

# Consumers' Knowledge, Perceived Quality, Trust of the myOrganic Logo, and Purchase Behaviour towards Organic Food in Malaysia

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## Abstract

This study investigates the consumers' knowledge, perceived quality, and trust of the Malaysian Organic (*myOrganic*) certification logo and its influence on purchase intentions and actual purchase of organic food in Malaysia. Data from 390 organic food consumers were obtained through a survey conducted in Kuala Lumpur and Petaling Jaya, Malaysia. Structural Equation Modeling (SEM) was used to analyse the data and four hypotheses were tested. The results show that consumers' knowledge, perceived quality, and trust of the myOrganic logo significantly influenced their purchase intentions of organic food. Subsequently, consumers' purchase intentions are positively correlated to actual purchase of organic food. The contribution of this study is twofold. The findings of this study provide theoretical insights through development of the Hierarchy of Effect model. From the managerial perspective, more effective information campaigns and marketing strategies on myOrganic certification logo should be undertaken such as more diverse online communication channels, extensive display of the logo on organic food packages, and communicate organic food certification mechanism to the consumers to build a greater consumer trust on the product and logo.

**Keywords:** Organic Food, Perceived Quality, Purchase Intentions, Trust

## 1.0 Introduction

The organic food industry is the fastest growing food industry in most developed and developing countries. The global sales for organic food have reached US\$100 billion in 2018 which reflects a 6% increase from 2017 (Ecovia Intelligence, 2019). The global organic food market is projected to grow at a compound annual growth rate (CAGR) of 14.75% between 2019 and 2026 (Data Bridge Market Research, 2020). The major drivers of increasing organic food consumption are

rising consumer awareness on the health benefits of organic food and the widening availability organic food products.

The organic food industry in Malaysia has transformed from a niche industry to an industry with potential growth. The organic food industry in Malaysia is worth RM20 million annually with demands expected to rise by 12.4% a year (Suhaimi et al., 2016). Organic food consumption in Malaysia is growing rapidly with more preference placed on organic vegetables, poultry, and meat products (Lian and Yoong, 2019). In the aspect of frequency of organic food purchase by consumers, a survey reported that approximately 38.52% of the respondents in Malaysia stated that they buy organic food sometimes, and approximately 30.9% regularly buy organic food products (Hirschmann, 2019). However, the locally produced organic food products are insufficient to meet the increasing consumers' demand in Malaysia (Mohamed Harris et al., 2018). The supply shortage is covered by imported organic food. Approximately 60% of organic food products sold in Malaysia are imported from the United States (U.S), European Union (E.U), Australia, New Zealand, Japan, China, and other countries (Somasundram et al., 2016). High dependence on food imports will have implications on the country facing supply problems in the future. Hence, these trends suggest that local production of organic food in Malaysia is very important.

The organic food certification logo played an important role in differentiating organic and non-organic food in the market. The main purpose of organic food certification is to assure quality and promote commerce of safe product in the market. The organic food is produced via methods that comply with the standards of organic farming system. The organic food certification process, standard, and control vary across organisations both certified and non-certified by the government. In Malaysia, the Department of Agriculture (DoA), under the Ministry of Agriculture, has outlined national standards. The government certification program for organic food is known as Malaysia Organic Scheme or "*Skim Organik Malaysia*" (SOM). This scheme was launched in 2002 with the introduction of "Organic Malaysia" logo. Subsequently, the government has changed the "Organic Malaysia" logo to "SOM" logo in 2013. In March 2015, the "SOM" logo was replaced by the new myOrganic logo, and it is now the sole national organic food logo. The transition of organic certification logos in Malaysia is illustrated in Figure 1.



Figure 1: Transition of the Organic Certification Logos in Malaysia

As of 31st December 2019, the DoA reported that a total of 63 active farmers have obtained the myOrganic certification with a total of 259.0051 hectares of land (DoA, 2020). The registered operators of certified organic products use the organic certification logo that complies with the Malaysian Standard MS1529. Under the SOM, the Malaysian government has to ensure that the production, preparation, storage, transportation, and labelling activities undertaken by the organic food producers are compliant with the standard, as well as provide training, support, and onsite audits on participating operators. The Malaysian government however does not make the use of the myOrganic logo compulsory for the local organic food producers or retailers. Despite the Malaysian government initiatives to grow the local organic food industry, the adoption rates by the conventional farmers are still low (Tiraieyari et al., 2014). In addition, the Malaysian government is facing challenges in promoting the awareness and credibility of the myOrganic logo particularly to a higher standard similar to the USDA organic and Euro-leaf logos. The certification logo is among the most important attributes of organic food products and is an influential factor on consumers' purchase decision as it conveys the quality and credibility of the products (Anastasiou et al., 2017). Consumers' attitude towards the purchase organic food is strongly influenced by the credibility of the organic food certification logo (Janssen and Hamm, 2011). Credibility is perceived as the source of trust (Rittenhofer and Povlsen, 2015) and quality (Han, 2018).

