

Assessing Environmental Concerns, Knowledge and Health Consciousness in Young Adults' Organic Food Choices

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Abstract: The trend towards buying organic food is declining among young adults, which raises concerns about factors influencing their purchasing behavior. This study investigates factors affecting young adults' buying behavior of organic food products, including environmental concerns, knowledge, and health consciousness. Survey data was collected from 100 young adults in Selangor, Malaysia. Multiple regression analysis was conducted to analyze the data. The results showed that knowledge about organic food was the strongest predictor of young adults' organic food purchasing behavior. In addition, concern for the environment had a significant positive influence on young adults' organic food purchasing behavior, while health consciousness showed no significant influence. These findings offer practical implications for manufacturers: to provide clear product details that can enhance consumers' knowledge and highlight environmental advantages in marketing strategies to encourage consumption. This study contributes to the literature by highlighting the value of environmental awareness and knowledge of organic food and shedding light on the minor influence of health awareness—a topic that has received less attention in other studies.

Keywords: *Organic Food, Green, Buying Behavior, Environmental Concern, Health Consciousness, Knowledge.*

1. Introduction

Organic food, i.e. agricultural products that are grown, treated and processed using natural resources and without conventional pesticides, is gaining importance worldwide. These products are free of antibiotics and contain higher levels of vitamins and proteins so fewer additional food supplements are required (Paul & Rana, 2012; Armin, Chin, & Neda, 2013). The demand for organic food in Asia has seen a remarkable growth of 20% per year (Somasundram et al., 2016; Radman, 2005), reflecting a societal shift towards healthier and more sustainable consumption patterns. Key societal drivers of this trend include increasing environmental awareness, rising health consciousness and changing lifestyles where individuals prioritize wellness and sustainability in their food choices (Marozzo et al., 2023). Consumers in Asia are paying higher prices for organic products, despite their higher costs, as they are increasingly concerned about long-term health and environmental sustainability.

In Malaysia, the consumption of organic food is increasing, driven by changing consumer behavior toward healthier food (Abdullah et al., 2022; Siti Hasnah et al., 2015; Armin et al., 2013). Malaysia's growing middle class, higher disposable income and increased environmental awareness have contributed to this change. However, according to Chen (2009), the consumption of organic food among young adults is still underdeveloped. This attitude is relatively due to the lack of awareness of organic products and insufficient environmental awareness in this population group. Furthermore, Yi et al. (2024) point out that young adults' limited knowledge of the benefits of organic food, combined with misconceptions about what constitutes an organic product, is a significant barrier for them in purchasing organic products. This is particularly important in Malaysia, where cultural factors such as traditional food preferences and the convenience of non-organic options can also influence purchasing behavior.

Young adults are an important demographic in the organic food market as their preferences can signal future trends in food consumption. As this group increasingly influences market dynamics, it is important to understand their purchasing behavior. Young adults are also more likely to be influenced by digital marketing and social media, which can reinforce or inhibit their interest in organic food depending on the available information. Therefore, investigating the factors influencing their buying decisions is key to identifying potential strategies to promote organic consumption among this group.

Despite the growing interest in organic food consumption, few studies specifically address the factors that influence the purchasing behavior of young adults in Malaysia. This study tries to fill this gap by examining how knowledge of organic food, concern for the environment, and health awareness influence the purchasing decisions of young adults, thus contributing to the understanding of this under-researched segment of the organic food market.

2. Literature Review

Environmental Concerns

Environmental concerns are linked to an individual's self-perceived responsibility for the environment. Organic food can help reduce natural pollution, protect the health of water and soil, and reduce the use of chemicals in agriculture. Alternatively, organic food products are also known as green products. Paul and Rana (2012) asserted that preserving natural resources for future generations is vital to ensure they obtain a chance to experience and use the natural resources for their use. It will also prevent diseases that might harm future generations since the more technology is enhancing and growing day to day, the more problems and diseases might increase and make the situation worse. Moreover, normal farming is not better than natural farming (Armin et al., 2013). Avoiding chemicals in food results in a higher cultivation rate, which can be achieved. Previous research has found that young adults with a high level of environmental awareness tend to buy organic food (Bagher et al., 2018; Curl, Fenske, & Elgethun, 2003). Prakash et al. (2023) emphasized that young adults' intention to purchase organic food is positively influenced by their environmental concerns. According to previous research (Yi et al., 2024; Prakash et al., 2023; Shamsudin et al., 2018; Ayub et al., 2018), young consumers' preferences for organic products are greatly influenced by their awareness of environmental issues, as they are more likely to choose environmentally friendly options when making purchases.

