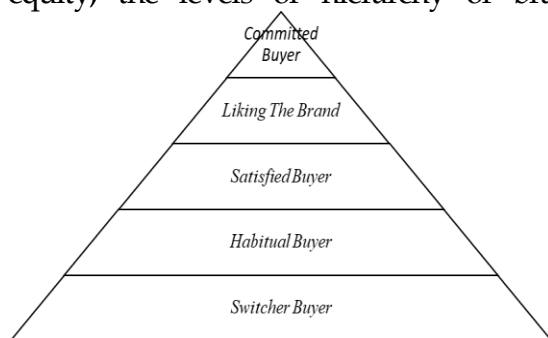


Figure 1. Weak Brand Loyalty Pyramid

loyalty starts from the switcher (the lowest level - with a minor portion), habitual buyers, satisfied buyers, liking of the brand, to committed buyers (highest level to with the most significant portion). Measuring the level of consumer loyalty for dried fish in Bengkulu City asked questions according to the indicators of Switcher Buyer, Habitual Buyer, Satisfaction Buyer, Liking the product, and Committed Buyer to dried fish buyers in Bengkulu City. Based on this explanation, it can be seen in Fig. 1. and fig. 2. below.

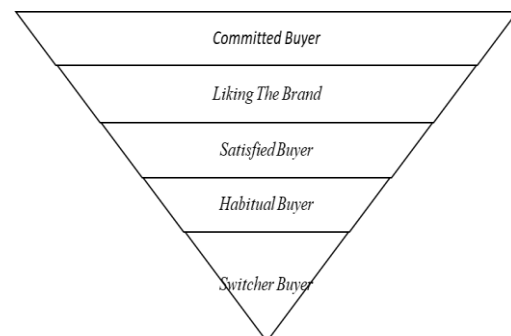


Figure 2. Powerful Brand Loyalty Pyramid

### Analysis of SEM (Structural Equation Model) with PLS

Research by Sholihin and Ratmono (2013) to analyze the factors that influence consumer satisfaction and loyalty in the context of dried mackerel fish using Partial Least Squares (PLS) Structural Equation Modeling (SEM) analysis. This research aims to determine the form of the model, examine relationships between various structural components, indicators, and constructs, and clarify the relationships between constructs and their indicators. The SEM-PLS model can also be used to explain whether or not there is a relationship between latent variables so that the relationship between variables becomes clear (Sholihin and Ratmono, 2013). The analysis technique in this study uses the stages in the PLS-SEM

analysis proposed by Narimawati (2015) as follows:

The first step is to test the measurement model (outer model), which is a test to measure the extent to which indicators can explain their latent variables. This test aims to ensure that the measurements used are valid and reliable. Indicator measurements were carried out using convergent validity, discriminant validity, average variance extracted (AVE) and composite reliability tests.

The second is testing the structural model (inner model) to test the influence of one latent variable on other latent variables as measured by the PLS t-test. The structural model or parts of the model can be measured by examining the R-squared value, which shows the influence of the variables in the model. According to Abdillah and Jogiyanto (2015), the structural model is evaluated

using R<sup>2</sup> for the dependent construct, the path coefficient value, or the t number for each path to test the significance between the model constructs. The higher the R-squared value, the better the model.

The third stage is testing the hypothesis calculated using the bootstrapping method. This test shows how significantly the exogenous variables affect the endogenous variables. The PLS significant test is used to prove whether the influence of exogenous and endogenous variables is significant. In PLS, this is done with the bootstrapping procedure. Testing the hypothesis, it is known that the value of the t-table for a confidence level of 95% ( $\alpha/2 = 0.025\%$ ) is 1.98. In this test, a two-way test was carried out because, at the time, the research had not been carried out, and the estimation results had not been obtained; this two-way test was used because it was testing a hypothesis whose direction was unknown. For example, there is a suspected hypothesis and a significant effect between exogenous and endogenous variables. The criterion for

accepting the hypothesis is if the t statistic > t table or – statistics  $\leq -t_t$  table and p-values < 0.05 for a 95% confidence level ( $\alpha/2 = 0.025\%$ ),

## RESULTS AND DISCUSSION

### Respondent Characteristics

Consumer characteristics are traits or characteristics of dried fish consumers related to their socio-economic status and aim to know the condition or circumstances of the dried fish consumers. The characteristics of dried fish consumers are gender, age, last formal education, type of work consisting of main job and side jobs, number of family members, intensity of purchases, number of monthly purchases and income.

