PERSONAL DETERMINANTS AMONG ORGANIC FOOD PURCHASERS: A CASE STUDY IN MALAYSIA

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ABSTRACT

Organic food consumption has increased over the years and is considered to be healthier, better taste, protecting the environment and also provides better food safety as an optionto the consumers. Consumption awareness towards organic produce is believed to lead to higher purchasing behavior. However, to date, there is relatively weak empirical studies to validate the claim. This study aims to investigate the factors that influence organic food consumption among organic food purchasers in Malaysia. The study uses convenience sampling by collecting a sample of 306 respondents. Using SPSS, the results showed that health consciousness, taste and food safety affect the purchasing behavior of the organic food purchasers. Surprisingly, environmental concern and awareness were found to have no impact on organic food purchasing behavior. This study seeks to assist organic food marketer in the development of effective marketing strategies for further increase of organic food consumption.

Keywords: 1) Organic Food 2) Health Consciousness 3) Awareness 4) Food Safety 5) Taste 6) Purchasing Behavior 7) Environmental Concern

1. Introduction

Organic food is recognized as food that is not genetically modified and has known to be existing and accessible to consumers since 1940s. Organic food is produced without the use of artificial chemicals, hormones, antibiotics or genetically modified organisms. In other words, organic food is produced in a controlled process where pesticides usage is highly reduced (Paull, 2008). According to USDA regulations, "organic" label represents the food is produced using organic methods and utilizing only certain environmentally friendly agricultural practices.

In Malaysia, the development of organic food is considered as niche market likelihood for scaled down producers (Ahmad, 2001). Improvements in lifestyles and changes in consumption pattern of consumers' behavior have increased the demand for organic food. However, there is unstable supply from the growers even though organic consumers have significantly increased (Somasundra, 2016). Today, people are concerned of their well being, food taste, food safety and environment protection by becoming potential organic food consumers. Consumers' attitude has also changed their product preferences and purchasing behavior.

Although many studies on organic food have flourished in leading academic journals (Vukasovic, 2015; Zepeda, 2009) the primary focus for the earlier studies were generally in United States and the mainland of European. There are still limited studies on consumers' purchasing behavior towards organic food in Southeast Asia region such as Malaysia, Singapore, Thailand, Indonesia and Vietnam. These countries are found to have the most promising markets

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for organic food. Several studies found to be conducted in Malaysia were primarily focusing on the purchasing behavior of green foods (Shahnaei, 2012; Eze and Ndubisi, 2013; Teng, Rezai, Mohamed and Shamsudin, 2011), in practice, the consumption pattern of organic food is still less known to the farmers, organic industry players and organic consumers.

There may be contradictory results from past studies due to different perceptions of consumers towards organic food. Paul and Rana (2012) stated consumer preferences for organic food were significantly build upon health conscious effect and they are categorized as potential consumers of organic food. Coddington (1993) revealed that with the influences of environmental damage, some consumers have changed their perception to be more health conscious and emphasized on food safety. These two perceptions are shown as major attractions that will increase organic food consumption. Besides these factors, consumers also considered attributes such as unique taste, visual appeal and freshness of organic food. Lin, Payson and Wertz (1996) revealed that some consumers perceived appearance to have limited relevance and some consumers could not identify the variation of taste between organic food and conventional food (Jolly and Norris, 1991; Sparling, Wilken and McKenzie, 1992).

Thus, this study serves to identify the real motivation of consumers to purchase organic food and to determine the strongest predictor and the factors that influence the purchasing behavior of organic food due to the contradictory issues that have been acknowledged previously in organic food industry.