Asia's growing environmental consciousness, especially in reaction to pollution and industrial expansion, has made consumers more conscious of how their decisions affect the environment (Prakash et al., 2023). This shift towards sustainability is particularly evident among young adults, who are increasingly concerned about reducing their carbon footprint. The growing demand for organic products reflects the larger Asian environmental movement, which includes government programs to support sustainable agriculture. These trends are in line with changing lifestyles, where consumers are trying to balance their environmental responsibility with their consumption habits and support organic products due to their eco-friendly characteristics (Yi et al., 2024). Consistent with the literature, this study thus posits that:

H1: Environmental concern has a significant effect on young adults' buying behavior of organic food products.

Organic Food Knowledge

Organic food knowledge is associated with a person's factual knowledge of organic food and awareness as a prerequisite for developing organic food purchasing behavior. People with knowledge about organic food recognize the importance of their actions for the environment. Consumers with a low level of knowledge about organic food and a low level of education are less likely to purchase organic food because they are not aware of the benefits (Quah & Tan, 2010). Educated consumers, especially college degree holders, have the highest number of users compared with those consumers who are not educated. This suggests that greater knowledge and awareness of organic food leads to a more positive attitude and higher purchase intention. As mentioned by Paul and Rana (2012), consumers with higher education tend to have a more positive attitude. They know the health benefits of organic food and how it can change a person's lifestyle by consuming it daily and preventing diseases. Thus, the connection between organic food knowledge and education level and buying behavior toward natural food cannot be left out. In conclusion, the research that is currently available indicates

that increasing consumer awareness and understanding through education may result in more favorable attitudes and increased focus on buying organic food (Yi et al., 2024).

Similarly, growing awareness and education about organic products in Asia has had a significant impact on consumer purchasing decisions. Consumers, particularly young adults, are becoming more conscious of the sustainability and health advantages of eating organic food as more information about the advantages of organic farming and its role in environmental preservation is shared, especially through social media and government initiatives. This growing trend is in line with a broader lifestyle shift, where a health-conscious and environmentally friendly lifestyle is increasingly at the forefront. Asian consumers are becoming more discerning in their food choices and are looking for transparency in production methods and ingredients, fueling the growing demand for organic products. The hypothesis is proposed. Hence, this study put forward that:

H2: Organic food knowledge has a significant effect on young adults' buying behavior of organic food products.