### Consumer Satisfaction Level of Dried Mackerel with CSI (Customer Satisfaction Index) Analysis

The level of consumer satisfaction with dried mackerel products in Bengkulu City is presented in Table 4.

**Table 5.** CSI Calculation Results for Dried Mackerel Artisans

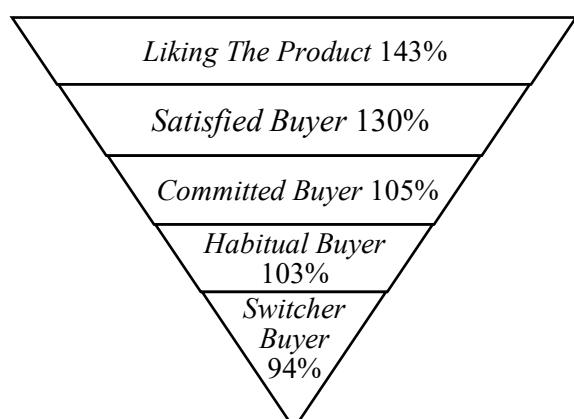
Attribute Number	Average Level of Interest	Weighted Factor (WF)	Average Performance Level	Weighted Score (WS)
1	2	$3=(2 \text{ to } i / ) \times 100$	4	$5=(3 \times 4)/100$
1	4,5	6,61	4,2	0.28
2	4,5	6,62	4,3	0.28
3	4,1	6.06	4,2	0.25
4	3,8	5.50	3,8	0.21
5	4.0	5.85	3,8	0.22
6	3,9	5,77	3,8	0.22
7	4,8	7.02	4,3	0.30
8	4,7	6.85	4,3	0.29
9	4,4	6,36	4,2	0.27
10	4,2	6,20	4.0	0.25
11	3,7	5,40	3,1	0.17
12	4,4	6,44	4,2	0.27
13	3,9	5,68	3,9	0.22
14	4,1	6.03	2,5	0.15
15	4,7	6,82	4,3	0.30
16	4,7	6,80	4,3	0.29
Total	68	100	63	3.98
Weight Total (WT) = WS Total / 16				

Source: Data Source: Primary Data Processed (2022)

Based on the results in Table 5, the CSI calculation results for dried mackerel fish products in the city of Bengkulu are 79.59%. This research aligns with Putri's (2017) results, which achieved a CSI (Customer Satisfaction Index) value of 75%, showing that consumers are included in the satisfaction criteria for sea fish.

### Consumer Loyalty Level of Dried Mackerel with Loyalty Pyramid Analysis

The percentage results are depicted in the form of a pyramid, which is presented in Fig. 3.



Source: Primary Data Processed (2022)

Fig. 3. Loyalty Pyramid Analysis Results

Fig. 3. above shows that the level of loyalty that has been analyzed previously produces an inverted pyramid shape because the Committed Buyer value is higher than the Switcher Buyer value. The highest loyalty value of dried mackerel consumers in Bengkulu City in this study lies in the Liking The Product category with a value of 143%, meaning that dried mackerel consumers are consumers who like dried Mackerel, where their preferences are based on good previous buying experience. It is an experience of good taste, prices that match the quality of the product and a delicious food menu combined with dried Mackerel. Then, the measurement results show that brand equity for dried mackerel products is

vital because Committed Buyers have a much higher percentage of 105% compared to Switcher buyers, who only have 94%. Then, the Satisfied buyer value is 130%, and the Habitual buyer value is 103%. It follows the opinion of Durianto et al. (2004) that substantial brand equity will form a level of brand loyalty in the form of an inverted pyramid even though the highest level of loyalty is not in the committed buyer category.

The same research regarding the level of loyalty uses a pyramid analysis of loyalty, namely in Desi Nopriyenti's research (2020) regarding the level of loyalty for cooking oil. The study's results stated that consumers were not loyal because the Switcher Buyer value obtained was still above 50% or still large compared to the Committed Buyer value, which is only 26.67%. A significant Switcher Buyer value indicates that many packaged cooking oil respondents are still prone to switching to bulk cooking oil or other cheaper brands.

