



# INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES



## Factor Influencing Consumer Willingness to Pay for Green Foods Consumption

Tang Chin Qing & Zuroni Md Jusoh

To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v12-i10/15200> DOI:10.6007/IJARBSS/v12-i10/15200

**Received:** 09 August 2022, **Revised:** 10 September 2022, **Accepted:** 26 September 2022

**Published Online:** 03 October 2022

**In-Text Citation:** (Qing & Jusoh, 2022)

**To Cite this Article:** Qing, T. C., & Jusoh, Z. M. (2022). Factor Influencing Consumer Willingness to Pay for Green Foods Consumption. *International Journal of Academic Research in Business and Social Sciences*, 12(10), 123 – 138.

**Copyright:** © 2022 The Author(s)

Published by Human Resource Management Academic Research Society ([www.hrmars.com](http://www.hrmars.com))

This article is published under the Creative Commons Attribution (CC BY 4.0) license. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this license may be seen at: <http://creativecommons.org/licences/by/4.0/legalcode>

Vol. 12, No. 10, 2022, Pg. 123 – 138

<http://hrmars.com/index.php/pages/detail/IJARBSS>

JOURNAL HOMEPAGE

Full Terms & Conditions of access and use can be found at  
<http://hrmars.com/index.php/pages/detail/publication-ethics>



# INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES



[www.hrmars.com](http://www.hrmars.com)

ISSN: 2222-6990

## Factor Influencing Consumer Willingness to Pay for Green Foods Consumption

Tang Chin Qing<sup>1</sup> & Zuroni Md Jusoh<sup>1,2</sup>

<sup>1</sup>Department of Resources Management, Faculty of Human Ecology, Universiti Putra Malaysia, 43400, <sup>2</sup>Sustainable Consumption Research Group, Department of Resources Management, Faculty of Human Ecology, Universiti Putra Malaysia, 43400 Serdang, Selangor, Malaysia

Email: zuroni@upm.edu.my

### Abstract

Green food is produced using environmentally friendly technology and will not harm the environment. The main objective of this research is to determine the factors that influence the willingness to pay for the consumption of green foods among Universiti Putra Malaysia (UPM) students. A total of 250 respondents were involved in this study through simple random sampling. Questionnaires were used as research instruments and distributed online using Google Forms. Data were analysed using Statistical Package for Social Science (SPSS) for Windows version 25.0. Multiple Linear Regression analysis was used to study the factors influencing consumers' willingness to pay for green foods consumption. The results of Multiple Linear Regression analysis found that the green foods attributes and green advertising significantly influenced the willingness of consumers to pay for green foods (adjusted  $R^2 = 0.876$ ,  $F = 0.000$ ,  $p \leq 0.001$ ). In conclusion, green advertising (Beta = 0.548) was the strongest significant correlation followed by green foods attributes (Beta = 0.297). The implication of this study is that it allows companies to be more focused on these factors that further influence consumers' willingness to pay for green foods.

**Keywords:** Trust, Attributes, Advertising, Purchase Intentions, Green Foods.

### Introduction

Green foods are produced using environmentally friendly technologies and will not cause harm to the environment (Hale, 2018). They have a variety of characteristics, including original planting, recyclable, reusable, biodegradable, natural ingredients containing non-toxic or even approved chemical substances, and have not been tested by animals (Hamilton, 2018). Environmentally friendly packaging (Mishra & Sharma, 2010). In this regard, green food is a family that includes organic and non-organic food (Saleki & Sayedsaleki, 2012). The United States Department of Agriculture (USDA) defines organic products as products that do not use sewage sludge, synthetic fertilizers, pesticides, genetic engineering, hormones, irradiation and antibiotics (Lim et al., 2014), and non-organic foods to a certain extent. The use of chemicals is permitted (Saleki and Sayedsaleki, 2012). Therefore, green food and

organic food have subtle differences in their cultivation methods, but they both consider environmental welfare, health and safety (Yu et al., 2014).

With the development and destruction of the environment and natural resources, the concept of “green consumerism” has flourished worldwide and has attracted increasing attention (Chekima et al., 2019). Nowadays, as people's lifestyles are affected by the COVID-19 pandemic, consumers are becoming more and more aware of the importance of green ecology (Zhao et al., 2010). They began to pay attention to the ecological impact, food safety and security issues (Zepeda & Nie, 2012). Increasing attention to future generations, increased knowledge, health awareness, and environmental well-being have contributed to the growing popularity of the green movement (Yogananda & Nair, 2019). The emergence of green consumer behaviour has changed the importance of various determinants and consumers' attitudes towards product purchase intentions (Yogananda & Nair, 2019). In order to effectively respond to the growth of the green food market, it is very important to study the purchasing behaviour of its consumers, especially paying attention to the purchase intention, which was the prerequisite for purchasing behaviour (Xin, Huaming, & Angelika, 2020). Therefore, marketers and scholars need to have an in-depth understanding of what factors will motivate consumers to buy green food (Zikmund et al., 2013).

In addition, Malaysia is a country with rapid economic development in Southeast Asia (Maichum et al., 2017). The government and citizens support green concepts and policies to promote the consumption of ecological products (Johe & Bhullar, 2016). In 1974, the "Environmental Quality Act" was passed and the Ministry of Energy and Green Energy was established (Yogananda & Nair, 2019). The development of Malaysia's green food industry is crucial, and information about consumers' willingness to buy green foods was urgently needed (Yogananda & Nair, 2019). Although the field of organic food research is widespread, consumer behavior research on green food is rare (Joshi & Rahman, 2017). Many authors who conduct research in this field believe that researchers and stakeholders need to conduct more research to understand the impact of consumers factors of willingness to buy green foods (Yogananda & Nair, 2019).

