#### FACTORS INFLUENCING THE PURCHASE DECISION OF ORGANIC TOFU

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## ABSTRACT

This study aimed to analyze the factors that influence consumers in making the decision to buy organic tofu. The theory of factors that influence the purchasing behavior developed by Kotler was used as the analytical tool, and these factors include cultural factors, social factors, personal factors, psychological factors and purchasing process. These data were collected through interview techniques and analyzed descriptively using multinomial logistic regression. The characteristics of respondents indicated the consumers who never bought organic tofu are mostly at the age of 26–35 years old and university graduates, do not work, have an expenditure from Rp 1 million to Rp 2,5 million, are highly knowledge, and have the highest scores on the perceptions on sustainable and environmentally friendly organic farming, health benefits, and a more expensive price. There are a number of factors that influence consumers in making purchase decisions of organic tofu including age, education, knowledge and product external factors. The consumers who are potentially interested in purchasing the organic tofu are at the age of 36-50 years old, university graduates, highly knowledgeable in food and organic tofu products, because the higher the education and knowledge, the greater the interest in buying the products, and they approved of the external products such as price, advertising, personal selling and places of selling which are also potentially equal. The managerial implications for the business agents of tofu organic product is that they must be more active in assuring the consumers that these products are good for them by creating a blog, an ad in the local paper, or a pamphlet containing information of the product.

Keywords: purchase decision, logistic regression, organic tofu product, purchasing interest

#### ABSTRAK

Penelitian ini bertujuan menganalisis faktor yang mempengaruhi konsumen dalam melakukan pengambilan keputusan membeli tahu organik. Sebagai alat analisis digunakan teori faktor-faktor yang mempengaruhi perilaku pembelian yaitu teori yang dikembangkan oleh Kotler dimana faktorfaktor tersebut adalah: faktor budaya, faktor sosial, faktor pribadi, faktor psikologis dan proses pembelian. Data ini dikumpulkan melalui teknik wawancara serta dianalisis secara deskriptif dan uji regresi logistik multinomial. Karakteristik responden menunjukkan konsumen yang sudah pernah membeli sebagian besar berada pada usia 26–35 tahun, berpendidikan perguruan tinggi, tidak bekerja, berpengeluaran 1–2,5 juta, memiliki pengetahuan tinggi, memiliki persepsi setuju dengan skor tertinggi mengenai pertanian organik berkelanjutan, ramah lingkungan, manfaat kesehatan dan harga yang lebih mahal. Terdapat faktor-faktor yang mempengaruhi konsumen dalam pengambilan keputusan pembelian tahu organik diantaranya usia, pendidikan, pengetahuan dan faktor eksternal produk. Konsumen yang berpotensial dan berminat membeli tahu organik terdapat pada usia 36–50 tahun, pendidikan tamatan perguruan tinggi, pengetahuan yang tinggi mengenai pangan serta produk tahu organik, karena semakin tinggi pendidikan dan pengetahuan maka akan semakin besar minat membeli, serta konsumen yang setuju mengenai eksternal produk seperti harga, iklan, personal selling dan tempat penjualan juga berpotensi sama. Implikasi manajerial bagi pelaku bisnis produk tahu organik adalah lebih giat dalam meyakinkan produk tersebut terbukti baik bagi konsumen, seperti membuat blog atau membuat iklan di koran lokal, atau pamflet yang berisikan info dari produk.

Kata kunci: keputusan pembelian, regresi logistik, produk tahu organik, minat membeli

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# INTRODUCTION

Of the five major food commodities, soybeans are the main focus because of their reasonably high protein content and inexpensive price, making them suitable for a source of nutrition. According to Ginting et al. (2009), soy protein content ranges between 35% and 45% of dry soybeans. Soybean demand increases every year in line with the growth of population, increased public awareness of the nutritional adequacy, and development of industries that use raw materials of soybeans. The projection data of national soybean consumption can be seen in Table 1.

Besides, soybeans are one of the agricultural commodities whose role is quite important for the national economy, especially as a provider of employment and source of income. This is evidenced by the value total of tofu industrial production which is the highest among other derived soybean products, and if seen from the number of business units of tofu which reaches half of the total business units of soybean cake (tempe), it has been proved that tofu industries can develop and have a reasonably high market opportunity, and this is an opportunity for new business agents in this industry, but they should have higher values of the products and maintain their quality so that the products remain to be the choice of the consumers. Data on the number of companies, labor and production values of soy-based products can be seen in Table 2.

