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Driven Factors for Purchasing Decision and Satisfaction of Organic Rice Consumers on Supermarket – A Study in Indonesia

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ABSTRACT

Purpose: *Organic rice demand in Indonesia continues to increase and market opportunities are also increasingly widespread. Therefore, consumers can have a choice over various organic rice products. This study was conducted to identify characteristics of organic rice consumers, purchase decision process, analyze organic rice attributes and consumer satisfaction. The aim of the study is to obtain the main driven factor that could be used as an important consideration for the organic rice business.*

Research Method: *The research design was quantitative with a survey of 75 respondents which were randomly drawn. Data were analyzed using frequency distribution to describe consumer characteristics and purchasing decision process, Importance Performance Analysis (IPA) to identify the attributes that consumers considered and Consumer Satisfaction Index (CSI) to identify the level of consumer satisfaction.*

Findings: *Organic rice consumers were dominated by housewives who are high-educated, middle aged, and who have an upper-middle income with an average of USD 797.72/month. The main reason of consuming organic rice was its sweet taste. The benefits of organic rice was known through print and electronic media. Organic rice prices ranged from USD 2.07/kg to USD 3.25/kg and average purchase was 6 kg per month. Moreover, the most expensive organic rice was the one that has a low glycemic index. Even though the price was rising, consumers keep purchasing organic rice they normally consume. Of 12 attributes, only price affordability was not in line with the consumer expectations. Overall, consumers were very satisfied as indicated by the value of CSI = 83.28%. The results conclude that price affordability was the main driven factor and could be used as an important consideration for the organic rice business.*

Originality/Value: *It is very important to analyze factors that consumers considered in buying organic rice, because the results can be used as an important consideration for the organic rice business.*

Keywords: *organic rice, purchasing decisions, product attributes, consumer satisfaction*

INTRODUCTION

Organic rice demand continues to increase and market opportunities are also increasingly widespread (Sriyanto, 2010; Sumarwan *et al.,* 2013). It has been proven by "Healthy Indonesian Farmers" in Noviandi (2012) that the demand for organic rice in Indonesia doubled in 2005-2009. This shows consumer awareness of the importance of maintaining health and the environment is increasing (Kusno *et al.,* 2017; Budi Kusumo *et al.,* 2018). The wide range of organic rice market opportunities has led to the emergence of various organic rice products. As a result, consumers can have a choice over many alternative organic rice

products. Therefore, criteria are needed to decide on organic rice products to be bought. According to Tjiptono (2008), the basis of consumers in making purchasing decisions is the perception of product attributes as a very important element. In these decisions, everyone is influenced by his behavior (Sumarwan, 2011). Logically,

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consumers will always look for the highest value of several products (Kotler, 2007).

Consumer decisions in purchasing generally go through 5 stages namely, recognition of needs, search for information, alternative evaluation, purchasing, and post-purchased evaluation (Engel *et al.,* 1995; Kotler and Amstrong, 2001; Hawkins and Mothersbaugh, 2007; Sumarwan, 2011; Tjiptono and Diana, 2019). But in fact, consumers often do not go through these five stages (Sumarwan *et al.,* 2013).

Previous studies regarding the purchasing decision process, attributes consideration and consumer satisfaction in purchasing organic rice have been conducted by (Hartari, 2005; Widagdo, 2007; Idaman *et al.,* 2012; Swastika *et al.,* 2013; Sumarwan *et al.,* 2013). In these studies, respondents were drawn from the sale location of organic rice agents and stores in a sub-district, district or city with a purposively sampling technique. Whereas in this study, the location of the sale is a supermarket with randomly sampling to represent the characteristics of the rice consumer population.

Based on the above description, several questions can be identified: do consumers of organic rice follow each stage of the purchasing decision? What are the reasons of a consumer to buy organic rice in supermarkets? How do consumer makes purchasing decisions? What is the level of customer satisfaction? Therefore, this study was performed to; 1). describe the characteristics of consumers of organic rice, 2). identify the purchasing decision process, 3). analyze the considered attributes by consumers in purchasing organic rice, and 4). analyze the consumer satisfaction.

RESEARCH METHODS

This research was conducted from January to August 2017 at Giant Ekspres Suci supermarket, Bandung, West Java, Indonesia. Consumers who purchased organic rice are assumed to consume it (Tjiptono and Diana, 2019). The research design was quantitative method with survey techniques. Quantitative methods consist of the process of gathering, analyzing, interpreting, and writing

research results (Creswell, 2014).

