

Consumer Behavior On Purchasing Of Fresh Oyster Mushrooms In Kraksaan Probolinggo

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ABSTRACT

This research aims to identify characteristics and consumer behavior related to fresh oyster mushrooms at Semampir Market, Kabupaten Probolinggo. Conducted from June to August 2021, the study employs the Fishbein Analysis Model to analyze consumer attitudes based on beliefs about fresh oyster mushrooms. Semampir Market was chosen due to its status as a prominent hub for fresh oyster mushroom sales, attracting consumers in Kabupaten Probolinggo. Findings reveal that 92% of consumers are female, with the majority falling within the 35-44 age range. Educationally, most consumers have completed high school, though some are still students, indicating potential for educational enhancement. Consumer income analysis indicates that 50% fall within the 1.5 million - 3 million range, and 22% earn between 3 million - 5 million. Despite diverse income levels, consumers exhibit positive attitudes toward purchasing fresh oyster mushrooms at Semampir Market, with an overall score of 4.104, indicating a "good scale" perception. Furthermore, consumer behavior in buying fresh oyster mushrooms at Semampir Market is positive, scoring 279.06, demonstrating good consumer buying behavior. In summary, this research sheds light on the characteristics and positive consumer attitudes and behaviors towards fresh oyster mushrooms in Semampir Market, Kabupaten Probolinggo.

Keywords: *Fresh Oyster Mushrooms, Consumer Behavior, Purchasing*

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1. INTRODUCTION

Indonesia is an agricultural country that has various kinds of agricultural commodities; one of those is fresh oyster mushrooms. Oyster mushroom is a horticultural plant that has very good nutritional (Diani heryanti, n.d.) and it plays an important role in increasing the nutritional quality of everyday food that is expected from everybody's life. Fresh oyster mushrooms contain poly protein and minerals needed by the body, which are crucial nutritional components for the body of every human being.

People's awareness of a healthy lifestyle as an option is considered in the fulfillment of protein. As a result, mushroom producers are always invaded by consumers. This positive choice needs to be developed more widely as a result of forming a healthy diet. The existence of fresh oyster mushrooms as a type of food has long been known by the people in Indonesia, namely being one of the foodstuffs that contain high botanical protein when compared to other food ingredients. In addition, fresh oyster mushrooms are part of the manufacture of traditional medicines such as herbs or modern medicines (Ririn Arifah, 2014). The nutritional content of fresh oyster mushrooms depends on the type. Otherwise, fresh oyster mushrooms are generally low in calories, low in sodium (salt), fat free, and cholesterol free. Moreover, fresh oyster mushrooms contain protein, vitamins, minerals, and fiber. The nutritional content of fresh oyster mushrooms can help prevent disease, including:

Antioxidants, namely mushrooms are rich in antioxidants which are considered selenium. Antioxidants are known to be a substance that can slow down premature aging. Antioxidants work by protecting the body from cell damage caused by free radicals that can cause cancer and heart disease. Furthermore, antioxidants can also increase endurance. In a cup of serving or the equivalent of 70 grams of fresh oyster mushrooms, there are approximately two grams of protein. This amount is indeed too high. The additional protein intake still needs to be obtained such as eggs and meat. Although the content is high, the protein in fresh oyster mushrooms has a good effect on strengthening the immune system and prevents the growth of cancer cells. Mushrooms are rich in B vitamins, such as niacin (B3), riboflavin (B2), & pantothenic acid (B5). Niacin is good for healthy skin and digestive system. Riboflavin helps the formation of red blood cells. Besides, pantothenic acid is good for the nervous system and helps the production of hormones. The combination of these three vitamins is able to assist for protecting heart health.

Based on the Ministry of Agriculture (2020) Mushrooms are a horticultural commodity that contains good protein. USDA releases for every 100 grams of fresh oyster mushrooms, there are still 3.1 grams of protein. It also tastes delicious and it is helpful for health. Mushrooms are also believed to be able to relieve cancer, prevent HIV and a number of other disease-fighting benefits. The potential for fresh oyster mushroom production is evaluated massively and it can be business opportunities. Cultivation is also easy to do even using environmentally friendly planting methods.

One of the agricultural commodities in the District of Kabupaten Probolinggo (Lidyana et al., 2021) is fresh oyster mushrooms. Where the potential for the cultivation of fresh oyster mushrooms is getting higher every year. It is caused by the public's demand for fresh oyster mushrooms used as culinary preparations have relatively high nutritional content. It is also being supported by the economic conditions of the community that is desire for using good quality as standard life materials.

