

How Do Food Safety Knowledge and Trust Affect Individual's Green Considerations During The COVID-19 Pandemic in Malaysia?

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Abstract

Coronavirus disease 2019, henceforth abbreviated as COVID-19, was declared as a global pandemic by the World Health Organisation (WHO) on 11th March 2020, leading to the emergence of a 'new normal' life throughout the society and business practices alike. However, a full understanding of consumer preferences and purchasing decisions of products and services remains untouched till date. Therefore, this study aimed to address consumer purchase intentions of organic food in the 'new normal' practice, wherein a total of 320 valid surveys were received for further analysis. It was conducted in Malaysia using an online questionnaire approach due to the current social distancing practices and concerns. The finding subsequently revealed that food safety knowledge influenced the elements of personal attitude, perceived social pressure, perceived autonomy, and perceived green trust embedded in study respondents. Meanwhile, personal attitude, perceived social pressure, and perceived autonomy were specifically found to correspondingly impact customer purchase intention of organic food. However, perceived green trust did not mediate the relationship between personal attitude, perceived social pressure, and perceived autonomy with organic food purchase intention during the pandemic and 'new normal' life. Accordingly, the study is notably useful for market players in understanding the 'new normal' of one's life post-COVID-19. Thus, it is hoped that much more efforts to disseminate knowledge on food safety among consumers will be encouraged in promoting consumer's purchase intention of organic food, besides opening up more opportunities for related research to be conducted in the future.

Keywords: COVID-19, food safety, individual's green consideration, new normal, green trust

1.0 Introduction

Previous studies on organic food areas are mainly concerned with the issues of environmental sustainability issue due to the destructive consequences of conventional consumption. The intensification of demand and supply in the conventional market, in particular, has caused massive environmental deteriorations. Thus, a high amount of 'ecological price' needs to be paid by businesses due to hasty economic growth, henceforth affecting the future (Chen, 1998). Past studies to date have highlighted a number of challenges for producers and marketers alike in maintaining their position in the local organic and green market as the available data and evidence in the context of Malaysia and specifically on consumer purchase decision area of organic food are rather unclear (Chen, Chen, & Chai, 2010). Besides, a paradox can be perceived thus far regarding the consumption and green claims made by consumers, which is possibly caused by the ambiguity that can affect their purchase intention (Chekima, Khalid Wafa, Igau, & Chekima, 2015). Regardless, this study is focused on the other aspect of organic food consumption in response to the COVID-19 pandemic in understanding the effects of uncontrolled forces. Besides, it is designed to be a reference for the market players and related bodies in reshaping the approaches of organic food marketing in order to develop the industry further in the 'new normal' practice.

The COVID-19 pandemic, which is previously called the Novel Coronavirus, was first identified in December 2019 in Wuhan, China (Sajed & Amgain, 2020). It was declared as a global emergency due to human-to-human transmission infecting millions of citizens, including Malaysians. Following this, the Movement Control Order (MCO) was announced by the Malaysian government beginning on 18th March 2020 as an effort to control the virus spread and transmission. Accordingly, the pandemic has caused massive changes in everyday life and is expected to continue until the virus is cleared and a vaccine is found. As a result, organic food is being consumed by consumers due to it being perceived as safe (Somasundram, Razali, & Santhirasegaram, 2016). However, what is known about its production and consumption processes during the global health crisis? Similarly,

how about other green decisional factors? Being unknown factors, these questions and information are to be highlighted by this study.

The intersecting link for carrying out the present study during the crisis of COVID-19 is due to the growing demand for organic food, which is seen as an effect of concern on one's food safety and health (Ahmad & Juhdi, 2010; Hassan, Yee, & Ray, 2015; Somasundram et al., 2016). As the pandemic is closely related to health concerns and the virus can be easily transmitted between human and other surfaces (Sajed & Amgain, 2020), a new gap of study appears. Indeed, uncertainty perceived regarding the factors affecting consumer intention to purchase organic food cannot be denied, consequently justifying the hindrance for segmenting and communicating with the consumers of the market (Chekima et al., 2015). Currently, it is more difficult during the 'new normal' life as Malaysians and global citizens alike are facing a pandemic that may affect their perception or judgment of organic food and food safety.

The findings of this study may contribute to all stakeholders in terms of scholarly research, governmental entities as the policymakers, businesses from each level of the supply chain, the society in overall, and the researchers themselves. They can further result in a detailed understanding of individual's green consideration factors, which will potentially affect consumer purchase intention for organic food in the 'new normal' life of COVID-19. Thus, the latest market condition and demand can be tapped into accordingly, whereby the parties involved may be able to digest the information for its incorporation into their strategies. By doing so, the gap between consumer perception and product delivery can be lessened, as well as the government and industry players will be assisted in forecasting the potential demand and developing a fundamental approach to govern and strengthen the organic food industry and Malaysia's economy overall.

