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ORGANIC FOOD IN THE AGE OF UNCERTAINTY: FACTORS IMPACTING CONSUMER INTENTIONS DURING THE PANDEMIC

Stanley Nwobodo*[1]
Swinburne University of Technology, Sarawak Campus

Yaw Seng Ee
Swinburne University of Technology, Sarawak Campus

Christian Chukwuka Ohueri
Universiti Tun Hussein Onn Malaysia (UTHM)

Jodan Chai Ahmed
Swinburne University of Technology, Sarawak Campus

ABSTRACT

The rising global concerns about health and the environment have led to a substantial increase in demand for organic farm products compared to conventional ones. However, there is limited research on consumers' behavioural intentions regarding organic product consumption during pandemics such as Covid-19, especially in regions like Sarawak, Malaysia. This study aims to investigate the factors that influence consumers' intentions to purchase organic products amidst the pandemic. The study expands on the attitude component of the Theory of Planned Behaviour (TPB), incorporating environmental concern, health consciousness, trust, product quality, and affordability. A questionnaire was used to collect data from consumers of organic farm products in Sarawak, Malaysia, and the collected data was analysed using partial least squares - structural equation modelling (PLS-SEM) technique. The findings indicate a significant positive impact of both environmental concern and affordability on purchase intention. However, health consciousness exhibited a negative influence, while product quality and trust did not significantly impact consumers' intention to purchase organic products during the pandemic. This study aims to raise consumers' awareness about the demand for organic products during the pandemic and assist the government and industry players in predicting future demand and developing strategies to strengthen the organic food industry.

Keywords: Organic products, Covid 19 pandemic, Health consciousness, Environmental concern, Affordability, Purchase intention and behaviour

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[1] Address: Swinburne University of Technology, Jalan Simpang Tiga, 93350, Kuching Sarawak, Malaysia. Phone: +60 82 260 996. Email: snwobodo@swinburne.edu.my

1. INTRODUCTION

Organic farming is a fast-growing agricultural sector, widely accepted amongst consumers, farmers, market actors, and policymakers (Willer, 2020). Siegner (2018) attributed the increase in demand for organic products to the consumers' focus on clean labels and the demand for transparency in the food they eat. The growth of the organic market has been felt globally with the market expected to reach USD 320.5 billion by 2025 (Siegner, 2018). The United States has a large organic market value of 56.4 billion USD; while Germany and France have over 10.9 billion euros and 9.1 billion euros organic market value respectively (Willer, 2020). Meanwhile, in Asia, China's organic market is seeing some positive growth due to the increase in food safety issues and consumer interest, while in Malaysia, commercial organic agriculture is still at an infancy stage because over 60% of organic products are imported (Somasundram et al., 2016).

The advent of the Covid 19 pandemic and strict lockdowns to control the spread of the virus, has worsened the situation. Kong (2020) attested that the movement restrictions in Malaysia as a result of covid-19 influenced Malaysian consumers' demand for organic products. Several studies found various factors that drive Malaysian consumers' purchase intention and behaviour towards organic products (Latip et al., 2020; Saleki et al., 2019; Zaidi et al., 2019). Factors such as health consciousness, price consciousness, social influence, environmental concerns, and perceived behavioural control were found to have a significant influence on consumer's intention to purchase organic products (Ling & Ang, 2018; Saleki et al., 2019). Zaidi et al. (2019) opined that trust affects consumers' intention to purchase organic products. In contrast, Latip et al's (2020) study found perceived green trust to have no significant impact on the intention to purchase organic food.

Nevertheless, studies on the behavioural and purchase intention of organic products during consumption during pandemics such as Covid-19, remain underexplored, especially in regions like Sarawak, Malaysia. (Qi & Ploeger, 2021). Most of the studies on the consumption of organic products focused on Western countries with a dearth of research focusing on Malaysia (Aitken et al., 2020; Tsakiridou et al., 2008). Additionally, few studies that have focused on Malaysia were conducted pre-pandemic with less understanding of the changes in consumers' perception during a crisis situation such as the pandemic. Hence, the impact of the pandemic on consumers' intention to purchase organic products in Malaysia remains uncertain, especially in Sarawak—an important state with a population of approximately 3 million people. Understanding this region's dynamics is crucial due to its significant population within Malaysia. The current study would close that gap in knowledge by understanding consumers' perception during crises such as covid-19 pandemic. Therefore, this study aims to investigate the antecedents that influence the consumers' behavioural and purchase intention of organic products during a pandemic. To achieve this, the theory of planned behaviour (TPB) will be adopted and variables integrated to determine the impact of organic products purchase during the pandemic in Sarawak Malaysia. This study will raise consumers' awareness towards the demand for organic products during a pandemic, and also enables the government and industry players to predict future demand and develop standards towards strengthening the organic food industry in Sarawak, Malaysia.

