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## Organic Food Consumption among Generation Y in Malaysia: A Conceptual Framework

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### ABSTRACT

Awareness of organic food consumption and green environment sustainability toward a healthy living has become a crucial area of study in recent years. Despite a large number of empirical literatures explaining the multi-cultural food consumption behavior among different ethnic groups in Malaysia, the puzzling reality remains that knowledge on Malaysian Generation 'Y' customers' attitude and buying behavior towards organic food is not well addressed. Therefore, this study aims to fill the research gap by investigating the organic food consumption intention of Generation 'Y' customer segment in Malaysian context. The Theory of Planned Behavior underpins the conceptual framework and hypotheses developed for this study. A total of 400 personally administered questionnaires will be distributed to young adults, aged from 20-25 years old, based in Selangor, Kuala Lumpur and Malacca via convenience sampling technique.

Key words: Green buyer behavior, organic food, Generation Y, Malaysia

### INTRODUCTION

The rising concern over sustaining green environment and living a healthy lifestyle have been the main focus of consumers in recent years. Numerous studies have found that consumers' food consumption patterns are changing and the current consumers have become very distressed about the type of food that they consume daily (Zepeda et al., 2006; Teng et al., 2011; Eze and Ndubisi, 2013). Currently, more than 120 countries are found growing organic crops and in Europe the growth of organic sales have accelerated up to £1.79 billion in 2013. In United States the sales of organic food increased to US \$ 81.3 billion in 2012. Besides, it was reported that 81% of American families purchase organic food at least sometimes and domestic organic food production in United States has increased to 240% between 2002-2011. It is obvious therefore, that a significant portion of consumers in the Western hemisphere are now shifting toward organic food consumption.

Similarly, the Malaysian government and the people are also deeply concern about food safety and "adapting a green

culture" which will cultivate a sustainable environment and healthy living, life style for the current and future generations to come. In-line with this, several studies were conducted in Malaysia, concerning organic food consumption and green buying behavior (Lee, 2008; Shahnaei, 2012; Ahmad and Juhdi, 2010; Eze and Ndubisi, 2013). However, very limited studies actually investigated organic food consumption patterns among the Generation 'Y' in Malaysia. These pool of customers are identified as an important consumer market segment as they represent nearly 35% of the Malaysian population. Generation 'Y' is defined as the population who were born between the year 1980 and 1994 (Lea and Worsley, 2005; Kumar and Lim, 2008). These consumers are considered to be, an age group with high disposable income. In fact, Zepeda et al. (2006) and Lea and Worsley (2005) in their study asserted that Generation 'Y' customers are even willing to pay a premium amount for the green products and services that they purchase. Despite a large number of empirical literatures explaining the multi-cultural food consumption behaviors' among different ethnic groups in Malaysia the puzzling reality remains that knowledge on Generation 'Y'

Malaysian consumer attitude and behaviors' towards eco-friendly organic food is not well understood. Therefore, this study aims to fill the research gap by investigating the consumption behavior of organic food by Generation 'Y' in Malaysian perspective.

### RESEARCH QUESTIONS

However, most of these researches paid much attention to the demographic characteristics of organic food purchasers (Hughner *et al.*, 2007; Ottman, 2007). The focus on factors such as organic knowledge, attitudes, environmental concern, subjective norms, price consciousness and customer familiarity in buying organic food in Malaysia, specifically among the Generation 'Y' has been neglected. With these in mine and coupled with the fact that ability to attract a new customer base requires, a true understanding of their needs and wants (Kolter and Amstrong, 2001), necessitates the following research questions:

- To evaluate Generation Y's knowledge on organic food
- To examine the relationship between organic knowledge, environmental concern, price consciousness, quality, familiarity and organic food purchasing behavior among Generation Y in Malaysia
- To determine the factors which influence the intention to consume organic food among Generation Y in Malaysia