Therefore, it is very important to investigate and determine the factors that affect consumers' willingness to buy green foods (Hassan et al., 2015). Although previous studies have provided some evidence on the consumption factors of organic and green foods (Hossain & Lim, 2016). In this study, we will verify their influence and explore other factors such as trust on green foods, purchase intention, green foods attributes and green advertising.

Furthermore, in this research also touch on the Shared Prosperity Vision (SPV 2030), one of the 8 Shared Prosperity Vision Enablers that is sustainability, Twelfth Malaysia Plan 2021-2025 (RMK-12) - environmental sustainability and Sustainable Development Goals 2020 (SDGs) at Goals 12 – ensure sustainable consumption and production patterns. These three different plans have the same goal that to protect the environment sustainability (Maichum et al., 2016). The dimension of environmental sustainability takes into account the blue economy, green technology, renewable energy, and climate change adaptation and mitigation (Liobikiene et al., 2016). So, in this new normal, due to the Covid-19 pandemic, consumer aware about the environmental sustainability and willing to pay for green foods consumption. For this research, a study on consumer willingness to pay for green foods consumption also

can help Malaysia to know more in detail of consumers that the factors' influence them to pay for green foods consumption and can further improvements and making Malaysia success the goal of SPV 2030, RMK – 12 and SDGs 2020.

## Literature Review

### Theory of Planned behaviour (TPB) and Green Foods

The term "green" appeared after the initial seminar on ecological marketing in 1975. Later, the increasing demand for environmentally friendly products led to extensive research on environmental consumerism (Cherian & Jacob, 2012). The previous research adopted The TPB model is because it can overcome the weaknesses of the Rational Action Theory (TRA) model (Tarkiainen & Sundqvist, 2005). The TPB model includes an involuntary control aspect called perceptual behaviour control, which is not considered in the TRA model (Chen, 2007). The TPB model revolves around the relationship between personal behavioural intentions and attitudes, subjective norms, and perceived behaviour control, and is suitable for predicting environmental product behaviour (Chen, 2007). Several authors have demonstrated the advantages of the factors of the TPB model in predicting intent (Paul, Modi & Patel, 2016). The model optimizes the connection between intent and its structure to strengthen the prediction of green product purchase intent (Tavakol & Dennick, 2011). Interestingly, this model has proven its relevance, strength and effectiveness in many fields such as green hotels, energy conservation and organic products (Yadav & Pathak, 2016).

There were guarantees the protection of consumer violence and environmental resources, but consumers lack attention to protection and purchase activities (Suhaimi et al., 2019). The depletion of resources undoubtedly warns of sustainable living practices (Thambiah et al., 2015). If no measures are taken, it will affect the needs of future generations (Suhaimi et al., 2019). Therefore, Malaysian consumers urgently need to change their consumption habits to support the sustainable development of green foods (Suhaimi et al., 2019). Although some studies have shown that Malaysians are doing this, it is necessary to further explore the factors affecting this practice in order to have a more comprehensive understanding of consumer willingness to purchase green foods (Suhaimi et al., 2019). As far as consumers' purchase behaviours are concerned, consumers will first be affected by a variety of influences, which in turn will determine their willingness to buy green foods (Yogananda & Nair, 2019). Consumers will first be affected by a variety of influences, and then determine their willingness to buy green food. This includes information, knowledge and confidence (Tan, 2019). On the other hand, other researchers also described intent as being able to effectively predict the actual behaviour of an individual in the future (Teng et al., 2018). Intention is an attitude-behaviour relationship that expresses the amount of work required to accomplish something (Teng et al., 2018). The former environmental problems have been plagued all countries on the planet.

### Trust on Green Foods

Trust is defined as "consumers willing to buy green food because of their belief in environmental credibility, goodwill, and ability" (Ricci et al., 2018). Consumers' purchase intentions are affected by consumer trust (Qi & Ploeger, 2019). In other words, trust has a positive effect on the willingness to purchase environmentally friendly food (Wahid et al., 2011). In addition, consumer trust is seen as the key to help predict their long-term behaviour (Ricci et al., 2018). If buyers have trust experience in green food, they will be more inclined to

buy the product (Wright et al., 2012). However, when reviewing the literature, it is found that there are not many studies on the role of green food attributes in regulating the relationship between green advertisements in determining the purchase intention of young adult consumers in Malaysia for green food (Tan, 2019).

Consumers' willingness to buy green products can be changed by consumers' trust in green products (Yadav & Pathak, 2016). The more confident consumers are in green products, the higher their willingness to buy (Yadav & Pathak, 2016). Therefore, it is undeniable that producers of green foods need to maintain trust, because this will help maintain consumers' purchase intentions and may create significant customer lifetime value through these consumers' purchase increments (Yazdanpanah & Forouzani, 2015).

H1: Trust on green foods has a significant influence on the willingness to pay for green foods consumption.

### **Purchase Intention**

Purchase intentions result from a trade-off of the advantages and disadvantages of a product or service, as perceived by consumers (Luce et al., 2001). People who are highly concerned about the environment may not necessarily buy green food (Eles & Sihombing, 2017). Consumers usually seek more information about green foods until they are more confident in their choices (Eles & Sihombing, 2017). They will search for the required information until they reach a satisfactory saturation point (Eles & Sihombing, 2017). Once consumers have met their demand for green food, they are willing to pay more regardless of the price (Li et al., 2019).