1.1 Organic products

Organic products are renowned for their superior quality as they contain fewer pesticide residues compared to conventional food (Hansmann et al., 2020). Saffeullah et al. (2020) highlighted organic farming as a viable alternative to mitigate the adverse effects of conventional agriculture, encompassing animal welfare, social justice objectives, environmental protection, health and food quality, and sustainable resource use. The organic products industry is rapidly expanding globally, with Denmark, Austria, Thailand, and India emerging as leading producers (Wales, 2019). The primary market segments for organic products on a global scale include milk, meat, bread, cereals, fruits, and vegetables. The consumption of organic products evokes the notion of safeguarding the environment and ecosystem, ensuring enhanced quality and taste, and being free from chemicals, pesticides, and additives (Liang, 2016). For products to be classified as organic, they must comply with established organic standards and obtain certification from recognized regulatory bodies. Consequently, organic farming practices are overseen by regulatory authorities that mandate at least 95% organic ingredients for product production (Bui & Nguyen, 2021).

The International Federation of Organic Agriculture Movements (IFOAM) serves as the global authority for organic products, establishing organic farming standards, accreditation, and certification since 1980 (IFOAM - Organics International, 2022). These standards serve as benchmarks for controlling the cultivation, handling, and processing of organic foods by prohibiting the use of genetically modified organisms (GMOs), agrochemicals, and irradiation (Bui & Nguyen, 2021). Different countries have their own organic standards and certification requirements. In the United States, the National Organic Program (NOP) oversees organic products under the U.S. Department of Agriculture (USDA) to maintain adequate standards. Denmark has the National Organic Law and national regulations to ensure compliance, while Malaysia's organic industry is monitored and regulated by the Department of Agriculture (Dardak et al., 2009).

A study by Kanyakumari (2020) identified factors such as high prices of organic products, lack of public interest, farmers' scepticism towards embracing organic agriculture, and labour shortages as influencing the acceptance of organic foods in Malaysia. Additionally, the Covid-19 pandemic and associated lockdowns have impacted the production and demand for organic food in the country. Despite the existing literature, there is a scarcity of behavioural studies investigating the factors that affect consumers' purchase intentions towards organic food during a pandemic situation (Ling & Ang, 2018; Qi & Ploeger, 2021). To gain insights into consumers' purchase intentions, this study adopts the Theory of Planned Behaviour (TPB) as a base theory to understand consumer behaviour and intentions.