### THEORY BUILDING

The Theory of Planned Behavior (Ajzen, 2002) underpins the research framework of this study. Theory of Planned Behavior (TPB) postulates, individual's purchase intentions are guided by three conceptually independent determinants of intention. The first is the attitude toward the behavior and refers to the degree to which a person has a favorable or unfavorable evaluation of the behavior in question. The second determinant is a social factor, termed as subjective norm (normative beliefs) which states the perceived social pressure to perform or not to perform the behavior. The third predictor of intention is the degree of perceived behavioral control that refers to people's perception of ease or difficulty of performing the behavior. It is actually the beliefs about the presence of factors that may facilitate or impede performance of the behavior (control beliefs). Each of these behaviors can cause a reaction. A well-intentioned or unfavorable attitude toward the behavior is gained by behavioral beliefs, perceived social pressure or subjective norm and behavioral control is peaked by control beliefs. TPB (Ajzen, 1991) asserts, as a result of combining all these behavioral factors, a behavioral intention is formed. It states that an increase to any of the above mentioned behavioral factor will cause an increase in a person's intention to come about with certain behavior. When enough power of control over a certain behavior exists, it is expected that people performs their intention in a response to

arisen opportunity. However, considering perceived behavioral control besides intention is important due to the fact that many behaviors pose difficulties of execution that may limit volitional control. Considering that perceived behavioral control is accepted as a genuine behavior which can be used as a filter for actual control. Therefore, contributes to the prediction of the behavior in question.

### CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

Hence, based on the TPB theory discussed above and relevant literature, a research framework was developed as shown in Fig. 1. The framework indicates that there are five independent variables (namely; organic knowledge, environmental concern, price consciousness, quality and familiarity) that probably influence the dependent variable: Intention to consume organic food.

Organic knowledge: The information stored in a person's memory which influences the way that the customer understand and evaluate the possible choices (Bakewell and Mitchell, 2003; Ahmad and Juhdi, 2010). Eze and Ndubisi (2013), described organic knowledge as eco-literacy in their green buyer behavior study and ecological literacy is defined as 'the capacity to perceive and interpret the relative health of environmental systems and to take appropriate action to maintain, restore, or improve the health of those systems' (Disinger and Roth, 1992). Generally, the behavioral literature reports a positive relationship between knowledge and behavior

**H1:** There is a positive relationship between organic knowledge and intention to consume organic food

**Environmental concern:** The concern for the environment is seen as emotional characteristics that indicate the person's concern, thoughtfulness, desires and aversions regarding the

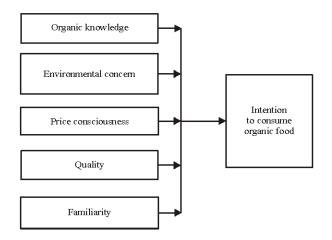


Fig. 1: Research framework

environment (Yeung, 2004; Ahmad and Juhdi, 2010). Lee (2008), defined environment concern as an individual's value judgment of environmental protection. Hence, the following hypotheses are proposed:

**H2:** There is a positive relationship between environmental concern and intention to consume organic food

**Price consciousness:** Consumers see organic foods as costly compared to normal foods (Radman, 2005; Lea and Worsley, 2005; Ahmad and Juhdi, 2010). Numerous consumers view price as the major factor in their purchasing decisions. They deem that the price of organic food products must not be more expensive than the normal alternatives (Magnusson *et al.*, 2001). This shows that customers seek more value for the higher price that they are paying (Padel and Foster, 2005; Lee, 2009).

**H3:** There is a positive relationship between price consciousness and intention to purchase organic food

**Quality:** The idea of food quality can be summarized as the following: Sensory attributes, chemical ingredients, physical properties, microbiological and toxic contaminants, packaging, shelf-life and labeling are the elements that traditionally and based on customer acceptance, determine the food product's quality (Achilleas and Anastasios, 2008; Ottman, 2007; Ndubisi, 2008; Lee, 2009).