2. Literature Review

Purchasing Behavior

Purchasing behavior is differentiated from intention whereby those that they state they may have the intention to buy but may not end up actually buying it (Niessen & Hamm, 2008). Environmentally sustainable or "green" purchasing decisions focus on buying products which are environmentally friendlier and to reduce the harmfulness towards the environment (Moser, 2015). Vazifehdoust, Taleghani, Esmaeilpour, Nazari and Khadang (2013) states that green purchasing behavior is when one purchases products or services that minimizes on the environmental impacts over the life cycle of the product or service when manufacturing, transportation, usage and disposal is concern. They further argued that green purchasing involves the application of environmental criteria into the decision making process when selecting products or services. Danciu (2008) states that organic products meet the requirements to be considered green products. As such, there are essentially no difference between purchasing a green product or organic products.

Health Conscious

Health conscious is defined as "an individual's comprehensive mental orientation toward his or her health, being comprised of self health awareness, personal responsibility and health motivation, as opposed to being related to a specific issue (Hong, 2009). It assesses the readiness of an individual to undertake health actions (Becker et al, 1977). A health conscious individual is aware and concerned his or her wellness and is motivated to improve his or her health by engaging in healthy behavior (Newsome et al. 2005). Previous research has identified health conscious has been found to predict organic food purchase as organic food purchasers are aware that food intake affects their health and they are willing to switch foods to improve their health (Schifferstein & Oude Ophuis, 1998; Magnusson et al. 2003; Lockie et al. 2002). However, there is research done which takes a polar argument as in Tarkianen and Sundqvist (2005), in their

study noted that health conscious is the least important motive to purchase as the organic purchasers associate it with fewer health benefits.

Taste

Taste is known as tangible property of food that can be differentiated in terms on the product types (Becker, 2007). It is divided into four traditional basic tastes which are mainly sweet, sour, salty and bitter (Erickson, 2008). Consumers believed that organic food is tastier, intense, natural and higher quality compared to conventional food (Aertsens et al. 2009; Magkos et al.2006), and these attributes motivate them to purchase organic food to satisfy their needs (Becker, 2007). However, in Jolly and Norris (1991) studies on organic food reveals that consumers could not differentiate the taste between organic food and conventional food and it is rated "about the same" on flavor and nutritive value.

Environmental concern

Issues of environmental concern are gaining more and more space in business and academia (Junior, et.al, 2014). Environmental concern is an important variable that impacts the decision making of consumers (Jain &Kaur, 2004). Studies show that when consumers are highly concerned about the environment, they are more likely to evaluate the effects of their purchases on the environment (Follows and Jobber, 2000; Nath et al., 2013). The more environmental concerns one has, the more such concerns lead to an increase in environmentally friendly purchase behaviors (Kalafatis et al., 1999; Laroche et al., 2001; Manakotla and Jauhari, 2007). Kim and Choi (2005) claim that environmentally concerned consumers are more likely to buy green products than are those with less concern. Environmentally concerned consumers primarily want to satisfy their esteem needs through green consumption process or environment-friendly consumption (Kautish & Dash, 2017). However Tatic, et al. (2010), study indicated that significant positive correlation does not exist between the environmental concern and consumer's green purchasing behavior.

Food Safety

Food safety can be objectively defined as a concept mainly based on the assessment of the risk of consuming certain food products (Grunert, 2005). According to Henson and Traill (1993), food safety is the inverse of food risk and can be expressed as the probability of not suffering some hazard from consuming a specific food. Food is essential to life, hence food safety is a basic human right. Billons of people in the world are at risk of unsafe food (Fung, Wang & Menon, 2018). As food trade expands throughout the world, food safety has become a shared concern among both developed and developing countries (King, et al., 2017). A recent study in China by (Liu & Niyongira, 2017) on food safety incidents have pushed consumers to become more aware of food safety and to become more skeptical when buying food products. Moreover, it is necessary to increase consumers' food safety awareness towards food products in order to better protect public health from foodborne disease outbreaks.

Awareness

Awareness is defined as 'the ability to make better forced-choice decisions above chance level of performance" (Merikle, 1984, p.449). He further stresses that an individual has the capacity to distinguish among different possible stimulus state when required in forced-choice tasks. Briz and Ward (2009) argued that awareness is the first step in increasing demand for organic products but ones' awareness does not translate into final consumption. In their study, they did empirically found that having awareness is better than no awareness when trying to increase the consumption of organic products.

