Market Segmentation for Organic Products in Bandung West Java, Indonesia

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Abstract

Currently, the world community is consuming organic food. This can be seen from the demand for organic products throughout the world that increase about 20 % per year, and the demand creates a potential market for organic products. To anticipate this, the Ministry of Agriculture of the Republic Indonesia launched a "Go Organic Program" in 2010. Organic products are still limited in Bandung, and only few have been produced. There are a number of organic products that are usually sold in supermarkets such as organic chicken, vegetable (carrot, spinach, tomato) and other organic products such as snack, coffee, and rice. Meanwhile, no organic fruits have been produced. This research uses primary and secondary data which are processed by a discriminant analysis. Consumers' perception, dominant factors, and marketing strategies for organic products were analyzed descriptively. This research is expected to contribute to the goverment policy, consumers of organic products, producers, and investors.

Introduction

An interest in organically produced foods is increasing throughout the world in response to concern about conventional agricultural practices, food safety and human health[1], animal welfare considerations, and environment[2]. Providing environmentally friendly products means not only freeing consumers from pesticide, synthetic fertilizer, synthetic chemical but also saving our ecosystem. Reseacher found that increasing phytoplankton and phytobentozic production caused to increase fish biomass, The high diversity of phytoplankton has due to stable ecological condition[3].

In Indonesia , the demand for organic agricultural products has increased very rapidly. In 2009 the demand for organic products was 425 tons which increased 50 % from that in the previous year, but certified organic land areas have covered only 5013 hectares,which are cultivated by 6050 farmers[4]. Since 2010 the Indonesian goverment has developed organic farming in 20 districts as the realization of "Go Organic 2010 program". Overall, organic production systems generate lower yields compared to the conventionally grown alternatives. Some studies reported that there is a yield loss after switching from conventional to organic production, and the extent of the yield loss depends on factors such as the (previous) management regime (under conventional production), inherent biological characteristics of the land, and experience of the farmer [5,6]. For example, in Denmark, organic crop yields were 20 to 30 % lower than conventionally-grown crops, and this is primarily attributed to lower soil nitrogen, weed pressure, pest, and disease problems.

Recently, Indonesian people and people all over the world have been consuming healthy food – back-to-nature food consumption. Consumer behavior has led, in part, to the emergence of various groups of organic consumers, namely environmentalists, food phobic, healthy eaters, humanists, welfare enthusiasts and hedonists[7].

The appearence of organic products is not as attractive as that of inorganic products. Green vegetables often seem perforated or punctured due to the bites of insects and have many spots around them. However, from time to time consumers of organic products realize that the most important thing of an organic product is its quality, freshness, and taste. One of the strategies to fulfill consumer satisfaction is to make it clear which markets are the targets for organic products because consumers will pay more for their statisfaction. On the other hand, producers tend to always want to gain more profits by pretending that they sell genuinely organic products. For exampe, they on purpose perforate vegetables as if they are bitten by insects which look like organic ones. Therefore, to prevent producers from cheating consumers by selling products claimed to be organic, but in fact inorganic, they should be given an incentive. For example, they are allowed to sell their organic products more expensively than traditional markets. This phenomena is interesting, and therefore, it is important to analyse consumer perception of organic products, and what factors that influence them to buy organic products. To compensate the high cost production, producers should be able to sell their organic products in the right target market; therefore, market segmentation should be analysed and marketing strategies should be devised to further develop organic products.