A sample of 75 respondents were chosen randomly. The size of the population of organic rice consumers in Giant Ekspres Suci supermarket is of course infinite, so the problem is how to draw a random sample of respondents. According to Anderson, Sweeney, and Williams (2011), a random sample of size n from an infinite population is a sample chosen so that the following conditions are met: 1). every element selected comes from the same population, and 2). every element is chosen individually independent. In this study, the first sample of respondents was selected from consumers who particularly came to buy rice at the Giant Ekspres Suci, not only aimed for sight seeing or just used the restroom, and so on. Thus, the conditions 1) was met. The selection of the first respondent does not affect the selection of any other respondent. This was conducted by selecting consumer who came alone, not in groups. Thus, the conditions 2) was met.

The variables measured to achieve the first and the second objective are presented in the results and discussion sections. The attributes considered by consumers and the measurements using Likert scale are presented in Table 01.

Data consisted of primary and secondary data. Primary data were obtained through questionnaires and interviews, while secondary data came from related institutions, literature and previous studies obtained both offline and online. Interviews were conducted on weekdays and weekends.

Prior to collecting the data, the validity and reliability of the questionnaire were tested. Validity testing used the following formula: (Anderson, Sweeney, and Williams, 2011).

$$r_{xy} = \frac{n \sum XY - (\sum X)(\sum Y)}{\sqrt{(n \sum X^2 - (\sum X)^2)(n \sum Y^2 - (\sum Y)^2)}}$$

r_{xy} is correlation coefficient, $\sum X$ is sum of item scores, $\sum Y$ is sum of total score, $\sum X^2$ is number of respondents, $\sum Y^2$ is sum of squares of item score, $\sum XY$ is sum of squares of total score and is sum of product of item score. If r_{xy} is greater than the value of r than the questionnaire is valid.

Table 01: **Measurement of organic rice attributes**

Concept	Dimension	Sub-dimension	Attributes	Indicator
Organic rice attributes that consumer considered	Level of importance	Physical attributes	White color of organic rice	VH, H, M, L, VL
			Uniformity of grains	VH, H, M, L, VL
			Wholeness of grains	VH, H, M, L, VL
		Quality attributes	Stickiness (*Kepulenan*)	VH, H, M, L, VL
			Aroma	VH, H, M, L, VL
			Durability	VH, H, M, L, VL
			Sweet taste	VH, H, M, L, VL
		Other attributes	Price affordability	VH, H, M, L, VL
			Packaging makes it easy to store	VH, H, M, L, VL
			Organic logos are listed	VH, H, M, L, VL
			Organic certification numbers are listed	VH, H, M, L, VL
			Expiration dates are listed	VH, H, M, L, VL
	Level of performance	Physical attributes	White color of organic rice	VG, G, F, P, VP
			Uniformity of grains	VG, G, F, P, VP
			Wholeness of grains	VG, G, F, P, VP
		Quality attributes	Stickiness (*Kepulenan*)	VG, G, F, P, VP
			Aroma	VG, G, F, P, VP
			Durability	VG, G, F, P, VP
			Sweet taste	VG, G, F, P, VP
		Other attributes	Price affordability	VG, G, F, P, VP
			Packaging makes it easy to store	VG, G, F, P, VP
			Organic logos are listed	VG, G, F, P, VP
			Organic certification numbers are listed	VG, G, F, P, VP
			Expiration dates are listed	VG, G, F, P, VP

Note: VH = Very high, H = High, M = Moderate, L = Low, VL = Very low, VG = Very good, G = Good, F = Fair, P = Poor, VP = Very poor

The reliability test aims to measure the consistency of the statements in the questionnaire. The formula used is Cronbach's Alpha as follows: (Vehkalahti, 2000).

$$\alpha = \left(\frac{k}{k-1}\right)(1 - \frac{\sum \sigma_{x_i}^2}{\sigma_\mu^2})$$

k is the number of items x_1, and $\mu = x_1 + x_2 + ... + x_p$, α is the reliability coefficient of the questionnaire. $\sum \sigma_{x_i}^2$ is total of variances for each item. σ_μ^2 is total variance of all items. The questionnaire is reliable if the coefficient α is greater than or equal to 0.7 (Taber, 2016). Both tests were done using SPSS program. The results indicated all items in the questionnaire were valid and reliable.

Data were analyzed using frequency distribution to describe consumer characteristics and purchase decision process, IPA to identify the attributes that consumers considered and CSI to identify the level of customer satisfaction on those attributes. Consumer satisfaction management often uses the IPA model as its main tool (Hu *et al.,* 2009).