3. Research Methodology

We surveyed 320 respondents who patron to organic shops in central and southern region. Data for this empirical study were collected via self-administered questionnaires starting from 1 Mac 2017 to 31 Mac 2017. Three enumerators were hired to distribute the questionnaire to respondents in person when they passed by the organic shop. A total of 306 questionnaires were returned. There was no incomplete questionnaire, thus the final sample size remained 306 sets. The response rate was, therefore 100%. Questionnaire contained 19 items measuring personal determinants on purchasing behavior. Health consciousness was measured using six (6) items from Michaelidou and Hassan (2008). Three (3) items from Slamet et al. (2016) were used to measure better taste. Environmental concern was operationalized via four (4) items. Three (3) items were adapted from Steptoe et al. (1995) to measure food safety. We adopted four (4) items to measure awareness. The last part was designed to measure green purchasing behavior. A 5-items scale was used to measure this construct. Data were then keyed in to SPSS to run for the results.

Table 1: Demographic Analysis

	Frequency (N=306)	Percentage
Gender		
Male	69	22.5
Female	237	77.5
Age		
Under 20	32	10.5
20-30 years	50	16.3
31-40 years	63	20.6
41-50 years	68	22.2
Above 50 years	93	30.4
Marital Status		
Single	111	36.3
Married with children	168	54.9
Married without children	26	8.5
Others	1	.3
Monthly Household Income		
Below RM2000	108	35.3
RM2000 - RM4000	66	21.6
RM4001 - RM6000	48	15.7
RM6001 - RM8000	32	10.5
RM8001 - RM10,000	21	6.9
Above RM10,000	31	10.1

Table 2: Factor Analysis

Variable	Loadings	Eigenvalue	% Variance	Cronbach Alpha
Factor 1: Health Consciousness		7.137	28.546	0.947
HC4	.836			
HC5	.829			
HC3	.824			
HC2	.813			
HC6	.799			
HC1	.779			
Factor 2: Taste		1.433	5.733	0.869
T2	.909			
T3	.679			
T1	.548			
Factor3:Environmental Concern		2.301	9.206	0.894
EC3	.872			
EC2	.855			
EC4	.706			
EC1	.694			
Factor 4: Food Safety		1.846	7.835	0.934
FS3	.817			
FS2	.817			
FS1	.794			
Factor 5: Awareness		1.947	7.790	0.852
AWARE1	***.326***			
AWARE3	.915			
AWARE2	.765			
AWARE4	.743			
Factor 6: Purchasing Behavior		3.308	13.233	0.929
PB3	.843			
PB5	.841			
PB4	.835			
PB1	.788			
PB2	.710			

Bold denote item dropped from analysis

KMO Measure of Sampling Adequacy	.889
Approx. Chi-Square	6202.967
Bartlett's Test of Sphericitydf	300
Sig	0.000

Table 3: Model Summary for Multiple Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.552[a]	.304	.293	3.31675	.304	26.253	5	300	.000

a. **Predictors**: (**Constant**), **AWARE_total, FS_total, EC_total, HC_total, Taste_total**

Table 4: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1444.015	5	288.803	26.253	.000[b]
	Residual	3300.250	300	11.001		
	Total	4744.265	305			

Table 5: Coefficients for Multiple Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	4.159	1.414		2.941	.004		
Health Consciousness	.156	.054	.171	2.903	.004	.671	1.491
Taste	.501	.106	.286	4.725	.000	.634	1.576
Environmental Concern	.045	.073	.035	.620	.536	.746	1.341

4. Result

Using SPSS (Statistical Package for Social Sciences) through the usage of exploratory factor analysis, one of the items in Awareness was dropped due to low loading and cross-loading. The factor analysis table is presented in Table 2. Based on the factor analysis result, the minimum acceptable value for KMO is 0.50 with the Barlett's Test of Sphericity is significant. The eigenvalue should be greater than 1 with each of the factor loading having at least 0.50. The result indicates that collectively the factor explained a total combination of 71.892% of the variance. The KMO measure is 0.889 at the significant level of 0.000.

