

## **Original Research Article**

# **Demand Factors Analysis of Catfish Processed Products (A Case Study of Catfish Salad Stall in Ujungberung Subdistrict, Bandung City)**

### **ABSTRACT**

This study aims to analyze the demand and the factors that influence the demand for processed catfish products at Warung Nasi Catfish salad Lamongan Pak Sumar in Ujungberung District, Bandung City. This research was conducted from August 2021 to May 2022. The method used is a quantitative descriptive method using primary and secondary data. The sampling technique used in this study is accidental sampling, a sampling technique of respondents by chance who met directly with researchers at the research location and were used as data sources. This study indicates that the price variable for catfish salad has a negative and significant effect on the demand for catfish salad products at catfish salad stall Lamongan Pak Sumar, Ujungberung District, Bandung City. A negative relationship can be attributed to the theory of demand. If the price increases, the need for the product will decrease and vice versa. In contrast, consumer taste and business location variables positively and significantly affect the market for catfish salad at Warung Nasi Catfish salad Pak Sumar, Ujungberung District, Bandung City.

*Keywords: Demand Factor, Catfish Salad, Price, Consumer Taste, Business Location*

### **1. INTRODUCTION**

Fishes are one of the consumption animals with high protein value. Therefore we are often encouraged to consume fish. Fish are divided into three groups based on their habitat: freshwater fish, brackish water fish, and saltwater fish. Catfish is a freshwater fish with a distinctive taste and good nutritional content [12]. Its high protein content and relatively low-fat content are the advantages of catfish. The public much favors catfish because it is easy to get, the price of catfish is low so that all people can reach it, and the level of consumption is high [2]. Local catfish (*Clarias batrachus*) is a consumption fish often found in Indonesia. Catfish cultivation began in 1975 in Blitar, East Java [14]. People generally consume local catfish, which is processed into catfish salad.

Catfish salad is an Indonesian fried catfish dish from Lamongan, East Java, Indonesia. The origin of catfish salad in the Lamongan area comes from the word pecek, the origin of the word side dish. Pecek means squeezed and covered with chili sauce. Catfish salad is a simple and delicious food dish. Catfish salad stall is a form of business in the food sector by using tents or business buildings [7]. They are generally scattered on the roadside or in culinary locations. Catfish salad stalls are included in the Micro, Small, and Medium Enterprises (MSME) sector. According to Law No. 20 of 2008 article 1, MSMEs is a productive economic business that stands alone and is carried out by individuals or business entities that are not subsidiaries. Micro, Small, and Medium Enterprises aim to grow and

develop their businesses in building the national economy based on just economic democracy.

According to Hidayat, The demand for catfish salad is increasing daily. The number of requests is due to the affordable price of catfish salad and its good taste [4]. So it is not strange that catfish salad stalls are widespread throughout Indonesia. This is in line with the law of demand, which states that the lower the price of goods, the higher the demand and vice versa (Sukirno 2008). Demand is the number of goods consumers are willing and able to buy. Several factors influence the demand for an item. Factors influencing the demand for goods are price, consumer tastes, business location, and income [6].

## 2. METHODS

This research was conducted in September 2021 at Warung Nasi Catfish salad Lamongan Pak Sumar in Ujungberung District, Bandung City. The method used in this research was descriptive quantitative. The type of research used is a case study. The data used in this study are primary and secondary. Primary data were obtained from the results of the questionnaire directly.

Meanwhile, secondary data were obtained from literature, articles, and related agencies related to this research. The data collection technique used in this research is the accidental sampling technique. The number of respondents in this study amounted to 100 people. It was calculated using the Slovin formula. The respondents were random consumers who met directly with researchers at Warung Nasi Catfish salad Lamongan Pak Sumar in Ujungberung District, Bandung City. The data processing methods used are correlation, T-test, and F-test using the SPSS application. While the data analysis method used is multiple linear regression.

## 3. RESULTS AND DISCUSSION

### 3.1 Consumer Characteristics

Based on the research that has been carried out, there are results that the number of frequency purchases by consumers on a portion scale at Warung Nasi Catfish salad Lamongan Pak Sumar Ujungberung Bandung City is 93 servings per day. The number of servings is divided into 61 portions of the catfish salad menu, 24 pieces of the chicken salad menu, and eight parts of the chicken soup menu. The portion sold is calculated based on the number of consumers who eat on the spot.

