

Consumer's Perception and Purchase Intentions Towards Organic Food Products:

Exploring Attitude Among Academician

LA PERCEPTION ET L'INTENTION DE RACHAT DES CONSOMMATEURS ENVERS LES PRODUITS ALIMENTAIRES BIOLOGIQUES:

ÉTUDES SUR L'ATTITUDE DES UNIVERSITAIRES

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Abstract: This study is attempted to gain knowledge about consumer attitude towards organic food products. With sample of 136 respondents consist of lecturers from Universiti Teknologi MARA (Northern Zone), the data obtained from the survey were analyzed with reliability test, correlation and regression analysis. Result from this study indicated that academician do aware of what is happening to surroundings with regards to environmental problems or ecological concern. The findings indicated that health consciousness factor have more impact on customer purchase intention of organic food products rather than the environmental concern. Environmental concern was found to have less impact because academician perceive that although they have knowledge towards environmental and ecological factors that can contribute to sustainable environment, however their current consumption pattern will not change their

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perception towards organic food product however good it is. Hence, this study is expected to provide understanding on the reasons of buying and would probably help marketers of organic food products to establish a proper communication message to different category of buyers who exhibit their interest towards organic food products. The limitation of this study is that the sample was restricted to a single geographic area in Malaysia. Future research should focus on extended scope to all states in Malaysia and further investigate the details of how consumer perceived the organic food products as a way for building sustainable consumption pattern.

Keywords: Organic food products; Health consciousness; Environmental concern; Academician

Résumé: Cette étude tente d'acquérir des connaissances sur l'attitude des consommateurs envers les produits alimentaires biologiques. L'échantillon se compose de 136 professeurs de l'Universiti Teknologi MARA (dans la zone du nord), et les données provenant de l'enquête ont été analysées par le test de fiabilité et l'analyse de corrélation et de régression. Le résultat de cette étude ont indiqué que les universitaires sont conscients de ce qui se passe dans l'entourage en ce qui concerne les problèmes environnementaux ou des préoccupations écologiques. Les résultats indiquent que le facteur de la conscience de la santé a plus d'impact sur l'intention d'achat des consommateurs de produits alimentaires biologiques que celui de l'environnement. La préoccupation environnementale a été trouvée d'avoir moins d'impact parce que les universitaires perçoivent que même s'ils ont des connaissances concernant les facteurs environnementaux et écologiques qui contribuent au développement durable, leur modèle de consommation actuel ne changera pas leur perception des produits alimentaire biologiques. Ainsi, cette étude devrait permettre aux marchands de produits alimentaires biologiques de comprendre les raisons de l'achat et probablement les aider à établir un message de communication propre aux différentes catégories d'acheteurs qui manifestent leur intérêt pour les produits alimentaires biologiques. La limitation de cette étude est que l'échantillon a été limité à une seule zone géographique en Malaisie. Les recherches futures devraient mettre l'accent sur la portée étendue à tous les États de la Malaisie et d'étudier plus en détail comment les consommateurs perçoivent les produits alimentaires biologiques en tant qu'un moyen du renforcement du modèle de consommation durable.

Mots-clés: produits alimentaires biologiques; conscience de la santé; préoccupation environnementale; universitaires

1. INTRODUCTION

According to Wier and Calverley (2002), consumer interest in organic food products has grown tremendously in many industrialized countries during the past ten years. It is observed that the organic food products is also one of the fastest growing areas of the food market in Europe, Northern America, Australia and Japan with sales being in excess of \$114.5 billion in 1999 (Makatouni, 2002). Today, organic consumption is closely associated not only with health concerns, but also with social, economic and ecological sustainability. Agricultural and food industry experts agree that the peak of the organic food products trend has not yet been reached and there is still plenty of international growth potential in the organic market (Ebrahimi, 2007).

In Malaysia, interest in organic food products and consumer consumptions are growing. Recent statistics shows that organic food products market is currently the second most important in South East Asian region with organic consumption growth average approximately 20% per year and organic industry

is also valued at US\$25 million (Ramli, 2005; Organic Monitor, 2006). On the other hand, Chen (2007) reported that the awareness on organic food products are generally not promoted and the public is not well informed, despite the launching of the organic certification scheme SOM (Skim Organik Malaysia) in 2004 by the Ministry of Agriculture and Agro-based Industry. However, according to Selvarani, John and Sim (2007), it is observed that Malaysians has switch from conventionally grown produce to organic due to the increasing awareness on the benefits of organic food products. About one per cent of the country's farm land is used to cultivate organic food products. The Ministry hopes to increase the area of organic farms from the present 2,367ha to some 20,000ha by 2010 (New Straits Times, November 19, 2007, pg.29) . Furthermore the organic industry in Malaysia is expected to be worth RM800 million by 2010 (New Straits Times, November 18, 2007, pg.30).

