

CONSUMER PREFERENCES ON IMPORT AND LOCAL FRUIT IN INDONESIA

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Abstract

Research Center for Agricultural Policy and Agribusiness (2009) revealed that the contribution of the total fruit of Brutu Domestic Product (GDP) of about 35449.46 billion (48.36%), only the last ten years decreased. On the other hand the demand of fruits in Indonesia has increased, the increase over the last five years 10%. This is because the majority of Indonesia began promoting a healthy lifestyle by eating healthy foods like vegetables and fruits. Beside that, since the government policy on FDI (*Free Domestic Trade*) in 1998, then semakin many supermarkets in Indonesia and the more fruit imported into the Indonesian market.

The purpose of this study to know the description of the characteristics of respondents who consume imported and local fruits, how consumer preferences and attributes which are the most dominant of these local and imported fruit. The research was conducted in Bandung West Java Indonesia on the grounds that supermaketnya growth increased more than other cities in West Java and other provinces in Indonesia ,excluding Jakarta (World Bank, 2007). Determination of the respondents conducted in this study is to use *sampling judgment*. *Judgement sampling* as many as 100 people. Data was analysis by Fishbein Model.

Result of this research revealed thatthe reasons to consume imported fruit because seeing other people buy (59%), looking for variations in fruit (24%), as a source of vitamins (14%), and favotite families (3%). Apples, oranges and mangoes locally preferred by consumers because of the habit of eating a local family (38%), a source of vitamins (17%), and is the fruit favotite family (45%). In looking at the attributes of apples, oranges and mangoes, oranges and mangoes have higher level of interest on the attributes than the apples. This is interpreted that in buying oranges and mangoes, many things are being consider by the consumers than buying apple. Consumer prefer buy import fruits than local fruits, because cheap price and attractive colour. For consumers not an issue of varieties of fruit, the more important factor is the price, color, usability and freshness. The suggestions are it is necessary to educate to the consumers that buying import fruits does not mean more prestigious, and it is necessary to adjust the quality and other things contained in fruit attributes which are tailored to the needs of consumers for increasing value added.

Key words: consumer, import, local fruit

Potential Indonesia horticulture vegetables and fruits have not been cultivated to the fullest. Actually fruit export from Indonesia had triumphed, the Research Center for Agricultural Policy and Agribusiness (2009) revealed that the contribution of the total fruit of Brutu Domestic Product (GDP) of about 35449.46 billion (48.36%), only the last ten years decreased. Decline in exports of these fruits of which caused rumors of excessive use of pesticides, poor service and lack of commitment to an importer in conducting payment transactions, so that farmers harmed exporters. In a national scale, the volume of horticultural exports of Indonesia in 2005 - 2010 gradually decreased, especially in 2007, with export value of 993.909 million pounds with a value of 153,176,000 U.S. dollars

On the other hand the demand of fruits in Indonesia has increased, the increase over the last five years 10%. This is because the majority of

Indonesia began promoting a healthy lifestyle by eating healthy foods like vegetables and fruits. Request fruits that increase shows that fruits Indonesia prospektif to be developed, but since the government policy on FDI (*Free Domestic Trade*) in 1998, then many supermarkets in Indonesia and the more fruit imported into the Indonesian market. In traditional and modern markets, often found also imported and local fruits such as apples, oranges and mangoes. Although the price of imported fruit is more expensive, but there is a tendency of consumers prefer local rather than imported fruit. The purpose of this study to know the description of the characteristics of respondents who consume imported and local fruits, how consumer preferences and attributes which are the most dominant of these local and imported fruit.

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MATERIAL AND METHOD

Consumer preference is defined as a choice like it or not by one's products or (goods and services) are consumed. Consumer preferences show preferences of consumers from a wide selection of existing products (Kohl, 2000). According to Tirmizi (2009), the product is a set of attributes that are real (*tangible*) and intangible (*intangible*). Meanwhile, according to Engel, *Et al* (2004), states that the product

attributes include physical attributes and abtbut abstract. Physical attributes describe the characteristics of the product such as size, type, brand, color, packaging, price, taste, and others. While the abstract attributes describe the subjective characteristics of a product based on consumer perception, it agrees with Stores (Young, et all, 2004).