More consumers tend to support environmentally friendly products, which may indicate that consumers are willing to pay more for green food (Li et al., 2019). An important study proves that high prices of green foods inhibit actual purchases (Marin et al., 2016). According to literature review, there are inconsistencies in the results of previous studies on willingness to pay (Zakersalehi & Zakersalehi, 2012). In addition, the role of green food attributes as an intermediary variable between willingness to pay more and willingness to buy has been rarely mentioned in previous studies in the context of Malaysian consumers (Tan, 2019).

H2: Purchase intention has a significant influence on the willingness to pay for green foods consumption.

### **Green Foods Attributes**

When consumers realize the importance and benefits of this concept, the concept of green food can be more and more instilled into the minds of Malaysians (Tan, 2019). Consumers prefer green food because it is rich in nutrients and safe to eat, produced in a human animal treatment environment, and healthier (Schifferstein & Ophuis, 2019). The attributes of green food products include different aspects such as good quality, safe food, providing health benefits, protecting animal welfare, environmentally friendly, and having appropriate labels (Tan, 2019). For most consumers, one of the most important attributes is food safety, which reflects that food has been properly handled and of appropriate quality (Petljak et al., 2018). In this age and era, consumers are getting better much information and knowledge about pesticides, insecticides, fungicides and herbicides used in food production (Teng, 2011).

Therefore, food safety is important to any food industry operator, because consumers are now looking for safe, high-quality and healthy food (Leong & Mariadass, 2019).

In addition, previous studies have extensively studied the health benefits of different foods and products (Zhen & Mansori, 2012). Previous research has proved that health-conscious consumers seek healthy foods and products that benefit them (Mai & Hoffmann, 2012). These consumers value healthy dishes that are organic, natural, fresh or wholesome (Tan, 2019). In addition, these health-conscious consumers are aware of and concerned about the health benefits of green foods because they attribute green foods to health and a better quality of life (Yeon et al., 2011). Previous studies on labelling, health benefits, animal welfare and environmental friendliness have found that the attributes of green food have a significant impact on consumers' purchase intentions (Ahmad & Judhi, 2010). However, Malaysian consumers have a lesser role in influencing the relationship between green advertising, trust, willingness to pay, and willingness to purchase with the attributes of green food as an intermediary (Tan, 2019).

H3: Green foods attributes has a significant influence on the willingness to pay for green foods consumption.

### **Green Advertisement**

Advertising is described as the clarity of advertising to portray consumers' desire to persuade and introduce purchase intentions (Chan et al., 2009). Green advertising can be seen as an advertisement linking food to the natural environment (Schmuck et al., 2018). Consumers usually obtain information related to green food through information activities and publicity (Tan, 2019). There is little research on the impact of green advertising on young adult consumers in Malaysia (Ali et al., 2018). Due to the limited research on the relationship between green food attributes and green advertising to determine consumers' willingness to buy green food, it is necessary to further explore the impact of this effect on consumers (Tan, 2019).

Past studies have found that green advertising has complementary partial mediation effects, which helps increase the list of new discoveries in the green food literature (Cherian & Jacob, 2012). This shows that consumers are indeed paying attention to green advertising and affect their willingness to buy green food (Yaowarat et al., 2015). Therefore, green food producers and marketers need to further utilize various advertising media, such as social media sites, because the results show that these young adult consumers obtain their green foods information through online channels (Phuah et al., 2011). Using these channels, marketers can also increase the publicity of green food to improve consumers' awareness of green products under eco-labels, informing consumer about the meaning and availability of green food, and the use of green food in the minds of consumers which is the positioning of the benefits (Shaharudin et al., 2010). Therefore, this research proposes the following hypotheses. Green advertisement has a significant influence on the willingness to pay for green foods consumption (Cleaveland et al., 2005).

H4: Green advertisement has a significant influence on the willingness to pay for green foods consumption.

### **Factors Influencing Consumer Willingness to Pay**

First, consumers' willingness to pay is the core input of the price response model, which provides information for optimal pricing and promotion decisions (Lea & Worsley, 2005). Second, the introduction price of new products must be carefully selected, because poorly considered introduction prices can jeopardize their development investment and threaten innovation failure (Ahmad et al., 2010). Although previous studies have identified several variables, such as altruism, price awareness, reference prices, income and the perceived fairness of the price paid, affect consumers' willingness to pay (WTP) (Schmidt & Bijmolt, 2020). However, many of these variables may function in complex interactive ways. In addition, other variables such as trust on green foods, purchase intention, green foods attributes and green advertising may also affect consumers' willingness to buy.

Academically, perceptual behaviour control has been shown to have a significant relationship with the intention to purchase "green" food (Magnusson, Arvola, Hursti, Aberg & Sjoden, 2001). In addition, previous studies have proved that consumers' willingness to purchase green products is not only affected by trust on green foods, green advertising, green foods attributes and purchase intention (Padel & Foster, 2005). For example, the environmental concerns, health awareness, and subjective norms that previous studies have shown are also significantly related to green food purchase intentions (Zeinab & Seyedeh, 2012). Therefore, the influencing factors that marketers should pay attention to are environmental welfare, price, availability, health benefits, and finally marketing information that may affect others to buy more green foods based on the current results (Aschemann & Aagaard, 2014).