The level of people's consumption of fresh oyster mushrooms is determined by the consumer's desire to determine the purchase decision of fresh oyster mushrooms to satisfy or fulfill their needs. Many factors influence consumer purchases, it is like psychological factors including motivation, knowledge and attitudes.

Fresh oyster mushroom producers/farmers need to understand the characteristics and attitudes of consumers towards fresh oyster mushrooms. Therefore producers/farmers can plan or develop effective and efficient marketing strategies in reaching consumers.

Based on the description above, the purpose of this research is to determine the characteristics of consumers of fresh oyster mushrooms and to analyze consumer attitudes and behavior in purchasing fresh oyster mushrooms at Semampir Market, Kabupaten Probolinggo.

2. METHODS

Place and Time of Research

This research is conducted in Kabupaten Probolinggo, located in one of the traditional markets, namely Pasar Semampir by taking fresh oyster mushroom consumers as the consumers. The selection of this location is based on the consideration that the market is a center for selling fresh oyster mushrooms and it is visited by the consumers in Kabupaten Probolinggo. This research starts in June 2021 until August 2021.

Sampling Method and Data

The sampling of consumers in this research used the Accidental Random Sampling technique. Respondents collect accidentally and those who buy fresh oyster mushrooms at Semampir Market, Kabupaten Probolinggo. The sample collected 40 consumers who buy fresh oyster mushrooms.

Data analysis

The analytical method in this research is descriptive qualitative analysis for explaining the characteristics of consumers of fresh oyster mushrooms. The reasoned action analysis technique is the model developed by Fishbein. Fishbein Analysis Model is a model that shows consumer attitudes towards a particular object based on a set of beliefs that are summarized about the attributes of the object which are weighted by the evaluation of the attributes "(Engel, 1995).

Attitude Behavior (AB)

To analyze consumer attitudes towards purchasing fresh oyster mushrooms at Semampir Market, the following formula (Umar, 2000):

$$AB = \sum_{i=1}^n b_i e_i$$

The values of b_i and e_i are each one obtained by using the following formula:

$$b_i = \frac{\sum_{i=1}^n r_i f(x_i)}{n} \qquad e_i = \frac{\sum_{i=1}^n r_i f(y_i)}{n}$$

Information :

r_i = Weighted score i

$f(x_i)$ = the number of respondents who have a weighted score of i for the confidence variable (b_i)

$f(y_i)$ = the number of respondents who have a weighted score of i for the evaluation variable (e_i)

AB = Individual's total attitude towards attributes of fresh oyster mushrooms

b_i = Strength of consumer confidence in the attributes of fresh oyster mushrooms

e_i = Evaluation of the attributes of fresh oyster mushrooms

n = Number of relevant attribute criteria for fresh oyster mushrooms

Weight = $a : 2, b : 1, c : -1, \text{ and } d : -2$

Measuring behavior in this research employs individuals internal variables. In this research, the attribute components of fresh oyster mushrooms for analyzing beliefs and attitudes variables are:

- Attributes attached to fresh oyster mushrooms are freshness, nutritional
- content, benefits for the body, price, and ease of purchase.
- Confidence variables, namely individual beliefs about the attributes of fresh oyster mushrooms.
- Evaluation variable, namely the impact of consuming "fresh oyster mushrooms

Subjective Norm Model (SN)

The influence of subjective norms (Umar, 2000) arising from referents due to consumer behavior in purchasing fresh oyster mushrooms uses the formula below:

$$SN = \sum_{i=1}^n NB_i MC_i$$

The values of NB_j and MC_j are calculated using the formula below:

$$NB_i = \frac{\sum_{i=1}^n r_i f(x_i)}{n}$$

$$MC_i = \frac{\sum_{i=1}^n r_i f(y_i)}{n}$$

Information :

- r_j = Weight of the j score
- $f(x_i)$ = the number of respondents who have a weighted score of i for the normative belief variable (NB_j)
- $f(y_i)$ = the number of respondents who have a weighted score of i for the motivation variable (MC_j)
- SN = Subjective Norm
- NB_j = Individual's normative belief
- MC_j = Motivation of the referent
- n = number of relevant referents
- weight = a: 2, b: 1, c: -1 and d: -2

External variables and influencing on individual behavior, it emphasizes that the referent or other people who are believed to have an influence on consumer decisions in buying fresh oyster mushrooms. According to Fishbein, there are:

