

**ANALYSIS OF CONSUMER ATTITUDES AND PREFERENCES TO BANANA PURCHASE DECISIONS IN THE TRADITIONAL MARKET OF SEMARANG CITY****Ewin Rumapea\*, Wiludjeng Roessali, and Edy Prasetyo**

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Submitted 26 June 2020; Approved 02 December 2021

**ABSTRACT**

Banana is one type of fruit that is in great demand by the Indonesian. The number of banana varieties circulating in fruit retailers will affect consumer behavior in making purchasing decisions. This study aimed to identify the number of types of bananas that consumers buy the most, analyze consumer attitudes towards the most considered attributes in purchasing decisions, and analyze consumer preferences for banana attributes in traditional markets in Semarang City. The method used in this research is a survey. Determination of the sample is done by quota sampling with a total sample of 108 respondents. Methods of collecting data through interviews with the help of a questionnaire. Data were analyzed descriptively, with Multi-attribute Fishbein attitude analysis and Conjoint analysis. The results showed that the type of banana consumers bought the most was the Kepok anana with a percentage of 45%, while the banana that was rarely purchased was the Mas banana with a rate of 6%. Consumer attitudes towards the attributes that are considered in the decision to buy bananas are the taste attributes (17.17) are positive, fruit skin color (14.97) is neutral, size (10.46) is negative, and the number of fruits per comb (9.95) is negative. Consumer preferences are indicated by the most prioritized importance value, namely bananas with a slightly sweet taste, greenish-yellow skin color, a large number of fruits per comb (>16 pieces), and medium-size (10-14cm).

**Keywords:** *attitude, banana, consumer, traditional market, preference*

**BACKGROUND**

Banana is one type of fruit that is in great demand by the people of Indonesia. Good taste and many benefits can be processed into various processed banana products, and affordable prices are why many people like bananas. Satuhu and Supriyadi (2000) stated that the availability of bananas in both modern and traditional markets is also rarely empty, so this condition indicates that consumption and consumer demand for bananas are pretty high. Indonesia, in recent years, has been included among the ten largest banana-producing countries in the world. Based on data from the FAO (Food and Agriculture Organization) in 2017 shows that India is the largest banana producing country in the world; as evidenced throughout 2017, India was able to make 30,477,000 tons of bananas,

There are many types of bananas in Indonesia with various attributes, such as plantain (*Musa textiles*), Kipas banana (*Ravenala madagascariensis*), Mas banana (*Musa acuminata*), Susu banana (*Musa acuminata* Var. Silk), Ambon banana (*Musa acuminata Cavendish*). The number of banana varieties circulating in fruit retailers will affect consumer behavior in making purchasing decisions. Masroeri and Wibawa (2019) stated that buying behavior could be influenced by consumer attitudes and preferences towards a product. Currently, consumers are starting to be more critical in assessing a product or service so that it will be able to lead to demands from the consumer to obtain a quality product or service.

Putri and Iskandar (2014) stated that before consumers decide to buy a product, they will first face a wide choice of products and services with various attributes. Likewise, consumer preferences consider several features in purchasing bananas, such as fruit taste, size, fruit skin color, and the number of fruits per comb. Consumers can choose the products offered in the interests of the attributes they want. Knowing the characteristics of various types of bananas that are consumer preferences, it is hoped that marketers or producers will find it easier to determine the right marketing strategy for their products because they have been adjusted to the criteria for consumer demand. Research on consumer preferences for attributes in apple commodities by Widiyanto et al. (2016), salak fruit products by Setyaningsih (2009), as well as on watermelon by Khusna et al. (2016) show that physical appearance influences consumer purchasing decisions for fruit products. This research aims to identify the types of bananas purchased the most by consumers and analyze consumer attitudes and preferences in buying decisions of bananas in traditional markets in Semarang City.

