

Conference Paper

Organic Food Consumer's Profile Based on Their Knowledge in Bandung

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Abstract

Consumption trends in relation to organic food have been increasing in several prefectures in Indonesia, including West Java. In 2010, the government of Indonesia established a program called Go Organic 2010. The purposes of the program were to support the development of organic food, as well as to initiate a healthy and green lifestyle. However, the program failed to achieve its goals. According to several research studies, the expensive certification process made the organic food price relatively high, so the potential market size was still narrow albeit with an increased demand. Apparently, most Indonesian consumers have insufficient knowledge of organic food, thus, their interest is relatively low. Therefore, this research is focused on finding out who buys organic food in Indonesia and how deep their knowledge is on it. Bandung, as the capital city of West Java, was chosen to conduct this research study because of the market growth of organic food. It has several local supermarkets that have relatively large sections for organic food. The questionnaires were distributed through both online and offline methods to consumers who bought organic food at the referenced supermarkets. It was found that the buyers who have sufficient knowledge and quite often purchase organic food are mostly young adult women, who are either single or married with children and who have a medium to high level of income. However, other consumers who had insufficient knowledge about organic food also bought it. Even though they do not know much about its attributes, they acknowledge its benefits only for their health, but not for the environment.

Keywords: organic food, consumers' profile, consumers' knowledge

1. Introduction

Based on data from the Food and Agriculture Organisation of the United Nations (FAO) in 2013, Indonesia is among the top five rice, palm oil and tropical fruit-producing countries in the world [1]. Agriculture, being one of the main sources of income and economic growth in Indonesia [2,3], also causes severe environmental problems [4]. According to the International Federation of Organic Agriculture Movements (IFOAM), organic farming is a production system that maintains the sustainability of soil fertility, ecosystems and humans. Organic farming is a combination of tradition, innovation and

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science that benefits the shared environment and promotes proper relationships and a good quality of life for all parties involved [5]. For developing countries, including Indonesia, organic food became popular around 2007 [6]. The results of the Indonesian Consumers Foundation (YLKI) study in 2012 and the Indonesia Organic Alliance (AOI) in 2014 revealed that the purchase of organic food in Indonesia is still relatively low [7]. Nevertheless, organic food consumption trends for Jakarta, Bogor, Depok, Tangerang, Bekasi (Jabodetabek), West Java, Central Java, East Java, Yogyakarta, Kalimantan, Sumatra and Bali has tended to increase [6,8]. The government has also been working to encourage the organic food movement by establishing the Go Organic program in 2010. It was expected that Indonesia could meet this need and increase the export of organic food, along with the competitiveness of its agriculture (agribusiness), which would ultimately increase foreign exchange and the average farmer's household income [6]. However, the program did not succeed. In 2010, the area of organic farming of 238,872.24 hectares decreased by 5.77% in 2011 to 225,062.65 hectares [6]. Some studies have found that this was caused by various obstacles such as market constraints, consumer interest and understanding of organic products, affordability and scarcity in several areas as well as the certification process that is considered to be difficult by small farmers [6,7]. In terms of market constraints, the consumers' awareness and understanding of organic food predominantly influence attitudes to it [7,9]. The higher the level of consumer awareness and understanding, the better the attitude to it. On the contrary, the lower the awareness and understanding of it, the worse the attitude is [7,9]. Identifying which consumers have awareness and knowledge is an important challenge for marketers. The next questions will be the following. Who has knowledge on organic food? Are the ones who have knowledge on it the ones who also buy and consume it? In-depth information about the consumers' profiles will be very useful in determining the right strategy [9,10] to use to increase the awareness and knowledge that consumers need, which ultimately will influence and motivate them to buy and consume organic food. In this research study, consumers who are domiciled in Bandung, West Java, Indonesia were examined as it is one of the cities where the consumption of organic food has been increasing [6,8].