Based on Table 1, there are about 77.5% female and 22.5% male respondents that mainly above 50 years old (30.4%) with monthly household income earning less than RM2000 per month (35.3%). Most of them are married with children which consists of 54.9%.

From the multiple regression analysis, the predictors can explain 29.3% of the dependent variable (Table 3). The model is fit is used to explain the dependent variable based on the ANOVA result which is significant ($p<0.001$) as shown in Table 4. Based on Table 5, taste is the most influential in affecting the purchaser's purchasing behavior when buying organic products.

Hypotheses testing using SPSS multiple regression analysis yield results which found that the relationship between health consciousness (t-value=2.903, $p<0.05$), taste (t-value=4.725, p-value<0.001), and food safety (t-value=2.902, p-value<0.05) with purchasing behavior were

found to be significant and thus H1, H2 and H4 were supported. However, the relationship between environmental concern (t-value=0.62, p-value>0.05) and awareness (t-value=1.375, p-value>0.05) with purchasing behavior were found to be insignificant and thus both H3 and H5 were rejected.

5. Limitations and future research

The findings of this study need to be observed within the context of certain limitations, which could provide the base for further research on the issue. The present study examined the personal determinants among organic food purchasers using quantitative study only; thus, further research on qualitative study will shed light on the potential phenomena of interest among the variables. Moreover, in this study five constructs were tested to examine the personal determinants among organic food purchasers. Likewise, future research is needed to examine other constructs, such as price, attitude, and availability so that it can provide more detailed information about consumers purchasing behavior towards organic food respectively. Besides that, the survey questionnaire is written in English. This bring limitation to survey questionnaire because not all respondents may understand certain jargons used and they may be unable to provide proper answer to certain questions. Therefore by setting the questionnaire in bi-language version will allow them to answer and interpret the questions accurately.

6. Managerial Implications

Marketing practitioners of organic food industry is strongly advice to include the health-related benefits when they are promoting their products since ones' health is one of the most important decision-making factors. The packaging and other point of sales material (POSM) used in organic products must highlight the most critical value-added benefits in terms of nutritional values in diet when consuming these products so that consumer are conscious of its benefit towards human well-being. Besides, when designing advertising and packaging of organic food, words such as 'safe', 'healthy', 'better taste' and 'environmentally friendly' able to show a consistent image and better impression for organic food. This may also have implications for advertisers of organic food since organic consumption is shown to be equally dependant on ethical values and food safety. These perceived benefits should be highlighted when marketing organic food products to consumers.

7. Discussion and Conclusion

The study finds that when a purchaser buys organic products, the person looks for the health-related benefits attached to the organic products. This result is consistent with the studies of Rana and Paul (2017) and Asif et al. (2018) where health consciousness is considered to be the best predictor for consumer when purchasing organic food. They argued that health factor is important when relating to organic food consumption due to its direct relationship with disease prevention. Food safety was found to be significant in another study and this result concurs with the previous study by Chiew, Ismail and Ishak (2014). Taste is another significant variable that affects consumer purchase decision when coming to purchasing organic food products which was also supported by Krystallis, Fotopoulos and Zotos's (2006) study. Consumers are generally buying organic food products because it is perceive to be healthier and safe besides that the taste is perceived to be better too (Lee & Yun, 2015; Xie et al., 2015).

Environmental concern was found to be insignificant in affecting purchasing behavior and this is consistent with the study conducted by Asif et al. (2018) which they claimed that when health is of concern it is the egoistic motive that supersede altruistic motive which is concern towards the environment. Thus, environmental protection is no longer a significant concern to those purchasers. As for the awareness of the organic product, the current study concurs with the result by Suki (2013) where awareness does not affect the direct purchasing behavior by consumer. Briz and Ward (2009) in their study put forth that awareness is the first step in increasing demand for organic products but ones' awareness does not necessary translate into final consumption.

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