Based on the criteria of atrubute product, preferences of consumer can be seen in figure 1.

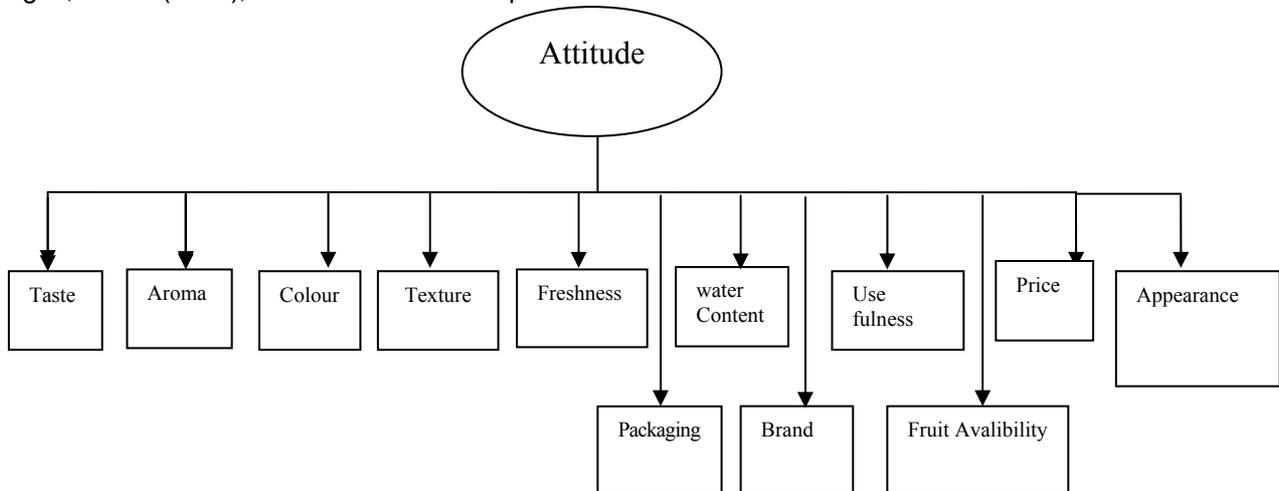


Figure 1 Variable Indicator of Consumer Attitude to Fruit Atribute

The research was conducted in Bandung West Java Indonesia on the grounds that supermaketnya growth increased more than other cities in West Java and other provinces in Indonesia (excluding Jakarta). Determination of the respondents conducted in this study is to

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

use *sampling judgment*. *Judgement sampling* as many as 100 people. Data was analysis by Fishbein Model :

Where :

- Ao = behavior toward the object
- bi = level of convidence that the attribute of the object has attributes I

RESULTS AND DISCUSSIONS

Number of purchasing imported fruit in a month less than the local fruits, as well as apples, oranges and mangoes. The average within one month of purchase of imported fruit is less than 1 kilogram. It depends on your needs and if there are

ei = evaluation to attribute I
 n = number of attributes that the object owned.

After local and imported fruit attributes are identified, then measurements were taken of ei and bi. Components ei and bi are measured using a Likert scale with a score of -2 to 2. Subsequently sought an average value of each attribute. The greater the average value obtained ei attribute indicates that the attribute is more important for respondents, as well as for bi greater average value obtained attribute indicates that attributes the better according to the respondents

Where :
 m = the highest value

$$Skala\ Interval = \frac{m - n}{b}$$

- n = the lowest value
- b = group that will be formed

discounted rates, while for local fruit between 2-3 kilograms. Consumers who buy imported fruit generally has a characteristic number of family members between 1-2 people with incomes more than four million per month. While consumers of local fruit is not clearly segmented. Reasons to consume imported fruit because seeing other people buy (59%), looking for variations in fruit