H5: Predictor factors have significant influence on the willingness to pay for green foods consumption.

### **Methodology**

This research consists of a quantitative approach by providing a questionnaire to consumers in Universiti Putra Malaysia (UPM). A total of 250 respondents were involved in this study through simple random sampling. Questionnaires were used as research instruments and online distributed by using Google Forms. Data were analysed using Statistical Package for Social Science (SPSS) for Windows version 25.0. Pearson correlation test was used to examine the relationship between the two variables and Multiple Linear Regression (MLR) analysis was used to study the factors influencing consumers' willingness to pay for green foods consumption.

### **Result and Discussion**

#### **Demographic Information**

Based on Table 1, the result of demographic information, a total of 250 respondents which consists males (36.8 percent) and females (63.2 percent). For the age category, 12.0 percent were 21 years old, 70.0 percent were 22 years old and 18.0 percent were 23 years old. For the ethnic category, 68.8 percent of the respondents were Malay, followed by 13.6 percent of the respondents were Chinese and the 17.6 percent of the respondents were India.

For educational level, it can be seen that the majority of the respondents were at Bachelor's degree holders (99.6 percent). Other than that, it can be seen that the most of the respondents had 4-6 members in their family (61.2 percent), 1-3 members in their family (27.2 percent) and 7 and above members in their family (11.6 percent).

Table 1  
*Demographic Information*

Characteristics	Frequency	Percentage (%)
<b>Gender (N = 250)</b>		
Male	92	36.8
Female	158	63.2
<b>Age (N = 250)</b>		
21	30	12.0
22	175	70.0
23	18	18.0
<b>Ethnic (N = 250)</b>		
Malay	172	68.8
Chinese	34	13.6
Indian	44	17.6
<b>Level of Education (N = 250)</b>		
Foundation	1	0.4
Diploma	0	0
Bachelor	249	99.6
Master	0	0
PhD	0	0
<b>How many members in your family (Include yourself) (N = 250)</b>		
1 - 3	68	27.2
4 - 6	153	61.2
7 and above	29	11.6

### **Pearson Correlation**

Pearson's correlation coefficient was used to examine the direction and strength of the relationship among the variable in this study. It ranges from value of -1 to +1. The higher the correlation coefficient indicated the stronger the relationship between the independent variables with the dependent variable. Positive one means a perfect linear relationship and negative one represents perfect negative relationship. Pearson's correlation coefficient was used when the variables were measured using interval or ratio scales. In this study, both dependent and independent variables were measured in Likert scale method that was an interval scale.

Table 2 shows the result of Pearson correlation coefficient between independent variables and dependent variable. The independent variables were trust on green foods, purchase intention, green foods attributes and green advertising. The dependent variable was willingness to pay for green foods consumption.



Firstly, the Pearson correlation coefficient between trust on green foods and willingness to pay for green foods consumption is 0.843 indicates that trust on green foods was positively influence the willingness to pay for green foods consumption. There was a high correlation between trust on green foods and willingness to pay for green foods consumption. The p-value equal to 0.000 which is less than 0.01, there is a significant relationship between trust on green foods and willingness to pay for green foods consumption in new normal. So, the hypothesis 1 of this study was accepted and it shows that there was a positive relationship between trust on green foods and willingness to pay for green foods consumption. This result also was found in previous study (Tan, 2019; Nguyen 2019), this indicates that the trust on green foods and consumer willingness to pay for green foods consumption in new normal had strong positive relationship.

Secondly, the Pearson correlation coefficient between purchase intention and willingness to pay for green foods consumption is 0.849 indicates that purchase intention will positively influence the willingness to pay for green foods consumption. There is a high correlation between purchase intention and willingness to pay for green foods consumption in new normal. The p-value equal to 0.000 which is less than 0.01, there is a significant relationship between purchase intention and willingness to pay for green foods consumption. So, the hypothesis 2 of this study is accepted and it shows that there was a positive relationship between purchase intention and willingness to pay for green foods consumption. This result also was found in previous research (Tan, 2019 and Zikmund, Babin, Carr & Griffin, 2013). This indicates that the trust on green foods and consumer willingness to pay for green foods consumption had strong positive relationship.

Furthermore, the Pearson correlation coefficient between green foods attributes and willingness to pay for green foods consumption was 0.908 indicates that green foods attributes positively influencing the willingness to pay for green foods consumption. There is a very high correlation between green foods attributes and willingness to pay for green foods consumption. The p-value equal to 0.000 which is less than 0.01, there is a significant relationship between green foods attributes and willingness to pay for green foods consumption. So, the hypothesis 3 of this study was accepted and it shows that there is a positive relationship between green foods attributes and willingness to pay for green foods consumption. This result also was found in previous research (Tan, 2019; Phuah et al., 2011). This indicates that the trust on green foods and consumer willingness to pay for green foods consumption had strong positive relationship.

Moreover, the Pearson correlation coefficient between green advertising and willingness to pay for green foods consumption is 0.926 indicates that green advertisement will positively influence the willingness to pay for green foods consumption. There is a very high correlation between green advertising and willingness to pay for green foods consumption. The p-value equal to 0.000 which is less than 0.01, there is a significant relationship between green advertising and willingness to pay for green foods consumption. So, the hypothesis 4 of this study was accepted and shows a positive relationship between green advertising and willingness to pay for green foods consumption.