The issue of the importance of organic food and lifestyle oriented toward organic food has already been widely spread in major cities. Demand in organic food in Indonesia increased rapidly in 2009, reaching 425 tons of organic products and increased by 50% from the previous year which was supported by the government program of "Go Organic" in 2010. Widianarko (2014) in a national seminar and a meeting of the Association of Scientific Experts food Technology Indonesia (PATPI) said the increase in the national organic food market is at 5% per year with a sales value of approximately Rp10 billion. Although it is relatively small, there is a positive response from the public to choose a healthier life. This increase is due to the increased awareness of the public on the dangers arising from the modern or conventional agriculture in the long term i.e. the emergence of various diseases caused by the accumulation of chemical residues. Therefore, most communities have begun to change their direction to consume food not only for the fulfillment of basic needs but also for other considerations such as the level of food security (food safety attributes), nutrient content (nutritional attributes), product processing (manufacturing process attributes), and environmentally friendly products (eco-labeling attributes). The food products are organic products free from harmful chemicals such as additive substances, fertilizers and chemical pesticides, so they become high quality products containing vitamins, fibers, minerals and other substances that are useful for human body.

Keterangan				Tal	hun			
	2012	2013	2014	2015	2016	2017	2018	2019
Konsumsi total (Juta Ton)	2,52	2,57	2,67	2,77	2,88	2,99	3,12	3,25

Tabel 1. Projection	of National	Sov Consum	ption 2015–2019

Sumber: Directorate of Food and Agriculture, Bappenas (2013)

Table 2. Number of com	nanies Jahor an	d production value	s of sov-based	products in 2011
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Types of industry	Companies (business unit)	Labor (person)	Production value (Million Rp)
Soybean cake	56,762	151,279	695,716
Tofu	28,609	99,462	831,645
Soybean sauce	1,506	8,596	101,894
Tauco	2,086	5,107	38,851
Other processed products	3,430	8,529	72,886
Total	92,393	272,973	1,740,992

Source: Dir. Gen. of Small-Medium Scaled Industries - Ministry of Industry (2011)

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One of the examples of organic foods that is familiar to our ears is organic rice, but lately organic tofu as one of the soy derivative products has become familiar to the consumers as well. In addition to the threat of diseases due to accumulation of residues of chemicals, it was reported that there have been many products using preservatives, undergoing less hygienic processing and having poor packaging, and this triggered the idea of running businesses in producing tofu organic which is expected to reduce all concerns of the consumers in avoiding products unfit for consumption. A number of research on tofu product have been conducted including the decision-making process of the tofu product by Djadi Sari (Manurung, 2012) and Arliana (2002) who conducted a tofu marketing analysis of the company of Yun Yi Bogor. However, the issue on tofu organic is relatively new, and there has been no research result obtained.

The factory managers of tofu organic have faced obstacles in the process of operation and marketing. Marketers have also experienced problems due to lack of information on consumer behavior toward tofu organic. Higher prices of organic food compared to plain tofu and limited market segments have made the organic tofu product to be less familiar to the general public. The price difference between organic tofu and plain tofu in the market today ranges from Rp 1,000 to Rp 2,500. In order to develop the industry of organic tofu which is relatively new, the factors that influence the purchase decision of tofu organic such as the characteristics of the consumers, consumer knowledge on the basic food organic or tofu organic product, consumer perceptions, environment, internal and external factors of products that affect the interest in buying organic tofu must be understood first. Therefore, it is necessary to study the factors that influence consumer purchase decisions towards organic tofu. Research on purchase decisions and interests of consumers on organic products had previously been conducted by Paul and Rana (2012) and Lee and Yun (2015). The objective of this study was to analyze the factors that influence purchase decisions by consumers of organic tofu.

# **METHODS**

Selection of the research site in this research was done intentionally (purposive sampling) i.e. in Bogor based on the following considerations: Bogor is one of the manufacturing and marketing areas of tofu organic where the number of consumers is reasonably high in West Java, as well as the availability of the required data and study objects of organic tofu companies. This final assignment was carried out for two months, i.e. from January 2015 to February 2015.

The research object was the household consumers, and the population of this study included the housewives who purchased plain or organic tofu products in Bogor. The sampling was carried out by non-probability sampling method using Convenience Sampling technique. The primary data were obtained through interviews and questionnaire, and the respondents were those who were willing to spend their time to fill in the questionnaire. The sampling collection was conducted deliberately, and as many as 110 respondents were chosen and divided into two groups i.e. 77 respondents who purchased plain tofu and 33 respondents who ever bought organic tofu. According to Santoso (2004), the number of respondents recommended for the application of factor analysis is between 50 to 100 respondents while Stolz (2011) who applied the multinomial logistic regression analysis used 100 respondents.