(24%), as a source of vitamins (14%), and favorite families (3%). Apples, oranges and mangoes locally preferred by consumers because of the habit of eating a local family (38%), a source of vitamins (17%), and is the fruit favorite family (45%). The data needed to analyze consumer attitudes is the degree of importance of attributes (ei) and the level of trust attributes (bi). Attributes that will be assessed in this study is, taste, aroma, color, texture of the fruit (fiber), freshness, moisture content, usability, price, how the arrangement of fruit, packaging, brand and availability of fruit. The way the arrangement of fruit in this easy or absence of fruit arranged into a series of interesting pieces on the dining table or used as a parcel of fruit. Packaging in this regard is a view seen from the fruit rind, is the fruit may protect the fruit to stay fresh condition. Brands in this behalf and imported varieties of local apples, oranges imported and local, imported and local mangoes. The availability of the fruit is easily obtained when the fruit any time needed.

Consumers in choosing apple and mango fruits consider product attributes as shown in Table 1. There are three attributes that consumers considered important in buying apples: freshness, price and appearance (Kacen, 2002, Babin, 2001). This is because apples available in supermarket are often prepared for the parcel of fruits added with other fruits. Attribute of brand in apples is not so important, because there are many varieties apples provided in supermarket, from Malang, Fuji to Washington apples.

For consumers of orange fruit, the attributes of taste, scent, and color become important since it is usually different among the attributes of

appearance and taste. Often consumers are disappointed in one that have attractive color and appearance, but it's not fresh anymore. Orange fruits in Bandung supplied from Medan, North Sumatra (40%) and also from Pontianak, West Kalimantan (35%) and other provinces (25%). Distribution of oranges that took too long cause the fruits no longer fresh. The scent becomes important because orange flavor can eliminate fishy smell. The attribute of packaging for oranges is not important because generally it doesn't need package, except mandarin oranges packed in transparent plastic. Beside that, orange fruits are always available in modern and traditional market, makes it easy to get.

The most important attributes for consumers of mango are the taste, use, price and appearance. The taste of mango is a main attribute because each variety has its own typical taste. Mango is a seasonal fruit, unlike apples and oranges which are available all time, so it can be found in their season only. Usefulness of mango is also considered important because it can be used for various purposes such as juice, candied mango, and for garnish. Attribute of packaging is not so important since consumers are indifferent to the interests of this attribute, packaged or not packaged does not change the consumer preferences (Dittmar, 2000). The attribute of packaging is also considered to be insignificant to consumers of oranges. Brand become not important because they are familiar already with its varieties and understand about its characteristics. Similarly, the availability of mangoes become not important because their prices are more expensive than other fruits and its needs can also be replaced by other fruits.

Table 1

Interest Value (ei) of Attributes on Apples, Oranges and Mango

Attribute	Apple		Orange		Mango	
	ei	criteria	ei	criteria	ei	criteria
1 Taste	0,95	imp	1,43	Vimp	1,34	Vimp
2 Aroma	0,87	imp	1,23	Vimp	0,86	imp
3 Colour	0,50	imp	0,74	imp	0,22	netral
4 Texture	0,97	imp	1,08	imp	0,86	imp
5 Freshness	1,30	Vimp	1,37	imp	1,11	imp
6 Water content	0,83	imp	1,17	imp	0,76	imp
7 Usefulness	0,91	imp	0,63	imp	1,23	Vimp
8 Price	1,45	Vimp	1,35	imp	1,36	Vimp
9 Appearance	1,94	Vimp	1,21	imp	1,33	Vimp
10 Packaging	0,48	imp	0,15	netral	0,29	netral
11 Brand	0,17	netral	-0,43	n.imp	-0,82	n.imp
12 Fruit availability	0,75	imp	-0,69	n.imp	-0,77	n.imp

Note : imp = important ; Vimp = very important; n.imp = not important

To observe consumer behaviors on fruit purchasing, we need to look at the level of interests and also level of confidence (Erickson, 1994, Frykblom, 2000). Confidence level will be observed for both import and local fruits. The results revealed as in table 2.