## RESEARCH METHODS

This research was conducted from February 2020 to March 2020 at the traditional market in Semarang City. The study was conducted in six traditional markets, namely Johar Baru, Waru Indah Market, Bulu Market, Karangayu Market, Rasamala Market, and Pedurungan Market, which were determined based on the conditions of busy markets visited by buyers/consumers and several banana traders are later expected to represent each traditional market mapping area in Semarang City. The research method is a survey with the help of a structured questionnaire. The sample is determined by quota sampling in each market with as many as 18 people so that the whole piece is 108 respondents. The types of data collected consist of primary data and secondary data.

The descriptive, Fishbein Multi-attribute analysis data analysis is used, and Conjoint analysis. Descriptive analysis is used to identify the types of bananas mostly purchased by consumers in traditional markets in Semarang City. Descriptive analysis is done by describing or showing data that has been collected in a systematic, factual, and accurate manner regarding the facts of the object under study so that conclusions can then be drawn.

Fishbein Multiattribute Analysis is used to analyze consumer attitudes towards banana commodities and the attributes that consumers most consider in purchasing decisions for bananas in traditional markets in Semarang City. The steps of Fishbein's Multi-attribute analysis are carried out by determining the composition of the belief assessment or belief ( $b_i$ ) and the evaluation componentized) of the banana attribute by assessing the standard of the evaluation (scoring) using a Likert scale. Then calculate the average value ( $e_i$ ) and ( $b_i$ ) of each attribute, then each confidence score ( $b_i$ ) is multiplied by the evaluation score ( $e_i$ ) according to its quality. According to Engel et al. (2001), the formula used to determine the total attitude value to the object ( $A_0$ ) in the Fishbein Multi-attribute model, namely:

$$A_0 = \sum_{i=1}^n b_i \cdot e_i$$

Information:

$A_0$  : Consumer attitudes towards bananas

$b_i$  : Level of consumer confidence that purchased have specific attributes (attribute- $i$ )

$e_i$  : Evaluation of consumer interest on the  $i$ -th attribute of bananas

$n$  : Number of attributes possessed by bananas

The value of the level of confidence (bi) and the value of the level of evaluation (ei) of respondents on the attributes of bananas are categorized on an interval scale range which can be seen in Table 1.

**Table 1.** Categories of Respondents' Level of Trust and Interest Level on Banana Fruit Attributes

Level of confidence	Mark	Level of Interest	Mark
Strongly Disagree	1.0 bi 1.8	Very unimportant	1.0 ei 1.8
Don't agree	1.8 < bi 2.6	Not important	1.8 < ei 2.6
Neutral	2.6 < bi 3.4	Neutral	2.6 < ei 3.4
Agree	3,4 < bi 4.2	Important	3,4 < ei 4.2
Strongly agree	4.2 < bi 5.0	Very important	4.2 < ei 5.0

The magnitude of the range for the attitude category, namely:

$$\text{Interval Scale} = \frac{(5 \times 5) - (1 \times 1)}{5} = 4,8$$

The assessment of the total attitude value of respondents towards bananas (bi.ei) is categorized on an interval scale range which can be seen in Table 2.

**Table 2.** Category of Attitude Value (Ao) towards Banana Fruit Attributes

Scale	Attribute Attitude Value	Mark
1	Very Negative	1.0 < Ao 5.8
2	Negative	5.8 < Ao 10.6
3	Neutral	10.6 < Ao 15.4
4	Positive	15.4 < Ao 20.2
5	Very Positive	20.2 < Ao 25.0

Determining which attributes are most considered by consumers can be measured by ranking or ordering the evaluation component (level of importance) and trust component (performance level) of each banana attribute from the highest to the lowest ranking. Conjoint analysis is used to analyze consumer preferences for banana attributes in traditional markets in Semarang City. According to Hair (2006), in conjoint analysis, consumers evaluate the values of the product through a combination of several different values of each attribute. The conjoint analysis aims to determine the utility value of each factor level being tested. If the utility value of the stimuli is known, then the respondent's preferences, both individually and in aggregate, can be understood in evaluating their interest in the attributes of bananas. The level or level of the banana fruit attribute that the respondent prefers can be seen from the most significant utility estimate for each level of the banana fruit attribute. The utility estimate value of stimuli can be processed using the SPSS application. The banana fruit attributes studied included taste, size, fruit skin color, and the number of fruits per comb. Banana fruit attributes and levels are presented in Table 3.