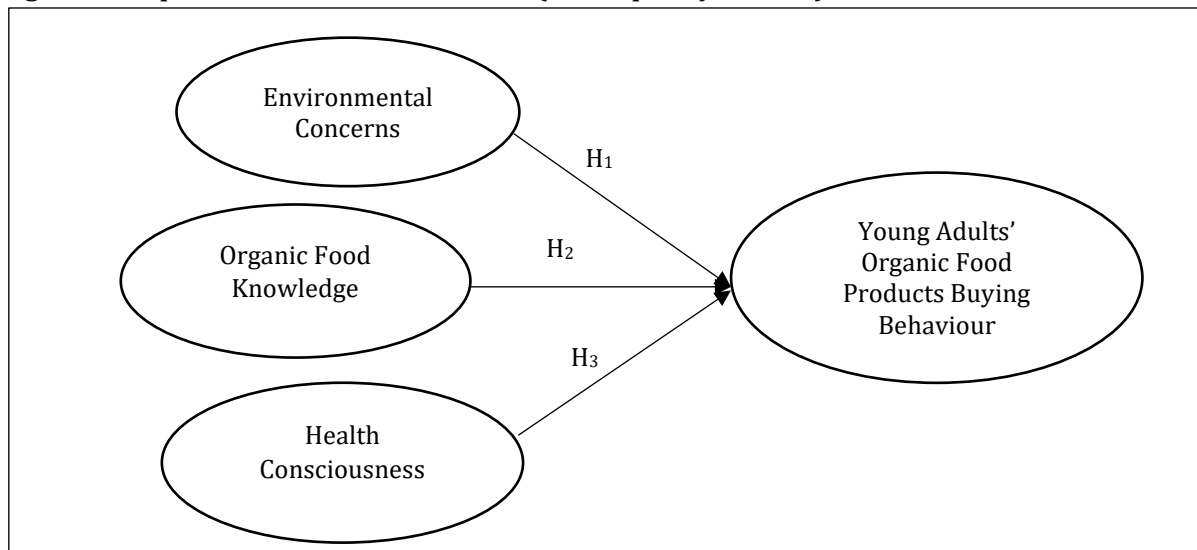
Health Consciousness

Health consciousness can determine consumers who are concerned about their health and they will find ways to improve their quality of life and end their poor fitness (Parashar et al., 2019; Michaelidou, Nina & Louise, 2008). Organic food helps prevent cancer. Lockie et al. (2002) also found that consumers perceive organic products as a healthier alternative to conventional foods because they contain more nutrients that enhance personal well-being. Organic foods are also perceived as safer, better tasting and more enjoyable than conventional products (Rahman et al., 2021; Nadricka et al., 2020; Mohd Rizaimy et al., 2010; Magnusson, 2003). Moreover, the strongest motivator for people to purchase organic food is health consciousness (Huang et al., 2022; Parashar et al., 2019; Song, 2017; Nasir & Karakaya, 2014; Derk, Gerda, & Inge, 2012). They showed that health consciousness is the most important motivator influencing consumer behavior when buying organic food. Michaelidou and Hassan (2008) show that health consciousness is known to be a motivator for some consumers. Based on the positive relationship between consumers' purchasing behavior towards organic foods that are important for health, the following hypothesis is put forward.

In Asia, rising healthcare costs and concerns about lifestyle diseases have driven consumers, particularly young adults, to seek healthier alternatives to conventional foods (Huang et al., 2022). This fits into a broader trend towards preventative health care and holistic well-being, where eating organic food is thought to be safer and better. The findings of this study, however, indicate that young individuals' purchasing decisions for organic food are not substantially influenced by health awareness, despite the growing understanding of the advantages. This disparity could result from things like cost, accessibility, or mistrust of organic food claims. Consequently, the following hypothesis is proposed:

H3: Health consciousness has a significant effect on young adults' buying behavior of organic food products.

Figure 1: Proposed Theoretical Framework (Developed by authors)



3. Methodology

Sampling and Population

This study used a quantitative research design to assess young adults' environmental concerns, organic food knowledge, and health consciousness when choosing organic food. A structured self-administered questionnaire was distributed to a sample of 100 young adults aged 18 to 25 years in Selangor, Malaysia. This sample size is considered reasonable for statistical analysis, which is also confirmed by Hair et al. (2010). The structured questionnaire ensured consistency in data collection providing a reliable basis for the quantitative analysis of the variables studied.

The purposive sampling method was chosen to select participants who have an eco-friendly lifestyle and have experience purchasing green products. This purposive approach ensures that the sample accurately represents the population of interest, namely young adults who engage in environmentally conscious behavior. The study intends to offer significant insights into the elements that impact their choice to purchase organic food by concentrating on individuals having pertinent experience. This sampling technique improves the study's relevance and accuracy in determining how young adults' purchase decisions are influenced by their knowledge of organic foods, environmental awareness, and health consciousness.

Questionnaire development

There were two primary sections of the questionnaire. The demographic details of the respondents, such as age, gender, income, and educational attainment, were the main focus of Section A. These details are crucial for assessing the study's findings. Section B contained questions specifically designed to measure respondents' environmental concerns, organic food knowledge, health consciousness, and buying behavior, ensuring that all relevant aspects of the study objectives were considered.

A 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree), was used to rate the questionnaire items in Section B to precisely quantify the responses received. Because it most accurately captures the intensity of the respondents' attitudes and beliefs, this scale was selected. To make sure the things were trustworthy and pertinent to the study's setting, they were modified from Chakrabarti's (2010) well-known work. The structured format and validated items contribute to the robustness of the questionnaire and enable accurate and meaningful analysis of the factors influencing young adults' organic food choices. The detailed design and rigorous customization process underline the questionnaire's ability to provide high-quality data for this research.

4. Data Analysis

The completed questionnaires were carefully examined for accuracy and completeness after being collected. After that, the data was coded and added to statistical tools for a thorough examination. The demographic information of the respondents was compiled using descriptive statistics, which provide an accurate picture of the composition of the sample. The demographic profile of the respondents is shown in Table 1. Of the total number of respondents, 82% were female and 18% were male. The majority of respondents were under the age of 22.

Table 1: Demographic Characteristics of Respondents

Variable	Frequency	Percentage	Minimum	Maximum	Mean	Standard Deviation
Gender						
Male	18	18.0				
Female	82	82.0				
Age (years old)						
			18	25	22.2	1.71
Personal Monthly Income (RM)						
			280	3600	836.67	704.59

Experience with Organic Food Products Purchases

Table 2 lists the respondents' experiences of buying organic products. Of the three types of organic food purchases listed in the questionnaire, most respondents (40 percent) stated that they preferred to buy organic vegetables, while 35 percent preferred to buy organic eggs. Respondents also bought organic chicken (25 percent). Half of the respondents have bought less than 5 times in the last six months, while 34 percent have bought between 6 and 10 times. A small proportion of respondents (15 percent) have made 11-15 purchases in the last six months. In terms of spending on organic produce purchases, 61 percent spent less than RM100 on organic produce in the last six months, 25 percent spent RM101 to RM150, while a small percentage (14 percent) spent more than RM151.