2. Literature Review

2.1. Organic food

Organic food is produced without the use of hazardous materials, including pesticides, synthetic fertilizers, synthetic hormone antibiotics, genetic engineering, radiation rays, and the use of experimental animals as a part of maintaining environmental sustainability [11]. In Indonesia, organic food is regulated by the Indonesian National Standard (SNI) 01-6729-2002, in the form of the fresh production of crops, fresh food products, processed food products, and livestock products produced organically that aim to meet the needs of human consumption [10,12].

2.2. Knowledge

Consumer knowledge is all of the information that the consumer has about various products and services which are related to the products, services and other related knowledge and information pertaining to his/her role as a consumer [5]. Knowledge is one of the characteristics that influences the decision-making process [12]. Knowledge on organic products is defined as the ability of consumers to identify a number of concepts related to organic products through the information already held by the consumers [13]. According to Peter and Olson (1999), product knowledge is divided into three types: product attribute knowledge, product benefit knowledge, and product as a value satisfier knowledge [14]. Based on the definition of knowledge of organic products and the category of product knowledge, this research study will refer to the attributes, benefits and satisfaction of organic food consumption. Consumers who have organic knowledge tend to have a positive attitude toward organic food because they believe that organic food is beneficial to them [7]. Knowledge of organic products is an essential factor because it represents the consumer's ability to distinguish organic products [15]. Therefore, this study will identify the profile of consumers who have knowledge on organic food as they are considered to have the opportunity to buy and consume it.

2.3. Consumer profile

Kotler and Keller (2012) divide segmentation into four main groups, namely geographic, demographic, psychographic, and behavioral segmentation [10]. By segmenting the market, it is expected that the company in the long term can be sustainable and competitive. One of the ways to achieve this is by formulating the right marketing

strategy for the segment which is expected to yield a higher profit [10]. Therefore, this study aims to identify the demographic, psychographic and behavioral characteristics of consumers who have knowledge on organic food in Bandung, West Java, Indonesia (geographic). Furthermore, selected characteristics in this study are expected to provide a clear description of the consumer profile that has knowledge of organic food (Table 1).

2.4. Methods

The purpose of this study is to identify and describe consumers who have knowledge of organic food as potential consumers who will consume organic food in the future using a descriptive quantitative approach. 200 respondents [16] who buy organic food at several supermarkets where organic food is available, mainly Superindo-Dago, Riau Junction, Yogya Ciwalk, Setiabudi supermarket, and Rumah Buah, were the target to be evaluated [8]. The primary data was obtained by distributing questionnaires directly to the respondents at two supermarkets, Yogya Ciwalk and Rumah Buah, as well as online through social media, and messaging platforms. Library research was also conducted to define the operational definitions of this study's variables (Table 1). The evaluation score of the respondents' knowledge of organic food was taken from the correct answer being given a score of 1 (one) and wrong answers being given a score of 0 (zero). Respondents who answered all of the questions correctly got a total score of 14 (ideal score); 100% multiplied the calculation of the final score using the index number (actual score/ideal score). The assessment categories are divided into 5 (five) criteria, namely excellent, good, average, fair, and poor, with equal distance on each level. The highest score was 100 and the distance between the criteria was 20 ($\frac{100}{5}$).

TABLE 1: Operationalization variables.