The initial step of the IPA method is to determine the level of conformity between the level of importance and of performance of the attributes with the formula: $T_{k_i} = \frac{X_i}{Y_i} \times 100\%$ is conformity level, X_i is performance score and Y_i is importance or expectation score. The second step is to calculate the average score of performance (X̄) and importance (Ȳ) of each attribute with the formula: $\bar{x}_i = \frac{\sum x_i}{n}$ dan $\bar{Y}_i = \frac{\sum Y_i}{n}$ respectively. $\bar{x}_i$

T_{k_i} average score of performance level of i-th attribute, $\bar{Y}_i$ is average score of importance level of i-th attribute, and k is number of item.

Next, calculate the average score of the average importance of Y and performance of X respectively with the formula: $\bar{\bar{X}} = \frac{\sum \bar{X}_i}{k}$ and $\bar{\bar{Y}} = \frac{\sum \bar{Y}_i}{k} \cdot \bar{\bar{X}}$

is average score of the performance level of all attributes, $\bar{\bar{Y}}$ is average score of the importance level of all attributes, and k is number of attribute or item.

The final step is mapping each attribute $(\bar{X}_i, \bar{Y}_i)$ into a Cartesian diagram which is divided into 4 quadrants that are bounded by $(\bar{\bar{X}}, \bar{\bar{Y}})$. This diagram was built using SPSS program.

Then CSI value is calculated. The first step is to calculate the weighted factor for each attribute using the formula: $WF_i = \frac{\bar{Y}_i}{\sum_{i=1}^{k} \bar{Y}_i} \times 100\%$. Then the weighted score for each attribute and the total weighted was calculated by the formula:

$WS_i = WF_i \times \bar{X}_i$ and $WT = \sum_{i=1}^{k} WS_i$ respectively.

CSI is obtained by the formula: $CSI = \frac{WT}{HR} = \frac{WT}{5}$. HR is the highest score. In this study HR is equal to 5. Value of CSI range from 0 - 100%, with the following categorization (Ulum, 2007): 0.00-0.34 (not satisfied), 0.35-0.50 (less satisfied), 0.51-0.65 (quite satisfied), 0.66-0.80 (satisfied), and 0.81-100 (very satisfied).

RESULTS AND DISCUSSION

Organic and non-organic rice in Giant Ekspres Suci supermarket were placed on the same rack, so consumer of organic and non-organic rice has the same opportunity to be chosen as a respondent. Of the 75 respondents randomly chosen, 58 and 17 respondents of non-organic and organic rice, were selected respectively.

Consumer characteristics

Table 02 shows the average age of organic rice consumers (48.4 years) is older than non-organic (40.3 years). When viewed by age group, the majority of organic rice consumers (52.9%)

were in the age group 46-55 years while the majority of non-organic rice consumers (29.3%) were aged 26-35 years This shows that older consumers maintain better health than relatively young ones. According to the American Diabetes Association in Kirkman *et al.* (2012), all adults aged $\geq$ 45 years are recommended to take an oral glucose tolerance test once every 1-3 years. The age range of organic rice consumers (60-27 = 33 years) was smaller than non-organic (68-10 = 58 years). A cluster of data that have a smaller range means that the data were more homogeneous than those with larger ranges (Anderson, Sweeney and Williams, 2016). Thus, consumers of organic rice were more homogeneous than non-organic.

In this study, education was classified (based on Law Number 20 Year 2003 concerning the National Education System) into 3 classes, namely, low, middle and higher education classes. According to Table 02, the majority of organic and non-organic rice consumers were highly educated, but the percentage was higher in organic rice consumers, namely, 94.1% vs. 65.5%. Furthermore, consumers of organic rice with postgraduate education (23.5%) were almost 3 times more than non-organic with the same education (8.6%). In addition, there were no low educated organic rice consumers while non-organic rice consumers have 1.7%. This shows that the higher the level of a person's education, the higher his awareness of health. This result is in line with Notoatmodjo's (2007) statement that someone who is more educated will have a broader knowledge so that better in controlling himself and has the right estimation in maintaining health.

Distribution of types of work of consumers is presented in Table 02. It can be seen that the types of work of non-organic rice consumers are more varied than those of organic rice consumers. For organic rice consumers, the type of work: others (11.8%) were lecturers. Whereas for non-organic rice consumers, type of work: others (8.6%) were teachers and retirees. Furthermore, the majority of consumers who buy organic rice (70.6%) and non-organic (56.9%) were housewives. This is reasonable because housewives know better what family members need. As stated by Suwarwan (2011) that women have an important

role to make decisions in buying products and services for their family members. Thus, women or housewives are the biggest decision makers in the family to purchase foods such as organic rice (Sumarwan, Noviandi and Kirbrandoko, 2013).