**Table 3.** Banana Fruit Attributes and Levels

Attribute	Level
Flavor	1. Sweet 2. Slightly sweet 3. Sweet
Size	1. Short (< 10 cm) 2. Medium (10-14 cm) 3. Length (> 14 cm)
Fruit skin color	1. Green 2. Greenish yellow 3. Yellow
Number of pieces per comb	1. Few (< 12 pieces) 2. Medium (12-16 pieces) 3. Lots (> 16 pieces)

## RESULT AND DISCUSSION

### Characteristics of Respondents

Respondents in this study amounted to 108 people taken from six traditional markets in the city of Semarang. The characteristics of banana respondents in Semarang City can be seen in the following table:

**Table 4.** Characteristics of Respondents by Gender, Age, and Education Level

No.	Characteristics of Respondents	Number of Respondents (people)	Percentage (%)
1.	Gender		
	- Man	11	10
	- Woman	97	90
2.	Age	48	45
	- 19-27	11	10
	- 28-36	25	23
	- 37-45	31	29
	- 46-54	23	21
	- >54	18	17
3.	Level of education		
	- Elementary School	4	4
	- Junior High School	16	14
	- Senior High School	46	43
	- Vocational	9	8
	- Bachelor	31	29
	- Master	2	2

Source: Processed Primary Research Data, 2020.

Based on Table 4, the number of male respondents was 11 people with a percentage of 10%, and female respondents were 97 people with a rate of 90%. This shows that there are more female consumers than male consumers. This is the opinion of Eliza et al. (2011), which states that in general, women play a role in making purchasing decisions and carrying out various shopping activities to meet household needs and consumption. Most of the respondents who bought bananas were consumers with an age range of 37-45 years, as many as 31 people with a percentage of 29%.

Und and understanding consumer age variations are imessentialorinessential for marketers because age will affect consumer product taste. This is the opinion of Kotler and Armstrong (2012), which state that age or age will be able to act on a person's taste preference for the purchase of goods and services. Most respondents have a high school / vocational education level, as many as 46 people with a percentage of 43%. According to Sumarwan (2013), a person's level of education can affect the recognition of needs and purchasing decisions. In general, highly educated people will have high abilities in receiving and understanding information.

**Table 5.** Characteristics of Respondents Based on Occupation, Number of Family Members, and Monthly Household Income

No.	Characteristics of Respondents	Number of Respondents (people)	Percentage (%)
1.	Profession		
	- Housewife	36	33
	- Self-employed	33	31
	- civil servant	16	15
	- Student/Student	4	4
	- Private employees	9	8
	- Other	10	9
2.	Number of Family Members		
	- 2 persons	4	4
	- 3 people	19	17
	- 4 people	38	35
	- 5 people	27	25
	- 6 people	14	13
	- 7-8 people	6	6
3.	Household Income per Month		
	- < 1,000,000	4	4
	- 1,000,000 – 2,500,000	31	29
	- 2,500,000 – 5,000,000	49	45
	- > 5,000,000	24	22

Source: Processed Primary Research Data, 2020.

Based on Table 5, most of the respondents' work backgrounds are housewives, as many as 36 people with a percentage of 33%. In the opinion of Eliza et al. (2011), women generally play a role in making purchasing decisions and carrying out various shopping activities to meet household needs and consumption. Based on Table 5, most respondents are consumers with four family members, namely 38 respondents with a percentage of 35%. According to Pramandya (2010), the more the number of family members, the more purchases will be made. The majority of banana consumers in traditional markets in Semarang City have a monthly household income of Rp2,500,000,000.00 – Rp5,000,000.00. The amount of income is a factor that affects consumer behavior. This is the opinion of Jannah et al. (2018), who states that the greater the amount of payment, the greater the ability to buy various needs, and vice versa.