From observations of consumer confidence, the attribute of fruit texture on import apple is more reliable than local one, while import orange has color attribute more reliable. Field observations indicate that the color of import orange is more bright and attractive than local one. Attribute of import mango does not have special attributes of all as import mango is rarely with higher price around Rp. 65.000,- per kg (four times of the local mango).

The prices are more expensive because they are imported from Africa when Indonesia is not in their season. Indonesian Cengkir mango has a hard texture with sweet taste and color like Gedong Gincu mango. Import mangoes are only available in the fruit shop and in some supermarkets. These mangoes cannot compete with off-season mangoes that produced from Pemalang, Central Java. Although their production cannot fulfill the market demand, but they can substitute import mangoes with cheaper price around Rp. 30.000 - (double the price of season mango).

Consumer confidence to the attribute of local apples, oranges, and mangoes in average is good. The attributes of appearance, packaging, and brand for local apple is less reliable. It is based on the consumer experience that the color of import apple is more attractive than local one to arrange

parcel of fruits. Packaging and brand for local apple is not so important because consumers are more concerned with the appearance and taste. Similarly for local oranges, where consumer do not rely in the the appearance attribute of oranges. Often it looks nice but it has bad taste. Appearance, packaging and brand attributes of local mangoes can be perceived equally by consumers,. Overall, it can be concluded that consumers prefer import mango than local one because it looks more attractive locally and their brand is more prestige.

The results showed that import fruits for apples, oranges, and mangoes are superior to local fruits. If all three fruits are available in the supermarket, then consumers will prefer import apples than import oranges and mangoes, since the price is affordable. As for local fruits, there is no specificity of attributes, so they have the same opportunity to be choose from. Local fruits purchased based on need, not because he want to try or prestige. Based on the level of interest and level of confidence on attributes of import fruits on apples, oranges and mangoes, we can obtained the value of attitude (Ao) of the fruits. The results of the calculation of the respondent behavior toward fruit attributed can be mapped into the interval line of category as shown in the following. Then obtained the value of attitude (Ao) of the fruit. Here are presented the results of the calculation of the respondents attitudes towards fruit attributes that are mapped into the interval line category.

Table 2

Confidence Level of Attributes (bi) on Imports and Local Fruits

Attribute	Apple				Orange				Mango				
	Import		Local		Import		Local		Import		Local		
	Bi		bi		bi		bi		bi		bi		
1	Taste	0,74	2	0,55	2	0,52	2	0,04	3	-0,18	3	0,43	2
2	Aroma	0,94	2	0,58	2	1,09	2	0,67	2	0,44	2	1,14	2
3	Colour	1,25	1	0,47	2	1,33	1	0,58	2	0,45	2	1,00	2
4	Texture	0,63	2	0,61	2	0,95	2	0,64	2	0,46	2	0,84	2
5	Freshness	0,94	2	0,71	2	0,98	2	0,72	2	0,56	2	0,58	2
6	Water content	0,87	2	0,54	2	1,00	2	0,81	2	0,47	2	0,84	2
7	Usefulness	0,78	2	0,76	2	0,82	2	0,73	2	0,50	2	0,89	2
8	Price	-0,02	3	0,52	2	0,28	3	0,54	2	0,07	3	0,51	2
9	Appearance	0,98	2	0,33	3	0,93	2	0,41	2	0,40	3	0,45	2
10	Packaging	1,08	2	0,27	3	1,09	2	0,24	3	0,69	2	0,35	3
11	Brand	1,02	2	0,17	3	1,14	2	0,28	3	0,66	2	0,39	3
12	Fruit availability	0,99	2	0,43	2	1,08	2	0,55	2	0,65	2	0,54	2