The dependent variable in this study was the organic tofu purchase decision while the independent variables used consisted of age, education, employment, expenditure, knowledge of organic food and organic tofu product knowledge, environment, internal and external products. Age was categorized into four groups, namely, (16–25 years), (26–35 years), (36–50 years), (>50 years). Education was categorized into three groups, namely, elementary and junior high schools (low), high school and its equivalent level (medium), diplomas, graduates and postgraduates (high). Occupations were categorized into two groups i.e. non-employees and employees, and expenditures were categorized into four groups i.e. (<1 million rupiahs), (1–2,5 million rupiahs), (2,5–5 million rupiahs), (> 5 million rupiahs).

The knowledge variable index was divided into two which were measured by questions that generated the nominal data with a choice of yes and no answers. The level of knowledge of organic foods consisted of eight questions, while the level of knowledge of organic tofu products consisted of 15 questions. One correct answer was weighted 100, and one incorrect was given zero point. A question that should be answered with the amount known by the respondents were given a score of 100 if the answer is more than two and less than 50 for the answer less or same with two. After that, the samples were classified into four categories i.e. very low (0-25), low (26-50), high (51-75), very high (76-100).

The variables of environment and internal and external products were measured by several questions using the Likert scale of strongly disagree (score 1), disagree (score 2), neutral (score 3), agree (score 4), strongly agree (score 5). For the environmental factor and internal product, there were seven questions, and the maximum value was 35, the minimum value was 7, and with the class number of 2, then the class interval was (35-7) / 2 = 14. Therefore, the score range of 7-21 equals to disagree, and the score range of 22-35 equals to agree. Moreover, the external product factor consisted of four questions where the maximum value was 20 and the minimum value was 4, and with the class number of 2, the class interval was (20-4)/2 = 8. The score range of 4–12 equals to disagree and that of 13–20 equals to agree.

The regression model with the response variable with the nominal scale of three categories used the Y result variables coded by 0, 1, and 2. The parameterized Y variable became two logit functions. However, the response categories used as a previous comparison category by Hosmer and Lemeshow (2000) had to be determined first. According to Nachrowi (2008), the regression model in the form of opportunity function with an independent variable is expressed in the following equation:

- $$\begin{split} \ln[p/(1-p)] &= y_1 = \beta_{10} + \beta_{11} \text{Usia} + \beta_{12} \text{ Pendidikan} + \beta_{13} \text{Pe} \\ & \text{kerjaan} + \beta_{14} \text{Pengeluaran} + \beta_{15} \text{Pengetahuan} \\ & + \beta_{16} \text{F.Lingkungan} + \beta_{17} \text{F.Int.Produk} + \beta_{18} \text{F.} \\ & \text{Eks.Produk} \end{split}$$
- $$\begin{split} &\ln[p/(1\text{-}p)]\text{=}y_2\text{=}\beta_{20}\text{+}\beta_{21}\text{Usia}\text{+}\beta_{22}\text{Pendidikan}\text{+}\beta_{23}\text{Pekerja}\\ &\text{an}\text{+}\beta_{24}\text{Pengeluaran}\text{+}\beta_{25}\text{Pengetahuan}\text{+}\beta_{26}\\ &\text{F.Lingkungan}\text{+}\beta_{27}\text{F.Int.Produk}\text{+}\beta_{28}\text{F.Eks.}\\ &\text{Produk} \end{split}$$
- $$\begin{split} & \ln[p/(1\text{-}p)]\text{=}y_{_{0}}\text{=}\beta_{_{00}}\text{+}\beta_{_{01}}\text{Usia}\text{+}\beta_{_{02}}\text{Pendidikan}\text{+}\beta_{_{03}}\text{Pekerja} \\ & \text{an}\text{+}\beta_{_{04}}\text{Pengeluaran}\text{+}\beta_{_{05}}\text{Pengetahuan}\text{+}\beta_{_{06}} \\ & \text{F.Lingkungan}\text{+}\beta_{_{07}}\text{F.Int.Produk}\text{+}\beta_{_{08}} \text{ F.Eks.} \\ & \text{Produk} \end{split}$$

 $\beta_{jp}$  estimation will be obtained by the iterative process because the resulted equation is not linear. Logit function and its meaning can be explained as follows:

	$\mathbf{Y}_{1}$	$Y_2$
Respondent	1	0
Respondent	0	1
Respondent	0	0

Respondents were grouped into three, namely:  $Y_1 = 1$  if the respondents have never purchased but are not interested in buying organic tofu,  $Y_2 = 0$ .  $Y_2 = 1$  if the respondents have never purchased but are interested in buying organic tofu,  $Y_1 = 0$ . If  $Y_1 = 0$  and  $Y_2 = 0$ , then these respondents have ever purchased organic tofu

 $Y_1 = 0$  and  $Y_2 = 0$  were used as a comparison. The logistic regression was tested along with the variables related to age, education, occupation, expenditures, knowledge, and environment, internal and external products as well. The analysis used SPSS, and all independent and dependent variables (dummy and index numbers) used in this analysis were tested together to obtain independent variables with their significance less than 10%. The testing of parameters performed in this study included the independent test of chi square, goodness of fit test, and Wald test.

# RESULTS

## The Characteristics of the Respondents

There were 110 housewives involved in this study and divided into three groups, namely, 33 people who never bought organic tofu, 24 people who never bought the product but were not interested in it, 53 people who never bought but were interested in buying the product. The age of the respondents was grouped into four categories i.e. 36-50 years old (50%), 26-35 years (37,27%), 16–25 years old (3,63%), and > 50 years (9,1%). The majority of respondents completed their education from Diploma to Graduate levels (49,09%), followed by high school graduates (43,64%), elementary/junior high graduates (5,45%), and graduates of postgraduate level (1,82%). The majority of respondents did not work (60,9%), and work (39,1%) with their spending levels of 2,5-5 million rupiahs (44,5%), followed by 1-2.5 million rupiahs (40,9%), 1 million rupiahs (7,3%), and > 5 million rupiahs (7,3%). The complete data can be found in Table 3. The area of sampling collection in this study was divided into two, namely, the city and district of Bogor, and the data were mostly obtained from the city of Bogor i.e. 80,90%.

The consumer behaviors in this research included the tofu purchase, tofu consumption, reasons or motivation for tofu purchase, as well as benefits of tofu consumption. The frequencies of tofu purchase and tofu consumption reached 2 to 3 times a week equal to 47,27% and 43,64% respectively. The majority of the respondents were motivated to buy tofu since it is a cheap protein source (50,91%), and most of them understood the benefits of buying tofu as a replacement of animal protein (72,73%).

The general perception of the consumers of organic tofu can be seen from the questions such as 'what they know about the organic tofu, how important it is to consume the product, and what motivation they have in consuming the product. Based on their perceptions, organic tofu is free from pesticides and chemicals (68,18%), and they also considered the importance of consuming organic tofu (66,36%). Moreover, some of them mentioned that organic tofu is healthier and highly nutritional (52,73%).

In regards to the consumer behavior, the reason for those who never bought or heard about organic tofu was that they never heard the product before (70,83%). The consumer behavior can be seen from the information on the existence of the product where the majority of the respondents stated that they obtained the information from the electronic or printed media (36,36%).

The majority of the respondents made unplanned decisions to purchase organic tofu (75,76%), and most of them ate organic tofu 2 to 3 times a week (33,33%). The organic tofu was mostly purchased in the stalls/shop vendors (42,42%). Mayoritas konsumen berdasarkan peralihan konsumsi tahu biasa ke organic tofu yaitu kombinasi antara organic tofu dan tahu biasa (72,73%). The majority of consumers based on regular tofu consumption shifted to organic tofu with a combination of organic tofu and plain (72,73%). Moreover, the majority of the consumers were satisfied with the product (90,91%).

In Table 3, the respondents who never bought tofu organic but were not interested in buying the product are at the age of 36–50 years with the largest percentage of 62,50%. This is because the consumers are not familiar with organic tofu and unaware of the benefits and uses of organic tofu as it can be seen from the table that the majority of the consumers in this age group have little knowledge in food and organic tofu products. The

respondents who never bought but were also interested in buying organic tofu are at the age of 36–50 years (54,72%). This is because a number of consumers at this age group have knowledge on food and organic tofu products, and it is evident that they have a high level value of knowledge. The respondents who have ever bought were at the age of 26–35 years (45,45%). This result is due to the fact that the consumers at this age of group have knowledge about food and organic tofu product, and it is evident that the majority of consumers have a high level value of knowledge and are university graduates.