Organic rice consumer income in this study was grouped into 3 classes, namely lower middle (< USD 185.57), middle (USD 185.57 – USD 428.25), and upper middle class (> USD 428.25) (Kusno *et al.,* 2018). In Table 02, it can be seen that organic rice was only bought by middle and upper income consumers. Whereas non-organic rice was bought by consumers of all income classes, of which most were middle class consumers (= 60.9%). This result is in line with the statement of Sumarwan *et al*. (2013), that the price of organic rice which is far more expensive than non-organic causes the relationship between organic rice purchases and consumer income to

be increasingly clear. This result is also consistent with the statement of Selamet (2003), that the pattern of rice consumption is influenced by the level of income.

Based on income figures, the average income of organic rice consumers was 2 times greater than non-organic. The range of consumers of organic rice (USD 499.62) was smaller than non-organic (USD 999.25). This shows organic rice consumers were more homogeneous than non-organic. Based on these two statistics, namely, average and range, consumers of organic rice were a limited circle. This finding is in accordance with Andoko's (2010) statement that the high price of organic rice causes consumers to be in a limited circle, namely, people who understand its superiority and are willing to pay higher prices.

Table 02:   **Demographic distribution of organic and non-organic rice respondents**

No.	Characteristics	Information	Category	Organic		Non-organic	
				f_i	(%)	f_i	(%)
1.	Age	16 – 25 years		0	0	4	6.9
		26 – 35 years		2	11.8	25	43.1
		36 - 45 years		3	17.6	17	29.3
		46 – 55 years		9	52.9	10	17.2
		≥ 56 years		3	17.6	2	3.4
		Minimum		27 years		18 years	
		Maximum		60 years		68 years	
		Average		48.4 years		40.3 years	
2.	Education	Elementary school	Low	0	0	0	0
		Junior school	Middle	0	0	1	1.7
		Senior school		1	5.9	19	32.8
		Diploma		2	11.8	3	5.2
		Graduate	High	10	58.8	30	51.7
		Postgraduate		4	23.5	5	8.6
3.	Type of work	Entrepreneur		3	17.6	6	10.3
		Civil servant		0	0	3	5.2
		Private		0	0	8	13.8
		College student		0	0	3	5.2
		Housewife		12	70.6	33	56.9
		Others		2	11.8	5	8.6
4.	Income	Upper middle	> USD 428.25 /month	17	100	11	19
		Middle	USD 185.57- USD 428.25/ month	0	0	40	69
		Lower middle	< USD 185.57/ month	0	0	7	12

Analysis of organic rice purchasing decisions

i.   *Recognition of needs*

According to Table 03, the majority of consumers (88.2%) agree that the reason for consuming organic rice was because of its sweet taste. Organic rice will taste sweet when repeatedly chewed, while non-organic rice will taste bland (Purwaningsih, 2009). Another reason was the fact that organic rice was believed to be healthier than non-organic rice. This was also indicated by the number 76.47% who agree.

Assael (2001) states that lifestyle is the way a person uses his time for activities that are considered important in his environment and to think about the world around him. In general, (64.7%) consumers do not agree with the fact that they consume organic rice because it has become a lifestyle. This finding is not in line with what Purwatiningsih (2009) stated that consumers consume organic rice because of their lifestyle. Consumers (64.7%) do not consider prestige as a reason to consume organic rice, but because they consider the benefits of organic rice.

ii.   *Search for information*

The majority of consumers (52.9%) know the benefits of organic rice through print and electronic media. Currently, the media is an effective tool for finding information, so the benefits of organic rice can be easily learned.

The source of information that Giant generally sells organic rice was from himself (58.8%). That's because most consumers were those who oftenly shop at Giant, so they see and know firsthand that Giant sells organic rice.