Consumers' knowledge on organic food certification logos were low (Zander et al., 2015; Botonaki et al., 2006). Dardak et al. (2009) reported that the level of awareness and knowledge of the Malaysian consumers were low on the previous “Organic Malaysia” logo. Malaysian consumers' knowledge on organic food certification logo is

important for them to differentiate between organic and non-organic products that will affect their purchasing decisions (Phuah et al., 2012). Dardak et al. (2009) highlighted that Malaysian consumers were unwilling to purchase organic food without proper certification logo and labelling. Hence, this implies that organic food certification logo is crucial for consumers' purchase decisions of organic food. Gerrard et al. (2013) stressed that there is a need to conduct research on the new organic food certification logo to identify whether consumers' knowledge and trust of the new logo is strong compared to the previous logo. As suggested by other scholars (Curvelo et al., 2019; Gerrard et al., 2013) it is important for future research to investigate the relationship between consumers' knowledge, perceptions, and purchasing decisions related to organic food certification logo.

This study aims to develop an understanding of the Malaysian consumers' purchase behaviour towards organic food by examining the antecedent factors of consumers' knowledge, perceived quality, and trust on the present myOrganic logo. The consumer purchase behavioural process investigated in this study comprises of purchase intentions and actual purchase of organic food. Academic literature on organic food certification logo, particularly on consumers' knowledge, perceived quality, and trust, and its relation to consumers' purchase behaviour in the Malaysian context is somehow limited. Dardak et al. (2009) have investigated the old "Organic Malaysia" logo in relation to consumers' awareness and knowledge level. Song (2017) has provided insights on labelling and communications perspective of several organic certification logos available in Malaysia. Furthermore, there is a paucity of study focusing on the present myOrganic logo, and its influence on consumers' purchase behaviour in Malaysia.

In the context of other countries, there are extensive studies that have examined the relationship between organic food certification logos from other countries (i.e., USDA organic and Euro-leaf) and consumers' purchase behaviour, such as those carried out in Italy (Liberatore et al., 2018), United Kingdom (UK) (Gerrard et al., 2013), EU (Anastasiou, et al., 2017; Zander, et al., 2015), and China (Grunert et al., 2015). Hence, this justify the need to conduct this study to address the literature gap and provide in-depth understanding on the consumers' knowledge, perceived quality, and trust on the present myOrganic logo, and their purchase behaviour for organic food in Malaysia.

The primary objectives of this exploratory study are: 1) to investigate the consumers' knowledge, perceived quality, and trust on the myOrganic logo and its effect on purchase intentions of organic food and 2) to analyse the influence of consumers' purchase intentions on actual purchase of organic food. The findings may provide insight for the government or related agencies to develop more effective strategies to promote the credibility of the myOrganic logo in Malaysia. In the aspect of managerial implications, this study may also assist the organic food producers and retailers to better understand the consumers' purchase behaviour of organic food. The findings may contribute to more effective marketing strategies by the organic food producers and retailers to adopt the myOrganic logo on their organic produce and increase their targeted consumers' knowledge, perceived quality, and trust of the myOrganic logo. In the theoretical perspective, the Hierarchy of Effects Model (HEM) is used to explain consumers' purchase behavioural process. The application and investigation of consumers' knowledge, perceived quality, and trust as cognitive dimension which influence purchase intentions as affective, and actual purchase as conative, will contribute to the development and validation of the HEM. In view of the limitations of past literature on Malaysian organic food certification logo and its relation to consumers' purchase behaviour, the review of literature in this study will include findings on organic food certification logos from different countries to outline the relationship between consumers' knowledge, perceived quality, and trust of organic food certification logo and its influence on consumers' purchase behavioural process. The coverage of relevant literature is important to form the hypotheses in this study.

## **2.0 Literature Review and Hypotheses Development**

### **2.1 Hierarchy of Effects Model (HEM)**

The HEM was proposed by Lavidge and Steiner (1961), and adapted by Barry and Howard (1990). The HEM has been widely used to understand consumer attitude and behaviour (Dubé et al., 2003). This model describes that consumers will go through different mental stages when making purchasing decisions and reaction to messages on a sequential basis. The components of HEM are cognitive (awareness, learning, knowing), affective (thinking, feeling), and conative (doing). According to this model, consumers will first attain awareness and knowledge about a product. Subsequently, they then

develop positive or negative feelings or attitudes towards the product before finally act by buying or rejecting the product (Kotler and Bliemel, 2001). Adopting the HEM model, this study investigates the influence of consumers' knowledge, perceived quality, and trust of the myOrganic logo on purchase intentions and actual purchase in each of the three mental stages: the cognitive, the affective, and the conative stage respectively.