VARIABLE	SUBVARIABLE	INDICATOR	SUB INDICATOR
<p>Consumer’s knowledge, all information that the consumer has about various products and services which are related to the products and services, and other related knowledge and information pertaining to his/her role as a consumer [5]. Product knowledge is divided into three types: product attribute knowledge, product benefit knowledge, and product satisfaction knowledge [14].</p>	<p>Product attribute knowledge, information that consumers know about organic food characteristics [14].</p>	<ul style="list-style-type: none"> • Label [17–19] • Packaging [20] • Freshness [21] • Price [14] 	<p>—</p> <p>—</p> <p>—</p> <p>—</p>
	<p>Product benefit knowledge, the amount of information consumers have about the benefits of organic food [14].</p>	<ul style="list-style-type: none"> • Healthiness [21] • Environmental sustainability [21] 	<p>—</p> <p>—</p>
	<p>Product satisfaction knowledge, knowledge about the personal and symbolic values that products and brands help them to satisfy or achieve [14].</p>	<p>Values, people’s vast life goals [14]</p>	<ul style="list-style-type: none"> • “I want to be healthy” [7] • “I want to contribute in environmental sustainability” [7]
<p>Consumer profile, was divided into four main groups: geographic, demographic, psychographic, and behavioral group [10].</p>	<p>Geographic segmentation, classify the market based on location that will affect the operational cost and the number of requests differently [11,10]</p>	<p>Location where the research was conducted [11]</p>	<ul style="list-style-type: none"> • Domicile • The place where the consumers buy organic food
	<p>Demographic segmentation, the division of the market into groups based on demographic variables [11,10]</p>	<p>Gender Age Education Occupation Monthly income Marital status</p>	<p>—</p> <p>—</p> <p>—</p> <p>—</p> <p>—</p>
	<p>Psychographic segmentation, grouping consumers into market groups according to the variables of pattern, lifestyle and/or personality [10]</p>	<p>Lifestyle</p>	<ul style="list-style-type: none"> • Health awareness [20] • Environmental awareness [20]

VARIABLE	SUBVARIABLE	INDICATOR	SUB INDICATOR
	Behavioral segmentation, classifying the market into groups that are differentiated by the variable of knowledge, attitude, usage, and response to a product [11,10]	How often consumers buy organic food	—

3. Results and Discussion

3.1. Validity and reliability test

Using a level of significance (α) 1%, Table 2 is the result of a validation test conducted using SPSS Version 22. The validation test for each question in the questionnaire was Correlation Bivariate, two tailed. Each correct answer was given a score of 1 (one) while an incorrect one was given a score of 0 (zero). There were 14 (fourteen) questions in the questionnaire in accordance with the operationalization of the variable indicators. Out of all of the questions, 1 (one) question was found to be invalid, so the question was disregarded from the calculation of the total score. Out of the 281 items of collected data, only 272 were used in this study. 9 (nine) items of data were eliminated because the answers were irrelevant and not in line with the research restrictions, especially to do with location. In this study, the calculation of reliability using SPSS version 22 were done to determine the consistency and stability of the research instruments [22]. It obtained $\alpha = 0.603$ by excluding 1 (one) invalid instrument and 3 (three) instruments which, according to the data calculation done using SPSS version 22, did not contribute to good reliability figures. The invalid and unreliable instruments were excluded from the quantitative analysis process.

3.2. Consumer knowledge

This study found that only 61 out of 272 respondents (22%) had a good and excellent category of knowledge (score > 60) and buy organic food at Yogya Ciwalk supermarket, Rumah Buah, Setiabudi Supermarket, Yogya Riau Junction and other places that sell organic food in Bandung (Figure 1). Among the well-informed respondents, 67% were consumers who buy organic food once a week to once a month. This purchasing

TABLE 2: Validity and Reliability data.

Items	Correlation Bivariate	Validity	Reliability
Organic food definition	0.476	Valid	0.603 (N:10)
Organic food label	0.561	Valid	
Freshness level of organic vegetables	0.499	Valid	
Freshness level of organic fruits	0.334	Valid	
Packaging	0.337	Valid	
Nutrition information	0.344	Valid	
The difference between non-organic and organic food	0.376	Valid	Excluded
Certification body of organic food test	0.258	Valid	
Organic food ecosystem	0.403	Valid	Excluded
Health care attitude	0.428	Valid	
Support for local farmer	0.459	Valid	
Nutritional intake	-0.089	Not Valid	Excluded
Support animal protection	0.397	Valid	
Organic food price	0.158	Valid	Excluded

Source: The result of data processing.

behavior is in line with the concept stated by [23] that the consumers' knowledge will influence their purchasing decisions.