### Factors Affecting Consumer Readiness and Loyalty of Mackerel Dried Fish with Structural Equation Modeling (SEM)

#### Analysis of the Measurement Model (Outer Model)

##### Validity Test

The validity test in this research consists of two aspects, namely convergent validity, and discriminant validity. Convergent validity is measured by looking at the validity value of each indicator on the construct used in this research, and the results show a value above 0.5. These results confirm that the indicators used are valid, allowing further analysis. In addition, the Average Variance Extracted (AVE) value was also checked through algorithm analysis, and it was found that the value was

more significant than 0.5. These results indicate that the constructs used in the research can also be considered valid. In testing discriminant validity, the correlation between indicators and the same variable is compared with the correlation with other variables. The results show that all indicators used in this research meet the criteria for discriminant validity.

### Reliability Test

Reliability testing was carried out in two stages, namely by considering Cronbach's alpha and Composite Reliability values. For the construct to be considered reliable, the resulting values must exceed the threshold of 0.7 (Ghozali and Latan, 2015). The results of Cronbach's alpha and Composite Reliability measurements for each construct used in this research show numbers that meet these criteria. It confirms that the constructs in this research are reliable and allow continuation in further testing. The composite reliability test further strengthens the reliability test. The composite reliability value is the most significant in the construct (customer satisfaction), 0.945. All constructs on composite reliability already have good reliability because it has reached the expected value of >0.6.

### Structural Model Analysis (inner model)

Structural Inner Model testing is a method used to evaluate and describe the extent of the estimated relationship between latent variables or constructs. In this context, Wong (year of publication not stated) highlights the use of this method (Wong, 13). At the Structural Inner Model stage, an evaluation is carried out on the adequacy of the model by utilizing the  $R^2$  value. The  $R^2$  value is used to measure the ability of the structural model to make predictions, and the results of this  $R^2$  value can be found in Table 6.

Table 6. Value of  $R^2$

Variable	R-value <sup>2</sup>
Consumer Satisfaction	0.875
Consumer Loyalty	0.808

Source: Primary data processed (2022)

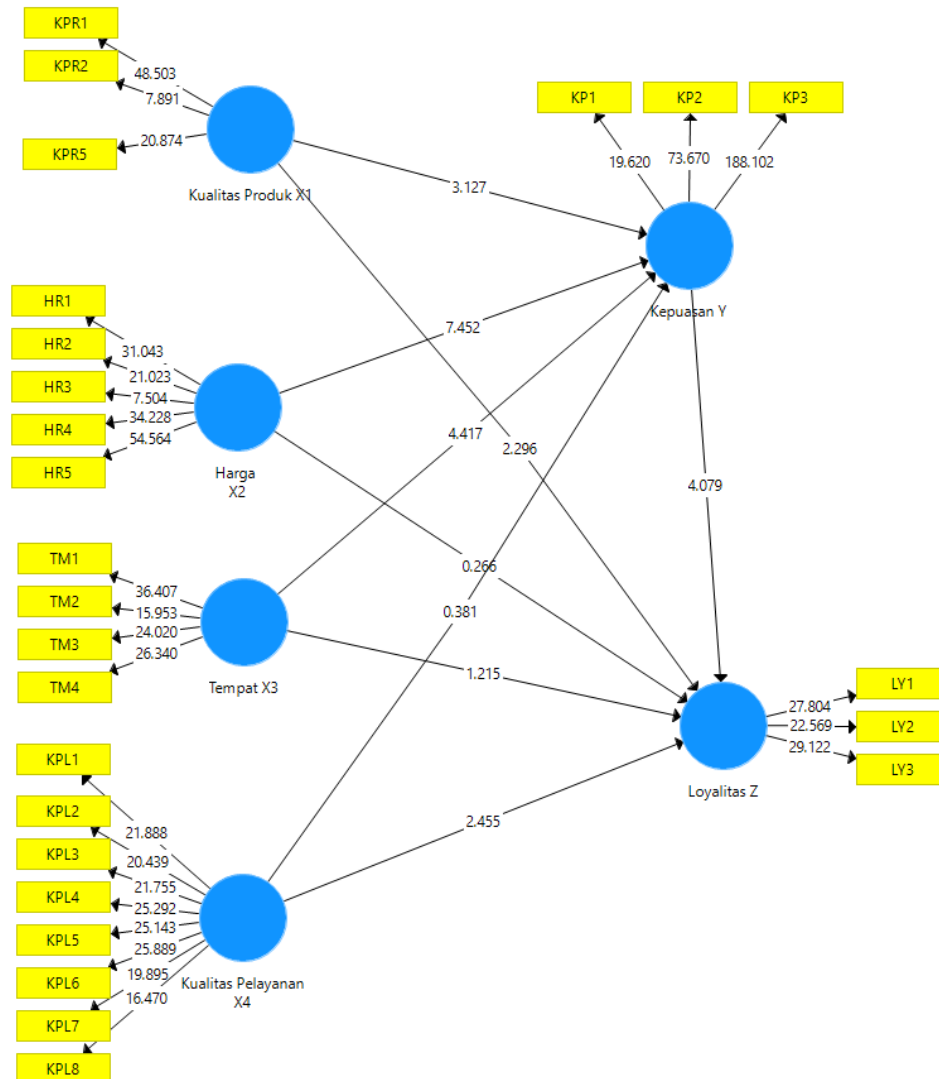
The results of Table 6 show that the  $R^2$  value of consumer satisfaction and consumer loyalty is 0.875 and 0.808, meaning that the variables of product quality, price, place and quality of service can influence the variable of consumer satisfaction by 87.5% and consumer loyalty by 80.8%, while 12.5% and 19.2% other influenced by other variables outside the variables studied such as promotions. This  $R^2$  value has shown that the model in this study is quite strong because it has indicated an  $R^2$  value above 0.33 (Ghozali and Latan, 2015).