Material and Methods

Research was conducted in June – Agustus 2011 in three big supermarkets in Bandung such as Yogya Riau Junction, Hypermart and Carefour which display organic and inorganic products. The data were primary and secondary, while the sampling technique was accidental. Accidental sampling is a technique sampling based on coincidence, and the respondents have consumed an organic product at least once. In the market, organic products range from organic chicken, organic vegetables (carrots, spinach, tomato) and other organic products such as snack, coffee and rice. However, organic snack (organic chip) and organic coffee are rarely consumed; therefore, the respondents are not familiar with the products. As a result, this research focused on organic vegetables, chicken and rice involving 90 respondents (each organic product for 30 respondents). Data were collected through observation, quesionnaires and literature review. The research aims to determine the segmentation for organic products based on consumers' characteristics. Data were analysed by discriminant analysis and the calculation is as follows:

Estimation of discriminant function
Discriminant analysis is divided by two groups, if the independent variable is X_1, X_2, X_3,…,X_p , then the linear combination is :

$$Y = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \cdots + \beta_p X_p$$

note : description of variable as in the table above, then the vector β was estimated by using formula **:**

$$\beta = c \Sigma^{-1} (\mu_1 - \mu_2)$$

The value of i μ_1 and μ_2 was estimated based on the average sampling vector for each group, while Σ was estimated based on sampling of matrix variance and co-variance wtih formula:

$$S = \frac{1}{(n_1 + n_2 - 2)} (X_1^t X_1 + X_2^t X_2)$$

Then the discriminat function is given by :

$$Y = b_1 X_1 + b_2 X_2 + b_3 X_3 + \cdots + b_p X_p$$

where **b** is an estimated for β , then b was calculated by formula :

$$b = S^{-1}(\overline{x}_1 - \overline{x}_2)$$

where S^{-1} is inverse from sample group of matrix varians co-varians

Test significance of Discriminant Function
To find out if there are significant differences between the two groups based on the result of discriminant function, then F test is used:

Statistical hypothesis:

H_0 : $\mu_1 = \mu_2$

H_1 : $\mu_1 \neq \mu_2$

With alpha 5%

- Determine statistic test with formula :

$$F = \frac{(n_1 n_2)}{(n_1 + n_2)} \frac{(n_1 + n_2 - p - 1)}{(n_1 + n_2 - 2)p} D^2$$

where,

$$D^2 = (\overline{x}_1 - \overline{x}_2)^t S^{-1} (\overline{x}_1 - \overline{x}_2)$$

Test criteria :
Reject H_0 if $F > F_{table}$, where $F_{table} = F_{\alpha(p; n1+n2-p-1)}$

Classification: Based on the discriminant function, the two groups were calculated:

If the individual or object gets score $x = (x_1, x_2, x_3, … x_p)$ in p predictor variable determined, then that individual is included as a member from group1 (K1)if :

$$\left| b^t (x - \overline{x}_1) \right| \leq \left| b^t (x - \overline{x}_2) \right|$$

and individual grouping to group 2 (K2) if:

$$\left| b^t (x - \overline{x}_2) \right| < \left| b^t (x - \overline{x}_1) \right|$$

Contribution from predictor variable: If the value between groups differs (significantly), then to calculate the contribution of predictor variable toward the difference in groups the discriminant value is used:

$$c = \begin{bmatrix} c_1 \\ c_2 \\ \vdots \\ c_p \end{bmatrix} = \mathbf{Ra}$$

$$R = \begin{bmatrix} r_{x1x1} & r_{x1x2} & \cdots & r_{x1xp} \\ r_{x2x1} & r_{x2x2} & \cdots & r_{x2xp} \\ \vdots & \vdots & \vdots & \vdots \\ r_{xpx1} & r_{xpx2} & \cdots & r_{xpxp} \end{bmatrix} \text{ and } \mathbf{a} = \begin{bmatrix} b_1 \sqrt{s_{11}} \\ b_2 \sqrt{s_{22}} \\ \vdots \\ b_p \sqrt{s_{pp}} \end{bmatrix}$$

Note: R = matrix correlation of independence variable, $S = (s_{ij}^2)_{p \times p}$ = matirx variance and co variance for total independent variable

Accuracy of relative prediction from the model: To determine the level of accuracy, model prediction was calculated by Press's Q which is as follows:

$$Q = \frac{[N - (nK)]^2}{N(k-1)}$$

where , N = Total samples, n = Number of observations, classified correctly , K = Number of groups

This size is the ratio of the number of correct classification based on discriminant function by the total sample in each group. Press's Q statistics value that has been calculated, then compared with values of χ^2 table with degree of freedom 1 and 95 % confidence level

If the value of statistics Press's Q from is more than χ^2 table, then it could be concluded that the model prediction is good.