2.0 Literature Review

2.1 Theory of Planned Behavior

The Theory of Planned Behaviour (TPB) is utilised as the basis of this study, aiding the process of understanding consumer behaviour aspects by involving three main exogenous variables. These variables, namely attitude, subjective norm, and purchase behaviour, are thought to have a causal relationship towards one's purchase intention and purchase behaviour (Ajzen, 1991). Therefore, TPB applies the concept

of behavioural disposition, including external forces (i.e. social pressure) to predict and justify human behaviour that is naturally and rationally carried out in consideration of the information and potential consequence of the behaviour (Ajzen, 1985, 1991).

2.2 Food safety knowledge

Continuous issues of food safety incidents and food-related diseases throughout time have affected consumer trust and led to more demands for safe food supply, including organic food (Wang, Shen, & Gao, 2018). Here, food safety concern is significant, especially in a country embedded with food safety issues and concern regarding food safety and health aspect (Prentice, Chen, & Wang, 2019). In particular, the packaging, labelling, and logo are deemed critical and must be considered by the marketers due to their capacity in strengthening consumer's confidence in the safety of organic food (Prentice et al., 2019). Moreover, food safety is considered the biggest concern expressed by consumers in Asian countries, especially the food hazard aspects.

The negative perception can thus be reduced by minimising one's risk perception and increasing their trust through knowledge and information sharing (Ha, Shakur, & Pham Do, 2018). Furthermore, knowledge of food product safety may potentially influence individual perception and purchase decision, especially when health issues such as COVID-19 arise. Hence, the importance of investigating the manner in which food safety knowledge shapes the consumer's intention to purchase organic food, which is generally perceived as safe, clean, and healthy (Latip, Newaz, Noh, & Mohamad, 2020).

In this context, a number of previous studies have highlighted the influence of food safety towards consumer attitude for organic food purchase decisions (Nguyen, Nguyen, Nguyen, Lobo, & Vu, 2019; Torjusen, Lieblein, Wandel, & Francis, 2001). As the COVID-19 pandemic is a global health crisis, food safety knowledge may possibly affect the consumers' personal attitude, perceived social pressure, perceived autonomy, and perceived green trust due to organic food being perceived as safe food items (Somasundram et al., 2016). Therefore, the following hypotheses are proposed:

H1: Food safety knowledge positively affects personal attitude.

- H2: Food safety knowledge positively affects perceived social pressure.
- H3: Food safety knowledge positively affects perceived autonomy.
- H4: Food safety knowledge positively affects perceived green trust.

2.3 Personal attitude, perceived social pressure, perceived autonomy and purchase intention

In general, the TPB highlights three exogenous variables specifically identified as individual's attitude, social pressure, and control factor (i.e. autonomy) (Ajzen, 1991). Therefore, investigating the individual green consideration factors required the application of all three variables as they have been proven to be stable and valid elements in predicting consumer behaviour, as proposed by previous studies on green products (Latip et al., 2020).

The link between attitude and behaviour is typically regulated by individual judgment and evaluation of results is hence linked with specific behaviour. Indeed, the strength of association found with behaviour may further influence the positive or negative judgment that an individual holds (Ajzen, 1985, 1991). By multiplying the strength of the belief along with an evaluation of the outcome from the action, individual attitude or judgment will contribute towards either a positive or negative behaviour.

Therefore, a positive consumer attitude towards organic food consumption poses a significant effect on the buying intention of organic food (Ham, Pap, & Stanic, 2018). In fact, it is viewed as the most robust antecedent and excellent stimulus for consumer purchase decisions on green food due to its status as a personal control factor (Paul, Modi, & Patel, 2016; Qi & Ploeger, 2019). Besides, the relationship is stronger with past organic food consumption (Koklic, Golob, Podnar, & Zabkar, 2019) and knowledge of the consumer (Nguyen et al., 2019), rendering it essential for one to investigate attitude in the context of this study.

Furthermore, perceived social pressure reflects the social influence of an individual that governs the intention, wherein one's social weight will influence them to either perform or not to perform a specific behaviour in mind (Ajzen, 1985, 1991). Accordingly, a number of previous studies have underlined the significant relationship between subjective norm and organic food buying intention in the context of TPB (Ham et al., 2018; Qi & Ploeger, 2019; Švecová &

Odehnalová, 2019; Zagata, 2012). In particular, social pressure is more substantial in a culture that cares about social perception and conformity (Qi & Ploeger, 2019), a socialist country (Zagata, 2012), or a collectivist society (Sana et al., 2018). This is attributable to the tendency of a collectivistic culture such as Malaysia to care about the relationship and perception of the society (Leonidou, Leonidou, & Kvasova, 2010). However, it is also influenced by various potential barriers, such as food adulteration (Ashraf, Joarder, & Ratan, 2018), access to quality food (Kashif, Awang, Walsh, & Altaf, 2015), and availability factor (Yean, Iris, & Lee, 2019). Social pressure will potentially shift consumer desirability towards the product (White, Habib, & Hardisty, 2019), rendering it essential to examine the perceived social pressure. In the context of this study, the effects of the COVID-19 pandemic and the resulting 'new normal' life on the community's well-being are investigated.