**Consumer Purchase Behavior**

Studying the buying behavior of banana consumers is an attempt to understand who the banana respondents are, how they buy, when they buy, where they buy, and why they buy.

**Table 6.** Consumer Purchase Behavior of Bananas

No.	Information	Number of Respondents (people)	Percentage (%)
1.	Reasons to Consume		
	- Affordable prices	34	31
	- Easy to get	9	8
	- Lifestyle habits	18	17
	- Health benefits	47	44
2.	Types of Bananas Most Often Purchased in the Last Month		
	- Kepok	48	45
	- Ambon and Cavendish	22	20
	- Raja	31	29
	- Mas	7	6
3.	Shopping Considerations at Traditional Markets		
	- Close to residence	39	36
	- Close to work	13	12
	- Relatively cheap price	46	43
	- Comfortable shopping atmosphere	2	2
	- Products are always available	8	7
4.	Purchase Frequency		
	- Every day	3	3
	- Once a week	33	31
	- Once every two weeks	25	23
	- Uncertain	47	43
5.	Purchase amount		
	- 1 comb	86	80
	- 2 combs	20	18
	- > 2 combs	2	2
6.	Purchase Purpose		
	- Consumed alone	106	98
	- As a souvenir	2	2
7.	Banana Fruit Consumption Expenditure in One Month		
	- < IDR 30,000	13	12
	- IDR 30,001 – IDR 50,000	17	16
	- IDR 50,001 – IDR 70,000	25	23
	- IDR 70,001 – IDR 90,000	23	21
	- > IDR 90,000	30	28

Source: Processed Primary Research Data, 2020.

Based on Table 6, respondents consume the banana fruit because of the health benefits, i.e., as many as 47 people with a percentage of 44%. Bananas are known as one of the delicious and nutritious fruits for health with high nutritional content. This is the opinion of Aurore et al. (2009), which state that bananas are good for health because they have a high dietary composition, such as energi, water, serotonin, carbohydrates, phosphorus, magnesium, vitamin C, and potassium. The type of banana consumers bought the most in the past month was the Kepok banana, which was 48 people with 45%. In contrast, the banana consumers bought the least was Mas banana, which was seven

respondents with a rate of 6 %. Kepok bananas are among the most popular and delicious bananas to eat, especially after processing first. This is the opinion of Julfan et al. (2016), which states that Kepok bananas are the most common type of banana found in urban areas and remote villages and can be consumed at all age levels.

The buying behavior of banana consumers regarding consumer shopping considerations in traditional markets in Semarang City in Table 6. Shows the most because the price is relatively low, as many as 46 people with a percentage of 43%. Fure (2013) states that traditional markets usually have relatively low prices for goods and how to buy them with a bargaining system. Most of the respondents made purchases of bananas at an uncertain frequency, as many as 47 people with a percentage of 43%. Only three respondents buy bananas every day because their families like bananas.

Most respondents bought bananas as many as one comb in each purchase. The number of assets of one banana comb was made by as many as 86 respondents with a percentage of 80%. The number of bananas purchased is closely related to the number of family members. Consumers consider this amount to be sufficient to meet the needs of a family with an average of 4-5 family members. This is by Wirawan’s (2013) opinion, which states that the number of household members significantly affects the demand for bananas. Based on the purpose of buying bananas, it is known that 98% or as many as 106 respondents bought bananas for their consumption, while 2% of respondents bought them as souvenirs.

Based on Table 6, the average respondent’s monthly banana consumption expenditure is more than Rp. 90,000 with a total of 30 respondents with a percentage of 28%. The amount of payment can be influenced by the frequency of purchases, the number of assets, and the price and type of bananas purchased. The income level also affects household consumption expenditures, including food consumption such as bananas. This is by the opinionPutong (2015), which states that the most significant factor that affects the level of consumption is the total income and wealth of the home itself.