The cognitive component as the first component in HEM refers to the knowledge and belief held by individual, and/or individual beliefs about specific characteristics of the product (Fill, 2013). In the cognitive stage, consumers become aware and obtain knowledge of the product or brand (Han and Choi, 2019). Beliefs can be formed by an individual's life experience, the outcome from direct observation, and established by obtaining information or from inference (Ajzen and Fishbein, 1980). Trust represents a cognitive process (Miller and Rempel, 2004). A few studies (Jung and Seock, 2016; Alexandris and Tsiotsou, 2012) have tested perceived quality as a construct of cognitive in HEM. The affective dimension as the second component focuses on the feeling towards and evaluation of the product (Chitty et al., 2011). Lian and Yoong (2019) have studied purchase intentions as dimensions for affective. The third component of HEM is conative, which relates to the behavioural action (Agapito and Mendes, 2013). Acevedo (2018) and Dierks (2017) asserted that actual purchase is the behavioural outcome representing the conative component.

Previous studies (i.e., Lee and Goudeau, 2014; Park and Yoo, 2018; Mokhtar, 2016) have applied and/or tested HEM in their conceptual framework by using different constructs. In the investigation of consumer purchasing behaviour of organic food, Lee and Goudeau (2014) concluded that beliefs and utilitarian attitudes are conceptualised as cognition, hedonic attitudes as affect, and attitudinal loyalty and behavioural loyalty as behaviour or conative. In the context of mass customised products study, Park and Yoo (2018) have examined that consumers' perceived benefits (cognitive) influence loyalty intentions (conation) via emotional product attachment and attitude (affect). Basaran (2016) stressed that different constructs should be used to test the three components which are cognitive, affective, and conative. Specifically, this study will analyse the consumers' knowledge, perceived quality, and trust as cognitive dimension which influence purchase intentions as affective, and actual

purchase as conative. Therefore, the HEM underpins the conceptual framework of this study.

## 2.2 Consumers' Knowledge

Zander et al. (2015) described that it is important for consumers to have knowledge of organic logo and its meaning as it will determine consumers' purchase decisions of organic food. The more information available in the market, the higher the consumers' knowledge of organic food will be thus resulting in more positive consumers' attitudes towards organic food (Magistris and Gracia, 2008). Logos are important sources in communicating the message behind organic food such as the health benefits, quality, and taste (Schuldt and Hannahan, 2013). Insufficient knowledge on the certification standards can lead the consumer to perceive that there is no difference between a certified and a non-certified product (Janssen and Hamm, 2012).

Dardak et al. (2009) found that the level of awareness and knowledge of the Malaysian consumers were low on the "Organic Malaysia" logo as the majority (40%) of the respondents did not recognise the old logo. However, the majority (90%) of their respondents were aware of the meaning of organic food and this motivated them to purchase and consume organic food. In a study conducted in Europe, Zander et al. (2015) reported that the consumers' knowledge of the mandatory EU organic logo is still low despite the high dispersion of the logo in EU countries. Song (2017) found that low consumer's knowledge on certification logos have negatively affected their purchase intentions. As a result, the following hypothesis is developed:

H1: Consumers' knowledge on myOrganic logo has a positive influence on the purchase intentions of organic food.

## 2.3 Perceived Quality

Perceived quality is defined as the consumer's judgment about the superiority or excellence of a product (Zeithaml, 1988, p. 4). Organic certification has become an important means for organic food producers or retailers to prove the quality standard of the products to consumers (Janssen and Hamm, 2012). Consumers perceive the quality of organic food based on organic certification logo in addition to the taste and other characteristics of the products (Loebnitz and

Aschemann-Witzel, 2016; Midmore et al., 2005). Certification logo is seen as a benchmark of quality for products thus positively affecting consumer purchasing behaviour in Malaysia (Hassan and Hamdan, 2013). For example, the consumers perceived the USDA organic logo to be of higher quality compared to other generic organic logos in U.S and this positively influenced consumer purchasing behaviour (Van Loo et al., 2011).

Japanese consumers perceived the Japanese Agricultural Standards (JAS) organic certification logo to be of a higher quality assurance than other organic logos (Kim et al., 2008). The Japanese Ministry of Agriculture (MAFF) has strict standards in the organic JAS guidelines which involve production, processing, labelling, and marketing of organically produced food in Japan. The labelling of such products is mandatory. The USDA's National Organic Program (NOP) is equivalent to the JAS and the MAFF Organic Program (OTA, 2018). In a study conducted in China, Wang et al. (2020) found a direct effect of perceived quality of food certification on purchase intention. Wang et al. (2020) further asserted that food certification serves as an important source of information to consumers on the commodity's quality. Similarly, Wu and Jiang (2013) have also found positive relationship between perceived quality of certification logo and consumer purchase intentions. Therefore, the following hypothesis will be examined:

H2: The perceived quality of myOrganic logo has a positive influence on the purchase intentions of organic food.