Results and Discussion

Respondents' Characteristics: In general, the respondents who frequenly consume organic products are women, aged 35 – 45 years, and families consisting of less than three members with buying frequency 2 -3 times per week. Most of them graduated from university and are working in State-Owned Enterprises (BUMN) with their monthly income > $ 600. The differences in respondents' characteristics in terms of organic and inorganic products are age groups. Age group of 35- 45 years old prefers organic products, while age group < 35 years old prefers inorganic products. This 35 – 45 age group has a great job, carrier and relatively high monthly income. Based on this research, most of the civil servants who earn monthly income < 300 prefer inorganic products. Education is not an influential factor that make people choosing organic or inorganic products because their buying behavior is related to their basic needs and it has nothing to do with education.

Market Segmentation for Organic Products: Market segmentation is the market grouping from heterogenous to homogenous markets based on geographic, demographic, psychographic factors and consumers' behaviour. The purpose of market segmentation is to distribute products to potential markets, to plan the products for market demand, to determine the effective promotion of spesific product, and to identify the target matket. The segmentation of organic and inorganic products chosen by different variables can be seen in Table 2.

Age variable: The average score of age group choosing organic products is 1.8667 lower than the score of the age group choosing inorganic products which is 2.0556. This means that although organic vegetables were prefered by 35 – 45 age group, there was a tendency that the older the respondents the less they purchase organic products.

Family member variable: The average score of families choosing organic products is 1.7889 lower than the score of the families choosing inorganic products which is 1.9333. This means that the more members of a family has the less they purchase organic products.

Occupation variable: The average score of occupation variable choosing organic products is 1.9778 almost similar to the score of occupation choosing inorganic products which is 1.9889. This means occupation does not influence the consumption of organic or inorganic products.

Education variable: The average score this variable choosing organic products is 2.1778 higher than the score of the variable choosing organic products which is 2.0222. This means the

higher education the respondents have the more they prefer organic products.

Frequency variable: The average score of this variable choosing organic products is 1.6889 lower than the score of the variable choosing inorganic products which is 2.0222. This means that consumers purchase more organic than inorganic products.

Monthly income variable: The average score of income variable choosing organic products is 2.3000 higher than the score of the variable choosing inorganic products which is 2.1889. This means the higher monthly income people get the more they purchase organic products.

Price variable: The average score this variabe choosing organic products is 1.700 higher than the score of the variable choosing inorganic products which is 1.6111. This means consumer perception assumes organic products are more expensive than inorganic ones.

Concept variable: The average score of concept variable choosing organic products is 3.6556 higher than the score of the variable choosing inorganic products which is 3.2556. This means consumer perception of organic products is positive compared to consumer perception of inorganic products.

Factor variable: The average score of factor variable choosing organic products is 4.0556 higher than the score of the factor variabe choosing inorganic products which is 3.644. This means consumers prefered organic products to inorganic ones. Their main reasons are they want to be healthy and to be on diet.

Gender variable: Using dummy variable, female = 1 and male = 0, The result shows that women (0.5444) preferred organic products than male (2.1889).

Reason variable: The average score of reason variable choosing organic products is 1.9444 higher than the score of the variabe choosing organic products which is 1.5667. This means that consumers have their own reasons for buying organic products compared to inorganic ones. This statement correlates with price, cleanliness, and easiness to find products.

Expectation variable: The average score of the last variable choosing organic products is 1.7111 higher in than the score of the variable choosing inorganic products which is 1.5667. This means that consumers have greater expectation of organic products compared to inorganic ones, especially concerning the organic product certification which means that consumers need to make sure whether the product is organic or not.