The education category of the respondents has the largest percentage of 62,50% where those who never bought organic tofu but were not interested in buying it are high school graduates. The respondents who never bought but were interested in buying organic tofu are university graduates with the percentage of 54,71%, and 60,60 % of the respondents who ever bought graduated from university. These results are consistent with Ozguven (2012) where demographically the respondents who buy organic products are highly educated. The results have proved that the higher the education of the consumers, the higher the decision to purchase and consume as this is caused by a high level knowledge of the consumers on food and organic tofu product.

In regards to the occupation category, the highest percentage of 87,50 % came from the unemployed respondents who never bought and were not interested in buying organic tofu. The percentage of the unemployed respondents who never bought but were interested in buying organic tofu was 54,72%. Moreover, the percentage of the unemployed respondents who ever bought organic tofu was 51,51%. The results have proved that the occupation of the consumers did not affect the purchase decisions of organic tofu; however, it can be concluded that consumers who do not work have the tendency neither to buy nor to be interested in buying the product.

In regards to the expenditure category, the percentage of the respondents who neither bought nor were interested in buying organic tofu was 45,83% (Rp 2,5–5 millions) where the percentage of the respondents never bought but were interested in spending their money to buy organic tofu was 49,6% (Rp 2,5–5 millions). Also, the percentage of the respondents who ever bought was amounted to 48,48% (Rp 1–2,5 million). The results

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do not prove that greater the consumers expenditure, the greater the chance of purchasing organic tofu. The consumers who never bought organic tofu but were not interested in buying the product tend to have higher expenditure than those who ever bought the product. The results indicate that the level of knowledge of the respondents who never bought and were not interested in buying the product was low, while the respondents who never bought but were interested in buying as well as those who ever bought the product have a high level of knowledge.

The results of the environmental variables of the three types of respondents showed that they have quite similar perceptions where two perceptions have the highest percentage i.e. the sustainable and environmentally friendly organic farming. This shows that the average of the respondents agreed with the perception that buying organic tofu products will help save the environment as well as support the sustainable organic farming. In addition, the consumers already understand that the conventional agriculture can indirectly damage the environment in the long run. According to Chen (2007) and Becker et al. (2015), the environmentally friendly motive can determine the positive attitude of consumers to choose organic food, and according to Shafie & Rennie (2012) shared environmental concerns can influence consumers' preferences in organic foods. The results of internal product variables have concluded that consumers who ever bought organic tofu obtained the highest score in the question related to the health benefit factor, which means that the consumers rates the organic tofu products as one way to live a healthy life. This is in accordance with Weng et al. (2014), Paul & Rana (2012), Deliana (2012), Chen (2009) and Thogersen et al. (2015) who have shown that consumers have a positive value toward the organic food and are more willing to buy food organic where health is a major benefit perceived.

Table 3	Characteristics	of consumers	based on	the responder	nt groups
Table 5.	Characteristics	of consumers	based off	the responde	in groups

				Responde	ent groups			
	They have never purchased organic tofu but are not interested in buying the product		Have never bought organic tofu but are interested in buying the product		Have ever purchased organic tofu		Total respondent	
	Frequency	(%)	Frequency	(%)	Frequency	(%)	Frequency	(%)
Age (year)								
16–25	0	0,00	3	5,66	0	0,00	4	3,63
26–35	9	37,50	17	32,07	15	45,45	41	37,70
36–50	15	62,50	29	54,72	12	36,37	55	50,00
>50	0	0,00	4	7,55	6	18,18	10	9,10
Total	24	100	53	100	33	100	110	100
Education								
ES dan JHS	2	8,33	1	1,89	3	9,10	6	5,45
SHC/Its equivalence	15	62,50	23	43,40	10	30,30	48	43,64
Diploma s/d Postgraduate	7	29,17	29	54,71	20	60,60	56	50,91
Total	24	100	53	100	33	100	110	100
Occupation								
Employees	3	12,50	24	45,28	16	48,49	43	39,10
Non-employees	21	87,50	29	54,72	17	51,51	67	60,90
Total	24	100	53	100	33	100	110	100
Expenditure								
<(1.000.000)	4	16,67	3	5,66	1	3,03	8	7,30
(1–2,5 millions)	8	33,33	21	39,62	16	48,48	45	40,90
(2,5–5 millions)	11	45,83	26	49,06	12	36,37	49	44,05
>(5.000.000)	1	4,17	3	5,66	4	12,12	8	7,30
Total	24	100	53	100	33	100	110	100

In contrast, the consumers who never bought organic tofu obtained the highest score on safety factor. They assessed that organic tofu product is the solution for replacing products that use chemicals or preservatives, and this is in accordance with the research conducted by Bauer et al. (2013) and Aygen (2012) that indicate that the reason for the consumers to buy organic products is product safety. Based on the information from the consumers, organic tofu products can reduce the doubts of these products which are known to contain preservatives or use chemicals; moreover, this product becomes an alternative for food options for consumers who want to live healthy.