The organic farming was formally introduced in Malaysia in 2001 (New Straits Times, April 25, 2007, pg.13). Agriculture and Agro-based Industry Minister Tan Sri Muhyiddin Yassin in his speech at the one-day National Organic Farming Seminar 2007 said; "Malaysia has the potential to develop and tap into massive global market for organic produce." (New Straits Times, April 25, 2007, pg.13).

A variety of factors have contributed to the increasing popularity of organic food products. Among the reasons are claims that organic food products tastes better than conventional produced foods, concerns about health and nutrition, environmental concerns, concerns over the use of chemicals and pesticides in conventional farming, the erosion of confidence in factory and concerns over animal welfare (Squires, Juric and Cornwell, 2001). A survey by The Nielson Company in 2005 showed that more than 60 per cent of Singaporean claimed to consume organic food products and the majority cited personal health as their main motivation (The Straits Times (Singapore), November 21, 2007).

In order to promote organic food products, marketers need to examine consumers buying behavior and their relationship with demographics and psychographic factors. Such information is very important in planning the marketing strategies. Marketing strategies should be targeted to consumers who have more positive attitudes towards organic food products and exhibit an increased willingness to pay higher price for these products.

Many studies have been conducted on profiling the organic food products consumer. According to Schlegelmilch, Bohlen and Diamantopoulos (1996), socio-demographics have been the most widely used variable for profiling purposes due to the relative ease where it can be measured and applied. This is supported by Bagozzi, et al. (1998) where he agreed that demographic variables; age, gender, household income and family size are commonly used by marketers to segment market. Furthermore, they are standard and readily available and marketers believe that consumer behaviors are highly related to these variables (as cited in Greenwell, Fink and Pastone, 2002, p.233).

An analysis of literature suggests that, among psychographic variables, concern about health, food safety, impact on the environment and animal welfare as the key reasons why consumers purchase organic food products (e.g. Mintel, 1999; Soil Association, 2000, as cited in Harper and Makatouni, 2000, p.287). This is in line with Wier and Calverley (2002) where they also found that most studies point out to health benefits as the main motives for buying organic food products. Similarly, in a study made by MR Shaharudin (2010), discovered that Malaysian consumers placed relatively high level of importance on health consciousness and perceived value whereas low level of importance on food safety concern and religious factor in their intention to purchase organic food product.

1.1 Research objective

Consumer interest in organic food products has grown enormously during the past ten years in many industrialized countries. The organic food products market in Malaysia is gaining its popularity whereas the awareness level of organic food products among customers has started to rise. Despite the growth trend of organic food products industry and continued government support, there is little research on the demand of organic food products in Malaysia.

This study attempted to gain knowledge about consumer attitude towards organic food products consumption and to see whether there is any potential for consumer to change their behaviour. This is because before any behaviour can be changes, it is necessary to evaluate the current state of consumer

awareness and knowledge. The link between attitude, intention and behaviour has been explained by Ajzen (1985, 1988), Ajzen and Fishbein (1980). This theory is based on assumptions that a person's intentions are a function of a certain beliefs. Some of these beliefs influence the person's attitude toward the behavior. Specifically, his attitude towards performing a given behavior is related to his beliefs that performing the behavior will lead to a certain outcomes. Thus, customers who have more positive beliefs about purchasing organic food products will have more positive attitudes towards their organic purchase. Moreover, Sparks and Shepherd (1992) found the theory of planned behavior models have been proven useful in explaining and predicting purchase behavior for organic products.