Table 2: Experiences with Organic Food Product Purchases

Variable	Frequency	Percentage
Frequency of organic food products purchased		
1-5 times	51	51.0
6-10 times	34	34.0
11-15 times	15	15.0
Types of organic food products purchased		
Organic egg	35	35
Organic vegetable	40	40
Organic Chicken	25	25
Money spent on organic food products purchased		
<RM100	61	61
RM101-RM150	25	25
RM151-RM200	9	9
>RM201	5	5

Reliability and Validity

The reliability of the constructs was tested using Cronbach's alpha. Hair et al. (2010) found that Cronbach's alpha values above 0.70 are acceptable, while values below 0.70 indicate a deficit in internal consistency. Table 3 shows that Cronbach's alpha values for all constructs are between 0.792 and 0.901 and thus exceed the cut-off value of 0.70. The results indicate a high reliability of the constructs.

Table 3: Descriptive Analysis and Inter-construct Correlations

Variables	Mean	SD	1	2	3	4
Environmental Concern	4.027	0.585	1.000			
Organic Food Knowledge	3.928	0.510	0.633**	1.000		
Health Consciousness	4.340	0.644	0.526**	0.626**	1.000	
Buying Behaviour	3.727	0.606	0.538**	0.597**	0.510**	1.000
Cronbach's Alpha			0.820	0.792	0.901	0.823

Notes: **. Correlation is significant at the 0.01 level (2-tailed); Diagonal elements (in bold) show the square root of the average variance extracted; SD = Standard deviation.

Table 3 shows that all correlations between the four factors were less than 0.700, indicating a reasonable level of discriminant validity. Knowledge of organic food was found to correlate most strongly with young adults' organic food purchasing behavior ($r=0.597$, $p<0.01$), followed by concern for the environment ($r=0.548$, $p<0.01$). The purchasing behavior of young adults for organic food is also significantly associated with health consciousness ($r=0.510$, $p<0.01$). Thus, each factor was statistically independent of the others. In addition, health consciousness had the highest mean score of 4.340 with a standard deviation of 0.644, followed by environmental concern (mean=4.027, standard deviation=0.585).

Relationships on Organic Food Buying Behavior

A multiple regression analysis was conducted to examine the factors influencing young adults' organic food purchasing behavior. Table 4 shows the results of the R², standardized beta coefficients and t-values for the

hypothesized relationships proposed in this study. The R2 value for the dependent variable was 0.430, above the minimum value of 10% recommended by Falk and Miller (1992), indicating strong explanatory power of the model (i.e., all independent variables explained 43% of the total variance in young adults' organic food purchasing behavior). This was significantly different from zero where $F\text{-value}= 24.125, p<0.001$. Precisely, H1 examines whether environmental concern has a significant influence on young adults' organic food purchasing behavior. The standardized beta coefficient proves that environmental concern does indeed have a significant and positive relationship with young adults' organic food purchasing behavior ($\beta_1=0.275, p<0.05$). This supports H1.

The following hypothesis H2 states that knowledge about organic food has a significant influence on young adults' organic food purchasing behavior. A further examination of the standardized beta coefficient shows that knowledge about organic food has a significant influence on young adults' organic food purchasing behavior ($\beta_2=0.398, p<0.05$). Accordingly, H2 is upheld as predicted. The final hypothesis, H3, states whether health consciousness has a significant influence on young adults' organic food purchasing behavior. As shown in Table 4, the hypothesized relationship between health consciousness and young adults' organic food purchasing behavior was found to be insignificant ($\beta_3=0.086, p<0.05$), which means that H3 is rejected.

Table 4: Relationships on Organic Food Buying Behavior

Hypothesized paths		Standardized Beta Coefficients	Results
H1	Environmental Concern → Organic Food Buying Behavior	0.275*	H1 supported
H2	Organic Food Knowledge → Organic Food Buying Behavior	0.398*	H2 supported
H3	Health Consciousness → Organic Food Buying Behavior	0.086	H3 not supported

* Statistically significant at $p<0.05$ (for $t\text{-value} > 1.960$); $R^2=0.430$; $F\text{-value}=24.125$

Discussion

This study investigated factors affecting young adults' buying behavior of organic food products. Three hypotheses were put forward in the research model. H1 states that concern for the environment has a significant influence on young adults' organic food purchasing behavior. Based on the standardized beta coefficients, the multiple regression analysis resulted in the acceptance of H1. It was found that environmental awareness has a significant influence on young adults' organic food purchasing behavior. This is consistent with previous studies (Yi et al, 2024; Prakash et al, 2023; Wang et al, 2020; Curl et al, 2003; Harper & Makatouni, 2002; Paul & Rana, 2012). Younger adults are concerned about environmental issues, they tend to opt for buying organic food products. They emphasize that the environment should be well protected by organic food production practices that use no/fewer chemicals and no/fewer growth hormones.