- a. The normative belief variable is the consumer's normative belief that there are other people (referents) who think that consumers should buy fresh oyster mushrooms.
- b. Motivation variable, namely the motivation obtained by consumers to obey the opinions of others (references) when buying fresh oyster mushrooms.
- c. The components of the normative belief variable and the motivational variable consist of: the legality of the product and the presence of people around

3. RESULTS AND DISCUSSION

Social Demographic Characteristics of Fresh Oyster Mushroom Consumers

a. Fresh Oyster Mushroom Consumer Gender

There are 40 consumers of fresh oyster mushrooms who become research's respondents. Genders of respondents 92% are female and the remaining 8% are male. This indicates that many women shop at the market to meet household needs.

b. Consumer Age of Fresh Oyster Mushroom

In detail, the age distribution of consumers in the table can be seen in table 1

Table 1. Age Distribution of Fresh Oyster Mushroom Consumers

No	Age (Years)	Total	
		Consumer	%
1	15 - 24	5	12
2	25 - 34	10	25

3	35 - 44	20	50
4	45 - 54	2	5
5	55 - 64	3	7
Total		40	100

Source: processed from primary data, 2021

From the table, consumers of fresh oyster mushrooms in Semampir Market are mostly distributed in the age group of 35-44 years or the middle age group. It can be concluded that at these ages is a productive age that allows a person tries to spend as much as possible in matching the needs of household life and has an awareness of choosing high quality food.

c. Fresh Oyster Mushroom Consumer Education

From the results of the research, it is found that consumer education of fresh oyster mushrooms was distributed in all education. In detail, table 2.

Table 2. Distribution of Oyster Mushroom Consumer Education

No	Education	Total	
		Consumer	%
1	Not completed in primary school	2	5
2	Elementary School	5	12
3	High school graduate	3	7
4	finished high school	20	50
5	Diploma 1	10	25
Total		40	100

Source: processed from primary data, 2021

When viewed from the formal education, consumers' education of fresh oyster mushrooms is a high school graduate. However, there are some consumers who are still students. This means that education can increase. Considering the level of education status is "medium", it proves that the existence of education allows a person to behave in a healthy life.

d. Fresh Mushroom Consumer Income

The income of consumers of fresh oyster mushrooms from the results of the research can be seen in the table below:

Table 3. Distribution of Consumer Income Fresh Oyster Mushrooms

No	Income	Total	
		Consumer	%
1	Rp. 800.000 - Rp.1.500.000	11	23
2	Rp. 1.500.000 - Rp.3.000.000	20	50
3	Rp.3.000.000 - Rp.5.000.000	9	22
Total		-	100

Source: processed from primary data, 2021

Consumers' incomes in this research are in the range of 1.5 million - 3 million or as much as 50%, and at least 3 million - 5 million by 22%.

Analysis of Consumer Attitudes towards the Purchase of Fresh Oyster Mushrooms (AB)

The Fishbein model emphasizes that the existence of consumer attitudes on the attributes of a product is intertwined because of the belief in the product attributes that are the same as the wishes of consumers and the results obtained from the evaluation of these attributes. While influencing the attitudes of consumers, producers can influence the buying behaviour of consumers as well. Consumer attitudes that are followed by high beliefs are not only difficult to change, but also very likely to be realized in these behaviours.

a. Consumer Belief in Attributes of Fresh Oyster Mushrooms at Semampir Market in Kabupaten Probolinggo (bi)

Belief (bi) is an analysis of statements about confidence that arise from within consumers towards the attributes of fresh oyster mushrooms. The attributes researched are freshness, nutritional content, benefits for the body, price, and ease for obtaining. Table 4 shows consumer confidence in the attributes of fresh oyster mushrooms in Semampir Market, Kabupaten Probolinggo.

Table 4. Belief Variable (bi) on Attributes of Fresh Oyster Mushrooms in Semampir Market, Kabupaten Probolinggo

No	Belief in Oyster Mushroom Attributes	Answer Score				Total	Score
		2	1	-1	-1		
1	Mushroom Freshness	10	21	5	1	38	0,78
2	Nutrient content	3	30	1	-	34	0,73
3	Benefits for the body	5	15	5	-	25	0,65
4	Price	15	30	2	-	47	1,31
5	Ease for buying	10	25	10	-	45	1,21

Source: Primary data, 2021

Based on the table above, it shows that the most influencing consumers for buying fresh oyster mushrooms at Semampir Market, Kabupaten Probolinggo is the price with a score of 1.31. It describes that consumers believe in the price of fresh oyster mushrooms at Semampir Market is cheaper than fresh oyster mushrooms in other places.