Consumers are among those who have made their purchases along with organic food products, consumer who never purchase any organic product and those who just got an intention to buy organic food products. It is necessary to analyse the consumption behaviour or consumer which are related to increased consumer demand for organic food products. Particularly, there are some potential social-demographic differences among consumer in the belief and consumption behaviour towards organic food products (Lockie et al., 2002; Lea and Worsley, 2005) Previous researchers have emphasized the relevance education on the consumption of health products. It is generally accepted that individuals with higher education are more likely to eat healthier food since they are more knowledgeable and greater awareness of their sustainability (Loureiro and Hine, 2002; Cranfield and Magnusson, 2003; Rodriguez et al., 2006) However, Malone (1990), Misra et al. (1991) and Govindasamy and Italia (1999) documented inverse relationship between education and willingness to pay for chemical free product. Given this conflicting results, this study aims to fill the research gap by conducting an exploratory study, using the data from lecture of UITM (Northern Zone) to examine purchase decisions as well as amount of expenditures spend on organic food products among academician. Thus, the purpose of this study is to investigate how psychographics independent variables affect the consumer purchasing intention on organic food products in the Northern area in Malaysia. The research questions are addressed as does psychographic variables (environmental concerns and health consciousness) affects consumer purchase intention on organic food products?

The ultimate goal of this study is generally to provide significant theoretical and practical contributions in the area of consumer purchase intention on organic food products. From the theoretical point of view, this study hopes to contribute to an understanding of the factors that influence consumer purchase intention on organic food products. Specifically, the findings from this study intends to provide additional knowledge into the existing body of knowledge on consumer purchase intentions on organic food products by examines the psychographic variables (environmental concern and health consciousness) based on the theory of reasoned action (Ajzen & Fishbein, 1980).

From the practical perspective, this research is important as it brings some significance to the relevant parties: (1)The information gathered may serve as useful input to the producers, processors and retailers of organic food products in coming out with a better marketing strategies to promote the products, and (2) To act as a guidelines to those involve with food and agricultural policy in enhancing and promoting organic food products market.

2. LITERATURE REVIEW

2.1 Purchase Intention of Organic Food Products

According to Essoussi and Zahaf (2008), the term "organic" is rooted in "bio" from Greek "bios" meaning life or way of living. Jones, Hill, Shears and Hilier (2001) cited that the term "organic food products" have been first coined in the 1940s and is refer to food raised , grown and store and/or processed without the use of synthetically produced chemicals or fertilizers , herbicides, pesticides, fungicides, growth hormones and regulators or generic modification. Roddy, Cowan and Hutchinson (1994) view organic food products as a product of organic farming.

A widely accepted definition of organic farming is that given by the United States Department of Agriculture[4]:

...a production system which avoids or largely excludes the use of synthetically compounded fertilizers, pesticides, growth regulators and livestock feed additives. To the maximum extent feasible, organic farming systems rely on crop rotations, crop residues, animal manures, legumes, green manures, off-farm organic wastes, and aspects of biological pest control to maintain soil productivity and tilth, to supply plant nutrients and control insects, weeds and other pests (as cited in Roddy, Cowan and Hutchinson, 1994). Similarly, Green Earth Organics defined organic food products as “organic food products are minimally processed to maintain the integrity of the food without artificial ingredients, preservatives or irradiation” (Essoussi and Zahaf, 2008).

The term “organic” have been associated with fresh fruit and vegetables and tended not to mention other products (meat, dairy, etc.) by the focus group participants in the study conducted by Padel and Foster (2005). However, the types of organic produce most frequently consumed were fresh fruit, fresh vegetables, cereals and cereal products, milk and dairy products and meat (Chinnici, D’Amico and Pecorino, 2002).

According to Magistris and Gracia (2008), the study of food choice is a complex phenomenon that represents one of the most important parts of human behavior, where several cognitive and behavioral factors can vary sharply between individuals. The authors cited that whether consumer intent or decide to purchase organic food products is difficult task because it depends on many factors that cannot be directly control. Magistris and Gracia (2008) stated that some of the studies on organic food products have analyzed the intention to purchase organic food products because as Ajzen (1991) in the theory of planned behavior, stated intention is the best predictor of behavior. Tarkianen and Sundqvist (2005) study have approached the organic food products consumption in Finland with the theory of planned behavior (TPB). Similarly, Kalafatis, Pollard, East and Tsogas (1999) have examines the determinants that influence consumers’ intention to buy environmentally friendly by using the Ajzen’s theory of planned behavior (TPB).