## 2.4 Trust

Consumer trust refers to whether a consumer believes that organic certification logo can meet corresponding organic standards. Trust is an important factor that influence consumers' purchase intentions of food (Curvelo et al., 2019). Zanolli and Naspetti (2015) have shown that trust in organic logo influenced consumers' motivation to purchase organic food. Somasundram et al. (2016) claimed that the Malaysian consumers still mistrust organic food despite certification efforts undertaken by the government. Past literature has found that there is positive correlation between trust of organic logo and purchase intentions. Karahan Uysal et al. (2012) empirically found that Turkish consumers have greater trust in the foreign organic certification logos.



Turkish consumers have higher purchase intentions for the ECOCERT logo originated from France compared to local organic logo. Consumers are willing to pay higher prices for organic food with certification logos that they trust (Janssen and Hamm, 2012; Smith and Paladino, 2010). Consumers' trust in the certification logos are related to the certification system and the standards' compliance with their expectations and preferences (Janssen and Hamm, 2012).

In UK, Gerrard et al. (2013) reported that consumers trusted the Soil Association and OF&G logos, and they are willing to pay a premium for products labelled with these logos. However, they concluded that generally the UK consumers are lacking in knowledge on the standards and inspection processes that lie behind the organic certification logos. Consumers' perceived stricter control of organic certification schemes will associate with greater trust on the organic logo (Janssen and Hamm, 2011). Consumer attitudes, for example perception or confidence towards the organic food certifying bodies is important in determining the level of trust in the organic food logo. Thus, the following hypothesis has been formulated:

H3: Trust on myOrganic logo has a positive influence on the purchase intentions of organic food.

## 2.5 Purchase Intentions

Purchase intention can be defined as the intent of an individual after making personal considerations to purchase a certain product (Khan et al., 2012). Anastasiou et al. (2017) concluded that the three existing EU's organic certification logos have positively influenced the Greek consumers' willingness to purchase organic food. However, the new Euro-leaf logo have failed to influence consumers' willingness to buy organic food. They asserted that consumers' intention to buy organic food was due to a high level of trust of the existing organic logos which clearly indicate that a product is "organic".

## 2.6 Actual Purchase

Actual purchase is an important final stage in consumers' process of purchasing a product or service (Ajzen and Albarracin, 2007). According to Ajzen (1991), consumer with intentions to purchase a certain product will indicate higher actual buying rates than those who show no purchase intentions. Purchase intentions have

positively affected actual purchase behaviour of organic food products in Malaysia (Wee et al., 2014). Consumers perceived the organic food as more environmentally friendly, safe, and has health benefits that lead to their purchases (Wee et al., 2014; Srineng and Thapa, 2018). In a study conducted on consumers' green purchase behaviour in India, Yadav and Pathak (2016) found that purchase intention had significantly influenced actual purchase. Therefore, to explore the relationship between consumer purchase intentions and actual purchase, the following hypothesis will be examined:

H4: Purchase intentions has a positive influence on the actual purchase of organic food.

## 2.7 Conceptual Framework

The literature review has identified the relationships between the variables selected in this study. Further to that, hypotheses are drawn to investigate the three independent variables of consumers' knowledge, perceived quality, and trust of myOrganic logo towards purchase intentions. In addition, purchase intentions are correlated to actual purchase to draw a conclusion on the important final stage of consumers' process to purchase a product. The conceptual framework is shown in Figure 2.

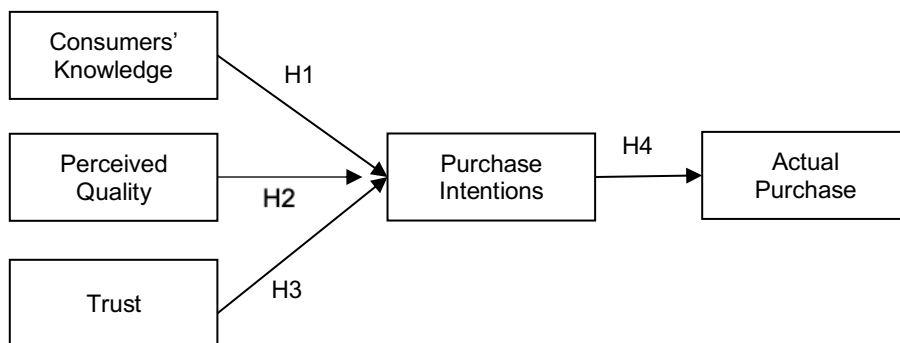


Figure 2: Conceptual framework

## 3.0 Research Methodology

### 3.1 Sample and Data Collection

The population of this study was individuals residing in Malaysia aged 18 and above who are existing consumers of organic food. The