iii.   *Alternative evaluation*

Consumers evaluate various organic rice and finally decide to choose organic rice as their desired choice. Consumers have various brands of organic rice, namely, the Super Head Organic Rice Hotel, Organic Fragrant Menthik Rice, Super Organic Holistic Rice Diabetes, and the Sugar Free Organic Rice Hotel with a price range ranging from USD 2.7/kg and USD 3.25/kg (IDR 1 = USD 0.000071). The most widely purchased was the Giant Rice Menthik Wangi Organic brand (47.1%), followed by the Super Organic Rice Head Hotel (35.3%). Both brands of rice were cheaper than the price of other brands of organic rice. Two consumers (11.8%) bought the Holistic Rice Super Organic brand with the consideration that the brand included the word diabetes on its packaging, so consumers thought that the rice was safer for diabetics. Only one consumer (5.9%) bought Organic Rice Hotel Sugar Free Organic Rice brand. This brand was the most expensive, USD 3.25/kg because this rice has a low glycemic index level. Organic rice with a low glycemic index comes from the best rice seeds, which were then processed using technology to produce sugar-free rice (Septianingrum *et al.,* 2016). Rice that has a low glycemic index is recommended for consumption by people with diabetes mellitus that is suffered after adulthood (Indrasari, 2019).

iv.   *Purchasing*

The majority of respondents, 9 of 17 respondents (53%) purchased organic rice in a planned manner. Purchasing rice was done while shopping for monthly needs which of course has been planned beforehand. Other consumers (47%) purchased organic rice without a plan. When they were in Giant, they suddenly wanted to buy organic rice.

Organic rice is usually sold in 2 kg packages. 2 kg packaging size was a consideration for easy carrying and organic rice was not consumed too much. The amount of organic rice purchased per purchase ranges from 2 to 6 kg, with the frequency of purchasing one to three times a month.

Table 04 shows the majority of consumers (58.8%) buy organic rice once a month weighing 2 kg, 4 kg, or 6 kg; and the majority of consumers (35.3%) buy 6 kg / month. Based on Table 05, the average monthly purchase was calculated as follows: (1 x 2 kg + 1 x 2 x 2 kg + 1 x 3 x 2 kg + 3 x 4 kg + 5 x 2 x 4 kg + 6 x 6 kg) / 2 = 5,9 kg = 6 kg.

Table 03:   Frequency distribution of respondents motivation

No.	Reasons	Strongly agree		agree		neutral		disagree		strongly disagree	
		f_i	%	f_i	%	f_i	%	f_i	%	f_i	%
1	Habitual	2	11.7	4	23.5	9	52.9	1	5.9.	1	5.9
2	Easily obtained	1	5.9	4	23.5	11	64.7	1	5.9	0	0
3	Healthy	1	5.9	13	76.5	2	11.7	0	0	1	5.9
4	Lifestyle	0	0	1	5.9	1	5.9	11	64.7	4	23.5
5	Prestige	0	0	0	0	3	17.6	11	64.7	3	17.6
6	Sweetness	1	5.9	15	88.2	1	5.9	0	0	0	0

Table 04:   Frequency of organic rice purchased per month

No.	Frequency of purchase / month	Quantity of purchase / one time purchase						Total	
		2 kg		4 kg		6 kg			
		f_i	%	f_i	%	f_i	%	f_i	%
1.	1 time	1	5.9	3	17.6	6	35.3	10	58.8
2.	2 times	1	5.9	5	29.4	0	0	6	35.3
3.	3 times	1	5.9	0	0	0	0	1	5.9
	Total	3	17.6	8	47.1	6	35.3	17	100

If organic rice which usually purchased is not available, it was found that 12 consumers (71%) buy other brands of organic rice in the same place. That was because consumers were accustomed to shopping at the Giant Ekspres Suci which was by their homes. The majority of consumers (71%) would continue to buy organic rice which they usually buy even though prices were rising. This result is consistent with the findings of Sumarwan *et al.* (2013). Other consumers (29%) prefer to buy other organic rice at lower prices. This shows the loyal attitude of consumers towards the type of rice they usually consume.

v.   ***Post-purchase evaluation***

Analysis of attributes that consumers consider in purchasing organic rice

In this study there were 12 attributes studied, namely, 1). white color of organic rice, 2). uniformity of grains, 3). wholeness of rice grains, 4). stickiness, 5). aroma, 6). durability, 7). sweet taste, 8). price affordability, 9). packaging makes it easy to store, 10). organic logos are listed, 11). organic certification numbers are listed, and 12). expiration dates are listed on the packages.

In Table 05, the average value of importance and performance was 4.25 and 4.15, respectively. These values are the midpoint on the Cartesian diagram. The position of 12 attributes of organic rice in the Cartesian diagram can be seen in Figure 01.

a.1 Quadrant I (Top priority)

Attributes in Quadrant I have a high level of importance, but the performance was less satisfying the consumers. The attribute in this quadrant was price affordability, by means that price affordability was considered very important by consumers, but the level of performance was considered low. Therefore, the performance of the attributes of affordability of organic rice must be improved in such a way as to increase consumer satisfaction. Therefore, the consumers' education about the organic rice production

process (such as taking a long time) by Giant is needed. Through education, the consumers are expected to become aware and accept about the higher price of organic rice.

a.2 Quadrant II (Keep up the good work)

The attributes in Quadrant II are the strength of the product because they have a high level of importance and performance. All attributes must be maintained and improved because these attributes are the advantages of the product.