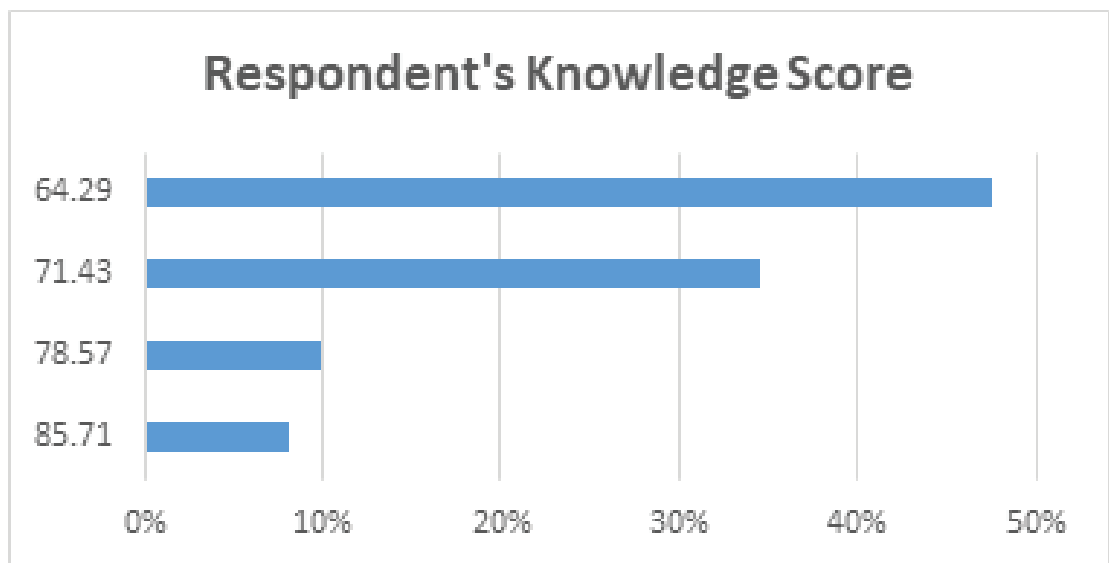


Figure 1: Respondents' Knowledge Score (> 60). Source: The result of data processing.

3.3. Consumer profile

Out of the respondents who are knowledgeable and have the willingness to buy organic food, as many as 70.5% were women, with an age range between 18 to 44 years (86%). This means some of the respondents are of the Y (20–30 years old) generation and a few others are of the Z generation (younger than 20 years old). In relation to educational level, the majority of the respondents had a relatively high education level. As many as 81.4% of female and 66.7% of male respondents held either a Bachelor's or Master's degree. Their occupation percentages were 30.2% were employees, followed by 25.6% students and 11.6% entrepreneurs. 47.5% of them earn Rp. 1,000,000 to 4,999,999 while the other 34.5% earn Rp. 5,000,000 to Rp. 15,000,000 per month. The interesting part of this study was that 54.1% were single while the other 41% were married and already have (a) child(ren). In terms of their psychographic profile (Figure 2), the respondents who are knowledgeable and buy organic food are aware of the importance of taking care of their health. 91.8% of the respondents are accustomed to eating healthy foods. They also exercise diligently and pay attention to the adequacy of the time needed to have a rest. Nevertheless, they are not necessarily members of either the organic food or environmental communities. Broadly speaking, the respondents of the study are respondents who care about their health, hence they buy organic food relatively often, at least once a week (32.8%).

From this study, there are several findings that can be discussed regarding organic food buyers in Bandung who are well-informed. Firstly, they are mostly female. This finding is in line with previous research in 1995 conducted by Anne Davis in [24], who also found that women buy more organic food than men, including in big cities in Indonesia, such as Jakarta, Yogyakarta and Surabaya [7]. Secondly, the majority of them are single. This occurs somewhat contrary to the research [7] conducted in Jakarta, Yogyakarta and Surabaya, where it is assumed that organic food consumers are predominantly married women with one child or more; 43% of respondents from this study are respondents who shop at Yogya Ciwalk, where the majority of visitors are young people with an age range between 18–24 years old. In addition, online questionnaires were also distributed through social media where the users' age range was also 18–45 years old. Thus, this study was dominated by single young people. Thirdly, they were mostly of the Y and some of the Z generation. According to [23], the Y generation is a generation that is concerned with the balance of life ('quality of life') and Z is the generation which has a concern for the environment as part of everyday life. These generation's value aligns with the finding within this study that