estimated population of this study is 24 million (Malaysia Demographics Profile, 2019). The sample size for this study was computed using the Raosoft sample size calculator set with a confidence level of 95% and margin error at 5% (Raosoft, 2019). A minimum sample of 385 was recommended to be taken from the target population. Hair et al. (2010) stated that a minimum sample size of 100 is required for Structural Equation Modeling (SEM) analysis for five constructs in the structural model. We have determined a sample size of 390 for this study to meet the requirement for SEM analysis and to achieve generalisation of the findings.

Non-probability convenience sampling method was used as it provides flexibility to the researchers as the sample could be accessed easily thus achieving a high survey response rate. Researchers selected the respondents who were consumers present at selected supermarkets and specialty retail outlets selling organic food products in Petaling Jaya and Kuala Lumpur, Malaysia. Petaling Jaya and Kuala Lumpur was selected as they are the two most densely populated cities in Malaysia with more than 2 million people in total (Department of Statistics Malaysia, 2019). Due to the urbanisation of these cities, there is a substantially high number of organic food outlets and consumers that are representative as the sample for this study. A pre-test of the survey questionnaires was conducted on 20 respondents in September 2019. Some jargons were removed based on the comments received. The survey done using self-administered questionnaires was conducted between October and December 2019.

### 3.2 Measurement of the Variables

The survey instrument was designed with 23 items assessed by a 6-point Likert scale (1 signifies Strongly Disagree and 6 denotes Strongly Agree) and five items for the demographic variables. The scale measured consumers' knowledge, perceived quality and trust on the myOrganic logo, as well as purchase intentions and actual purchase. The measurement scales for all constructs were supported by past studies to ascertain the validity of the scale used.

### 3.3 Data Analysis

SEM is a statistical technique enabling researchers to simultaneously test and estimate the hypothesized relationships of the conceptual model to determine the possible correlations between

multiple dependent and independent variables (Gefen et al., 2000). The aim of this study was to develop a structural model comprising of the interrelationship between the independent variables (consumers' knowledge, perceived quality, and trust) and the purchase intentions. The interrelationship is then tested against the dependent variable (actual purchase). The aim is to obtain the correlation values between the constructs for further interpretation. Hence, SEM was deemed most suitable for this study due to its applicability in situations where a transition between a dependent (exogenous) and independent (endogenous) variable exists to analyse and validate the consumers' purchase behavioural process. Therefore, the AMOS version 23 was used to perform the SEM analysis to analyse the proposed model's data and test the hypotheses.

At the data analysis stage, basic descriptive analysis was developed for the study. Subsequently, reliability test and factor analysis were used to determine the reliability and construct validity of the questionnaires respectively. The convergent validity is achieved through computation of the Composite Reliability (CR) and Average Variance Extracted (AVE) for every construct. This is followed by the normality assessment to determine whether the data are well modeled by normal distribution. Finally, SEM is performed to obtain the correlation values between the constructs for further interpretation and to evaluate the goodness-of-fit of the hypothesized model.

## **4.0 Results**

### **4.1 Demographic Characteristics of the Respondents**

The data presented in Table 1 provides the demographic details on the gender, age, income level, frequency of purchase of organic food within a week, and frequently purchased organic food type of the sample respondents. The samples consist of 46% males and 54% females. The Majority of the respondents are aged between 40 and 49 years (42%) and have a high income of above RM7,000 (38%). As for the organic food purchases, the majority of the respondents have high frequency of purchase between 7 to 9 times within a week (31%), and the most frequently purchased type of organic food is organic vegetables (35%).

Table 1 : Demographic Characteristics of the Respondents

<b>Demographics</b>	<b>Frequency</b>	<b>Percentage</b>
<i>Gender</i>		
Male	177	46%
Female	208	54%
<i>Age</i>		
18-29	62	16%
30-39	119	31%
40-49	162	42%
Above 50	42	11%
<i>Income level</i>		
Below RM3,000	42	11%
RM3,000 – RM5,000	85	22%
RM5,000 – RM7,000	112	29%
Above RM7,000	146	38%
<i>Frequency of purchase of organic food within a week</i>		
1-3 times	108	28%
4-6 times	119	31%
7-9 times	96	25%
More than 10 times		
<i>Frequently purchased organic food type</i>		
Vegetables	135	35%
Poultry and Meats	77	20%
Fruits	58	15%
Noodles and Pastas	46	12%
Dairies	42	11%
Others	27	7%