2.2. Attitudes towards organic food products and environmental attitudes

An analysis of literature suggests that, among psychographic variables, concern about health, food safety, impact on the environment and animal welfare as the key reasons why consumers purchase organic food products (e.g. Mintel, 1999; Soil Association, 2000, as cited in Harper and Makatouni, 2000, p.287). This is in line with Wier and Calverley (2002) where they also found that most studies point out to health benefits as the main motives for buying organic food products, while concern for environment are mentioned next. The study by Davies, Titterington, and Cochrane, (1995) reveal that health and environmental concerns are the two major reasons for purchase of organic produce. The similar finding is reported in O’Donovan and McCarty (2002). The authors found that respondents who purchased or had “intention” to purchase organic meat placed higher level of important on health compare to those who did not purchase or had “no intention” to purchase organic meat. Tsakiridou, Boutsouki, Zotos and Mattas (2008) also found that environmental and health concerns are strong motives for consumers and seem to affect organic food products consumption.

Research undertaken by Fotopoulos and Krystallis (2002), title “Purchasing motives and profile of the Greek organic consumer: a countrywide survey” is examined in order to have more insights of organic food products consumers. The purpose of the study was to examine the organic products as “eco-products”, suitable for “green consumer”, who are ecologically/environmentally ecology-aware and who are concerned with health and quality of life issues. Their main objective is to analyze further the organic buyers in terms of their quality, health and environmental consciousness, their price sensitivity, and their exploratory buying behavior.

Another study which provides valuable information on the purchasing behavior on organic food products is the study conducted by Onyango, Hallman and Bellows (2007) in the US food system. The aims of the study were to identify and estimate the importance of the various factors driving consumer perception and acceptance of organic food products and profile likely consumers of organic food products. The factors to be considered critical in determining the regularity of organic food products purchase was related to food naturalness aspect (no artificial flavors or coloring), vegetarian-vegar (persons who do not eat meat or animal products) and production location. The study also reveals that food familiarity aspect (whether the respondents has consumed a food previously or prefer a familiar brand) was negatively associated with

organic food products purchase. It is interesting to note that this study has contributed to the emerging literature by broadening the list of drivers of organic food products purchase beyond socio-economic factors to include public opinions regarding characteristics of food that are important in consuming decisions.

A study among Swedish consumers was conducted by Magnusson, Arvola, Aberg and Sjoden (2001) in order to examine Swedish consumers' attitudes toward organic food products (milk, meat, potatoes, bread) purchase frequently, purchase criteria, perceived availability and beliefs about organic food products. The study found that the most important purchase criteria for the target foods were good taste, healthiness, and quality. The criterion of being organically was found to be the least important. The findings suggest that the most important purchase criteria and the most common beliefs about organic food products do not match very well. This may be contributed to the low regular purchasers. In order to increase the regular organic food products purchasers, the authors have suggested that the quality of organic food products should be increased and a smaller price differences between conventional and organic food products should be established.

Study by Makatouni (2002) indicates that for the British consumers, certain types of consequences of organic food products have self-relevance. Makatouni has conducted a research to obtain an in-depth understanding of consumer purchasing behavior with regard to organic food products in UK. More specifically, the aim is to explore the beliefs and attitudes of both organic and non-organic food products buyers and to detect their impact on purchase behavior. Makatouni (2002) reported that respondents perceive organic food products as a mean of achieving individual and social values, of which the most important is centered around the health factor for either themselves or their family. Hence, health factor is the main motivation for the purchase of organic food products. Values centered on the environment and animal welfare are also considered to be important motivation for choosing organic food products. Radman, M (2005) conducted a study to gain knowledge about consumer attitudes towards organic products in Croatia. The study showed that Croatian consumers consider organically-grown products are very healthy, of good quality and tasty. The finding on Sicilian consumers showed that the main factor arousing interest in organic produce was that they are considered "healthier" (54.5 per cent of consumer interviewed), "curiosity" (23.1 per cent), the desire "to help the environment" (11.0 per cent), they are more "nutritious" (4.9 per cent), "tastier" (4.5 per cent) and "other" (1.9 per cent) (Chinnici, D'Amico and Pecorino, 2002).