In general, consumers prefer organic products to inorganic ones. Therefore, organic product producers shoud be able to determine the target market of their products. The market segments of organic products are females, who are less than 35

years, family members with less than 3 persons, those working in State-Owned Enterprises (BUMN), with buying frequency 3 – 5 times per month and monthly income $ 300 - $600. Education variable does not influence consumers in purchasing organic or inorganic products; therefore, organic or even inorganic products are also chosen by high school, college and university graduates. Studies in the U.S found a negative relationship between education and willingness to pay[8], while other studies in Europe and Canada found a positive correlation between higher education levels and increasing likelihood of purchasing organic products. If compared between women and men in purchaching organic food, women were more likely to purchase organic food more regularly than men[9]. On the other hand, women usually become primary grocery shoppers in the most household, and consequently are more informed about nutrition and food safety. The attitude toward healthy eating prevails over environmental concern. There are interaction in terms of gender and attitudes towards healthy eating or environmental concern, but there are no significant effect. Men neither buy organic food more often than women, nor do they spend more money on organic foodstuffs[10], but other studies found that men were more wililng to pay more for organic product than women[11].

Younger consumers are more likely to purchase organic products, which is attributed to their preferences for chemical free products and interest in environmental quality[10]. Younger Canadians also tended to have higher preference for chemical free products and therefore showed a higher preference for organic products, whereas older Canadians were less concerned about the complete elimination of chemicals. In general, younger consumers tend to have a lower purchasing power than older consumers. Thus, among young consumers, willingness to pay may not necessarily translate into actual demand for a product. Both the age variable and the quadratic term of age are significant in all models. Therefore, there is an inverted u-shape relation between age and organic food consumption, meanwhile higher education affects the purchase of organic products positively[4]. Reseachers hypothesized that older consumers (i.e. more than 55 years) tend to make preventative health decisions, partly because of perceived health vulnerability and an awareness that they are generally at higher health risk than younger individuals[12]. Several studies found that the consumer awareness and knowledge as well as consumption of organic foods are significantly higher in developed countries as compared to those in developing countries[13].

Consumer Perception of Organic Products: One way to analyze consumer behavior is through consumer perception of the products. By understanding consumer perception, industries can know what things are its strength, weakness, opportunity and threats in the market. It is because consumer perception is one of the internal factors that influence consumers in decision making. Definition of perception is the process by which an individual selects, organizes, and interprets stimulus into a meaningful and complete picture of their world. From this definition, perception is a process that makes a person choose, organize, and interpret stimulus that he receives into a meaningful picture of his world. The consumer perception of organic product could be seen in table 1.

The consumer perception of organic product varies greatly. An organic product is perceived as a product free from synthetic pesticide or chemicals (4.45%). An organic product is a product free from synthetic pesticide, synthetic ferttilizer (especially vegetable and rice) and chemical (32.22%). An organic product is a product free from synthetic pesticide, synthetic ferttilizer (especially vegetable and rice), chemicals and is enviromentally friendly (22.22%). An organic product is a product with green packaging and with a clear organic product label (30 %); organic product is a product which is more expensive than other products (10%). Last, an organic product is a product that has not attractive colour and performance (1.11%). Empirically, vegetables using organic pesticide always appear not as attractive as those using inorganic pesticide. On the other hand, consumers' first priority with regard to an organic product is its freshness, appearance, and quality. Consumers' common understanding of organic produces is that these have no pesticides, no artificial fertilizer, and residue-free safe products[13]. Moreover, consumers often perceive organic produces as healthier with higher vitamin and mineral contents than conventional products and are environment friendly[10, 14, 15,16].

The research found that consumers are increasingly aware of enviromentally friendly products; therefore, their perception of organic products is not only being free from synthetic pesticide, synthetic fertilizer and other chemicals but also being cultivated using environmentally friendly procedures. Producers have not fulfilled the consumers' needs for environmentally friendly products, because packaging organic products still uses plastic bags instead of environmentally friendly material. Respondents realize that when they buy green packaging, this means they contribute to enviroment.