The second attribute is ease of purchase. This can be seen from the highest consumer confidence score 1.21. This is because fresh oyster mushrooms are easy to find, especially at Semampir Market, Kabupaten Probolinggo. Consumers believe that fresh oyster mushrooms at Semampir Market, Kabupaten Probolinggo, always have fresh oyster mushrooms.

The next attribute that is considered by consumers in buying fresh oyster mushrooms is the freshness of the mushrooms and the nutritional content of oyster mushrooms. This can be seen from the value of the variable's score 0.758 and 0.73. The freshness of the oyster mushrooms in Semampir Market, Kabupaten Probolinggo has good quality. In addition, consumers believe that fresh oyster mushrooms categorize as healthy food ingredients and they also have the nutritional content needed by the body.

b. Consumer Evaluation of Fresh Oyster Mushroom Attributes (ei)

The attributes researched by consumers on fresh oyster mushrooms are the freshness of mushrooms, nutritional content, benefits for the body, price, and ease of purchase. The results of consumer evaluations on the purchase of fresh oyster mushrooms can be seen in Table 5 below:

Table 5. Evaluation Variables (ei) on Fresh Oyster Mushroom Attributes

No	Evaluation (ei)	Answer Score				Total	Score
		2	1	-1	-1		
1	Mushroom Freshness	10	20	-	1	31	0,69
2	Nutrient content	20	30	1	-	51	1,73
3	Benefits for the body	5	25	5	-	30	0,65
4	Price	15	20	2	-	37	0,71
5	Ease of buying	10	15	10	-	35	0,81

The main factor in making purchasing decisions based on consumer statements about the evaluation of attributes of fresh oyster mushrooms, the nutritional content is the highest point. This means that the content of nutrients in fresh oyster mushrooms do not contain chemical residues in their cultivation. Therefore, they are safe to be consumed by the consumers. The nutritional content attribute has the highest value 1.73. This indicates that the change in consumption behavior of fresh oyster mushrooms is caused by a positive evaluation by consumers of the nutritional content of oyster mushrooms. Another attribute that supports consumer evaluation of fresh oyster mushrooms is the ease of buying with a score 0.81. On the other hands, other attributes have relatively small values.

c. Consumer Attitudes towards Fresh Oyster Mushroom Products at Semampir Market, Kabupaten Probolinggo (AB)

The results of the belief analysis (bi) and evaluation (ei) explain the total attitude of individuals on the attributes of fresh oyster mushrooms at Semampir Market, Kabupaten Probolinggo on the confidence variables and evaluation variables that have been obtained, shown in the table below:

Table 6. Belief Analysis and Evaluation of Individual Consumer Attitudes

No	Oyster Mushroom Attributes	bi	ei	AB
1	Mushroom Freshness	0,78	0,69	0,538
2	Nutrient content	0,73	1,73	0,532
3	Benefits for the body	0,65	0,65	1,124
4	Price	1,31	0,71	0,930
5	Ease of buying	1,21	0,81	0,980
Value of Consumer Attitude				4,104

From the table above, consumer attitudes towards fresh oyster mushrooms at Semampir Market, Kabupaten Probolinggo are positive with a score 4.104. Consumer attitudes towards the attributes of benefits for the body show the highest score of 1.124. The consumers believe that fresh oyster mushrooms contain a high protein content 27%, carbohydrates (58%) and can be categorized as organic agricultural commodities, because the mushroom cultivation process does not use artificial fertilizers. Then, it is followed by the ease of buying attribute with a value 0.98, and so on. Consumers' Behavior towards this attribute makes them decide to buy oyster mushroom products. Consumers understand that fresh oyster mushrooms are beneficial for health, easy to get fresh mushrooms. Moreover, in Kabupaten Probolinggo, many farmers cultivate fresh oyster mushrooms and sell them at Semampir Market. For the price of oyster mushrooms is very affordable for the consumers.

d. Analysis of Consumer Subjective Norms on Purchasing of Fresh Oyster Mushrooms at Semampir Market, Kabupaten Probolinggo (SN)

Subjective norms are formed because of the normative beliefs and motivations of referents who are trusted by consumers. Research on subjective norms is intended to determine whether the social environment influences consumer behavior in consuming oyster mushrooms. Besides, the reference used in this case is the legality of the product and the presence of people around other consumers.