**H4:** There is a positive relationship between quality and intention to purchase organic food

**Familiarity:** Familiarity is described as "the number of experiences related to the product the customer has had before" (Alba and Hutchinson, 1987). According to Soderlund (2002), high level familiarity provides a customer with a different frame of reference for evaluations compared to a low level of familiarity. An increasing liking for the familiar may reduce risk-taking behavior.

**H5:** There is a positive relationship between familiarity and intention to purchase organic food

### MATERIALS AND METHODS

This study is quantitative in nature. Therefore, a survey questionnaire deemed appropriate to collect the primary data. Survey method will be used, as it is appropriate in covering a wider range of respondents (Sekaran, 2006; Ottman, 2007; Eze and Ndubisi, 2013). For the purpose of this study personally administered questionnaires were distributed to 400 respondents and 380 usable respondents were obtained. The target population of this study is young adults, whose age ranges from 20-25 years old. Data was collected from students of Multimedia University (MMU) based in Selangor and Malacca campus, University Putra Malaysia (UPM) and University of Nottingham (Malaysia campus) located in

Selangor, using convenience sampling technique. Even though, the findings of non-probability sampling technique may not be generalizable, numerous scholars (Sekaran and Bougie, 2010; Malhotra, 2010) have remarked that convenience sampling is an appropriate sampling method, when the sampling frame could not be obtained. Besides, a number of previous studies in the same domain had also employed convenience sampling method (Ottman, 2007; Do Paco and Raposo, 2009; Eze and Ndubisi, 2013).

The questionnaire for this study is developed based on the theoretical model shown in Fig. 1. Nevertheless, several items were adapted from prior studies on theory of planed behavior (Fishbein and Ajzen, 1975). The questionnaire has two sections. Section A will focus on the demographic profiles of the participants that seek information regarding the participants' gender, age, race and religion. Whereas, Section B comprises of eight subsections which measures the respective variables. The items in the Section B will be measured on a five-point Likert-scale; 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree or Disagree, 4 = Agree and 5 = Strongly Agree. The questionnaire will be pretested as to improve its quality.

The data returned from the field will be screened and evaluated to avoid any inconsistencies and incompleteness. Subsequently, the data will be analysed using SPSS (Statistical Package for Social Sciences-Version 17) and statistical techniques such as; descriptive analysis, normality tests, reliability tests, factor analysis, correlation analysis and multiple regression analysis will be employed to derive with the findings.

### RESULTS

Evaluation of Generation Y's knowledge on organic food: A descriptive analysis was conducted to address the above objective and the findings revealed that out of 380 total respondents, nearly 75.8% have some knowledge on organic food and 24.2% are still do not have any knowledge on organic food as following aware as shown in Table 1.

Further cross tabulation analysis between gender and organic food knowledge, indicates 48% of the male Generation Y respondents and 36% of female Generation Y respondents have some knowledge about organic food as shown in Table 2. While, almost 10% of male respondents and 6.1% of female respondents do not possess any knowledge.

However, the Chi-Square statistics denoted that there is no association between gender and knowledge on organic food, with a Pearson  $\chi^2$  value of (5,537) = 0.735; p = 0.391 (<0.05 significance level). Analysis of Cramer's V-value 0.037 (p = 0.391), further confirmed that there seems to be no statistical difference between male and female Generation Y customers concerning their knowledge about organic food.

Table 1: Generation Y's knowledge on organic food

Frequency	Percentage
276	75.8
104	24.2
380	100.0
	276 104

Examination of the relationship between environmental concern, price consciousness, organic knowledge, quality, familiarity and attitude towards intention to consume organic food: Pearson's correlation analysis was conducted to examine the association of the dependent and independent variables of this study and the correlation matrices are presented in Table 3. Correlation coefficient is a measure of the strength of association or relationship between metric variables. The dependent variable, intention to consume organic food and the independent variables; environmental concern, price consciousness, knowledge, quality and familiarity were analyzed. The correlation values showed a positive result for all the variables. Hence, ranging from small to moderate values, 0.281-0.690.