Green packaging means packaging that can be reused, reduced, recycled and replaced. However, the daily buying behavior of consumers is often inconsistent with this[17,18]. Consumers have a high preference for ethical or green products, but the consistency between consumer attitudes and behavioral measures is low. Inconsistency has been found not only between the more general environmental attitudes and specific behavior but also between specific environmental attitudes and corresponding behavioral intentions[18].

Table -1
Cluster Based on the Respondent Characteristic

Socio-demographics	Organic Product		Anorganic Product		Total	
	N	%	N	%	N	%
Age catagory						
< 35 years	24	26.67	34	37.77	58	32,22
35 – 45 years	38	42.22	33	36.67	71	39.44
> 45 years	28	15.50	23	25.56	51	28.33
Family Members						
< 3 person	43	47.78	28	31.12	71	39.45
3-5 person	32	35.55	31	34.44	63	35.00
> 5 person	15	16.67	31	34.44	46	25.55
Occupation						
State Owned Entterprises (BUMN)	41	45.56	23	25.56	64	35.56
Civil servant	21	23.33	45	50.00	60	36.67
Private sector	28	31.11	22	24.44	50	27.78
Education						
High School	20	22.22	30	33.34	50	27.78
Diploma	33	36.67	29	32.22	62	34.44
University Graduates	37	41.11	31	34.44	68	37.78
Frecuency						
≤ 3 times per month	36	40.00	42	46.67	78	43.34
3 – 5 times per month	34	37.78	33	36.57	67	37.22
> 5 times per month	20	22.22	15	16.67	35	19.44
Monthly Income ($)						
< $ 300	16	17.78	41	45.56	57	31.67
300 – 600	38	42.22	31	34.44	69	38.33
> 600	36	40.00	18	20.00	54	30.00
Concept						
No pesticide and chemical	4	4.45	3	3.33	7	3.89
No pesticide, fertilizer, chemical	29	32.22	15	16.67	44	24.43
No pesticide, fertilizer, chemical and environment friendly	20	22.22	21	23.33	41	22.77
Packaging written organic product	27	30.00	29	32.22	56	31.13
Price more expensive	9	10.00	16	17.78	25	13.89
Not atractive in colour and appearance	1	1.11	6	6.67	7	3.89
Factor						
Health	35	38.89	50	55.56	85	47.22
Diet	13	14.44	8	8.89	21	11.67
Go green Program	10	11.11	9	10.00	19	10.55
Contain vitamin	20	20.22	18	20.00	38	21.12
Statisfied product	12	13.54	5	5.55	17	9.44
Gender						
Female	55	61.11	52	57.78	107	59.44
Male	35	38.89	38	42.22	73	40.51
Reasoning						
Low prce	15	16.67	40	44.44	55	30.56
Cleaness	51	56.67	24	26.67	75	41.66
Easy to find	24	26.66	26	28.89	50	27.78
Expectation						
Certification	45	50.00	51	56.67	96	53.33
Free from chemical ingrediens	36	40.00	27	30.00	63	35.00
Low price	9	10.00	12	13.33	21	11.67

Consumers expect that organic products should have clear certification (50%), be free from synthetic pesticide, synthetic fertilizer and other chemicals (40%) and cheaper. Currently, the price of organic products is more expensive than that of inorganic products. For example, the price of organic vegetables is seven times more expensive than that of inorganic vegetable, The price of organic chicken and organic rice is twice higher than that of inorganic one. The certification of organic products is very important to ensure that the products are genuinely organic. In Indonesia, organic products have not 100 % been produced by using organic procedures because they are still produced in areas that are continimated by pesticide, fertilizer, or other chemicals. Fertilizer, pesticide, and other chemicals will disappear within a period of 3-4 years, whereas according to the study, other content of residues and other chemicals will disappear after 15 years[19]. Recently, organic product standardization has been established by Indonesian National Standart (SNI) through BSN SNI 01-6729-2002. This standardization is a production process which is based on the agreement of Codex Alimentarius Guidelines for the production, processing, labeling and the Marketing of Organically Produced Foods. Organic products are produced in a holistic process that improvea and develops agroecosystem, including biodivesity, production cycles and soil micro organism[20]. The certification institution under the goverment would be able to check the process of organic farming, and to obtain the organic certification should be made easier.