Meanwhile, perceived autonomy can be described as the degree to which an individual feels that they are capable of performing a specific behaviour with the necessary skills and controlling themselves. It is a set of beliefs shaped by numerous factors, including exogenous variables that assist the performance of a behaviour (Ajzen, 1985, 1991). The more autonomy is held by one on their decision, the higher likelihood for them to have an intention to purchase organic food; this is prevalently seen in earlier studies (Ajzen, 1985, 1991; Bandura, 1986) in which it is known as perceived behavioural control in TPB. Furthermore, a study by Croatian researchers has found a direct positive effect between perceived behavioural control and purchase intention (Ham et al., 2018). It is strengthened by the sample criteria employed, which consist of individuals with the autonomy to decide on grocery shopping for themselves and their families. A parallel finding has been correspondingly reported by other research works in the organic food area (Ashraf et al., 2018; Auroomooga Putten & Nair, 2019; Qi & Ploeger, 2019). However, it is noted that individual autonomy is not only present within the area of individual control such as income as per certain scholars, but also the availability and accessibility in the market (Auroomooga Putten & Nair, 2019; Hossain & Lim, 2016). Therefore, the current study is critically required due to the involvement of the autonomy variable, in line with the 'new normal' life caused by the COVID-19 pandemic happening due to different restrictions, including the availability of food. Thus, it is essential to

investigate perceived autonomy in the context of this study, wherein the following hypotheses are proposed:

- H5: Personal attitude positively affects organic food purchase intention.
- H6: Perceived social pressure positively affects organic food purchase intention.
- H7: Perceived autonomy positively affects organic food purchase intention.

2.4 Perceived green trust

Trust is considered a predictive element in explaining individual purchase intention and behaviour (Carfora et al., 2019). In the context of this study, personal green trust mainly focuses on the individual's perspective rather than system trust (i.e. external elements of trust from the supplier, marketer, or organisation). In general, trust plays an important role thus influencing the consumer decision-making process on food purchase, wherein its significance for deciding to buy food items is undeniable and it positively contributes to behaviour in action (Giampietri et al., 2018; Zaidi et al., 2019). The element is especially critical in view of food scandals, food safety, and other negative issues such as greenwashing practices in the green market, leading to scepticism among consumers. This is attributable to its role as one of the psychological factors guiding consumers in their food purchase decision (Carfora et al., 2019). It is critical to understand the effect of the 'new normal' life caused by COVID-19 as the pandemic is a global issue and affects the social life as a whole. In this context, positive influence from one's social circle will build their trust in organic products, thus leading to shifting purchase decisions (Zaidi et al., 2019). In contrast, mistrust on the control system, authenticity, reliability, and validity of organic food poses a negative effect on the consumer buying behaviour (Nuttavuthisit & Thøgersen, 2017). Thus, it is essential to investigate the perceived green trust in the context of this study, leading to the following hypotheses:

- H8: Personal attitude positively affects perceived green trust.
- H9: Perceived social pressure positively affects perceived green trust.
- H10: Perceived autonomy positively affects perceived green trust.

- H11: Perceived green trust positively affects organic food purchase intention.
- H12: Perceived green trust mediates the relationship between personal attitude and organic food purchase intention.
- H13: Perceived green trust mediates the relationship between perceived social pressure and organic food purchase intention.
- H14: Perceived green trust mediates the relationship between perceived autonomy and organic food purchase intention.

3.0 Methodology

3.1 Research design

A correlational study was adopted in this effort to investigate the relationship between food safety knowledge, personal attitude, perceived social pressure, perceived autonomy, perceived green trust, and organic food purchase intention without any involvement of manipulation. The study results were derived from the statistical analysis carried out via Statistical Package for the Social Sciences (SPSS) and Structural Equation Modelling (SEM) through the AMOS software.

3.2 The study population and sampling procedure

The target population of the study was consumers in Malaysia aged 15 years old and above. Based on the statistics obtained, the population for this study for the year of 2019 was $N = 24,981,700$ (Department of Statistics Malaysia, 2019). To ensure a generalised finding, the minimum sample size of the targeted population is a must (Sekaran & Bougie, 2016). Therefore, a minimum size of 320 samples was required based on the 32 items tested by the study, which was supported by a previous study stating that in an SEM analysis, 10 samples are required for each item tested (Hair, Black, Babin, & Anderson, 2010).