The characteristics of consumers based on gender who buy salad catfish products at Warung Nasi Catfish salad Lamongan Pak Sumar can be seen in Table 1 below.

**Table 1.** Characteristics of Gender Consumers

<b>Gender</b>	<b>Frequency</b>	<b>Percent (%)</b>
Man	60	60
Woman	40	40
<b>Total</b>	<b>100</b>	<b>100</b>

Table 1 shows that out of 100 consumer respondents at Warung Nasi Catfish salad Lamongan Pak Sumar, 60 people (60%) are male, and 40 (40%) are female. This is in line with Swari's research that men have more energy and protein intake than women because men do more physical activity than women [15].

Consumer characteristics based on age are divided into four groups. The features of consumers by age can be seen in Table 2 below.

**Table 2.** Characteristics of Age Consumers

<b>Age (years old)</b>	<b>Frequency</b>	<b>Percent (%)</b>
5-11	0	0
12-25	44	44
26-45	36	36
46-65	20	20
<b>Total</b>	<b>100</b>	<b>100</b>

Based on Table 2, most consumers who consume catfish salad at Warung Nasi Catfish salad Lamongan Pak Sumar are in the age group of 12-25 years (teenagers), as many as 44 people (44%). This age belongs to the productive age group, which is the active age of a person in carrying out their activities, especially outside the home. Therefore, productive age requires adequate and suitable nutritional intake to balance expended energy needs [8].

Consumer characteristics based on the type of jobs consist of seven groups of kinds of jobs and can be seen in Table 3 below.

**Table 3.** Characteristics of Job-Based Consumer

<b>Jobs</b>	<b>Frequency</b>	<b>Percent (%)</b>
Student	28	28
Government employees	10	10
Private employees	29	29
Entrepreneur	21	21
Health Workers	4	4
Housewife	5	5
Retired	3	3
<b>Total</b>	<b>100</b>	<b>100</b>

Based on Table 3, consumers who buy catfish salad at Warung Nasi Catfish salad Lamongan Pak Sumar are dominated by private employees, as many as 29 respondents (29%) and students, as many as 28 respondents (28%). The data is intended to determine the extent to which respondents have jobs that can decide on their monthly income so that a person's perspective on the consumption pattern of catfish salad is influenced by the type of jobs a person has [5].

Characteristics of consumers based on the level of education divided into seven groups can be seen in Table 4 below.

**Table 4.** Consumer Characteristics Based on Education

<b>Education</b>	<b>Frekuensi</b>	<b>Persen (%)</b>
Primary school	0	0

Junior high school	7	7
Senior high school	31	31
Diploma	5	5
Bachelor	49	49
Magister	6	6
Doctor	2	2
<b>Total</b>	<b>100</b>	<b>100</b>

Based on Table 4, consumers who buy catfish salad at Warung Nasi Catfish salad Lamongan Pak Sumar are dominated by consumers with a bachelor's education level, with as many as 49 respondents (49%). The remaining consumers with high school education level were 31 respondents (31%), junior high school was seven respondents (7%), Masters were six respondents (6%), Diploma were five respondents (5%), Doctor as many as two respondents (2%), and primary school as many as zero respondents (0%). The level of education affects a person's mindset in purchasing food menus that will be consumed [1].

Characteristics of consumers based on income per month are divided into two groups and can be seen in Table 5 below.

**Table 5.** Characteristics of Income-Based Consumers

<b>Income</b>	<b>Frequency</b>	<b>Percent (%)</b>
Under Rp. 3.774.860,78	55	55
Over Rp. 3.774.860,78	45	45
<b>Total</b>	<b>100</b>	<b>100</b>

Based on data from table 5, consumers who buy catfish salad at Warung Nasi Catfish salad Lamongan Pak Sumar are dominated by consumers whose monthly income is below Rp. 3,774,860. This figure is the Bandung city minimum wage amount in 2022. The amount of consumer income is based on each type of job. The nominal amount affects the consumer's mindset on purchasing power [13].