**Consumer Attitudes towards Banana Fruit Attributes**

Consumer attitudes were analyzed based on the trust value and importance value of the attributes of bananas. Values and categories of consumer confidence in the four characteristics of bananas in traditional markets in Semarang City are presented in Table 7.

**Table 7.** Value and Category of Trust (bi) on Banana Fruit Attributes

Attribute	Consumer Trust	
	bi	Category
Flavor	4.23	Strongly agree
Size	3.44	Agree
Fruit skin color	3.81	Agree
Number of pieces per comb	3.33	Neutral

Source: Processed Research Primary Data (2020).

Consumer confidence in the taste of bananas is the best attribute among other attributes, with a value of 4.23. This shows that consumers strongly agree that they buy bananas based on considering the taste first. This is to Prastiwi and Setiyawan’s (2016) opinion, which states that taste is an attribute that is regarded as the main positive factor and one of the important qualities in consuming the

product. Values and categories of consumer interest categories on the four attributes of bananas in traditional markets in Semarang City are presented in Table 8.

**Table 8.** Values and Categories of Importance (ii) of Banana Fruit Attributes

Attribute	Consumer Interest	
	ei	Category
Flavor	4.06	Important
Size	3.04	Neutral
Fruit skin color	3.93	Important
Number of pieces per comb	2.99	Neutral

Source: Processed Research Primary Data (2020).

Based on Table 8, the taste attribute with an importance value of 4.06 is the essential attribute or the most prioritized by respondents in considering banana purchasing decisions. The total value of consumer attitudes toward bananas is obtained after multiplying each attribute’s confidence score (bi) by the importance evaluation score (ei). If the attitude values of each point are added together, the overall attitude value for bananas (A0) will be obtained. The results of the analysis of the total value of respondents’ attitudes (A0) towards the attributes of bananas can be seen in Table 9.

**Table 9.** Value of Consumer Attitude (A0) towards Banana Fruit Attributes

Attribute	Attitude Score (A0)	Category
Flavor	17,17	Positive
Size	10.46	Negative
Fruit skin color	14.97	Neutral
Number of pieces per comb	9.96	Negative
(ei.bi)	52.56	

Source: Processed Research Primary Data (2020).

Based on Table 9. It can be seen that consumer attitudes towards the attributes considered in purchasing decisions for bananas, from the highest to the lowest, are taste attributes. It has a positive value; the color of the fruit skin is neutral, the size is negative, and the quality of the number of fruits for each comb is negative. Consumers’ attitude in traditional markets in Semarang City has a positive value on the taste attribute, which means that the taste of bananas is an attribute that consumers like and consider in purchasing decisions of bananas. The greater the value of an attribute’s attitude (A0), the more considered that fact when buying bananas. This is the opinion of Clarissa et al. (2018), which state that the ranking of considerations can be adjusted according to the order of the Ao value from the largest to the smallest; if the more significant the Ao value, the attribute is the attribute that is most considered in purchasing decisions. The emergence of a positive attitude from consumers will undoubtedly re-form a solid desire to buy the same product or service, in this case, bananas. Consumer attitudes will influence purchase interest in the opinion of Cheng et al. (2011), which state that purchasing stake is influenced by consumer attitudes; the more positive consumer attitudes, the higher consumer buying interest. On the other hand, if the consumer’s attitude is negative, the buying interest will also be lower. Meanwhile, if the attitude is neutral, consumers think that the product is expected in consideration of buying.



**Consumer Preferences for Banana Fruit Attributes**

The Conjoint analysis results regarding consumer preferences for bananas in traditional markets in Semarang City can be seen in Table 10.