#### 4.2 The Reliability and Validity Tests

The measurement model demonstrates the relationship between observed and latent constructs in the study. The structural model evaluates the inter-relationships between the latent constructs. The measurement model has to be assessed for unidimensionality, validity, and reliability prior to modeling the structural model. The factor loading, Cronbach's Alpha, CR, and AVE results are shown in Table 2. The reliability assessment for the measurement model is conducted based on the internal reliability and CR. According to Pallant (2007), internal reliability is achieved when the Cronbach's Alpha value is greater than 0.7 which indicates a high level of internal consistency in the data. For this study, the Cronbach's Alpha values are 0.828 for consumers' knowledge, 0.859 for perceived quality, 0.830 for trust, 0.893 for purchase intentions, and 0.875 for actual purchase. The CR

values for the five constructs were between 0.834 and 0.914, higher than the threshold level of 0.7 (Hair et al., 2010).

Validity refers to the ability of instruments to measure what it supposed to measure for a construct. In this study, the factor loading for each measurement item is above 0.5 which is the minimum acceptance level required (Hair et al., 2010). The convergent validity is achieved by calculating the AVE for every construct and the acceptable value of AVE is 0.5 or higher (Fornell and Larcker, 1981). The findings showed that the AVE for each construct is between 0.559 and 0.852, higher than the required standard of 0.5. All AVE above 0.5 that indicate significant degrees. In summary, the reliability and validity results show a significant confidence of the survey instrument quality.

Table 2 : CFA, Cronbach's Alpha, CR and AVE Results for the Measurement Model

Constructs	Item	Measurement	Source	Factor Loading	Cronbach's Alpha	CR	AVE
Consumers' Knowledge	CK1	Recognition of logo	Viverita and Kusumastuti (2017)	0.786	0.828	0.914	0.852
	CK2	Organic product guarantees	Zander et al. (2015)	0.859			
	CK3	Provided with organic logo	Loo et al. (2013)	0.913			
	CK4	Organic logo differentiates between organic and non-organic food	Zander et al. (2015)	0.843			
	CK5	Know the certification process	Demirtas (2018)	0.714			
Perceived Quality	PQ1	Quality standard	Curvelo et al. (2019)	0.682	0.859	0.862	0.695
	PQ2	Higher reliability	Wang et al. (2020)	0.773			
	PQ3	Safe for consumption	Song (2017)	0.766			
	PQ4	Credibility	Janssen and Hamm (2012)	0.810			
	PQ5	Consistent quality	Curvelo et al. (2019)	0.689			

Table 2 : CFA, Cronbach's Alpha, CR and AVE Results for the Measurement Model - continue

Constructs	Item	Measurement	Source	Factor Loading	Cronbach's Alpha	CR	AVE
Trust	TR1	Trustworthiness of logo	Janssen and Hamm (2012)	0.683	0.830	0.834	0.559
	TR2	Compliance with national organic food standards	Janssen and Hamm (2012)	0.771			
	TR3	Trust the control system behind the logo	Zander et al. (2015)	0.833			
	TR4	Greater trust	Janssen and Hamm (2011)	0.693			
Purchase Intentions	PI1	Like to buy organic foods	Shahriari et al. (2019)	0.727	0.893	0.895	0.792
	PI2	High probability of buying organic food	Shahriari, et al. (2019)	0.809			
	PI3	Willingness to buy organic food while shopping	Yadav and Pathak (2015)	0.862			
	PI4	Intention to purchase organic food regularly	Demirtas (2018)	0.879			
	PI5	Intention to increase future consumption	Demirtas (2018)	0.684			
Actual Purchase	AP1	Purchase for own consumption	Song (2017)	0.805	0.875	0.875	0.637
	AP2	Purchase for own health benefits	Demirtas (2018)	0.786			
	AP3	Purchase proportion of organic food is relatively higher	Song (2017)	0.806			
	AP4	Buy organic food regularly	Demirtas (2018)	0.796			

The normality assessment was performed and the results show that the data is normally distributed with skewness valued at between -1.0 and 1.0, and kurtosis of between -3.0 and 3.0. Finally, the estimated path coefficients were derived and the research hypotheses were examined.

### 4.3 Structure model assessment

The structural model has achieved a good fit as shown in Table 3. The *Chi-Square* value is 621.037, which is greater than the acceptable value of 0.05 (Barrett, 2007). In our model, the ratio of  $\chi^2/df$  was 2.785, which is lower than the value of 3.0, as suggested by Byrne (2001).

According to Browne and Cudeck (1993), the RMSEA value should be less than 0.8 to indicate how well the structural model is fit for analysis. In this study, the RMSEA value is 0.068. The incremental fit indices should be equal or greater than 0.9 for the model to be accepted (McDonald and Ho, 2002). Overall, the incremental fit indices were greater than 0.9, with IFI of 0.926, CFI of 0.926, and TLI of 0.916.