2. LITERATURE REVIEW

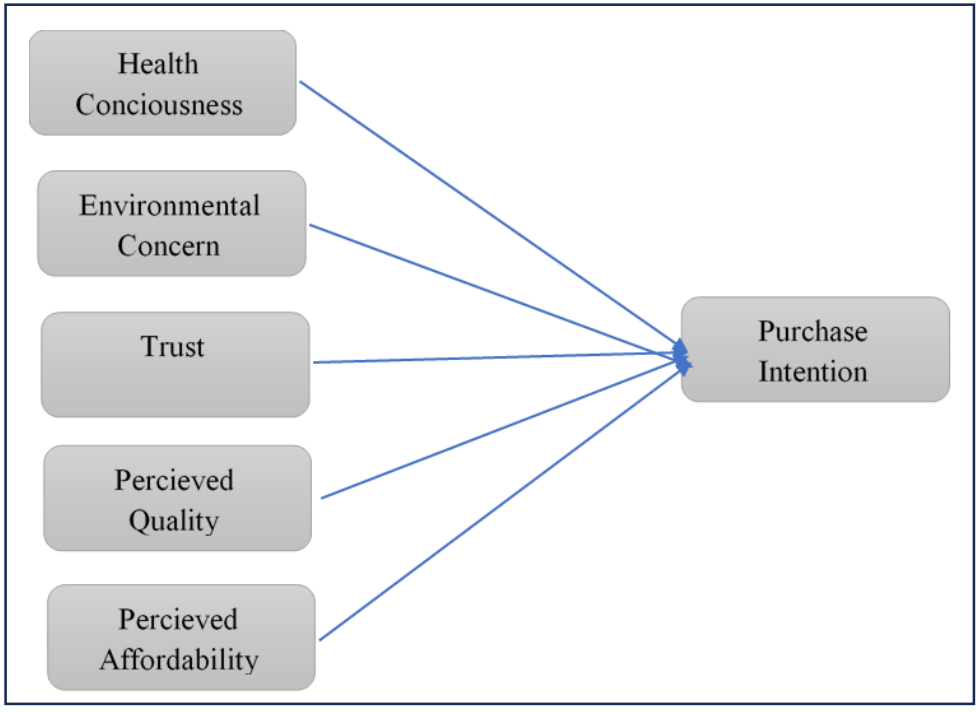
The Theory of Planned Behaviour (TPB) has been extensively employed in food studies, particularly in examining consumer behavior, food decision-making, consumption attitudes, and predicting food choices (Lian et al., 2016). However, scholars have critiqued the TPB, pointing out its limitations (Sniehotta et al., 2014; Sheeran et al., 2013; Conner et al., 2013). Lamorte (2019) argued that the TPB falls short in considering environmental and economic factors that may impact behavioural intentions. Moreover, it has been noted that the model tends to overlook elements such

as past experiences, threats, or anxiety, which can significantly influence behavioural intentions and motivation. The current study seeks to address these limitations by incorporating some of the omitted components to examine their impact on consumers' consumption of organic products. The TPB components include attitude, subjective norm, and behavioural control. Subjective norms revolve around perceived social pressure regarding whether to engage in a behaviour or not (Ajzen, 1991). Consequently, individuals are more likely to purchase organic products if those around them perceive the products as beneficial (Canova et al, 2020). Despite this, subjective norms are generally found to have a weaker influence compared to attitudes (Krueger et al., 2000). Perceived behavioural control, defined as volitional control over opportunities and resources and self-confidence in engaging in a behaviour (Amaro & Duarte, 2015), is considered a crucial factor outside an individual's control but influencing behavioural intentions (Chen et al., 2022).

Consumers with a strong positive intention for certain behaviours are likely to exhibit a higher degree of perceived behavioural control (Yadav & Pathak, 2015). Attitude represents a consumer's favourable or unfavourable preferences toward a behaviour, and is influenced by interactions with the environment (Tandon et al., 2020). A person's attitude is shaped by behavioural beliefs and evaluations, with behavioural belief being a person's belief that engaging in a specific behaviour will lead to a particular outcome. Moreover, an individual's overall evaluation of these beliefs creates a desired attitude toward the phenomena (Ajzen, 1991). The TPB serves as a guide to establishing the conceptual framework for this study, which focuses on exploring the attitude-behaviour gap highlighted in the TPB. Additionally, consumer attitudes toward organic products can be influenced by various variables such as environmental factors, product attributes, health consciousness, trust, and affordability. Therefore, individuals with a strongly positive attitude toward the behavior are more likely to perceive positive outcomes (Chen et al., 2022). This study aims to enhance the understanding of consumer attitudes within the TPB framework by including factors that drive the consumption of organic products. The attitude component will be expanded to include health consciousness, environmental concern, product quality, trust, and affordability, and will be investigated to determine consumers' attitudes toward the consumption of organic products. In summary, this study seeks to examine customer purchase intentions and behaviour by incorporating factors such as health consciousness, environmental concern, product quality, trust, and affordability into the attitude component, the study aims to extend the understanding of consumer attitudes towards organic product consumption during a pandemic situation.

2.1 Conceptual framework

Figure 1: Conceptual Framework



Based on the framework, 5 hypotheses were drawn in this study. This is discussed in detail in the subsequent sections.