It is also interesting to examine the cross-cultural studies done between two countries. Squire, Juric and Cornwell (2001) have carried out a survey on a cross-cultural study of Danish and New Zealand consumers. Denmark has one of the most developed organic food products industries in the world, while New Zealand's is in infancy. The study was to investigate the relationships between health and diet concern, environmental concern, confidence in the conventional food industry, demographic characteristics, and intensity of organic food products consumption of consumers from Denmark and New Zealand. The results confirm that health concern, environmental concerns about the conventional food industry are important in influencing the intensity of organic food products consumption. The consumers of organic produce in New Zealand are significantly influenced by health together with environmental concern, whereas, in contrast, the consumers in Denmark are significantly influenced by the environment. However, food safety was the most important consideration when making organic food products purchase decisions among UK consumers (Rimal, Moon and Balasubramanian, 2005).

In conclusion, consumer attitudes towards different organic food products attribute (health, safety, etc.) and towards the environments are the most important factors that explain consumers' intention to purchase organic food products. Magistris and Gracia (2008) demonstrated that those consumers who are more concerned on the environmental damage and more involved on environment practices will be more willing to buy organic food products.

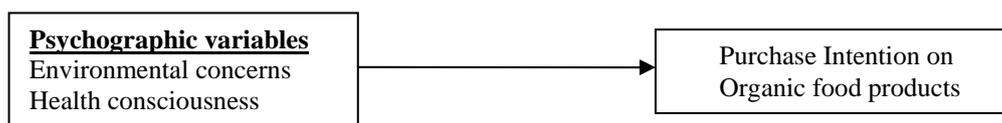
2.3 Underlying Theory

The theory of planned behavior (Ajzen, 1988; 1991) is the underlying theory that provides an insight into the determinants of purchase intention of organic food products. The TPB model seek to explain behaviors, goals and outcomes that are not entirely under the control of the person (Magnusson, Arvola, Hursti, Aberg and Sjoden, 2001). The TPB model assumes three conceptual independent determinants of the intention to

perform a certain behavior; the attitudes towards a behavior; subjective norm and perceived behavioral control (perceived ease/difficulty in performing the behavior) (Kalafatis, Pollard, East and Tsogas, 1999). Sparks and Shepherd (1992) claimed that TPB has generated a good deal of research that purports to substantiate its claim for an identifiable link between attitudes and behavior.

2.4 Research Model

A model illustrating the relationship between psychographic variables (environmental concerns and health consciousness) and purchase intention of organic food products is presented in the figure below. The figure presents the model to be tested in this study.



3. RESEARCH METHODOLOGY

The following hypotheses are developed based on the theoretical framework described from the literature review discussed. Hence, this research hypothesizes:

H₁: Psychographic variables (environmental concern and health consciousness) will be positively related with purchase intention on organic foods.

H₂: Environmental concern will be positively related with purchase intention on organic food products

H₃: Health consciousness will be positively related with purchase intention on organic food products.

To verify the hypotheses proposed, academic staff from Universiti Teknologi Mara in Northern region of Malaysia (Kedah, Pulau Pinang and Perlis campuses) was approached. A quantitative research design was chosen in order to validate the theoretical framework and the hypotheses of this study. University lecturers have been identified as the interest group to be investigated because they are presumed to have extensive knowledge on organic food products. Furthermore, there are used as a sample due to convenience-related factors. The samples selected represent the higher social class and the better education received. Probability sampling designs being used because elements in the population have a known chance of being chosen as subjects in the sample. Since the purpose of study is mainly for collecting information in a localized area, area sampling is used. Due to the easily accessible, the whole population was identified as a sample of study. With given population size of 863, the response of 265 is justified to have a reliable and valid sample (referring to table provided by Krejcie and Morgon (1970). The data is process and analyze by using the software package SPSS 12 version 16.0. The data obtained from the survey were analyzed using reliability test, correlation and regression analysis to examine possible results that brings to the understanding of consumer knowledge, belief and intention to purchase organic food products.

4. FINDINGS AND DISCUSSION

4.1 Demographic Analysis

One hundred and thirty six respondents participated in the survey. Majority were female (61%) and their ages ranged between 25 to 55 years and above. The sample was predominantly Malays (93.4) and most respondents (66.2%) were married. Table 1 demonstrates the summary of sample demographics.

4.2 Factor Analysis

Factor analysis was performed on independent variables (environmental concern and health consciousness). The varimax method was used to determine any underlying components for each variable.