a. Consumers' Normative Belief in Purchasing Fresh Oyster Mushrooms at Semampir Market, Kabupaten Probolinggo (NBj)

The variable of consumer belief in the referent is consumer confidence in recognizing the influence of other people's beliefs on purchasing fresh oyster mushrooms at Semampir Market, Kabupaten Probolinggo. The results of the belief analysis can be seen in the table below:

Table 6. Consumers' Normative Belief in Purchasing Fresh Oyster Mushrooms at Semampir Market, Kabupaten Probolinggo

No	Referen	NBj	MCj	NBj x MCj (SN)
1	Product Legality	1,25	1,45	1,81
2	People around	0,56	0,02	0,01
Consumer Subjective Norms				1,82

In the results of the analysis of consumer normative beliefs in this research, the attributes of fresh oyster mushrooms in Semampir Market, Kabupaten Probolinggo, obtain a positive product legality reference 1.82. The form of legality of fresh oyster mushroom products is government intervention to protect consumers of fresh oyster mushrooms by imposing regulation, supervision and guidance. In fact, consumers get a sense of security for the fresh oyster mushrooms. Consumers believe that there is a product legality reference that is a reference for consumers to buy fresh oyster mushrooms, which is influenced by the legality of the product (supervision from the government) and plays a role in influencing buying decisions from consumers.

Meanwhile, the normative belief of consumers towards the referent of the existence of people around is obtained a value 0.01. The referent of the presence of people around do not really affect the purchasing decisions by consumers at Semampir Market, Kabupaten Probolinggo.

Consumer Behavior Analysis in Purchasing Fresh Oyster Mushrooms at Semampir Market, Kabupaten Probolinggo (BI)

The two components of behavior are attitudes towards behavior and subjective norms. The results obtained from the research on respondents' answer scores on subjective norms can be calculated empirically using the average percentage, which can be seen in the table below:

Table 7. Empirical Weight of Attitudes (W1) and Subjective Norms (W2)

W ₁	Percentage	W ₂	Percentage
3	1,50	21	87,1

20	57,7	15	22,3
25	74,30	15	35,0
30	70,05	5	10,0
Average	50,88		38,6

The score obtained in the empirical weight of subjective attitudes and norms proves that the Attitude Empirical (W_1) is greater than the subjective norm weight (W_2) or $51.88 > 38.6$. Consumers purchase of fresh oyster mushrooms in Semampir Market are mostly done not because of the influence of referents, but because of the awareness that arises from the desires of the consumers themselves.

To predict consumer behavior in buying mushrooms at Semampir Market, Kabupaten Probolinggo, it applies the **Fishbein** equation:

$$\begin{aligned}
 BI &= W_1 (AB) + W_2 (SN) \\
 BI &= 50,88 (4,104) + 38,6 (1,82) \\
 &= 208,81 + 70,252 \\
 &= 279,06
 \end{aligned}$$

Umar (2000) states that if the predictive value of consumers in buying (BI) is greater than zero, then the consumer's behavior towards the product is good, but if the predictive value of consumers in buying (BI) is less than zero then the consumer's behavior towards the product is not good.

The results obtained from this research show that the predictive value of consumers in buying (BI) is greater than zero, which is 279.06. This means that consumer behavior towards fresh oyster mushrooms is good.

4. CONCLUSION

The conclusions of this research are:

- The characteristics of consumers of fresh oyster mushrooms in Semampir Market Kabupaten Probolinggo are based on the sex of the respondents, 92% are female. Mushroom consumers are most widely distributed in the 35-44 year age group or the medium age group. The education of consumers of fresh oyster mushrooms graduate from high school. However, there are some consumers who are still students. It means that education are absolutely affecting. Characteristics of consumers based on income are ranging from 1.5 million - 3 million or as much as 50%, and the rest are 3 million - 5 million by 22%.
- Consumers' attitude towards purchasing fresh oyster mushrooms at Semampir Market, Kabupaten Probolinggo has a positive value with a score 4.104. It overall shows that consumer attitudes towards fresh oyster mushrooms in Semampir Market, Kabupaten Probolinggo are on a "good scale".
- The behavior of "consumers in buying fresh oyster mushrooms at Semampir Market, Kabupaten Probolinggo shows positive results with a value 279.06. It concludes that consumer buying behavior" towards fresh oyster mushrooms is good.

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