The data were collected by using convenience sampling via an online platform, thereby deemed as the right approach due to consumers shifting towards technology (Brick, 2011). More importantly, the global population is facing COVID-19 and calls for avoiding direct contact needs in ensuring an appropriate social distancing practice (Sajed & Amgain, 2020). The link containing the study survey was distributed through online groups and a three-week period was allocated for data collection purposes. Subsequently, a total of 330

valid responses was included for data analysis after any outliers were removed during the data screening process.

3.3 Respondents' profile

Based on the descriptive analysis carried out for the data, a majority of the respondents were female (67.3 per cent). Age-wise, 58.5 per cent of them was between 21 to 30 years old and 21.8 per cent was between 31 to 40 years old. Furthermore, most of the respondents had a bachelor's degree (45.5 per cent), followed by master's degree (30.0 per cent), and diploma (19.7 per cent). Meanwhile, 33.6 per cent recorded a monthly income level below RM1,000, followed by the income range of RM2,001 to above RM3,000 (17.3 per cent), and RM5,000 and above (14.2 per cent). A majority of the respondents were Malaysian citizens (97.6 per cent), while 77.6 per cent of the total respondents had prior experiences in purchasing organic food.

3.4 Measurement and instrumentation

The measurement utilised in this study was adapted from past literature through an in-depth investigation geared towards fulfilling the research objectives. The primary constructs were created by adapting information obtained from previous well-published studies, which had been fairly tested for their reliability and validity to ensure a valid conclusion. The constructs were: (1) food safety knowledge, (2) personal attitude, (3) perceived social pressure, (4) perceived autonomy, (5) perceived green trust, and (6) organic purchase intention (Auroomooga Putten & Nair, 2019; Correa, Junior, & Da Silva, 2017; Junior, Martínez, Correa, Moura-Leite, & Da Silva, 2019; Lian & Yoong, 2019).

4.0 Data Analysis and Results

4.1 Data screening

To ensure the data were entered accurately, data screening was conducted and minimum and maximum analyses were next carried out to identify any missing values, following which the data were coded accurately. Then, an outlier analysis via Mahalanobis analysis was undertaken by using AMOS, whereby any extreme responses were removed to prevent inaccurate findings.

4.2 Full measurement model

Full measurement of the research model was conducted to test the model's fitness, reliability, and validity. The resulting Confirmatory Factor Analysis (CFA) with scores of model fitness are as presented in Figure 1. Here, CFA reported a good model fit score with the minimum discrepancy divided by degree of freedom (CMIN/DF) = 2.294; Comparative Fit Index (CFI) = .939; Tucker-Lewis Index (TLI) = .933, and the Root Mean Square Error of Approximation (RMSEA) = .063 (Awang, Hui, & Zainudin, 2018).

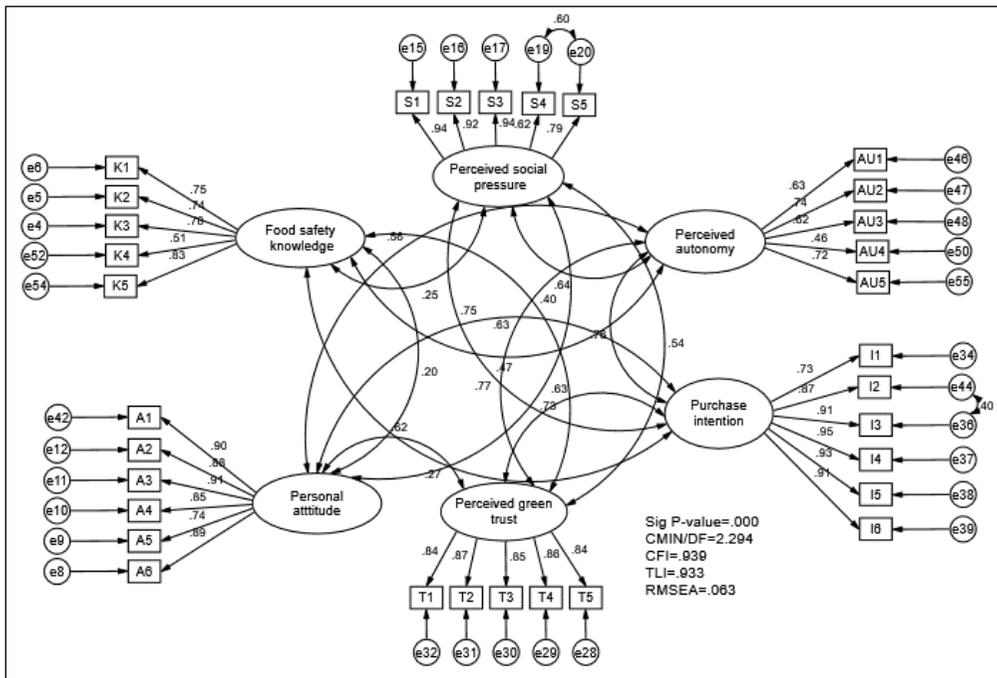


Figure 1 : Full measurement model

Next, the study constructs as shown in Table 2 indicate their respective good validity and composite reliability (CR). In particular, the CR of all constructs achieved the minimum requirement measuring a good internal consistency of the tested items, which was a score of 0.60 and above (Awang et al., 2018). Meanwhile, the AVE of all constructs achieved the minimum score required (i.e. more than 0.5), except for perceived autonomy (Awang et al., 2018). However, an AVE score below 0.5 can be accepted and is adequate for the convergent validity of a construct if its CR is 0.60 and above (Fornell & Larcker,