### Determination of the factors which, influence the intention to consume organic food among Generation Y in Malaysia:

This section presents the analysis of the factors that influence the intention to consume organic food. A Multiple Linear Regression (MLR) was conducted to infer the significant

Table 2: Cross tabulation between gender and knowledge on organic food

	Knowledge on organic food			
Gender	Yes	No		
Male	47.9	10.1		
Female	35.9	6.1		
Chi-Square test	Value	Asymp. Sig.		
Phi	0.037	0.391		
Cramer's V	0.037	0.391		
Pearson χ <sup>2</sup>	0.735	0.391		

predictors. Intention to consume organic food being the dependent variable; environmental concern, price consciousness, organic knowledge, quality and familiarity serves as the independent variables of this study. Table 4 and 5 depict the results of regression between intention to consume organic food and the six independent variables.

The regression analysis revealed an R of 0.355,  $R^2$  of 0.126 and an adjusted  $R^2$  of 0.104 (F (8,370) = 5.641, p = 0.000), with three statistically significant predictors: knowledge, familiarity and price consciousness.

Therefore, the three independent variables stated above collectively account for approximately 12.6% of the variance concerning the intention to consume organic food, relatively significant, as indicated by the F-value of 5.641, as depicted in Table 4. An examination of the t-value indicates that all the three variables: Organic knowledge, familiarity and price consciousness seem to significantly influence the intention to consume organic food among the Generation Y, at p = 0.000 (less than 0.05 significant level).

Thus, based on the above findings the following regression equation was derived:

Y = 2.540 + 0.107X1 + 0.086X2 + 0.064X3 + 0.277

### Where:

Y = Intention to use IRB (The dependent variable)

X1 = Organic knowledge

X2 = Familiarity

X3 = Price consciousness

Table 3: Correlations metrics of the dependent and independent variables

•	Organic	Environmental	Price			Intention to consume
Variables	knowledge	concern	consciousness	Quality	Familiarity	organic knowledge
Organic food						
Pearson correlation	1					
Sig. (2-tailed)						
N	380					
Environmental concern						
Pearson correlation	0.345***	1				
Sig. (2-tailed)	0.000					
N	380	380				
Price consciousness						
Pearson correlation	0.387***	0.250**	1			
Sig. (2-tailed)	0.000	0.000				
N	380	380	380			
Quality						
Pearson correlation	0.582***	0.488***	0.367***	1		
Sig. (2-tailed)	0.000	0.000	0.000			
N	380	380	380	380		
Sig. (2-tailed)	0.000	0.000	0.000	0.000		
N	380	380	380	380	380	
Familiarity						
Pearson correlation	0.377***	0.507**	0.446**	0.443**	0.661**	
Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	
N	380	380	380	380	380	
Intention to consume organic food						
Pearson correlation	0.281***	0.315***	0.350***	0.392**	0.407**	1
Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	
N	380	380	380	380	380	380

<sup>\*\*\*</sup>Correlation is significant at the 0.01 level (2-tailed)

Table 4: Model summary of the factors that influence the intention to consume organic food

R	$R^2$	Adjusted R <sup>2</sup>	Std. error of the estimate	F	Sig. (p-value)
0.355	0.126	0.104	0.17479	5.641	0.000

Predictors: (Constant), LnOrgknw, LnOrgCon, LnPrice, LnKnow, LnQuality, LnFamiliar

Table 5: Coefficient results of the influence of independent variables on intention to consume organic food