Table 3 : Structure Model Assessment and Hypothesis Testing

<b>Model fit indices</b>				
Chi-square		621.037		
Degree of freedom		223		
Probability level		0.000		
RMSEA		0.068		
IFI		0.926		
CFI		0.926		
TLI		0.916		
ChiSq/df		2.785		
<b>Hypothesized relationships</b>		<b>Estimate</b>	<b>p Values</b>	<b>Result</b>
H <sub>1</sub>	CK → PI	0.288	***	Supported
H <sub>2</sub>	PQ → PI	0.279	***	Supported
H <sub>3</sub>	TR → PI	0.298	***	Supported
H <sub>4</sub>	PI → AP	0.512	***	Supported

Note: \*\*\*p < 0.001

Figure 3 displays the final structural model. The regression weights and probability value which indicate the significance is shown in Table 3. The findings indicated that all three constructs of consumers' knowledge, perceived quality, and trust of the myOrganic logo have significant positive effect on purchase intentions. Consumers' knowledge of the myOrganic logo has a positive influence (beta= 0.288,  $p < .001$ ) on purchase intentions of organic food. The results indicate that the Malaysian consumers have the required knowledge of the myOrganic logo and this contributed positively towards their intentions to purchase organic food. Perceived quality



has significant positive effect (beta= 0.279,  $p < .001$ ) on purchase intentions. Therefore,  $H_2$  is accepted and this result indicates that Malaysian consumers are satisfactorily convinced by the quality of standard of the myOrganic logo which influence their purchase intentions of organic food. The regression coefficient of the relationship between trust and purchase intentions is also significant (beta= 0.298,  $p < .001$ ). As a result,  $H_3$  is accepted and the findings are also supported by previous studies by Karahan Uysal et al. (2012).

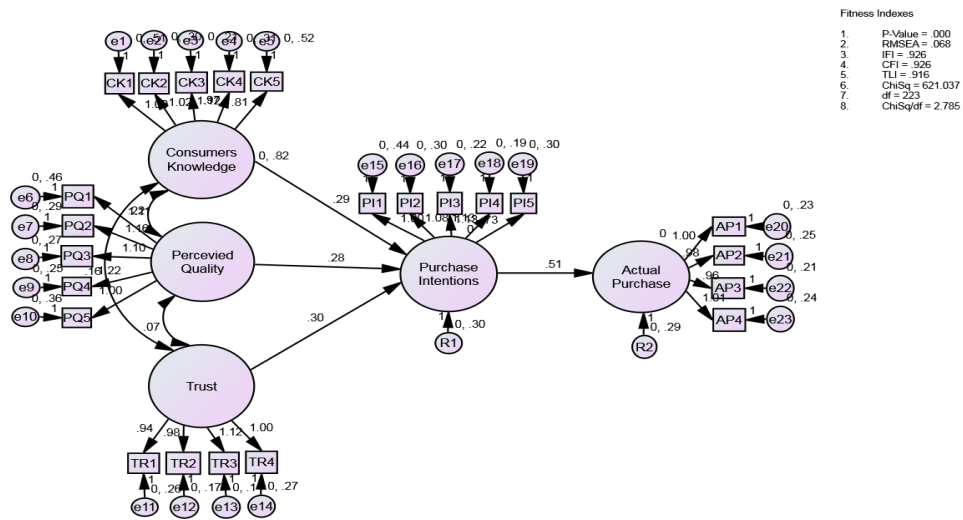


Figure 3 : Structural Model

Trust had the highest correlation coefficient value compared to consumers' knowledge and perceived quality constructs. Hence, it can be concluded that Malaysian consumers trusted that the myOrganic logo is compliant with the national organic food standard as well as the authenticity and value of organic food products carrying the myOrganic logo. The results are supported by a claim by Curvelo et al. (2019) that states that trust in the seal of quality of organic food is a crucial factor that influenced consumers' purchase intention. The information revealed on organic food logos or labels to identify the quality of food products created trust in the product (Secapramana and Katargo, 2019). However, although consumers' knowledge, perceived quality, and trust of the myOrganic logo have positive influence on purchase intentions, the correlation coefficient value is still considered as weak according to 'Guilford Rule of Thumb', with  $r$  value below 0.4 (Guilford, 1956).

Purchase intentions have positive effect on actual purchase (beta= 0.512,  $p < .001$ ) and  $H_4$  is accepted. The findings are consistent with what is proposed by Ajzen (1991) where consumer with intentions to purchase certain product will show higher actual buying rates than those with no purchase intentions. The results are supported by the previous studies by Yadav and Pathak (2016) and Wee et al. (2014).