1981). Besides, discriminant validity in Table 2 shows the value of each diagonal square root AVE, together with the correlation value of the constructs. As the diagonal value is higher than the value for its correlation, discriminant validity is successfully achieved (Awang et al., 2018). Therefore, the constructs were deemed valid.

Table 1 : Items of the constructs

Constructs	Items	Questions
Food safety knowledge (FSK)	K1	I am knowledgeable about food safety
	K2	I know various certificates of food safety from the regulated body on the product packaging
	K3	I know how to choose food products to reduce potential foodborne illnesses
	K4	I try to purchase food that is free from pesticides, fertilisers and genetic modifications
	K5	Overall, I have good food safety knowledge
Personal attitude (PA)	A1	I think purchasing organic food is important during the COVID-19 pandemic
	A2	I think purchasing organic food is beneficial during the COVID-19 pandemic
	A3	I think purchasing organic food is a wise decision during the COVID-19 pandemic
	A4	I think consuming organic food is important for everyone during the COVID-19 pandemic
	A5	I think by consuming organic food, the potential risk of COVID-19 infection can be minimised.
	A6	Overall, I think organic food purchase is a better choice during the COVID-19 pandemic
Perceived social pressure (PSP)	S1	My family thinks that I should purchase organic food products rather than conventional products during the COVID-19 pandemic
	S2	My friends think that I should purchase organic food products rather than conventional products during the COVID-19 pandemic
	S3	Most of the important people to me think that I should purchase organic food products rather than conventional products during the COVID-19 pandemic
	S4	My connection on social media (such as Facebook, Instagram and others) influences me to purchase organic food
	S5	Overall, people around me influence me to purchase organic food during the COVID-19 pandemic

Table 1 : Items of the constructs - continue

Constructs	Items	Questions
Perceived autonomy (PAU)	AU1	I have time to purchase organic food during the COVID-19 pandemic
	AU2	I have the willingness to purchase organic food during the COVID-19 pandemic
	AU3	Price is not the most important factor when it comes to purchasing organic food during the COVID-19 pandemic
	AU4	Organic food can be obtained conveniently in-store (Supermarket, organic food market, hypermarket and others) during the COVID-19 pandemic
	AU5	Overall, I think I have the autonomy to purchase organic food during the COVID-19 pandemic
Perceived green trust (PGT)	T1	I feel that the safety reputation of organic food products is reliable
	T2	I feel that organic food products' safety claims are generally trustworthy
	T3	I feel that organic food products' safety level meets my expectations
	T4	Organic food product keeps promises for food safety
	T5	Overall, I trust claims made by organic food producers
Purchase intention (PI)	I1	I intend to consume organic food products if they are available for purchase
	I2	I will buy organic food products during the COVID-19 pandemic even though it is more expensive than conventional products
	I3	I plan to purchase more organic food products rather than conventional products during the COVID-19 pandemic
	I4	I will buy organic food products for my safety during the COVID-19 pandemic
	I5	I will buy organic food products for my family's safety during the COVID-19 pandemic
	I6	Overall, I have the intention to purchase organic food products during the COVID-19 pandemic

Table 2 : CR, AVE, and squared correlation of the constructs

Construct	CR	AVE	Validity summary Index	PGT	PSP	PI	PAU	PA	FSK
PGT	0.929	0.723	PGT	0.850					
PSP	0.928	0.724	PSP	0.536	0.851				
PI	0.957	0.788	PI	0.632	0.774	0.888			
PAU	0.774	0.412	PAU	0.625	0.637	0.758	0.642		
PA	0.946	0.746	PA	0.615	0.729	0.753	0.556	0.864	
FSK	0.806	0.517	FSK	0.401	0.248	0.268	0.470	0.197	0.719

4.3 Structural Equation Modelling (SEM) Analysis

SEM was utilised in this study to examine the direct relationships and mediating effect of the constructs. As illustrated in Figure 2, the result of model fitness shows that the data collected fit the model, wherein the minimum fitness required is achieved with CMIN/DF = 2.518; CFI= .928; TLI .921, and RMSEA = .068 (Awang et al., 2018). Therefore, further analysis could be administered using the structural model.