Attributes included in quadrant II were stickiness (*kepulenan*), aroma, durability, sweet taste, and white color of organic rice. Thus, the performance of the five attributes was in accordance with consumer expectations. *Kepulenan* is consistency of rice based on the texture of organic rice. Someone will feel pleasure of food by smelling the aroma. The aroma of organic rice after cooking smells good. Organic rice lasts longer than non-organic rice and does not stale easily, so consumers were satisfied. Consumers assume that the quality of rice can be seen from the color where the good quality of rice is usually whiter.

a.3 Quadrant III (Low priority)

Attributes in Quadrant III have a low level of importance and performance, so producers or marketers tend to pay less attention to these attributes.

Attributes in quadrant III were uniformity of rice grains, packaging makes it easy for storage, availability of certification numbers and expiration dates on the packaging.

After cooking, organic rice does not look different in the size. Even if the shape is not uniform, it won't change the taste of organic rice. Consumers do not really consider the function of packaging, because consumers usually move purchased rice into special containers at home. Actually, the certification number attribute is a very important thing that must be present on organic rice packaging, since it shows the organism of the rice (Kementrian Pertanian, 2008). However, consumers very rarely consider the importance of the certification number, so this attribute has a low priority to be improved.

a.4 Quadrant IV (Excessive)

Attributes in this quadrant were attributes that have relatively good performance but were less important, and were considered excessive by consumers. Therefore, producers were better off allocating resources for these attributes to improve the performance of the attribute in quadrant I about the price of organic rice.
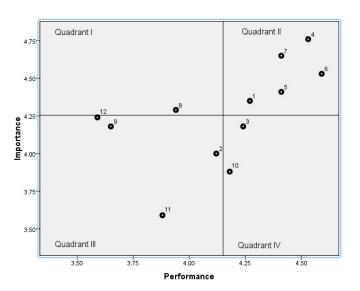

Figure 01: IPA of attributes that consumers considered in purchasing organic rice at Giant Ekspres Suci supermarket

Table 05:   **Average score of importance and performance of organic rice attributes**

No.	Attributes	Level of Performance $(\bar{X}_i)$	Weighted factor	Level of Importance $(\bar{Y}_i)$	Weighted score	Gap (Q) $(\bar{Y}_i - \bar{X}_i)$
1	1	4.27	0.08519	4.35	0.36378	0,08
2	2	4.12	0.07834	4.00	0.32276	-0,12
3	3	4.24	0.08186	4.18	0.34711	-0,06
4	4	4.53	0.09322	4.76	0.42230	0,23
5	5	4.41	0.08637	4.41	0.38089	0
6	6	4.59	0.08872	4.53	0.40722	-0,06
7	7	4.41	0.09107	4.65	0.40162	0,24
8	8	3.94	0.08402	4.29	0.33103	0,35
9	9	3.65	0.08186	4.18	0.29881	0,53
10	10	4.18	0.07599	3.88	0.31763	-0,3
11	11	3.88	0.07031	3.59	0.27280	-0,29
12	12	3.59	0.08304	4.24	0.29811	0,65
Total		49.8	1	51.06	4.16405	
Average $(\bar{\bar{X}}, \bar{\bar{Y}})$		4.25		4.15		

The attributes involved in quadrant IV were the wholeness of the rice grains and the inclusion of an organic logo. Both of these attributes are added values for consumers. Actually, the organic logo cannot be separated from the certification number. If a company has passed organic certification, the company has the right to print organic logos and organic certification numbers on the packaging (Mayrowani, 2012).

Analysis of consumer satisfaction with organic rice

Based on Table 05, the CSI value was about (4,16405) / 5 = 83,28% which means that consumers were very satisfied with the whole attributes of the purchased organic rice products at Giant. This CSI value can still be improved by making improvements to the attributes performance generated by the IPA.

CSI values that have not reached 100% can be analyzed through the gap value (Swastika *et al.,* 2013). Gap value = Q = shows the extent of the gap between consumer expectations and producer performance. According to Supranto

(2011) in Swastika *et al.* (2013), if the gap value of an attribute is > 0.25, then the attribute has not satisfied consumers. Table 05 showed that the gap values for attribute 8 (price affordability), attribute 9 (packaging makes it easy to store), and attribute 12 (expiration dates are listed on the packages) were 0.35, 0.53, and 0.65, respectively; where each was greater than 0.25. Thus, the level of consumer satisfaction with all attributes (CSI value = 83.28%) indicates not only the affordability of prices that has not satisfied consumers but also packaging and expiration dates.