Note : 1 = very good ; 2 = good ; 3 = good enough

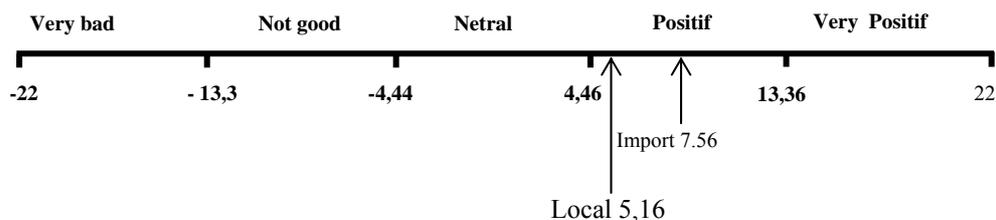


Figure 2 Interval Line of Category on consumer behavior to import and local Apple

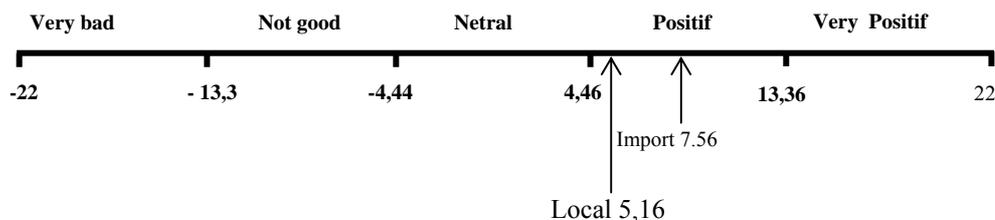


Figure 3 Interval Line of Category on consumer behavior to import and local Oranges

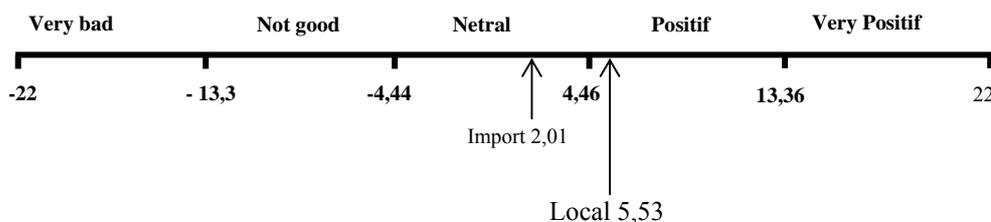


Figure 4 Interval Line of Category on consumer behavior to import and local mangoes

CONCLUSIONS

In looking at the attributes of apples, oranges and mangoes, oranges and mangoes have higher level of interest on the attributes than the apples. This is interpreted that in buying oranges and mangoes, many things are being consider by the consumers than buying apple.

Field revealed that if all three pieces are available, consumers prefer oranges and mangoes rather than apples, because apples are perceived consumer has a sour taste.

Perceived price of imported apples are more expensive than local apples, but apple imports have uniqueness in terms of color so it is more interesting if it was created pasel fruit or interest to set the dinner table.

For consumers not an issue of varieties of fruit, the more important factor is the price, color, usability and freshness.

Oranges and citrus imports locally perceived consumer does not show it differently, because consumer good imports and orange citrus attributes

locally are relatively similar, although generally when both pieces are available, consumers prefer imported oranges. According to consumer imports oranges have a sweet taste, freshness preserved but the price is cheaper than the local citrus.

Consumers see the attributes of the local mango mango is better than imports, this is because the mango imports have advantages in terms of fruit texture, while the local flavor and aroma of mango superior.

Suggestions

Usually consumers in buying import fruit because of the price factor, besides the price is cheap, the quality is also good, thus it is expected to have an integrated program from related Ministry so that the price in the consumer level will be cheap and with a good quality, but also the farmers are not harmed. In addition to increasing consumer awareness that local fruits are not inferior to imported fruit, it is necessary to educate to the consumers that buying import fruits does not mean more prestigious.

To increase the *value added* of local fruits, it is necessary to adjust the quality and other things contained in fruit attributes which are tailored to the needs of consumers. Just as when the local fruits are for local consumption in traditional markets, it is not necessary to consider the attributes that consumers want.

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