### Hypothesis Testing

The significant test in this study was carried out using the bootstrapping test with a subsample of 500, which aims to prove the significance of the exogenous variables of product quality, service quality, price and promotion to the endogenous variables of satisfaction and loyalty and loyalty through consumer satisfaction. The research hypothesis was tested by looking at the t-statistical and p-values. Testing the hypothesis, it is known that the value of the t-table for a confidence level of 95% ( $\alpha/2 = 0.025\%$ ) is 1.98.

The criterion for accepting the hypothesis is if the t statistic > t table or - statistics  $\leq$  - t table and p-values <  $\alpha$ , where  $\alpha = 0.05\%$  ( $\alpha/2 = 0.025\%$ ), exogenous variables have a significant effect on endogenous variables. The results obtained in this test will show the magnitude of the influence between exogenous and endogenous variables. This influence can be seen in the path coefficient image in Fig. 4.





Source: Primary data processed (2022)

Fig. 4. Path coefficient of bootstrapping results

### Effect of Exogenous Variables (Quality of Product, Price, Place and Quality of Service) on Satisfaction

Table 7. Output Results of Hypothesis Testing Effect of Exogenous Variables on Satisfaction

Variable	Original Sample (O)	Sample Means	t-statistics	p values	Information
Product Quality -> Satisfaction	-0.311	-0.306	3,127	0.002	Accepted
Price -> Satisfaction	0.826	0.819	7,452	0.000	Accepted
Place -> Satisfaction	0.362	0.359	4,417	0.000	Accepted
Service Quality -> Satisfaction	0.045	0.050	0.381	0.703	Rejected

Source: Primary data processed (2022)

Product quality testing results show that product quality is an exogenous variable significantly affecting consumer satisfaction. The test results show that the t-statistic value is  $3.127 > 1.98$  and the p-value is  $0.002 < (\alpha/2 = 0.025 \%)$ , so it is concluded that the t-statistic value is greater than the t-table value and the p-values are more minor than  $\alpha$ . Therefore, the product quality variable partially significantly influences consumer satisfaction. These results follow the study's results, which found that dominant consumers agreed that dried mackerel products had a good quality product taste. It meant that the better the consumer's perception of the product, the better the level of consumer satisfaction with dried Mackerel.

This study's results align with several previous studies, including those by Novrianda (2018) and Pertiwi (2017), where both studies concluded that product quality variables partially had a positive and significant effect on consumer satisfaction. Research conducted by Sandian (2018) regarding consumer satisfaction at the Sate Kiloan H. Tohir restaurant obtained a relatively similar conclusion that the product quality of the satay restaurant Sate Kiloan H. Tohir has shown a positive and significant effect quality has had a good influence. Hayati and Gracia (2015) in their research showed that the product quality of the Pak Ndut Solo Fried Duck and Chicken Restaurant played a good role because it had a positive and significant influence on customer satisfaction of the Pak Ndut Solo Fried Duck and Chicken Restaurant.