**Table 10.** Conjoint Analysis Results of Banana Fruit Preferences

Attribute	Level	Utility Estimate
Flavor	Sweet	-0.132
	Kinda sweet	0.646
	Sweet	-0.514
Size	Length (> 14 cm)	0.050
	Medium (10-14 cm)	0.442
	Short (< 10cm)	-0.493
Fruit skin color	Yellow	-0.039
	Greenish yellow	0.569
	Green	-0.530
Number of pieces per comb	Lots (> 16 pieces)	0.615
	Medium (12-16 pieces)	-0.163
	Few (< 12 pieces)	-0.453
(Constant)		2,996

Source: Processed Research Primary Data (2020).

Based on four attributes and three levels each in Table 10. Shows the attribute of banana taste with a slightly sweet taste has a positive utility value, namely 0.646, which means that consumers prefer bananas with a somewhat sweet taste to bananas with a sweet and astringent taste. The attribute of medium-sized bananas also has a positive utility value, 0.44,2, and is the most significant compared to long and short bananas; consumers prefer medium-sized bananas compared to short and long bananas. The greenish-yellow skin color attribute has a positive utility value, namely 0.569. Consumers prefer bananas with greenish-yellow skin color to bananas with green and yellow skin colors. Thquantitye of many fruits per comb also has a positive value of 0.615. Consumers prefer bananas with many fruits per comb compared to bananas with a small or a moderate number of fruits per comb.

Utility valueorutilityshows the level of consumer liking or disapproval of the attributes with the level/level of the product. This is the opinion of Gozali (2016), which states that the utility value is the difference between the average value of a particular factor and a constant value; if the utility value is positive, it means that the respondent likes the stimulation, whereas if the utility value is negative, the respondent does not like the stimulation. This opinion is in line with Supranto (2004), who states that a feature or a combination of product attributes produces the highest utility and dictates the product's composition that is the most preferred or preferred. Overall, consumers prefer bananaswithslightly sweet taste, medium size (10-14 cm), greenish-yellow skin color, and a large number of fruits per comb (>16 pieces).

**Table 11.** Importance Values of Banana Fruit Attributes

No.	Attribute	Importance Values (%)
1.	Flavor	27,360
2.	Size	22,323
3.	Fruit skin color	25,594
4.	Number of pieces per comb	24.723

Source: Processed Research Primary Data (2020).

According to Supranto (2004), importance value can indicate which attributes are essential in influencing consumer choice. Based on Table 11. it can be seen that the attribute that is considered the most important by respondents in buying bananas is the taste attribute with an importance value of 27,360%, followed by the fruit skin color attribute (25.594%), the number of fruits per comb (24.723%), and size (22,323%). Taste is the most important thing that consumers consider in buying banana products; consumers will buy bananas that match the taste they like. This matter is by Muzdalifah et al. (2012), which state that taste is the most crucial essential attribute for most people influences them in consuming food products compared to other features.

## CONCLUSION AND SUGGESTION

Based on the results of research on the analysis of consumer attitudes and preferences towards purchasing decisions for bananas in traditional markets in Semarang City, it can be concluded that the highest number of types of bananas purchased by consumers in a row are Kepok bananas, Raja bananas, Ambon bananas, and Cavendish bananas, while the ones that are purchased the least are is a banana Consumer attitude towards the attributes that are considered in the decision to buy bananas are the taste attributes (17.17), fruit skin color (14.97), size (10.46), and several fruits per comb (9.96). Consumer preference in buying bananas is a slightly sweet taste, medium size (10-14 cm), greenish-yellow skin color, and a large number of fruits per comb (>16 pieces). The order of importance value for banana fruit attributes that are prioritized are taste, fruit skin color, number of fruit per comb, and size.

It is better for producers or marketers to optimize the supply of types of bananas to be sold, such as increasing the supply of Kepok bananas and raja bananas because they are more often purchased by consumers, as well as increasing the supply of bananas that are by consumer preferences, namely bananas that have a slightly sweet taste, medium size (10-14 cm), greenish-yellow skin color, and a large number of fruits per comb (>16 pieces).

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