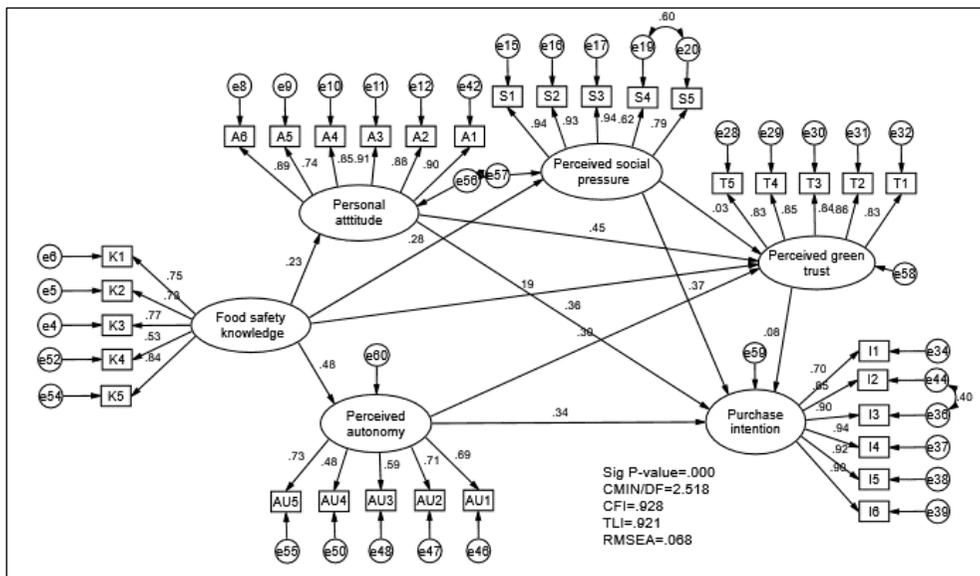


Figure 2 : Structural model of the study

4.4 Direct hypothesis of the study

A summary of the results obtained in this study can be found in Table 3. The outcomes revealed that food safety knowledge posed a positive and statistically significant effect on personal attitude ($\beta = .227$; C.R = 3.778; $p = .001$). When the element went up by 1 standard deviation, personal attitude also rose by .227. Thus, H1 was supported. Moreover, the analytical results similarly showed a positive and statistically significant effect of food safety knowledge on perceived social pressure ($\beta = .284$; CR = 4.783; $p = .001$). When it went up by 1 standard deviation, perceived social pressure also rose by .284. Thus, H2 was supported. Next, when food safety knowledge went up by 1 standard deviation, perceived autonomy also showed an increment of .481, rendering H3 to be supported ($\beta = .481$; C.R = 6.952; $p = .001$). The results further correspondingly revealed that food safety knowledge had a positive and statistically significant effect on perceived green trust ($\beta = .186$; CR = 3.103; $p = .002$). When it went up by 1 standard deviation, perceived green trust also rose by .186. Thus, H4 was supported.

Correspondingly, H5 was supported as the analysis indicated a positive and statistically significant relationship ($\beta = .356$; C.R = 5.748; $p = .001$). When perceived social pressure went up by 1 standard deviation, purchase intention also rose by .356. Meanwhile, H6 of the study was supported ($\beta = .368$; C.R = 6.495; $p = .001$). When perceived social pressure went up by 1 standard deviation, purchase intention also rose by .368. Similarly, the results revealed that perceived autonomy had a positive and statistically significant effect on purchase intention ($\beta = .338$; C.R = 6.495; $p = .001$). When it went up by 1 standard deviation, purchase intention also rose by .338. Thus, H7 was supported.

Next, H8 was supported, whereby the analysis indicated a positive and statistically significant relationship H8 ($\beta = .454$; C.R = 6.405; $p = .001$). When personal attitude went up by 1 standard deviation, perceived green trust showed an increment of .454. In contrast, perceived social pressure was found to be statistically insignificant with perceived green trust ($\beta = .026$; C.R = 0.371; $p = .711$), rendering H9 not supported. Regardless, Table 2 shows the positive and statistically significant effect of perceived autonomy on perceived green trust ($\beta = .298$; C.R = 4.707; $p = .001$). When it went up by 1 standard deviation, perceived green trust also rose by .298.

Thus, H10 was supported. Lastly, the results revealed that perceived green trust was statistically insignificant with organic food purchase intention during the COVID-19 pandemic ($\beta = .077$; C.R = 1.513; $p = .130$). Thus, H11 was not supported as the p-value was more than .05.