CONCLUSION

The majority of consumers of organic rice in Giant Ekspres Suci supermarket were dominated by housewives who are highly educated, middle aged, and middle to upper income, with an average income of USD 797.72 / month.

In purchasing organic rice, consumers went through the five stages of the purchase decision process, namely, the recognition of needs, search for information, alternative evaluation,

purchasing, and post-purchase evaluation. The majority of consumers consumed organic rice because of its sweet taste. The benefits of organic rice were known through print and electronic media. Organic rice prices ranged from USD 2.7/kg to USD 3.25/kg and monthly average purchase was 6 kg. Furthermore, the most expensive organic rice was the one that has a low glycemic index. Even though the price was rising, consumers keep purchasing organic rice they normally consume.

Of the 12 attributes that consumers consider in purchasing organic rice, only the price affordability of organic rice was not in line with consumer expectations. But overall, consumers were very satisfied as indicated by the value of CSI = 83.28%. This value can be increased by making improvements to the performance of attributes generated by IPA.

ACKNOWLEDGEMENT

REFERENCES

Anderson, D.R., Sweeney, D.J. and Williams, T.A. 2011. Statistics for business and economics. 11th Edition. South-Western Cengage Learning, United States of America. 1117pp.

Andoko, A. 2010. Organic rice cultivation. Penebar Swadaya. Jakarta, Indonesia. 96pp.

Budi Kusumo, R.A., Charina, A., Sukayat, Y. and Mukti, G.W. 2018. Kajian Edukasi Ramah Lingkungan dan Karakteristik Konsumen serta Pengaruhnya terhadap Sikap dan Perilaku Ramah Lingkungan. *Jurnal Ilmu Keluarga & Konsumen*, 10 (3), pp. 238-249. DOI: https://doi.org/10.24156/jikk.2017.10.3.238

Creswell, J.W. 2014. Research Design. Quantitative, Qualitative, and Mixed Methods Approach. 4th Edition. SAGE Publications, Inc. 2455 Teller Road Thousand Oaks, California 91320, United States. 342pp.

Engel, J.F., Blackwell, R.D., Miniard, P.W. 1995. Consumer Behavior. 8th Edition. Forth Worth, The Dryden Press. Texas. 951pp.

Hartari, A. 2005. Atribut produk dan karakteristik konsumen beras organik terhadap sikap konsumen beras organik. Master thesis in Food Science, Bogor Agricultural University. 118pp. Retrieved from https://repository.ipb.ac.id/handle/123456789/6617 15.05.2018

Hawkins, D.I. and Mothersbaugh, D.L. 2010. Consumer Behavior: Building Marketing Strategy. 11th Edition. Mc Graw Hill. New York, United States. 803pp.

Hu, H. Y., Lee, Y. C., Yen, T. M., and Tsai, C. H. 2009. Using BPNN and DEMATEL to modify importance–performance analysis model – A study of the computer industry I. *Expert Systems with Applications*. Elsevier Ltd. All rights reserved. 36 (Issue 6), pp. 9969-9979. DOI: https://doi.org/10.1016/j.eswa.2009.01.062

Idaman, N., Yuliati, L.N. and Retnaningsih. 2012. Sikap Konsumen terhadap Beras Organik. *Jurnal Manajemen dan Agribisnis.* 9 (2), pp. 117-126. DOI: https://doi.org/10.17358/jma.9.2.117-126

IFOAM. 2017. The World of Organic Agriculture. Statistic and Emerging Trends 2017 (Willer, Helga and Julia Lernoud Eds.). Research Istitute of Organic Agriculture (FiBL), Frick, Switzerland Retrieved from https://orgprints.org/31197/1/willer-lernoud-2017-global-data-biofach.pdf 12.12.2017

Kementrian Pertanian. 2008. Pedoman Sertifikasi Produk Pangan Organik. Otoritas Kompeten Pangan Organik. Departemen Pertanian. Jakarta, Indonesia. 53pp.