Factor analysis was run on 13 items measuring the 2 independent variables. It was observed that the Bartlett's test of sphericity was significant and that the Kaiser-Meyer-Olkin (KMO) measure of sampling

adequacy is far greater than .6 with a value of .798 for health consciousness and .682 for environment concern. The KMO measure indicated sufficient intercorrelations. Therefore, the research proceeded with the factor analysis.

Table 1: Demographic Profile of Respondents (n= 136)

Items	Number	Percentage (%)
Gender		
Male	52	38.2
Female	83	61
Ethnicity		
Malay	127	93.4
Chinese	5	3.7
Indians	2	1.5
Others	1	0.7
Marital Status		
Married	90	66.2
Single	45	33.1
Age		
25-34	66	48.5
35-44	38	27.9
45-54	26	19.1
More than 55	6	4.4
Faculty/ Department		
Arts	3	2.2
Social Science	77	56.6
Science & Technology	42	30.9
Others	14	10.3

4.3 Reliability Analysis

Reliability, using Cronbach's alpha was conducted to ensure the consistency or stability of items. Reliability of less than .6 are generally considered as poor, those in a range of .7 are acceptable and those over .8 are good (Sekaran, 2002). The results for reliability analysis for this study showed that the Cronbach alpha for health consciousness is .848 and environmental concern is .711. Health consciousness variable indicated a good reliability scoring a Cronbach alpha of more than .8. However, environmental concern variable are considered acceptable.

4.4 Descriptive Analysis

Descriptive analysis will describe series of observation in a more meaningful way. Mean and standard deviations were obtained for the interval-scaled independent and dependent variables. The results are presented in the Table 2 below. Health consciousness, environmental concern and purchase intention were formatted into a seven-point Likert scale format. The mean of all variables ranged from 4.2519 to 5.22. Meanwhile the standard deviation for the below variables ranges from .1.3503 to .8047. The variable with the highest means is health consciousness, while the variable with the lowest mean is purchase intention.

Table 2: Descriptive Analysis for the Major Variables

Variable	Mean	Standard Deviation
Health consciousness	5.22	.95
Environment concern	4.63	.8047
Purchase intention	4.2519	1.3503

4.5 Correlation Analysis

The Pearson Correlation coefficient values (r) is positive for health consciousness ($r = 0.480$) and environmental concern ($r = 0.314$), which indicates the positive direction with purchase intention. However, according to Lukas, Hair, Bush and Ortinan (2004), the value (r) of health consciousness indicate a moderate relationship with the purchase intention while the value (r) of environmental concern indicates a weak relationship with purchase intention.

4.6 Regression Analysis

Two hypotheses were presented for this research. This calls for the use of regression with purchase intention as the dependent variables and psychographic variables (environmental concern and health consciousness) as the independent variable. The results of an examination of the R square and F value indicate that environmental concern and health consciousness contribute to the prediction of purchase intention on organic foods. Both independent variables together explain 23 per cent of the variance (R square) in purchase intention, which is significant as indicated by the F-value of 20.681. Thus, health consciousness ($\beta = 0.606$) and environmental concern ($\beta = 0.175$) contribute to the purchase intention.

CONCLUSION

Results indicated that health consciousness depict the strongest relationship with academician intention in buying organic food products as compared to environmental concern factors. It seems that perception towards organic food and believe that organic food is environmental friendly are not strong from each other. It can be argued that consumers who are increasingly concerned and realized the essentials of environmental issues does not show in their decision when they are considering making a purchase.

When consumers decided whether to buy organic food products or not, it clearly involved a complex set of factors that cannot easily be interpreted. In Malaysia, the organic food is considered at the introductory stage where not many people are aware about it. Knowledge on organic food, however, has not reached the satisfactory level in encouraging sustainable consumption with organic food. For instance, although consumers have the knowledge on factors that contribute to a sustainable environment, due to convenience and feeling of their current consumption pattern, it will not change their perception towards organic food products however well it is. Many studies indicated that the one major factor considered to be the barrier to organic food consumption is the price; however, there are other possible factors that influence organic food consumption among Malaysians. The limitation of this study is that the sample was restricted to a single geographic area in Northern Malaysia. Further, the numbers of respondents may not portray the population of academicians from Malaysia with regard to organic food consumption. Therefore, additional studies will be necessary to better discriminate between consumer groups to determine which segments of consumers are most appropriate to market and to promote organic food as a way of building sustainable consumption patterns.

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