Table 3 : Direct hypothesis testing

H	Relationship tested	Std. est.	SE.	CR.	p
1	Food safety knowledge →Personal attitude	.227	.086	3.778	.001
2	Food safety knowledge →Perceived social pressure	.284	.093	4.783	.001
3	Food safety knowledge →Perceived autonomy	.481	.069	6.952	.001
4	Food safety knowledge →Perceived green trust	.186	.060	3.103	.002
5	Personal attitude →Purchase intention	.356	.038	5.748	.001
6	Perceived social pressure →Purchase intention	.368	.032	6.495	.001
7	Perceived autonomy →Purchase intention	.338	.032	6.495	.001
8	Personal attitude →Perceived green trust	.454	.047	6.405	.001
9	Perceived social pressure →Perceived green trust	.026	.046	0.371	.711
10	Perceived autonomy →Perceived green trust	.298	.064	4.707	.001
11	Perceived green trust →Purchase intention	.077	.045	1.513	.130

4.5 Bootstrapping and mediation effect

The bootstrapping test was applied in the next step to examine the mediating effect of self-efficacy, namely to assign the measures of accuracy to the sample estimates (Darren & Paul, 2020). The present study selected 2,000 bootstrap samples with 90 per cent of the bias-corrected confidence interval. A summary of the results obtained is detailed in Table 4 accordingly. To confirm the mediation effect, the indirect effect and significant value between any relationship must be assessed, following which it was revealed that none of the mediation relationships tested was significant. Therefore, no mediation effect was seen for perceived green trust on the personal attitude, and perceived social pressure and perceived autonomy to organic food purchase intention as the significance value was more than .05 for each of them. Thus, H12, H13, and H14 were not supported.

Table 4 : Mediator hypothesis testing

H	Relationship tested	Standardised Direct effect (x → y)	Standardised Indirect effect	Result
12	Personal attitude → perceived green trust → Organic food purchase intention	.356 ($p = .001$)	.035 ($p = .183$)	No mediation effect
13	Perceived social pressure → perceived green trust → Organic food purchase intention	.368 ($p = .001$)	.002 ($p = .565$)	No mediation effect
14	Perceived autonomy → perceived green trust → Organic food purchase intention	.338 ($p = .001$)	.023 ($p = .151$)	No mediation effect

5.0 Conclusion

Based on the analyses conducted, food safety knowledge was found to be statistically significant towards all four variables tested, namely personal attitude, perceived social pressure, perceived autonomy, and perceived green trust during the COVID-19 pandemic. Besides, the variables of personal attitude, perceived social pressure, and perceived autonomy were found to be statistically significant towards organic food purchase intention. In contrast, only personal attitude and perceived autonomy were found to be significant variables towards perceived green trust. Meanwhile, green trust was observed to be statistically insignificant towards perceived green trust and led to no mediation effects on the analyses tested.

The positive effect of food safety knowledge to personal attitude (H1) theoretically explained the manner in which knowledge on the subject increased one's confidence and perception. Such knowledge would lead to stronger individual beliefs and contribute to the intention of buying organic food products among these consumers during the COVID-19 pandemic. The finding is in agreement with previous studies detailing the significant relationship between knowledge and the attitude to purchase organic food (Nguyen et al., 2019). Nonetheless, food knowledge about the offered products could potentially shift the purchase intention and individual perception of these products (Jaiswal & Kant, 2018; Nguyen et al., 2019).

Moreover, the positive effect of food safety knowledge on perceived social pressure (H2) hypothetically explained the manner in which knowledge of food safety strengthened the influence of social pressure to purchase organic food safety during the COVID-19 pandemic. When social pressure is perceived from one's family, relatives, friends, and society, they would have a stronger intention to purchase organic food, especially if they have good food safety knowledge. The relationship becomes much more robust as the internal factor (i.e. individual) and external factor (i.e. social pressure) of the individual are both positive towards the subject matter.

Furthermore, the significant relationship of food safety knowledge to perceived autonomy (H3) is in support of the findings of a previous study, wherein a controlled belief will lead to a positively perceived behavioural control, or autonomy in the context of this study (Zagata, 2012). When an individual is equipped with food safety knowledge, it increases their control of the decision-making, especially during a critical period as highlighted by the original theory of TPB (Ajzen, 1991). Besides, the influence of food safety knowledge to perceived green trust (H4) theoretically explained the effect of knowledge on reducing one's scepticism and the risk that correspondingly lead to perceived green trust during the COVID-19 pandemic. It is in line with findings of a previous study regarding the relationship between perceived knowledge and trust (Teng & Wang, 2015).

Meanwhile, the elements of personal attitude, perceived social pressure, and perceived autonomy were found to be significant towards organic food purchase intention during the COVID-19 pandemic (i.e. H5, H6, and H7). Personal attitude, in particular, was significant as one's intention would be mainly influenced by their control factors: the stronger the influence, the more their tendency to purchase organic food products. This is supported by the TRA and TPB alike (Ajzen, 1985, 1991). In fact, attitude concentrates on the beliefs of an individual that influence their intentions and behaviours (Yzer, 2017), whereby the significance is in line with findings from previous studies (Koklic et al., 2019; Nguyen et al., 2019; Qi & Ploeger, 2019). As the COVID-19 pandemic is a health-related situation, consumers undeniably have concerns about food safety and show health consciousness.