The results of product external variables showed a striking difference that is the price factor. The consumers who ever purchased organic tofu were aware of organic products which are usually more expensive, but they are worth buying because of the quality obtained. In contrast, for the consumers who never bought and were not interested in the product, the price factor has the lowest percentage, or they disagreed with the higher price of the product. This is because they did not know types of organic tofu products, and even only a few of them heard about the organic tofu products, so that they did not know the differences in prices between plain and organic tofu products. According Saleki et al. (2012), prices have an influence on the attitude of the consumers in buying organic foods. Besides, there is a striking difference in the personal selling factor in which the respondents never bought the products and were either interested or not interested in buying the products, and they had a greater percentage in comparison with that of the respondents who had ever bought. Therefore, it is proved that the consumers have the perception of agreement to buy the products when the sellers give advice or offer the products. The reason is the same as that of the price factor i.e. a large number of consumers do not know the types of organic tofu products; therefore, explanation on the products must be given.

## Multinomial Logistic Regression Analysis: Factors Affecting the Purchase Decision of Organic Tofu

The explanatory variables can be said to have a close relationship with the response variables or in any other sense it is significantly influential if the p-value is <0,10. The basic use is  $\alpha = 0.10$  because the study used the social variables, and also because the data in the

field can sometimes be difficult to control as pointed out by Kusumasari (2012) and Irvani (2012). The explanatory variables that are significantly influential on the multinomial response variables such as age, education, knowledge of organic food and product external factors. The results of the model estimation involving eight explanatory variables generated a G-value of 150.064 and a p-value of 0,001 <0:10; therefore, it can be concluded that there is one or more explanatory variables that influence the purchase decision of organic tofu.

## Interpretation Coefficient: Factors Affecting the Purchase Decision of Organic tofu

The results of logistic regression estimation result model of the study, the coefficient interpretation results of the logistic regression analysis prove that of the eight independent variables, there are four significant variables including age, education, knowledge and product external factor, while the insignificant variables include employment, expenditures, and environment and product internal factor. The variables that are influential or not influential will be explained on Table 4.

Age and education had a P-value smaller than  $\alpha$ =0,10 which is significant in the purchase decision of organic tofu. The first logistic multinomial (logit 1) has the interpretation that consumers of the age 26-36 years have 4, 532 times greater opportunity not to buy organic tofu and uninterested in buying the product if compared with those aged > 50 years. This indicates that the older the consumers, the greater the tendency of buying organic tofu. As they become older, they have more knowledge of the importance of organic foods, product safety and health awareness, and this encourages them to buy organic products. Meanwhile, the second model of logistic multinomial (logit 2) has the interpretation that consumers aged 36-50 years have 7,434 times greater chance to have never buy organic tofu but are more interested if compared with those aged> 50 years. This means that consumers at the age of 36–50 years are more interested in buying organic tofu as supported by the research of Jui Shih-Tung et al. (2012) who state that female consumers in their 40s are more likely to buy and eat organic food. Schobesberger (2008) states that the respondents who buy organic tofu tend to be older than those who do not buy the product.

Table 4.	Results of the logistic regression model estimation on the factors that influence consumers in making a
	purchase decision of organic tofu