Table 2

*Pearson Correlation*

Variables	Pearson Coefficient (r-value)	Correlation p
Trust on green foods	0.843	0.001
Purchase intention	0.849	0.001
Green foods attributes	0.908	0.001
Green advertisement	0.926	0.001

\*Correlation is significant at the 0.01 level (2-tailed)

**Multiple Linear Regression**

Based on the Table 3, a Multiple Linear Regression was performed to test which variable is the most dominant factor in influencing the willingness to pay for green foods consumption in new normal among UPM students. The result shows that the green advertising was the most important factors that influence UPM students' the willingness to pay for green foods consumption in new normal because of carries beta of 0.548. While, green foods attributes were the second highest factors that influencing UPM students' the willingness to pay for green foods consumption in new normal with the beta of 0.297. While, trust on green foods and purchase intention were among the factors that no influence UPM students on their willingness to pay for green foods consumption in new normal. This result of coefficient Table 2 shows the important of factors influencing the willingness to pay for green foods consumption in new normal were green advertising and green foods attributes. While trust on green foods and purchase intention did not influencing the willingness to pay for green foods consumption in new normal among UPM students.

Table 3

*Multiple Linear Regression*

Variables	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	-1.935	1.071		-1.806	0.072
Trust on green foods	0.99	0.067	0.085	1.485	0.139
Purchase intention	0.039	0.070	0.035	0.568	0.571
Green foods attributes	0.332	0.074	0.297	4.480	0.000***
Green advertisement	0.582	0.066	0.548	8.849	0.000***

a. Dependent Variable: willingness to pay for green foods consumption  
Significant:  $p < 0.001$ \*\*\*

According to the Table 4, the R value is 0.937, R Square is 0.878 and Adjusted R Square is 0.876. Adjusted R Square shows that 87.6 percent of the willingness to pay for green foods consumption can be explained by trust on green foods, purchase intention, green foods attributes and green advertising. This also indicates that the relationship between the dependent variable and independent variables were strong. However, there were 12.2 percent of the variation in willingness to pay for green foods consumption is explain by other

factors which are not mentioned in this study. A high Adjusted R Square value suggested that mode can predict the response variable with less inaccuracy.

Table 4

*Model Summary*

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	0.937 <sup>a</sup>	0.878	0.876		1.91253

a. Predictor: (Constant), Trust on green foods, Purchase intention, Green foods attributes, Green advertising

b. Dependent Variable: Willingness to pay for green foods consumption

**Conclusion**

The purpose of this study is to determine the consumer willingness to pay for green foods consumption among University Putra Malaysia students. Specifically, this study was conducted to examine the relationship between trust on green foods, purchase intention, green foods attributes, green advertisement and willingness to pay for green foods consumption. Data gathered from students of University Putra Malaysia. Five hypotheses were presented to test the relationship between the independent variables (trust on green foods, purchase intention, green foods attributes and green advertising) with dependent variable (consumer on willingness to pay for green foods consumption).

This study confirmed that trust on green foods was significantly and positively related to consumer willingness to pay for green foods consumption. Therefore, the first hypothesis (H1) was accepted. The finding showed that there a significant and positive relationship between trust on purchase intention and consumer willingness to pay for green foods consumption. Thus, the second hypothesis (H2) was accepted. This study indicated that consumer willingness to pay for green foods consumption was influenced by green foods attributes so the third hypothesis (H3) was accepted. Besides, the green advertisements also affected the consumer willingness to pay for green foods consumption. Hence, the fourth hypothesis (H4) was accepted. Lastly, all of the independent variables (trust on green foods, purchase intention, green foods attributes and green advertisements) was significantly and positively related to dependent variables (consumer willingness to pay for green foods consumption). So, the fifth hypothesis (H5) was accepted. While according to Multiple Linear Regression, trust on green foods and purchase intention did not influence consumer willingness to pay for green foods consumption.

In conclusion, the present research helps to understand the importance of trust on green foods, purchase intention, green foods attributes and green advertisements on consumer on willingness to pay for green foods consumption. Future studies need to be carried out to investigate other factors which may influence consumer willingness to pay for green foods consumption in new normal among UPM students. The results of this study suggested that it is very important for the University Putra Malaysia students to understand what determinants their willingness to pay for green foods consumption because they represent the future main consumers of green foods.

Since, green advertisement is the most important factors that influence consumer on willingness to pay for green foods consumption. The green advertisements provide many

information on the green concepts on green foods which can assist markets in developing appropriate marketing strategies for influence consumer on willingness to pay for green foods consumption. Therefore, the companies need to come out a green concept in green foods need to focus in green advertisements. For example, green advertisements can be a promotional message that attracts consumer's needs and desires related to the environment. Green advertisement is a specific type of advertising that the benefits and implication when purchase and eat green foods in future. This can be a sign that inadvertently enhance consumers' awareness of green food and thus increase consumers' desire to consume green food. If this display continues, there will also be more and more consumers consuming green foods in the market.

### Acknowledgement

The authors was gratefully acknowledge the support provided student at the Department of Resource Management and Consumer Studies, Faculty of Human Ecology, University Putra Malaysia (UPM) during the completion of this study.