Similarly, external forces otherwise known as perceived social pressure could also affect individual intention to purchase organic food

products. As the pandemic is faced by global citizens, such influence is theoretically stronger in comparison with a normal setting as everyone has their own invested concerns of situation. Principally, one will perceive the social pressure to perform the specific behaviour (Ajzen, 1985, 1991). Furthermore, it is associated with how strong an individual wants to be associated or conform to other people's perceptions (Yzer, 2017). The finding is parallel with previous studies, especially in a collectivistic society like Malaysia (Auroomooga Putten & Nair, 2019; Qi & Ploeger, 2019; Švecová & Odehnalová, 2019). Next, the significance of perceived autonomy towards the purchase intention of organic food theoretically because, when individuals feel that they can perform a specific behaviour, the intention to perform gains robustness and thus parallels with previous studies (Auroomooga Putten & Nair, 2019; Qi & Ploeger, 2019).

Besides, personal attitude and perceived autonomy were found to be significant towards perceived green trust (H8 and H10), whereas perceived autonomy was not significant towards perceived green trust (H9). The finding theoretically explained the significant relationship of self-control behaviour towards perceived green trust during a critical time such as the COVID-19 pandemic. Individual trust is commonly built-up from personal attitude as it is the most substantial antecedent influencing the individual's decision. Meanwhile, attitude is closely related to the behaviour and responses that one exhibits on particular matters (Nelson & Quick, 2015). As the pressure and risk during the pandemic rise high, people may emphasise more beliefs on personal judgments than social influence that is potentially invalid and unreliable. This potentially explains these findings accordingly.

However, no significant relationship was seen between perceived green trust and the intention to purchase organic food during COVID-19, which explained the lack of mediation effect for the perceived green trust. Here, perceived green trust lessens the risk, scepticism, and negative perception that one holds regarding the green aspect of a product, including the issues of greenwashing or misrepresentation practices carried out by companies (Chen & Chang, 2012). Although previous studies have underlined a significant relationship between trust and the purchase intention of organic food (Giampietri et al., 2018; Zaidi et al., 2019), the scenario differs during the COVID-19 crisis. At this point, safety becomes a priority rather than the actual greenside of a product. When consumers have good food safety knowledge, their attitude and perceived autonomy may be

influenced, thus increasing the intention to purchase organic food as it is perceived to be safer than the conventional alternatives (Somasundram et al., 2016). Henceforth, trust in the greener aspect of a product is not significant during a critical time, especially when resources become limited, thereby potentially explaining the findings obtained.

5.1 Limitation and future research

The study encountered several limitations. Firstly, it only measured what was intended to be measured despite other factors potentially influencing the findings. Due to the pandemic, the study heavily depended on an online survey that might be filled by non-targeted or redundant respondents. Besides, it was challenging to gather information from respondents coming from different areas due to the Movement Control Order (MCO) imposed by the government. Therefore, future research can be conducted during a non-pressure period to compare the findings and opt to examine different types of green consumer product. Similarly, future studies should develop a better individual green consideration construct consisting of specific sub-constructs to measure green consumer behaviours, namely personal attitude, perceived social pressure, perceived autonomy, and perceived green trust. This can be done to study green marketing in more detail and ensure a stable and more generalised result. Moreover, a greenwashing variable or communication-related variables should be included in the future towards obtaining better understanding of the topic as external factors may potentially affect individual judgements, other than the dietary habits of consumers (Latip et al., 2020).

5.2 Recommendation and implication

The study may provide additional information related to the organic food industry in Malaysia as it is still considered to be in its infancy, thus requiring more attention for a better development in the future. Moreover, it is expected to contribute towards a new dimension related to organic food studies by offering insights during the challenging period of COVID-19, thereby addressing the different understandings present regarding the subject area.

Therefore, the results of this study highlight several important findings that are somehow contradictory against previous findings

obtained in the same area of interest. Firstly, perceived green trust do not have an effect on consumer purchase intention as it concerns the actual green aspect of a product. Meanwhile, during the critical time of a pandemic, food safety is more important and any issues of food availability may potentially justify the findings. Besides, knowledge of food safety is an essential aspect and affects personal attitude, perceived social pressure, perceived autonomy, and perceived green trust.

During the critical period of MCO, it has minimised consumer movements and somehow affected the supply chain of organic food products. However, the pandemic remains unpredictable and it is potentially changing the ways of life, otherwise called the 'new normal'. Therefore, it is worth an effort to investigate the manner in which consumers think and decide their purchase decisions along with a few barriers, such as limited sources and availability. Besides, the study is highly useful for market players in understanding the 'new normal' life post-COVID-19 and encourages more efforts to disseminate knowledge on food safety among consumers in promoting an organic food purchase intention. In addition, it provides more opportunities for future research efforts to be conducted and compared with the current study.

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