The results of the partial price hypothesis show that the price variable has a t-statistic value of  $7.452 > 1.98$  and a p-value of  $0.000 < (\alpha/2 = 0.025 \%)$ , so it is concluded that the value of the t-statistic greater than the t-table value and the p-value is smaller

than  $\alpha$  and the price variable partially has a significant effect on consumer satisfaction. The results of this hypothesis are also in line with the results of research when, in the field, consumers are more dominant in agreeing on each question on the price variable so that the price of dried Mackerel follows the consumer's ability to pay for the product. According to consumers, the price paid to get the product is based on the quality of products made from Mackerel, not expensive and affordable for consumers. The results of consumer responses indicate that consumers are satisfied with the price of dried Mackerel. The research results from Setyo (2017) concluded that price significantly affects consumer satisfaction. Amanah's (2010) research, titled *The Influence of Price and Product Quality on Consumer Satisfaction at Majestyk Bakery & Cake Shop Branch HM Yamin Medan*, found that price has a positive effect and is significant to customer satisfaction.

The partial results of the place hypothesis show that the place variable has a t-statistic value of  $4.417 > 1.98$  and a p-value of  $0.000 < (\alpha/2 = 0.025 \%)$ . So, it was concluded that the price variable partially significantly influences consumer satisfaction. The place is essential in reaching the target market in the marketing mix. A strategic location will undoubtedly be more profitable for producers and consumers to reach the distribution site more easily (Santosa, 2015). So, companies must select locations responsive to future economic, demographic, cultural and competitive situations.

The service quality test results show that the service quality variable has no positive and significant effect on customer satisfaction. The test results show that the t-statistic is  $0.381 < 1.98$ , and the p-value is  $0.703 > (\alpha/2 = 0.025 \%)$ . So, it is concluded

that the t-statistic value is smaller than the t-table value, and the p-value is more excellent than ( $\alpha/2 = 0.025\%$ ). The results of the study stated that service quality has not been able to play a role in increasing consumer satisfaction for dried Mackerel in Bengkulu City. The quality of service has no effect according to the conditions in the field because traders or sellers of dried fish, each stall, on average, only has one serving the buyer. When the buyers come, not only mackerel consumers, it will result in services provided by traders to mackerel consumers.

Dried Mackerel is not optimal, but mackerel consumers still buy Mackerel because adjacent kiosks make it easier for buyers to buy from other traders; this is supported by the statement of respondent Atika (46 years): "The service provided by fish traders is certainly not the same as the service provided at food stores or goods that are already large, besides if there are a lot of buyers they can buy next door." provide a positive and significant influence on

consumer satisfaction. These statements are contrary to the research result, which is not significant according to Bahar and Herman (2015). The results of their research show that service quality has a real and significant influence on customer satisfaction. The research results by Windarti and Tias et al. (2017) show that the service quality variable positively and significantly affects consumer satisfaction with honey doughnut products at CV. Cihanjuang Honey Donuts, Pekanbaru. It is also supported by Apriyani's research (2017) results, which concluded that service quality significantly affects customer satisfaction.

#### **Effect of Exogenous Variables (Quality of Products, Price, Place and Quality of Service) on Loyalty.**

The next test is to see the indirect effect of exogenous variables (product quality, price, place and service quality) on loyalty. The statistical test results generated through the bootstrapping test can be seen in the following table:

Table 8. Output results of hypothesis testing effect of exogenous variables on loyalty

Variable	Original Sample (O)	Sample Means	t-statistics	p values	Information
Product Quality -> loyalty	0.265	0.260	2,296	0.022	Accepted
Price -> loyalty	-0.044	-0.042	0.266	0.790	Rejected
Place -> loyalty	-0.166	-0.168	1.215	0.225	Rejected
Quality of Service -> loyalty	0.356	0.373	2,455	0.014	Accepted

Source: Primary data processed (2022)

The table above presents statistical values ranging from the original sample to the p values. The t statistical value of product quality, price and place through the satisfaction variable shows that there is no more than t table 1.98 and p-value  $< (\alpha/2 = 0.025\%)$ —namely price and place variables, but product quality and service quality.