### References

- Ahmad, S. N. B., & Judhi, N. (2010). Organic food: A study on demographic characteristics and factors influencing purchase intentions among consumers in Klang valley, Malaysia. *International Journal of Business and Management*, 5(2), 105-118.
- Aschemann-Witzel, J., & Aagaard, E. M. (2014), "Elaborating on the attitude-behaviour gap regarding organic products: young Danish consumers and in-store food choice". *International Journal of Consumer Studies*, 38(5), 550-558.
- Chan, J. C., Jiang, Z., & Tan, B. C. (2009). Understanding online interruption-based advertising: Impacts of exposure timing, advertising intent, and brand image. *IEEE Transactions on Engineering Management*, 57(3), 365-379.
- Chen, M. F. (2007). Consumer attitudes and purchase intentions in relation to organic foods in Taiwan: Moderating effects of food -related personality traits. *Food quality and Preference*, 18(7), 1008-1021
- Chekima, B., Chekima, K., Chekima, K. (2019). Understanding factors underlying actual consumption of organic food: The moderating effect of future orientation. *Food Qual. Prefer.*, 74, 49-58.
- Cherian, J., & Jacob, J. (2012). Green marketing: A study of consumer's attitude towards environment friendly products. *Asian Social Science*, 8(12), 117-126.
- Cleaveland, M., Kalamas, M., & Laroche, M. (2005). Shades of green: Linking environmental locus of control and pro-environmental behaviors. *Journal of Consumer Marketing*, 22(4), 198-212.
- Eles, S. F., & Sihombing, S. O. (2017). Predicting Green Purchase Intention of Generation Y: An Empirical Study in Indonesia. In The 3rd PIABC (Parahyangan International Accounting and Business Conference).
- Goh, Y. N., & Wahid, N. A. (2015). A review on green purchase behaviour trend of Malaysian consumers. *Asian Social Science*, 11 (2), 103-110.
- Hale, L. (2018). At home with sustainability: from green default rules to sustainable consumption. *Sustainability*, 10(1), 249.
- Hamilton, E. M., Guckian, M. L., & De Young, R. (2018). Living well and living green: participant conceptualizations of green citizenship. In *Handbook of Sustainability and Social Science Research*, 315-334.

- Hassan, S. H., Yee, L. W., & Ray, K. J. (2015). Purchasing intention towards organic food among generation Y in Malaysia. *Journal of Agribusiness Marketing*, 7, 16-32.
- Hossain, M. T. B., & Lim, P. X. (2016). Consumers' buying behaviour towards organic foods: Evidence from the emerging market. *Malaysian Institute of Management*, 51(2), 7-25.
- Johe, M. H., & Bhullar, N. (2016). To buy or not to buy: The roles of self-identity, attitudes, perceived behavioural control and norms in organic consumerism. *Ecological Economics*, 128, 99-105.
- Joshi, Y., & Rahman. Z. (2015). Factors affecting green purchase behaviour and future research directions. *International, Strategic Management Review*, 3(1-2), 128-143
- Joshi, Y., & Rahman, Z. (2017). Investigating the determinants of consumers' sustainable purchase behaviour. *Sustainable Production and Consumption*, 10, 110-120.
- Lea, E. & Worsley, T. (2005). Australians' organic food beliefs, demographics and values. *British Food Journal*, 107 (11), 855-869.
- Leong, T. P., & Mariadass, A. M. (2019). Factors Affecting Young Adults' Purchase Intention of Green Food Products in Malaysia. *Journal of Tourism, Hospitality & Culinary Arts*, 11(2), 20-45.
- Li, R., Lee, H. Y., Lin, Y. T., Liu, C. W., & Tsai, P. F. (2019). Consumers' Willingness to Pay for Organic Foods in China: Bibliometric Review for an Emerging Literature. *International journal of environmental research and public health*, 16(10), 1713.
- Lim, W. M., Yong, J. L. S., & Suryadi, K. (2014). Consumers' perceived value and willingness to purchase organic food. *Journal of Global Marketing*, 27(5), 298-307.
- Liobikiene, G., Mandravickaite, J., & Bernatoniene, J. (2016). Theory of planned behaviour approach to understand the green purchasing behaviour in the EU: A cross-cultural study. *Ecological Economics*, 125, 38-46.
- Luce, M. F., Bettman, J. R., and Payne, J. W. (2001). "Tradeoff Difficulty: Determinants and Consequences for Consumer Decisions." In *Monographs of the Journal of Consumer Research*, edited by D. R. John. Vol. 1, 1 – 209. Chicago, IL: University of Chicago Press.
- Mai, R., & Hoffmann, S. (2012). Taste lovers vs nutrition fact seekers: how health consciousness and self-efficacy determine the way consumers choose food products. *Journal of Consumer Behaviour*, 316-328.
- Magnusson, M., Arvola, A., Hursti, U., Aberg, L., & Sjoden, P. (2001). Attitudes towards organic foods among Swedish consumers. *British Food Journal*, 103(3), 209-226.
- Maichum, K., Parichatnon, S., & Peng, K. C. (2016). Application of the extended Theory of Planned Behavior Model to investigate purchase intention of green products among Thai consumers. *Sustainability*, 8(1077), 1-20.
- Maichum, K., Parichatnon, S., & Peng, K. C. (2017). Factors affecting on purchase intention towards green products: A case study of young consumers in Thailand. *International Journal of Social Science and Humanity*, 7(5), 330-335.
- Marin, C., Rainer, H., & Ulrich, B. M. (2016). Effects of quality claims on willingness to pay for organic food: Evidence from experimental auctions in Croatia. *British Food Journal*, 2218- 2233.
- Mishra, P., & Sharma, P. (2010). Green marketing in India: Emerging opportunities and challenges. *Journal of Engineering, Science and Management Education*, 3, 9-14.
- Mostafa, M. M. (2007). A hierarchical analysis of the green consciousness of the Egyptian Consumer. *Psychology and Marketing*, 24(5), 445-473.