## **5.0 Discussion**

The theoretical contribution of this study is the validation and development of HEM in the context of organic food purchase. The proposed structural model has achieved a good fit which indicated that consumer's knowledge, perceived quality, and trust are important constructs which influenced purchase intentions and actual purchase behaviour. Therefore, consumer's knowledge, perceived quality, and trust should be incorporated in the HEM as influencing factors under cognitive towards affective and conative. The findings have validated the three stages of HEM model of cognitive (influencing factors), affective (purchase intentions) and conative (actual purchase) components. Furthermore, this study contributes to the scarce literature on organic food certification logo from the perspective of a developing nation by shedding light on consumer purchasing behavior. Hence, the resulting relationship between the effectiveness of Malaysian organic food certification logo and consumer purchasing behaviour is explored and concluded in this study.

From a managerial perspective, the findings of this study provide valuable information for organic food producers and retailers in the developing countries seeking to improve their sales and achieve continuous business growth. Empirical results in this study show that Malaysian consumers depend heavily on the trust of the organic certification logos to positively influence their intentions to purchase organic food. Hence, it was shown that the certifying bodies and the government have managed to foster consumers' trust on the certification logo through the organisations' high credibility in certification standard which includes strict production standards. The government agencies should focus on communicating the organic food certification mechanism to the consumers to build greater consumer trust on the products (Liang, 2016). Hence, the consumers' trust could further be improved through credible labeling information by displaying how the organic agricultural products are grown, processed, and handled with detailed nutritional information on the

packaging accompanying the clearly displayed organic certification logo to stimulate consumers' trust and positive purchasing behaviour. Strengthening supervision in production, certification, and supply of organic food products are necessary to improve consumers' trust.

The findings show that Malaysian consumers have a satisfactory level of knowledge of the myOrganic logo which is helpful to motivate them to have positive purchase intentions. Consumers usually will differentiate between vague and meaningful claims and would prefer more detailed information and persuasive messages about organic food (Atkinson and Rosenthal, 2014). Previous studies (i.e., Song, 2017, Zander, et al., 2014; Dardak et al., 2009) have indicated that consumers' knowledge of organic food logo was weak. Lack of visibility could affect consumer awareness of the myOrganic logo. Thus, it is important for the government and certifying bodies to effectively explain the meaning and value of certified organic food, the standards of organic certification, and certification mechanism within the marketplace that link to the credibility of the logo. The results suggest that the government, certifying bodies, and retailers should invest more in marketing communications to increase consumers' awareness and knowledge of the myOrganic logo. Diversified marketing communication channels such as the internet, television, newspapers, magazines, and public relations should be used to promote this organic logo. Display of the myOrganic logo on packages of more diverse varieties of organic food could increase consumer awareness.

The consumers' perceived quality of the myOrganic logo was enough to convince the Malaysian consumers as they found a match between the logo's quality standard and the values or benefits associated with organic food. Our findings suggest that organic food producers and retailers should further focus their attention on the consumers' perceived quality of organic certification logos by emphasizing the safety, nutritional value, and health benefits related to organic food. Product quality should be enhanced as this has a positive impact on the credibility of the organic food certification logo thus enabling the consumer to have a positive attitude towards purchasing the products.

In this study, consumers' purchase intention has positively influence actual purchase of organic food. The findings indicated that Malaysian consumers are willing to purchase organic food products

because they have knowledge, trust, and perceived value of the certification logo of the products. Therefore, consumers with an intention to purchase organic food will exhibit higher actual purchase rates (Darsono et al., 2018).

The commitment and collaboration between the government, producers, and retailers are crucial to enhance the growth of the organic food industry in Malaysia. Continuous support by the government through various incentives or subsidy programs, more effective communications strategies to promote the organic food certification logo, encouragement to venture into organic food business by potential farmers or producers, improvement on the availability of organic food, product diversity, product quality, and increase dorganic food supply are all important to boost the value and credibility of the myOrganic logo.

## **6.0 Conclusions**

The research findings have provided a clear outline between the Malaysian consumers' knowledge, perceived quality, and trust of the myOrganic certification logo and the effect on their purchasing behaviour. The present study has proven the applicability of HEM in determining the consumers' organic food purchase intentions and actual purchase behaviour.

However, the study has a number of limitations. Firstly, the investigation of consumers' responses on myOrganic logo is only observed through the influence of three key factors which are consumers' knowledge, perceived quality, and trust. Future research can investigate the response from the perspective of organic food producers or retailers' regarding the myOrganic logo. Secondly, the present study focuses on one logo, myOrganic. Thus, future studies can be extended by comparing different types of organic food certification logos through comparative studies. Investigation can be carried out on the consumers' perception, preferences, and willingness-to-pay for different organic food certification logos. Thirdly, this study design uses quantitative approach. Researchers may consider mixed methods or qualitative method to provide better presentation of data analysis.

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