Kirkman, M. S., Briscoe, V. J., Clark, N., Florez, H., Haas, L. B., Halter, J. B., Huang, E. S., Korytkowski, M. T., Munshi, M. N., Odegard, P. S., Pratley, R. E., and Swift, C. S. 2012. Diabetes in Older Adults. *Diabetes Care* 35(12), pp. 2650-2664. December 2012. DOI: https://doi.org/10.2337/dc12-1801

Kotler, P and Armstrong, G. 2001. Principles of Marketing. Erlangga. Jakarta, Indonesia. 298pp.

Kusno, K, Fauziah, K.R., Rochdiani, D., and Heryanto, M.A. 2017. Keputusan konsumen di Kota Bandung memilih Pasar Kecil kaitannya dengan penyediaan sayuran organik yang dipengaruhi iklim. In: Prosiding seminar nasional Universitas Islam Riau 2017, Mitigasi dan Dampak Strategi Adaptasi Perubahan Iklim di Indonesia (Kadir, E. A., Wahyudi, H. A. and Kurniawan, A. Eds.). ISBN 978-979-3793-70-2. 70-80. Retrieved from http://registrasi.seminar.uir.ac.id/prosiding/sem_nas17/file/SCI01710_Kuswarini%20Kusno.pdf

Kusno, K., Imannurdin, A., Syamsiyah, N., and Djuwendah, E. 2018. Analysis of Rice Purchase Decision on Rice Consumer in Bandung City. In: IOP Conference Series Earth and Environmental Science 142(1):012039. IOP Publishing. 1-7. DOI: https://doi.org/10.1088/1755-1315/142/1/012039

Notoatmodjo, S. 2007. Health Promotion and Behavioral Sciences. Rineka Cipta. Jakarta, Indonesia. 260pp.

Noviandi, A. 2012. Analisis perilaku konsumen beras organik dan implikasinya terhadap strategi pemasaran. Master Thesis. Management and Business Study Program, Postgraduate School, Bogor Agricultural University. Bogor. Retrieved from http://repository.sb.ipb.ac.id/1540/

Purwaningsih, B. 2009. Factors That Affect Organic Rice Consumer Behavior Patterns (Explorative Study of Organic Rice Consumer Behavior in Surakarta). Bachelor thesis. Department of Sociology, Faculty of Social and Political Sciences. Sebela Maret University. Surakarta, Indonesia. Retrieved from https://digilib.uns.ac.id/dokumen/download/7279/MTk1NTY=/Faktor-faktor-yang-mempengaruhi-pola-perilaku-konsumen-beras-organik-studi-eksploratif-mengenai-faktor-faktor-yang-mempengaruhi-pola-perilaku-konsumen-beras-organik-di-Surakarta-abstrak.pdf 04.07.2018

Septianingrum, E., Liyanan, Kusbiantoro, B. 2016. Rice Glycemic Index: The Factors Affecting and The Impact on Human Health. Journal of Health, ISSN 1979-7621, 1 (1), pp. 1-9. June 2016. DOI: https://doi.org/10.23917/jurkes.v9i1.3434

Sriyanto, S. 2010. Harvest Money from the Organic Rice Business. Agromedia. Jakarta. Indonesia. ISBN: 979-006-297-4. 98pp.

Sumarwan, U., Noviandi, A., and Kirbrandoko. 2013. Analisis Proses Keputusan Pembelian, Persepsi dan Sikap Konsumen terhadap Beras Organik di Jabodetabek. *Jurnal Pangan* 22 (2), pp. 19-35. July 2013. http://dx.doi.org/10.33964/jp.v22i2.81

Swastika, N., Yanto, T., and Hartati, A. 2013. Quality Performance and Satisfaction Level of Consument on Organic Rice in Sragen District. ISSN: 1410 - 0029. *Agrin Journal* 17 (2), pp. 103-112. October 2013. DOI: http://dx.doi.org/10.20884/1.agrin.2013.17.2.203

Taber, K.S. 2017. The Use of Cronbach's AlphaWhen Developing and Reporting Research Instruments in Science Education. *Research in Science Education.* Springer. 48, pp. 1273–1296. June 2017. DOI: https://doi.org/10.1007/s11165-016-9602-2

Tjiptono, F and Diana, A. 2019. Customer satisfaction. Concepts, Measurement and Strategy. ANDI Publisher. Yogyakarta, Indonesia. 342pp.

Vehkalahti, Kimmo. 2000. Reliability of measurement scales: Tarkkonen's general method supersedes Cronbach's alpha. Dissertation, University of Helsinki, 116pp. Finnish Statistical Society, Helsinki 2000. ISBN 952-91-2818-5. Retrieved from https://helda.helsinki.fi/bitstream/handle/10138/21251/reliabil.pdf?sequence=1 10.02.2019