- Mostafa, M. M. (2009). Shades of green: A psychographic segmentation of the green consumer in Kuwait using self-organizing maps. *Expert Systems with Applications*, 36(8), 11030-11038.
- Ngunjiri, F. W., Hernandez, K. A. C., & Chang, H. (2010). Living autoethnography: Connecting life and research. *Journal of research practice*, 6(1), 1.
- Nguyen, H. V., Nguyen, C. H., & Hoang, T. T. B. (2019). Green consumption: Closing the intention-behavior gap. *Sustainable Development*, 27(1), 118-129.
- Padel, S., & Foster, C. (2005). Exploring the gap between attitudes and behaviour - understanding why consumers buy or do not buy organic food. *British Food Journal*, 107 (8), 606-625.
- Paul, J., Modi, A., & Patel, J. (2016). Predicting green product consumption using theory of planned behaviour and reasoned action. *Journal of Retailing and Consumer Services*, 29, 123-134.
- Petljak, K., Zulauf, K., Stulec, I., Seuring, S., & Wagner, R. (2018). Green supply chain management in food retailing: survey-based evidence in Croatia. *Supply Chain Management: An International Journal*, 23(1), 1-15.
- Phuah, K. T., Golnaz, R., Zainalabidin, M., & Nasir, M. S. (2011). Consumers' Awareness and Consumption Intention Towards Green Food. *International Conference on Management (ICM 2011) Proceeding*, 917-926.
- Putten & Nair. (2019). Green Food Product Purchase Intention: Factors Influencing Malaysian Consumers. *Pertanika Journal of Social Science and Humanities*, 27, 1131-1144.
- Qi, X., & Ploeger, A. (2019). Explaining consumers' intentions towards purchasing green food in Qingdao, China: The amendment and extension of the theory of planned behavior. *Appetite*, 133, 414-422.
- Rezai, G., Teng, P. K., Mohamed, Z., & Shamsudin, M. N. (2013). Consumer willingness to pay for green food in Malaysia. *Journal of International food and Agribusiness Marketing*, 25(1), 1-18.
- Ricci, E. C., Banterle, A., & Stranieri, S. (2018). Trust to go green: an exploration of consumer intentions for eco-friendly convenience food. *Ecological economics*, 148, 54-65.
- Saleki, Z. S., & Seyedsaleki, S. M. (2012). The main factors influencing purchase behaviour of organic products in Malaysia. *Interdisciplinary Journal of Contemporary Research in Business*, 4(1), 98- 116.
- Sentot, S. A., Hung, W. S., Ho, S. H., & Sitohand, P. S. (2015). Influence of green marketing towards purchase intention of green products through attitude: Survey on Indonesian and Taiwanese Students. *International Journal of Humanities and Management Sciences*, 3(4), 196-202.
- Shah, H., Aziz, A., Jaffari, A. R., Waris, S., Ejaz, W., Fatima, M., and Sherazi, K. (2012), The Impact of Brands on Consumer Purchase Intentions, *Asian Journal of Business Management* 4(2): 105- 110.
- Shaharudin, M. R., Pani, J. J., Mansor, S. W., Elias, S. J., & Sadek, D. M. (2010). Factors affecting purchase intention of organic food in Kedah. *Cross-Cultural Communication*, 6(2), 105-116.
- Schifferstein, H. N. J., & Ophuis, P. A. M. O. (1998). Health-related determinants of organic food consumption in the Netherlands. *Food Quality and Preference*, 9(3), 119-133.
- Schmidt, J., Bijmolt. (2020). Accurately measuring willingness to pay for consumer goods: a meta-analysis of the hypothetical bias. *Journal of the Acad. Mark*, 48, 499-518.