The price in this hypothesis does not directly affect loyalty; the t statistic is 1.215  $< 1.98$ , and the p-value is 0.225  $> (\alpha/2 = 0.025\%)$ . It is smaller than the table value of 1.98 because the price of dried fish is relatively high compared to fresh Mackerel and other dried fish. However, it is still purchased and consumed by respondents because of the satisfaction of the respondents

when consuming dried Mackerel. So, the price of Mackerel will not be purchased by consumers if there are no supporting variables such as satisfaction.

The place also does not affect loyalty, where a place has a statistical t-value of 1.278  $< 1.98$  and a p-value of 0.790  $> (\alpha/2 = 0.025\%)$ . It is because the places or locations selling dried Mackerel are quite widely spread in Bengkulu City, so buyers can buy dried Mackerel anywhere if they are loyal. This research is in line with the research conducted by Selang (2013) that the place variable does not affect consumer loyalty at Freshmart Bahu Mall Manado. So traders must consider and select locations responsive to future economic, demographic, cultural and competitive situations.

Product quality affects loyalty where the t-value of product quality statistics is 2.296  $> 1.98$ , and the p-value is 0.022  $< (\alpha/2 = 0.025)$ , meaning that the better the quality of dried mackerel products, the higher the level of consumer loyalty. According to Kotler and Armstrong (2004), a consumer will favour a product that offers the best quality, performance and characteristics of the product concept. According to the findings of a previous study by Mangore et al. (2015), changes in customer loyalty are affected by changes in the quality of the products offered; customers will be happy if the product is offered with the best quality, best performance, and best features.

Service quality affects consumer loyalty where the t-value of service quality statistics is 2.455  $> 1.98$ , and the p-value is 0.014  $< (\alpha/2 = 0.025)$ . In this hypothesis, service quality influences loyalty despite not affecting satisfaction. When consumers have reached the loyal stage, they must have considered the quality of service provided because they not only buy dried mackerel products in one purchase, but it can even become a mandatory food. The respondent, Suryanti (33 years), said, " I always re-buy

dried mackerel at the same kiosk because I already know the seller." That good service received by consumers will make consumers loyal to dried Mackerel. It is in line with research by Justitie, et al. (2019) that product variables significantly affect customer loyalty at Waffellio. It means that if product quality increases, customer loyalty will also increase because the Waffellio Franchise provides various forms of choice for its products and will always maintain the product's features so that it is different from other products. Then, service quality affects loyalty, according to the opinion of Kotler and Keller (2007), which states that service quality has an effect. It means that the better the service provided, even without being supported by a high level of satisfaction, will form customer loyalty.

#### **Effect of Exogenous Variables (Product Quality, Price, Place and Quality of Service) on Loyalty through Satisfaction**

The next test examines the indirect effect of exogenous variables (product quality, price, place, and service quality) on loyalty through satisfaction. In addition, this test will show whether the satisfaction variable acts as a mediation. The statistical test results generated through the bootstrapping test can be seen in the following table.

Table 9 presents the t-statistical value of product quality 2.469  $> 1.98$  and a p-value of 0.014  $< (\alpha/2 = 0.025)$ . Therefore, the product quality variable partially significantly influences loyalty through customer satisfaction. These results are from the study, which found that dominant consumers agreed that dried mackerel products had good quality and taste. It meant that the better the consumer's perception of the product, the better the level of consumer satisfaction with dried Mackerel. This study's results align with several previous studies, including those by

Novrianda (2018) and Pertiwi (2017), where the two studies concluded that product quality variables partially had a positive and significant effect on consumer satisfaction.

So, product quality affects loyalty, with the satisfaction variable as the intervening variable.

Table 9. Output results of hypothesis testing effect of exogenous variables on loyalty through satisfaction

Variable	Original Sample (O)	Sample Means	t-statistics	p values	Information
Product Quality -> Satisfaction -> loyalty	-0.168	-0.162	2,469	0.014	Accepted
Price -> Satisfaction-loyalty	0.448	0.432	3,658	0.000	Accepted
Place -> Satisfaction->loyalty	0.197	0.192	2,799	0.005	Accepted
Quality of Service -> Satisfaction -> Loyalty	0.025	0.025	0.395	0.693	Rejected

Source: Primary data processed (2022)

The results of the partial price hypothesis show that the price variable has a t-statistic value of  $3.658 > 1.98$  and a p-value of  $0.000 < (\alpha/2 = 0.025)$ , so it is concluded that the price variable partially has a significant influence on loyalty through consumer satisfaction. According to consumers, the price paid to get the product is based on the quality of products made from Mackerel, not expensive and affordable for consumers. The results of consumer responses indicate that consumers are satisfied with the price of dried Mackerel. The research results from Setyo (2017) concluded that price significantly affects consumer satisfaction. So, price affects loyalty with the satisfaction variable as the intervening variable.