Decision		В	Std. Error	Wald	df	Sig.	Exp(B)
They have	Intercept	-24.429	1.639	222.194	1	.000	
never	[AGE=.00]	22.782	.000		1		7.838
purchased organic tofu	[AGE=1.00]	19.932	.793	631.829	1	.000	4.532
but are not	[AGE=2.00]	20.769	.000		1		1.047
interested in	[AGE=3.00]	0b			0		
buying the product	[EDUCATION=.00]	-1.797	1.465	1.504	1	.220	.166
product	[EDUCATION=1.00]	1.603	.894	3.215	1	.073	4.970
	[EDUCATION=2.00]	0b			0		
	[OCCUPATION=.00]	1.750	.918	3.635	1	.057	5.756
	[OCCUPATION=1.00]	0b			0		
	[EXPENDITURE=.00]	2.208	2.000	1.218	1	.270	9.096
	[EXPENDITURE=1.00]	.209	1.406	.022	1	.882	1.232
	[EXPENDITURE=2.00]	1.144	1.384	.684	1	.408	3.139
	[EXPENDITURE=3.00]	0b			0		
	[PGRH.T.PGTHN=.00]	4.614	2.038	5.125	1	.024	100.900
	[PGRH.T.PGTHN=.1.00]	3.127	1.346	5.392	1	.020	22.796
	[PGRH T.PGTHN=2.00]	.762	1.319	.334	1	.563	2.143
	[PGRH.T.PGTHN=3.00]	0b			0		
	[INFLUENCE OF ENVIRONMENTAL ATTITUDE=.00]	.415	.833	.248	1	.619	1.514
	[INFLUENCE OF ENVIRONMENTAL ATTITUDE=1.00]	0b			0		
	[INFLUENCE OF INTERNAL FACTOR PERCEPTION=.00]	488	1.669	.085	1	.770	.614
	[INFLUENCE OF INTERNAL FACTOR PERCEPTION=1.00]	0b			0		
	[INFLUENCE OF EXTERNAL FACTOR PERCEPTION=.00]	771	.850	.823	1	.364	.462
	[INFLUENCE OF EXTERNAL FACTOR PERCEPTION=1.00]	0b			0		
Have never	Intercept	-2.576	1.303	3.912	1	.048	
bought	[AGE=.00]	21.410	6858.54	.000	1	.998	1.988
organic tofu but are	[AGE=1.00]	.773	.862	.803	1	.370	2.165
interested in	[AGE=2.00]	2.006	.895	5.023	1	.025	7.434
buying the	[AGE=3.00]	0b			0		
product	[EDUCATION=.00]	-2.265	1.526	2.202	1	.138	.104
	[EDUCATION=1.00]	.731	.680	1.155	1	.282	2.076
	[EDUCATION=2.00]	0b			0		
	[OCCUPATION=.00]	.312	.550	.321	1	.571	1.366
	[OCCUPATION=1.00]	0b			0		
	[EXPENDITURE=.00]	2.211	1.788	1.529	1	.216	9.123
	[EXPENDITURE=1.00]	.895	.947	.893	1	.345	2.448
	[EXPENDITURE=2.00]	1.457	.943	2.388	1	.122	4.292
	[EXPENDITURE=3.00]	0b			0		
	[PENG.T.PGTHN =.00]	1.986	1.616	1.510	1	.219	7.289
	[PENG.T.PGTHN =1.00]	1.290	.840	2.362	1	.124	3.634
	[PENG.T.PGTHN =2.00]	.536	.706	.576	1	.448	1.710
	[PENG.T.PGTHN =3.00]	0b			0		
	[INFLUENCE OF ENVIRONMENTAL ATTITUDE=.00]	107	.642	.028	1	.867	.898
	[INFLUENCE OF ENVIRONMENTAL ATTITUDE=1.00]	0b			0		
	[INFLUENCE OF INTERNAL FACTOR PERCEPTION=.00]	.601	1.272	.223	1	.636	1.824
	[INFLUENCE OF INTERNAL FACTOR PERCEPTION=1.00]	0b			0		
	[INFLUENCE OF EXTERNAL FACTOR PERCEPTION=.00]	-1.437	.687	4.376	1	.036	.238

The first model of education variable (logit 1) has the interpretation that consumers with a completed high school education/its equivalence have 4,970 times greater chance to have never purchase and are not interested if compared with those who graduated from diploma or postgraduate level. It can be said the higher the education of the consumers, the higher their tendency to buy organic tofu. This is possible because the educated consumers have more knowledge on the importance of organic food and farming where Rezai et al. (2011) in their research see that in the demographic and attitudinal variables on the interest to buy green products, the level of consumer education is also significantly positive. Briz and Ward (2009) also state that education is the main factor influencing consumer awareness of organic products.

Knowledge and product external factors have a P-value less than  $\alpha = 0,10$ . This means that they significantly influence the purchase decisions of organic tofu. The knowledge variable of the first model (logit 1) has the interpretation that consumers with a very low level of knowledge have 100,900 times greater chance not to buy organic tofu and have no interest of buying the product if compared to the consumers who have a very high level of knowledge. In addition, the consumers with a low level of knowledge have 22,796 times greater chance of never buying organic tofu and having no interest of buying the product if compared to those with a very high level of knowledge. The statement is in accordance with Hamid et al. (2012) who state that the ecological knowledge of low level of community does not have a significant relationship with attitudes of consumers towards the purchase of environmentally friendly products. It can also be said the higher level of knowledge of the consumers, the higher their interest in buying organic tofu.