- Schmuck, D., Matthes, J., & Naderer, B. (2018). Misleading consumers with green advertising? An affect–reason–involvement account of greenwashing effects in environmental advertising. *Journal of Advertising*, 47(2), 127-145.
- Smith, S., & Paladino, A. (2010). Eating clean and green? Investigating consumer motivations towards the purchase of organic food. *Australasian Marketing Journal*, 18(2), 93-104.
- Suhaimi, A. H. M., Kamaruddin, A., Masdek, M. N. R. N., & Dardak, R. A. (2019). Stakeholder Expectations Toward Green Environment: “Malaysia Go Green” through MYSaveFood Initiative. In *Green Behavior and Corporate Social Responsibility in Asia*, 3-16.
- Song, B. L., Safari, M., & Mansori, S. (2016). The effects of marketing stimuli factors on consumers’ perceived value and purchase of organic food in Malaysia. *Jurnal Pengurusan*, 47, 119-130.
- Ali, T., Alam, A., & Ali, J. (2018). Factors affecting consumers' purchase behaviour for health and wellness food products in an emerging market. *Global Bus*, 1-18.
- Tan, P. L. (2019). Factors affecting young adults’ purchase intention of green food products in Malaysia. *Journal of Tourism, Hospitality & Culinary Arts (JTHCA)*, 11 (2), 20-45.
- Tarkiainen, A., & Sundqvist, S. (2005). Subjective norms, attitudes and intentions of Finnish consumers in buying organic food. *British Food Journal*, 107(11), 808-822.
- Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach’s alpha. *International Journal of Medical Education*, 2, 53-55.
- Teng, P. K., Ow, M. W., Sandhu, S. K., & Kassim, U. K. (2018). Green attitude and purchase intention towards environmental friendly product. *Journal of Emerging Economies & Islamic Research*, 6(1), 17-25.
- Teng, P. K. (2011). Consumers’ intention to purchase green foods in Malaysia. *2011 International Conference on innovation, management and service*, 14, 112-118.
- Thambiah, S., Khin, A. A., Muthaiyah, S., & Yen, Y. Y. (2015). Organic food consumption among generation Y in Malaysia: A conceptual framework. *Journal of Applied Sciences*, 15(3), 570-575.
- Thogessen, J., & Zhou, Y. (2012). Chinese consumers’ adoption of a ‘green’ innovation-The case of organic food. *Journal of Marketing Management*, 28(3), 313-333.
- Tiwari, S., Tripathi, D. M., Srivastava, U., & Yadav, P. K. (2011). Green marketing- emerging dimensions. *Journal of Business Excellence*, 18-23.
- Tsakiridou, E., Konstantinos, M., & Tzimitra-Kalogianni, I. (2006). The influence of consumers characteristics and attitudes on the demand for organic olive oil. *Journal International Food Agribusiness Market*, 23-31.
- Ueasangkomsate, P., & Santiteerakul, S. (2016). A study of consumer’ attitude and intention to buy organic foods for sustainability. *Procedia Environmental Sciences*, 34, 423-430.
- Voon, J., Ngui, K., & Agrawal, A. (2011). Determinants of willingness to purchase organic food: An exploratory study using structural equation modeling. *International Food and Agribusiness Management Review*, 103-120.
- Wahid, N. A., Rahbar, E., & Shyan, T. S. (2011). Factors influencing the green purchase behaviour of Penang environmental volunteers. *International Business Management*, 5(1), 38-49.
- Weber, T., Baier, K., & Willers, C. (2015). Sustainable (Green) Food and Purchase Intention – An Analysis of Influence Factors. *International Journal on Advanced Science, Engineering and Information Technology*. 5 (4), 311.
- Welford, R. (2016). Corporate environmental management 3: Towards sustainable development. *Routledge*.

- Wright, R. T., Campbell, D. E., Thatcher, J. B., & Roberts, N. (2012). Operationalizing multidimensional constructs in structural equation modeling: Recommendations for IS research. *CAIS*, 30(23), 367-412.
- Xin, Q., Huaming, Y., & Angelika, P. (2020). Exploring Influential Factors Including COVID-19 on Green Food Purchase Intentions and the Intention–Behaviour Gap: A Qualitative Study among Consumers in a Chinese Context. *International Journal of Environmental Research and Public Health*, 17(19), 7106.
- Yadav, R., & Pathak, G. S. (2016). Intention to purchase organic food among young consumers: Evidence from a developing nation. *Appetite*, 96, 122-128.
- Yadav, R., & Pathak, G. S. (2016). Young consumers' intention towards buying green products in a developing nation: Extending the theory of planned behaviour. *Journal of Cleaner Production*, 135, 732-739.
- Yadav, R., & Pathak, G. S. (2017). Determinants of consumers' green purchase behaviour in a developing nation: Applying and extending the theory of planned behavior. *Ecological Economics*, 134, 114-122.
- Yaowarat, S., Christopher, G., Minsoo, L., & David, A. (2015). Consumers' willingness to pay for organic products in Thailand. *International Journal of Social Economics*, 480-510.
- Yeon Kim, H., & Chung, J. (2011). Consumer purchase intention for organic personal care products. *Journal of Consumer Marketing*, 28 (1), 40-47.
- Yazdanpanah, M., & Forouzani, M. (2015). Application of the theory of planned behaviour to predict Iranian students' intention to purchase organic food. *Journal of Cleaner Production*, 107, 342- 352.
- Yu, X., Gao, Z., & Zeng, Y. (2014). Willingness to pay for the "Green Food" in China. *Food policy*, 45, 80-87.
- Yogananda, A. P. Y., & Nair, P. B. (2019). Green Food Product Purchase Intention: Factors Influencing Malaysian Consumers. *Pertanika Journal of Social Sciences and Humanities*, 27(2), 1131-1144.
- Zakersalehi, M., & Zakersalehi, A. (2012). Attitude and purchasing intention of Malaysian consumers towards green packaged foods. *International Journal of Trade, Economics and Finance*, 3(1), 46-51.
- Zepeda, L., & Nie, C. (2012). What are the odds of being an organic or local food shopper? Multivariate analysis of US food shopper lifestyle segments. *Agriculture and Human Values*, 467-480.
- Zeinab, S. S., & Seyedeh, M. S. (2012). The Main Factors Influencing Purchase Behavior of Organic Products in Malaysia. *Interdisciplinary Journal of Contemporary Research in Business*, 4 (1), 98-116.
- Zhao, X., Lynch, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and Truths about Mediation Analysis. *Journal of Consumer Research*, 37(3), 197-206.
- Zhen, J. S. S., & Mansori, S. (2012). Young female motivations for purchase of organic food in Malaysia. *International Journal of Contemporary Business Studies*, 3(5), 61-72.
- Zikmund, W., Babin, B., Carr, J., & Griffin, M. (2013). Business Research Methods. *Nelson Education, Ltd.*