### 3.2 Correlation Test

A correlation test determines the degree of relationship and contribution of independent variables to the dependent variable. The results of the correlation test analysis of the value of  $\rho = 0.97$  means that the matter is close to 1, and the correlation between all independent variables (catfish salad price, consumer taste, business location) is said to be positive and very strong. The relationship between all independent variables (catfish salad price, consumer taste, business location) is directly proportional to the dependent variable (Demand for Catfish salad).

### 3.3 F-test

The F-test is conducted to determine whether all independent variables (price, taste, and location) included in the model had a simultaneous or simultaneous effect on the dependent variable (demand) at Warung Nasi Catfish salad Lamongan Pak Sumar, which can be seen in Table 6.

**Table 6.** F-test Result

<b>Model</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
1 Regression	22.456	3	7.485	4.171	.008 <sup>b</sup>

Residual	172.294	96	1.795
Total	194.750	99	

Based on the calculation results (Table 6), the f-count value is 4.171, more significant than the f-table value = 2.14. So it can be seen that  $H_0$  is rejected and  $H_1$  is accepted. So it can be concluded that the variable price of catfish salad, consumer tastes, and business location have a significant influence simultaneously or together on the varying demand for catfish salad at Warung Nasi Catfish salad Lamongan Pak Sumar, Bandung City.

### 3.4 T-test

T-test was conducted to determine the effect of independent variables (the price of catfish salad, consumer tastes, business location) included in the model have an individual or partial impact on the dependent variable (demand) at Warung Nasi Catfish salad Lamongan Pak Sumar Ujungberung, Bandung City. The test results can be seen in Table 7.

Table 7. T-test Result

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
1 (Constant)	-.992	1.009			-.983	.328
The Price of Catfish salad	-.094	.073	-.152		-2.176	.022
Consumer Taste	.072	.033	.266		1.398	.032
Business Location	.092	.044	.137		1.295	.045

The calculation results show that the t-count value of the three independent variables is greater than the t-table value = 1.290, which means that  $H_0$  is rejected and  $H_1$  is accepted. It can be concluded that the variable price of catfish salad, consumer tastes, and business location has a partially significant influence on the demand for catfish salad products at Warung Nasi Catfish salad Lamongan Pak Sumar Ujungberung, Bandung City.

### 3.5 Multiple Linear Regression

A multiple linear regression analysis methods was used to see the effect of the price of catfish salad ( $X_1$ ), consumer tastes ( $X_2$ ), and business location ( $X_3$ ) on demand for processed catfish products ( $Y$ ). The results of multiple linear regression can be seen in Table 8 below.

Table 8. Multiple Linear Regression Result

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
1 (Constant)	-.992	1.009			-.983	.328
The price of Catfish salad	-.094	.073	-.152		-2.176	.022
Consumer Tastes	.072	.033	.266		1.398	.032
Business Location	.092	.044	.137		1.295	.045

Based on the data in table 8, the equation of the multiple linear regression model obtains as follows.

$$Y = -0,922 - 0,094X_1 + 0,072X_2 + 0,092X_3$$

The sign of the regression coefficient of the independent variable shows the direction of the relationship between the independent variable and the dependent variable. The regression coefficient of the price of the catfish salad variable ( $X_1$ ) is a negative—negative sign, meaning that the cost of catfish salad's demand is not unidirectional. The value of the regression coefficient of the  $X_1$  variable is -0.094. This value indicates that if there is an increase in the price of catfish salad by one unit, the demand for catfish salad products will decrease by 0.094 units. Likewise, the opposite happened to the variables of consumer tastes ( $X_2$ ) and business location ( $X_3$ ), which had positive regression coefficients. It shows that the relationship between consumer taste variables and business location aligns with the demand for catfish salad. The regression coefficient values for the variables  $X_2$  and  $X_3$  are 0.072 and 0.092, respectively. This value means that if there is an increase in consumer tastes and business location by one unit, it will cause an increase in demand for catfish salad by 0.072 $X_2$  and 0.092 $X_3$  units.