For the product external factors, the second model (logit 2) has a consumer interpretation with the perception of disagreement that purchase decisions are influenced by product external factors in which the chance that the consumers do not buy organic tofu is 0,238 times less if compared to those who have a perception of agreement. It can be concluded that the consumers who agreed to external factors products had a greater opportunity in buying organic tofu or ever bought the products than those who disagreed. There are a number of perceptions obtained from the consumers including relatively more expensive price, selling areas easily accessible and found, attractive advertising and brochures, and sales

method such as giving special offers for the products so that these can encourage the consumers to make purchases of organic tofu products. In accordance with the previous studies, the factors that effectively influence consumers to buy organic food according to Cene and Karaman (2015) and Hjelmar (2011) include the availability of products and product prices. Saleki et al. (2012) state that the price factor is also a factor, and Pomsanam et al. (2014) also mention the factor of the availability of products, while Noviandi (2012) argues that prices and advertisements influence the consumers' purchase decisions.

Occupation and expenditure have a P-value greater than  $\alpha$ =0,10. This means that they did not significantly influence the purchase decisions of organic tofu. The occupation of the housewife consumers i.e. whether they work or do not work did not affect the decision to purchase organic tofu products. This is possible because the respondents consisted of a number of housewives, most of whom do not work, but they still can afford to buy the organic tofu product. As a housewife, they are entitled to get an amount of money from their husband and have an authority over purchase decisions for foods in the house. This is evidenced from the total respondents that 60,90% of respondents do not work and the average number of the respondents who had ever bought organic tofu do not work either.

In addition, the results indicate that different amount of expenditure or income of the consumers i.e. < Rp1 million to > Rp5 million does not influence them in choosing and buying organic tofu products. Usually, the higher the consumers' expenditure, the more likely they buy organic products that are more expensive, but in this study it is not the case. In fact, the respondents who never bought and were not interested in buying the organic tofu belong to the group with an income of Rp2,5million - Rp5 million, while the respondents who ever bought were dominated by the income group of Rp1 million – Rp2,5 million. This is due to the low level of knowledge of the respondents who never bought and were not interested in buying the organic tofu, while the group of respondents who ever bought the products had higher level of knowledge, so they were aware of the health benefits of the products regardless of the prices. The research by Stolz et al. (2011) have a similar view that organic food consumers are very fond of organic products and are not influenced by the price, while for the consumers who are more sensitive to the price factor will prefer the conventional food.

The environmental and product internal factors had P-values greater than  $\alpha = 0,10$ . This means that they do not significantly influence the purchase decisions of organic tofu. The scores of the environmental factors were not much different among the three types of respondents, indicating that the variables of the environmental attitude do not significantly influence the purchase decisions of organic tofu products. Moreover, most of the respondents are already aware and know that there are things that are related to environmentally friendly and sustainable organic agriculture when buying organic-labelled products. However, these do not guarantee consumers to make purchases of organic tofu products. Meanwhile, internal factors, namely, product quality, taste, packaging, health benefits, nutrition, safety and labeling do not influence purchase decisions of the products. The consumers may already know and believe the advantages of the internal factors of organic products if compared with the plain tofu; however, this does not guarantee that the consumer will purchase organic tofu products.

#### **CONCLUSIONS AND RECOMMENDATIONS**

### Conclusions

The potential consumers of organic tofu are among the age of 36-50 year old and highly educated from diploma level to postgraduate level; also, the consumers have knowledge of organic food and organic tofu products. The higher the knowledge of the consumer, the more likely they buy organic tofu products, and they agree that external factors such as price, advertising, personal selling, and sales affect the purchase of the products. In other words, the consumers intend to buy the product if their perception of the product is good enough and in accordance with their needs. Therefore, the entrepreneurs of products organic tofu should be more active in improving their consumers' knowledge of organic tofu and awareness of eating organic foods and in convincing consumers that organic tofu is proven to be good for them. This can be conducted by creating a blog that contains product information which contains explanations of the production flow starting from the process of obtaining raw materials to the process of producing products ready for consumption. Following this, the certification of organic products should be issued on a regular basis.

#### Recommendations

There are a number of suggestions for further research including the addition of other independent variables related to organic food concerning factors that influence consumer purchase decisions on organic tofu product since the independent variables used in this research are still very limited. In regards to variables that are not significant to the factors that influence the purchase decisions of organic tofu such as expenditure, environmental attitude, and product internal factors, it is expected that further research with similar study can be conducted in order to obtain better significant variables.

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