Table-2
Dominat Factors for Each Cluster

	Mean	
	Org_Anor	
	Inorganic	Organic
Age	2.0556	1.8667
Family Members	1.9333	1.7889
Occupation	1.9889	1.9778
Education	2.0222	2.1778
Frequency	1.8333	1.6889
Monthly Income	2.1889	2.3000
Price	1.6111	1.7000
Concept	3.2556	3.6556
Factor	4.0556	3.6444
Gender	.5444	.6444
Reasoning	2.0000	1.9444
Expectation	1.5667	1.7111

The Influencing Factor for Purchasing Organic Products:
From the previous statement, it can be concluded that consumers prefer organic products to inorganic products. Consumer preference is influenced by the consumer satisfaction or pleasure (utility)[21] In an effort to know the preference of consumers, the following assumptions are used: Total preference is that any consumers can set an option or several

options. Transitivy of preference is that if A > B, and B > C, therefore A>C. The level of consumer preference from high satisfaction to low satisfaction. Limited ability of consumers will then cause them act rationally to maximize the utility or the choice they make

Table – 3
The Influence Factors Choosing Organic or Anorganic Vegetable

	Function
	1
Factor	-.473
Age	.384
Gender	-.321
Education	-.305
Concept	-.305
Frequency	.301
Expectation	-.300
Family Member	.286
Price	-.233
Buying Expenditure	-.174
Reasoning	.114
Occupation	.022

To obtain a variable which shows the differences between the groups, the value from Wilks Lambda between 0 to 1 is compared. If the value is close to 0, the data from each group are different, and if the value is close to 1, the data from each group are similar. The test was analysed from p-value for each variable. If p-value is < 0,05 , that variable is different between two groups. The result of the calculations shows that there are variable factors with p-value which is 0,045. This value is lower when compared with significant level 0,05. Therefore, factor variable is the factor that influences consumers to purchase organic or inorganic products. Other variables with p-value more than 0,05, show the consumer perception, and that variable does not determine consumer purchase. The main reasons why consumers prefer organic products are health (38.89%), more vitamin content (20.22%), dietary purpose (14.44 %), satisfyong product (13.54%) and support for the goverment program "Go Green" (11.11 %). Another reason why consumers choose organic products is because organic products are cleaner than inorganic ones (56.67%), easy to find (26.66%) and cheaper (16.67%). Consumers consider the organic products cheaper than innorganic ones, because they believe that the orgranic products may prevent diseases, which is better than buying medicines; therefore, they concluded that organic products are cheaper.

Several studies reported that lower organic yields are compensated for by relatively higher producer prices. Thus, farm gate prices are important determinants of organic farm profitability. Premium price tends to negatively affect organic consumer purchase[22]. Average premium price varies from country to country[14], but most of the organic farmers receive a

premium price for organic products. On the other hand, consumers have positive attitudes towards organic products and are perceived as healthier than conventional alternatives[15], therefore, consumers are willing to pay premium price for organic products. However, market size for organic foods remains low due to both supply and demand side constraints[10,18,23].