their reasons for purchasing organic food were mostly because of health awareness, and only a few of them said it was because of environmental awareness. Fourth, they are mostly highly educated workers and entrepreneurs who earn a relatively adequate income to purchase organic food, since its price is above the average price for non-organic equivalents. Nevertheless, this study also found similar findings as in the previous research [23], in that there are some respondents who are willing to pay more for organic food due to health reasons although their income is considered to be relatively inadequate. According to [23], it is one of the characteristics of health-conscious consumers as a part of the health fanatic sub-segmentation in the green market segment.

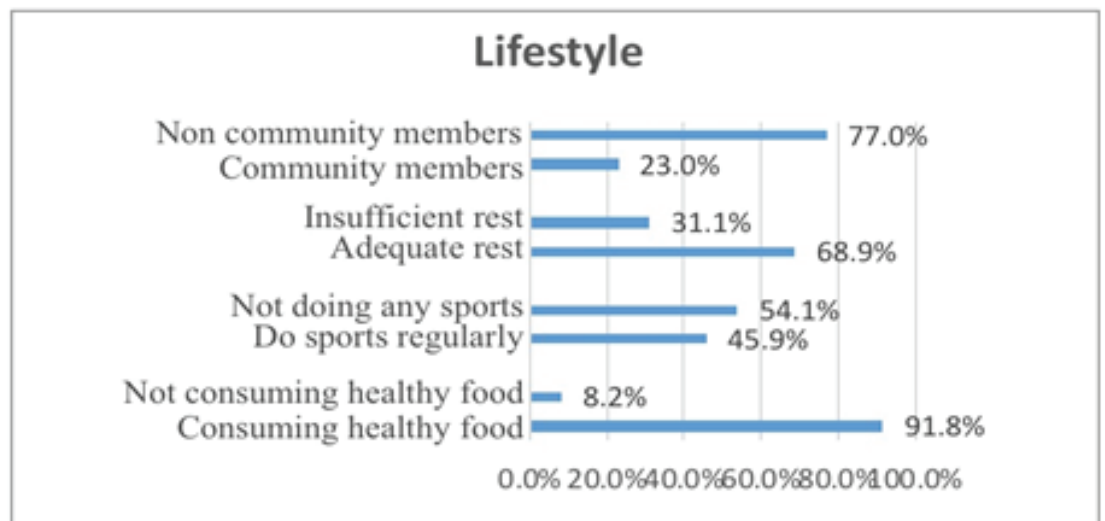


Figure 2: Respondents' lifestyle. (References: The result of data processing.)

4. Conclusion

Based on the findings in Bandung, consumers who buy organic food, particularly in several supermarkets, are mostly women, including single women who have a moderate level of knowledge on organic food. Their knowledge of organic food is still limited to the positive impact of organic food on health. Much of the unknowns about an organic diet are related to organic labeling. Almost all of the respondents do not know that the only way to be assured that the food is truly organic is through its label. In addition, many of them also do not know that organic food is also beneficial in relation to environmental sustainability. Hence, in accordance with these findings, information about the benefits of organic food for environment preservation is possible to be

added, so then the market can penetrate toward consumers who will choose locally-grown produce (organic food), which is an environmentally-friendly product (Z generation) [23]. Furthermore, regarding purchasing behavior, consumers who have either sufficient or insufficient knowledge both buy organic food regularly and frequently. Nevertheless, the ones with sufficient knowledge buy more frequently. It appears that the better the knowledge of organic food, the more positive their behavior is toward it. Another note that is important that was drawn from this study was a way to determine an affordable price for organic food. Organic food farmers and/or entrepreneurs need to be able to collaborate to reduce either production or the certification process cost, so then they will be able to enhance the organic food purchasing market even wider.

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