	Unstandardized coefficients		Standardized			Collinearity statistics	
			coefficients				
Variables	В	Std. error	Beta	t	Sig.	Tolerance	VIF
Constant	2.540	0.277		9.160	0.000		
Organic knowledge	0.107	0.044	0.133	2.438	0.015	0.940	1.064
Environmental concern	-0.027	0.040	0.039	-0.646	0.519	0.788	1.286
Price consciousness	0.064	0.032	0.124	1.865	0.043	0.658	1.520
Organic knowledge	0.107	0.044	0.133	2.438	0.015	0.940	1.064
Quality	0.073	0.047	0.098	1.560	0.120	0.738	1.356
Familiarity	0.086	0.042	0.127	2.071	0.039	0.761	1.314

Dependent variable: LnINTcons, Predictors: (Constant), LnOrgknw, LnOrgCon, LnPrice, LnKnow, LnQuality, LnFamiliar

The regression equation denotes that, an increase in organic knowledge by 1-unit will increase the intention to consume organic food consumption by 0.107 units, provided other variables remain unchanged. Likewise, for a 1-unit increase in familiarity, the intention to consume organic food will also increase by 0.086 units, given that, other predictors remain constant. Subsequently, a 1-unit increase in price consciousness will cause an increase in the intention to consume organic food by 0.064 units. Interestingly, the standardized coefficient result also reveals, the strongest predictor among all the constructs is the knowledge on organic food (Beta = 0.133), followed by familiarity (Beta = 0.124) as illustrated in Table 5.

### DISCUSSION

The foregoing findings revealed, majority of the Generation Y consumers have some knowledge of organic food and very small percentage seemed do not possess any organic knowledge. This can be inferred as the awareness and knowledge on organic food, among the Generation Y in Malaysia is gradually increasing. However, more informational promotions are vital to instill knowledge about the benefits of consuming organic food among the Generation Y.

The Pearson's correlations also reveal the cutoff level of 0.70, for both dependent and independent variables and hence, seemed to be significantly correlated. This indicates that multicollinearity is unlikely to be a problem in this study and therefore, the data is correlated with the dependent variable for examination through multiple linear regressions to be reliably undertaken. Therefore, it is inferred, all the hypotheses tested in the study are supported accordingly.

Conversely, the result of multiple regression analysis revealed, only organic knowledge, familiarity and price consciousness significantly influence the intention to consume organic food among the Generation Y in Malaysia. The rest of the variables are seemed to be not statistically significant. This indicates, for the Generation Y in Malaysia, knowledge and information acquired about organic food is the

main determinant of their intention to consume organic food. Again, this calls for more informational promotional campaigns.

Familiarity emerged as the second most significant determinant of intention to consume organic food. This denotes, the experience or involvement of Generation Y with organic food also an important factor of their intended consumption. Soderlund (2002), asserts the higher the degree of familiarity a customer has over a product, an increasing liking will result and that may reduce a risk-taking behavior.

Subsequently, price consciousness were also identified as the third most significant factor which, influences the Generation Y's organic food consumption intention. Naturally, price is a concern for them because, organic food is generally more expensive than non-organic food, even though Generation Y consumers, whom fall between the age of 20-35 years old, are considered to be an age group with high disposable income (Lea and Worsley, 2005; Kumar and Lim, 2008).

#### CONCLUSION

This study discusses about organic food consumption among Generation Y in Malaysia. Hence, the study proposes a conceptual framework based on Theory of Planned Behavior (Ajzen, 2002) as well as the findings of the study. The major contribution of this research is the investigations of factors that influence organic food consumption intention, specifically among Generation Y customers in Malaysia. It was found three factors; organic knowledge, familiarity and price consciousness, significantly affect the intention to consume organic food among the Generation Y in Malaysia. Hence, the findings of this study would provide compelling insights about Malaysian Generation Y's attitude and consumption behavior toward organic food which will be very useful to the scholars in green buying discipline and marketers of organic food industries. By understanding the reasons behind consumer organic food consumption behavior, constructive strategies can be established by marketers and policymakers to, respectively increase patronage toward organic food and as well as environmental and societal wellbeing.

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