The price of catfish salad significantly influences the demand for catfish salad at Warung Nasi Catfish salad Lamongan Pak Sumar Ujungberung, Bandung City. The indicated by the significance value of 0.022, which is smaller than the value of = 0.1. However, the price of catfish salad partially has a negative relationship with the demand for catfish salad. It can be seen from the negative t-count value, which is -2.167, and the negative regression model coefficient value is -0.094 $X_1$ . The relationship between the price of catfish salad and the demand for catfish salad is negative, which can be related to the demand theory. If the price increases, the need for the product will decrease; if the price decreases, the need for the product will increase. It means that if the price of the catfish salad decreases by 1 unit, the need for the catfish salad will increase by 0.094 $X_1$  team [11].

Consumer tastes significantly influence the demand for catfish salad products at Warung Nasi Catfish salad Lamongan Pak Sumar Ujungberung, Bandung City. This is indicated by the significance value of 0.032, which is smaller than the value of = 0.1. Taste is also related to the different perceptions of each consumer in assessing an item [3]. The study shows that there are various consumer perspectives in terms of the consumption of catfish salad. The first type is consumers who deliberately want to consume catfish salad; the second is consumers who want to finish catfish salad, but the catfish salad menu runs out. Last, the consumer buys a substitute menu, namely, Chicken salad or chicken soup (substitute goods); the third type, consumers who come and want to consume other menus besides catfish salad offered at Warung Nasi Catfish salad Lamongan Pak Sumar Ujungberung, Bandung City.

The results showed that the business location variable positively and significantly affected the demand for catfish salad at Warung Nasi Catfish salad Lamongan Pak Sumar Ujungberung, Bandung City. The location of the business is one of the factors consumers consider when making decisions when they will make a product purchase. Determining the business's location will affect the income and demand level for one's business. Defining a strategic, clean, and comfortable business location will increase the number of requests for a product [10]. Warung Nasi Catfish salad Lamongan Pak Sumar's business is on the edge of a provincial road in the eastern region of Bandung City, precisely on Jl. A. H. Nasution No. 135 B. The strategic location of the business attracts the community and road users, especially workers who are tired after a long day at work. When they go home, they are usually lazy if they have to prepare food at home. They chose to go to the catfish salad stall.

In addition, the convenient location also adds a unique attraction for consumers to determine which catfish salad stall they will choose to fulfill their hunger. A clean and strategic business location can increase the demand for a business [9].

### 3.6 Determination Coefficient

The coefficient of determination measures how far the model can explain the dependent variable (demand for catfish salad). The results of the coefficient of determination can be seen in Table 9 below.

**Table 9.** Determination Coefficient Result

<b>Model Summary</b>				
	R	Adjusted R	Std. Error of	
Model	R	Square	Square	the Estimate
1	.340 <sup>a</sup>	.115	.088	1.3396755

a. Predictors: The price of Catfish salad, Consumer Tastes, Business Location

Based on data from Table 9, the coefficient of determination (R Square) in this study is 0.115, which means that the variable demand for catfish salad can be explained by the independent variables (the price of catfish salad, consumer tastes, and business location) of 11.5%. Although, the remaining 88.5% is explained by other factors not included in the regression model.

## 4. CONCLUSION AND SUGGESTIONS

### 4.1 Conclusion

Based on the demand factors analysis of catfish processed products at Warung Nasi Catfish salad Lamongan Pak Sumar in Ujungberung District, Bandung City. The conclusion is that the three independent variables (X1, X2, X3) have a noticeable and significant effect on the demand for catfish salad products at Warung Nasi Catfish salad Lamongan, Pak Sumar Ujungberung, Bandung City. It is apparent from the correlation, F-Test, and T-Test data. Although, the most significant factor influencing the demand for catfish salad products in this study is taste, with a correlation coefficient of 0.335.

### 4.2 Suggestions

Based on the results of research regarding the demand factors analysis for catfish processed products at Warung Nasi Catfish salad Lamongan Pak Sumar in Ujungberung District, Bandung City, suggestions that can be given to the seller are that it would be better if they register their business on an online food delivery service platform. This service can help warung nasi catfish salad Pak Sumar to promote their business so that it can grow and be known by more people, increasing their demand.

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