The partial results of the place hypothesis show that the place variable has a t-statistic value of  $2.799 > 1.98$  and a p-value of  $0.005 < (\alpha/2 = 0.025)$ . So, it can be concluded that the price variable partially significantly influences loyalty through customer satisfaction. The place is vital in reaching the target market in the marketing mix. A strategic location will be more profitable for producers and consumers to find it easier to reach the distribution site (Kouwagam et al (2022). It is in line with research conducted by Nugroho (2013) that

the place variable significantly affects loyalty to the level of consumers visiting Coffee Cozies Surabaya, so the place affects loyalty with the satisfaction variable as the intervening variable.

The service quality variable has direct and indirect effects on consumer loyalty. It has a value of  $0.395 < 1.98$  and a p-value of  $0.693 > (\alpha/2 = 0.025\%)$ . Due to the conditions in the field where the waiter in the dried mackerel business is the dried fish seller, when there are more than two buyers, the seller will have difficulty providing the best service. Even though consumers do not experience customer satisfaction, they will remain loyal to dried Mackerel. It is the opinion of Goklan (36): "Service at dried mackerel traders is not good and not by consumer expectations starting from unfriendly waiters, not responsive, service is not fast and precise, but this does not affect the consumption of dried mackerel."

The analysis results show that the direct effect is greater than the indirect effect on the observed variables. This principle is to the view of Andriani and Putra (2019), who state that when the direct influence is more dominant than the indirect influence, the intervening variable cannot be classified as complete mediation. Therefore, it can be

concluded that in the context of the influence on consumer loyalty of dried Mackerel, consumer satisfaction plays a full mediating role. These results indicate that to increase the level of consumer loyalty, it is necessary to increase the level of satisfaction first.

## CONCLUSION

The CSI calculation results for dried mackerel products in Bengkulu City are 79.59%. These results show that the level of consumer satisfaction for dried Mackerel in Bengkulu City is included in the satisfaction criteria. The level of loyalty that has been analyzed produces an inverted pyramid shape. Consumer loyalty for dried Mackerel in Bengkulu City, with the highest score, lies in the Liking the Product category, with a value of 143%. In the simultaneous test, the results show that the variables of product quality, price and place significantly influence the level of satisfaction of mackerel fish consumers in Bengkulu City.

On the other hand, the service quality variable does not significantly influence consumer satisfaction. When testing the simultaneous influence of product and service quality variables, it appears that product and service quality significantly influence consumer loyalty. However, price and place variables do not significantly influence consumer loyalty for dried mackerel fish in Bengkulu City. The analysis results also reveal that the indirect effect of service quality variables on consumer loyalty through satisfaction is insignificant. In contrast, product quality, price, and place variables significantly influence consumer loyalty to mackerel fish through satisfaction.

## SUGGESTION

1. Dried mackerel traders can maintain the taste of dried Mackerel through salting and drying processes. The process carried out can use the PEHI LING drying

concept (Practical Economical and Hygienic with an Environmental Insight)

2. It is advisable for dried mackerel traders to set prices equal to the quality of their products, not increased without clear reasons and to set a minimum price level.
3. Making dried mackerel products a souvenir product typical of the City of Bengkulu which is sold in a more strategic place, namely at a place selling souvenirs typical of the City of Bengkulu. Making dried mackerel products as souvenirs typical of the region by improving quality such as dried mackerel product packaging so that later through dried mackerel product packaging it can be widely known by the people of Bengkulu City and outside Bengkulu City.
4. The quality of service performed by dried fish traders needs to be reviewed and maximized again. Traders can add their HR when buyers are in busy conditions such as weekend holidays, public holidays, and national holidays. Because at that time there were a lot of buyers. So that in the future the quality of service performed by dried fish traders was evenly distributed in every dried fish business in the city of Bengkulu and it was hoped that it would have a good impact on the sustainability of the dried mackerel business in the city of Bengkulu.
5. Dried mackerel fish can be used as a souvenir typical of the Bengkulu city area.
6. Regarding development strategies for dried mackerel fish could be a topic for further research.

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