2.2 Purchase Intention

As the endogenous variable in this study, purchase intention is defined as a customer's willingness to purchase a product or service (Ahmad & Juhdi, 2010). A consumer with a positive intention to make an actual purchase is considered to have a higher purchase rate compared to the ones with negative purchase intention (Wee et al., 2014). Suprapto and Wijaya (2012), found that a positive attitude will have a significant effect on a consumer's intention to purchase organic products. Schifferstein and Oude Ophuis (1998) suggested that health issues encouraged people to purchase organic food. Magnusson et al. (2001) revealed that health factors have higher significant impact on intention to purchase organic products compared to environmental factors. Terenggana et al. (2013), indicated that individual perception regarding the quality of organic vegetables would generate the behaviour that affects the purchase intention of organic products. Additionally, Lodorfos and Dennis (2008) cited that low prices will affect the purchase intention of organic products. Hence, this study further investigates the factors that influence purchase intention of organic products during Covid-19 pandemic.

2.3.1 Health Consciousness

Health consciousness focuses on maintaining and achieving a healthy life and refers to the desired state of well-being (Lian, 2017). Kai et al. (2013) explained that health consciousness is an important and one of the commonly used motives in explaining consumers' behavioural intention towards organic products. Further studies also found health consciousness to be a vital factor in the purchase of organic products in Thailand and Sweden (Magnusson et al. 2001; Wee et al. 2014). Despite earlier findings, Zaidazuriani et al. (2020) found no positive relationship between health consciousness and consumers' intention to purchase organic foods. In line with Zaidazuriani et al. (2020), Shrestha (2020) suggested that health consciousness is not an important factor for people considering purchasing organic foods. Hence, this study further examines the impact of health consciousness on consumer purchase intention during COVID-19. As a result, the following hypothesis is proposed.

H1: Health consciousness has a positive effect on consumer's intention to purchase organic products during a pandemic situation.

2.3.2 Environmental Concern

Environment concerns relate to an individual's responsibility to ensure the environment is free from pollution and enhance environmental quality. Yogananda and Nair (2019), categorised environment concerns into three pillars which are emotional attributes on environmental problems, readiness to solve environmental issues and awareness towards ecological issues, and willingness to accumulate knowledge. Saleki et al. (2019) found that environmental concerns are a major driver for purchase intention and have a significant effect on consumers' intention to purchase organic food. This implies that high consumption of the organic product is likely associated with interest and concern towards environmental problems (Saleki et al., 2019). Kachaner et al. (2020) study suggested that a significant number of consumers across different countries focused more on addressing environmental challenges during the COVID-19 pandemic. Due to the changes in daily routines during lockdowns, Salleh (2020) argued that Malaysians' level of accountability towards the environment increased during the Covid 19 pandemic. Therefore, this study hypothesises that:

H2: Environmental concern has a positive effect on consumer's intention to purchase organic products during a pandemic situation.

2.3.3 Product Quality

Most customers buy organic products on the ground that they contain more nutrients, greater levels of antioxidants and micronutrients such as vitamin C, zinc, magnesium, and Iron (Brown, 2016). In fact, Darsono et al. (2019) reiterated that a positive relationship exists between product quality and intention to purchase organic food. This coincides with Lian et al.'s (2016) study that suggests Malaysians purchase organic products because they are better in terms of quality and freshness. In contrast, Ling et al. (2018) found that there is no significant relationship between product quality and the intention to purchase the organic product due to the shorter shelf life and decays of some

organic products such as vegetables. As such, this study assumes that consumers may highly consider the product quality and choose organic products over the conventional product during the pandemic. Thus, this study hypothesises that:

H3: Product quality has a positive effect on consumer's intention to purchase organic products during a pandemic situation.

2.3.4 Trust

Voon et al. (2011) referred to trust as confidence in an individual's expectations where unacceptable conducts are eliminated and desirable conducts considered as certain. Hariyanto (2018) found that consumers' trust bridges the gaps in intention to purchase organic products and has a significant positive effect on behavioural intention. Moreover, a pre-covid study by Zaidi et al. (2019) found a significant positive relationship between trust and purchase of organic products. However, Nuttavuthisit and Thogersen (2017) found that mistrust of the control system, authenticity, reliability, and validity of organic food would negatively influence consumer buying behaviour. Latip et al.'s (2020) study noted that trust plays a minimal role in the consumer's decision to purchase organic food and has a negative impact on their behavioural intentions to purchase organic products. Nevertheless, there are limited studies that focus on trust in the purchase intention of organic products. Thus, it is necessary to investigate whether trust would influence the intention to consume organic food during the COVID-19 pandemic and this leads to the next hypothesis.