In addition, the correlations between knowledge about organic food and the purchasing behavior of young adults with regard to organic food were examined in H2. A closer examination of the empirical results shows that H2 is also supported as expected. The results indicate that knowledge about organic food has a significant influence on young adults' organic food purchasing behavior. This factor was found to be the strongest significant predictor of young adults' organic food purchasing behavior. The results reflect the findings of previous studies (Zhuravleva et al, 2023; Migliorini et al, 2020; Sing & Verma, 2017; Smith & Paladino, 2010). Young adults are inclined to buy organic food because they have good knowledge and information about organic food, e.g. about how much chemicals they consume. Developing knowledge about organic food helps them to develop a better understanding of the benefits of organic food for the environment. They can also learn about how organic farmers take extra care in their farming practices.

The following hypothesis H3 was used to test whether health consciousness has a significant influence on the purchasing behavior of young adults with regard to organic food. The results of this quantitative study show that health consciousness has an insignificant influence on the purchasing behavior of young adults for organic food. Therefore, H3 is not confirmed. Health awareness had no significant influence on young adults' organic food purchasing behavior, even though they know that organic food is natural and healthier than regular food because it contains no/less growth hormones, additives, antibiotics and chemical residues.

By investigating the different factors that influence the purchasing behaviors of young adults in Malaysia, a demographic that has received little attention, this study closes a gap in the body of previous research. The results challenge the commonly accepted notion that health consciousness is a significant determinant in this demographic while highlighting the significance of environmental awareness and familiarity with organic foods.

5. Conclusion

Organic food knowledge and environmental concerns were vital to impact young adults' buying behavior of organic food products. To encourage more consumption of organic food products, manufacturers should furnish clear product information that can evoke their organic food knowledge. In addition, it is time for producers to promote young adults' understanding of the benefits of organic food and the important environmental aspects that are worth emphasizing in their marketing strategies during the production phase. The knowledge and understanding of organic food, especially among young adults, needs to be expanded by utilizing all technologies and artificial intelligence to promote awareness and knowledge of organic food. This is a hope to strengthen the steps taken by the government to increase the awareness of Malaysians to buy organic food.

The findings of this study provide new insights into the organic food purchasing behavior of young adults in the Malaysian context. Further research with longitudinal studies across a larger population and geographical area can contribute to a better understanding of organic food purchasing behavior in Malaysia. Further, it is recommended to conduct research by focusing on the comparison of consuming preferences for specific organic food products among Malaysian populations. Additional research can be implemented to decide which segments are excellent in imitation of market or accordance with organic food as much as an access regarding building sustainable ruin pattern because of the future. It is also strongly recommended that focusing on environmental sustainability and product knowledge is similarly important rather than just health benefits.

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Appendix 1: Measurement of Instruments

Statements

Buying Behaviour

- My intention to buy organic food can increase with my knowledge about organic food.
- Government policy can help me increase my intention to buy organic food
- Environment improves my intention to buy organic food
- My intention to buy organic food can develop with the level of my perceived value
- My attitudes are related to my intention to buy organic food
- My intention to buy organic food comes from health reasons

Environmental Concern

- The environment should be protected
- The production of conventional food does not harm the environment
- Organic food production is better for the environment because it uses no/fewer chemical instruments
- Organic food production is better for the environment because it uses no/less growth hormones
- Organic food production practices are better for the environment
- The environment is adequately protected

Organic Food Knowledge

- Study about organic food provides me with information about how much chemicals I consume every day.
- Organic farmers put more care into farming methods and trends
- Self-knowledge is important in organic food taste perception
- I do purchase organic food because of good knowledge about it
- The benefits of organic food for my health increase my intention to buy organic food
- Development in knowledge and education helps me to understand the benefits of organic food for the environment

Health Consciousness

- My health is very important for me
 - Organic foods are healthier than normal foods
 - Organic foods are natural and therefore better for my health
 - Organic foods are healthier because they have no/less growth hormone additives and antibiotics
 - Organic foods are healthier because have no/fewer chemical residues
 - Organic foods are healthy
-