Marketing Strategy for Organic Product: From table 3. the order of the most distinguished variable can be seen. Grouping variables into organic and inorganic products is based on the high score of each variable. Positive and negative signs should be considered. The negative sign indicates that the variable is considered positive and vice versa. From that calculation , it could be concluded that consumers' choice of organic products is influenced by their gender, education, concept of organic products, expectation of organic products, product price, monthly income. Although consumers may not adequately differentiate between organic and conventional products with respect to their general attribute, they may recognize the unique and conventional products with respect to their general attributes. They may recognize the unique taste, visual appeal or freshness of particular products. However, sensory characteristics (i.e. product taste, visual appeal or freshness) alone may not be sufficient in determining whether a product is organic or not. Potential organic consumers, especially in Western industrialized countries, are skeptical about organic labels[24]. Consequently, quality signs, such as product label, help transform credence characteristics into search attribute, thereby enabling buyers to more clearly assess product quality[25]. Credence characteristics are qualities which are difficult or, in

some cases impossible to detect, but which nevertheless play an important role for the buyer.

Marketing strategies for organic products are referred to as 4P standing for product, price, place and promotion[17]. A product should be a really green product. Green products mean the products produced by using organic fertilizer, organic pesticide, irrigation, pollution-free environment with clean air and free from pollution at a radius of 2-3 km. To ensure that a product is organic, there shoud be a certification institution under the goverment which issues a certificate for an organic product. Prices of organic producta are a little bit higher than those of inorganic products. Actually, producing organic products needs lower capital than innorganic farming because is free from synthetic pesticide, synthetic fertilizer and other chemicals; therefore, the production cost is lower than that of inorganic products. The price of organic products is expensive because the producers are aware that if the price of organic products is cheaper, consumers will be doubtful about buying the products. The main target market of organic product is from middle to upper consumers; therefore, organic products should be marketed for those groups. The promotion of organic products is still needed and our society should be informed that the pakaging does not guarantee that the product is organic. Thus, green marketing incorporates a broad range of activities, including product modification, changes to the production process, packaging changes, as well as modifying advertising[26]. The success of a certain message or information depends to a very high extent on the experience, talent and tacfulness of communicators. This is because their expertise in this field will matter higly towards making the people easily understand what is being broadcast or aired or printed by the media[27].

Table-4
Tests of Equality of Group Means

	Wilks Lambda	F	df_1	df_2	Sig.
Age	.985	2.668	1	178	.104
Family Member	.992	1.484	1	178	.225
Occupation	1.000	.009	1	178	.925
Education	.991	1.684	1	178	.196
Frequency	.991	1.642	1	178	.202
Buying Expenditure	.997	.547	1	178	.460
Price	.994	.984	1	178	.322
Concept	.991	1.683	1	178	.196
Factor	.978	4.061	1	178	.045
Gender	.990	1.865	1	178	.174
Reasoning	.999	.236	1	178	.628
Expectation	.991	1.629	1	178	.203

Table -5
Wilks'Lamda

Test of Function(s)	Wilks Lambda	Chi-square	df	Sig.
1	.908	16.681	12	.046

Conclusion

The market segments of organic products are females, age group less than 35 years old, families with less than three members, empoyees of State-Owned Enterprises (BUMB), buying frequency 3 – 5 times per month, monthly income $ 300 - $600. Education is not an influential variable, which means that there is no correlation between people's education with buying organic or inorganic product. The main reasons why consumers choose organic products are because they want to be healthy (38.89%), vitamin content (20.22%), dietary purpose (14.44 %), satisfying product (13.54%) and support for the goverment program "Go Green" (11.11 %).

The marketing strategies for organic products should involve certification by the legistimate institution under the control of goverment. This certificate is a guarantee for consumers that the product they buy is organic. The price of organic product is almost similar to that of anorganic product, and the market targets of organic consumers are middle to upper groups; therefore, organic products should be for these groups. In addition, promotion is still needed for people's better undertanding of organic products. To encourage people to care about the environment, they should be educated to have a better understanding of environmentally friendly products. Hopefully, the producers or farmers continue to develop environmentally friendly farming comprehensively. The goverment should also encourage them to take Extended Producer Responsibility (EPR) to reuse, recycle, reduce, and replace the products.

Acknowledgement

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