H4: Trust has a positive effect on consumer's intention to purchase organic products during a pandemic situation.

2.3.5 Affordability

Voon et al. (2011) articulated that affordability is a subset of behavioural control that affects behavioural intention. Generally, conventional products are less expensive than organic products in terms of pricing. The higher price is a result of the greater cost of production, especially labour cost and the opportunity cost when the farmers switch their conventional farms to organic farms (Dardak et al., 2009). Hence, price remains a vital factor and a barrier for lower-income households who are less likely to purchase organic products (Organic Produce Network, 2017). Luqman et al. (2020) put forth the notion that affordability is an important attribute that significantly influences behavioural intention to purchase organic products. The implementation of lock-down across the globe increased the poverty rate in most developing countries and would likely have a negative impact on the affordability of organic products (Bernama, 2020). Therefore, this study hypothesises that:

H5: Affordability has a negative effect on consumer's intention to purchase organic products during a pandemic situation.

3. METHODOLOGY

This section presents the method adopted to actualize the aim of this research. Firstly, a comprehensive and critical review of related literature was conducted as shown in the previous sections. The questionnaire survey was used to obtain data from organic food consumers that reside in Sarawak to test the research hypotheses. To suit the context of the study, the questionnaire was adopted questionnaire from previous studies with minor modifications. Section A comprises the respondents' socio-demographic details, while Section B focuses on the factors affecting behavioural intention towards the purchase of organic products. Table 1 below shows the summary of the key measurement scales.

Table 1: Summary of the key measurement scales

Construct	Adapted From
Health Consciousness	Lee et. al., (2020)
Environmental concern	Lee et. al., (2020)
Trust	Cachero-Martínez (2020)
Product Quality	Wang et. al., (2020)
Perceived Affordability	Lian & Yoong (2019)
Purchase Intention	Wang et. al., (2020)

The questionnaire was structured using an adopted 5-points Likert scale; where 1 corresponding to 'strongly disagree', 2 representing 'disagree', 3 corresponding to 'neutral', 4 representing 'agree', 5 corresponding to 'strongly agree'. Prior to the main data collection, a pilot survey was conducted to test the validity and reliability of the questionnaire. The check for content validity was important for review and possible amendment of the questionnaire (Sushil & Verma, 2010). Subsequently, reliability test was carried out using Cronbach Alpha. Cronbach's alpha coefficient is a widely used measure of reliability for assessing a measurement scale with multiple items (Netemeyer et al., 2003). 20 respondents answered the pilot survey and a Cronbach's alpha of 0.8 was recorded for each construct. Considering Ohueri et al. (2018) study that a minimum score of 0.7 is reliable for quantitative research, the items were regarded as appropriate and credible for the study. Therefore, the questionnaire was utilised for the data collected in the study.

Thereafter, respondents for the main survey were selected using non-probability sampling, particularly purposive sampling. Purposive sampling is often referred to as judgemental sampling where the researcher selects samples from the available and reachable population (Etikan et al., 2016). The questionnaire was distributed to organic product consumers in Malaysia, particularly in Sarawak and a total of 200 valid responses was collected.

This study used SmartPLS software which helps to compute standard results assessment criteria for measurement models, structural models, and goodness of fit (Sarstedt & Cheah, 2019). The PLS-SEM was carried out in three steps. First, the confirmatory factor analysis (CFA) was done to determine the factor loading and heterotrait-monotrait (HTMT) for validation. A correlation analyses was also done to establish validity and reliability of the data by testing for composite reliability (CR) and average variance extracted (AVE) (Byrne, 2010).

Secondly, the collinearity of the indicator was determined by conducting the variance inflation factor, where the critical value of 5 indicates collinarity issues in the model (Hair et al., 2017). Following this, and to show the endogenous construct is explained by the proposed structural model, the assessment of coefficients of determination (R^2) was conducted through running PLS algorithms. Apart from that, Hair et al. (2017) noted that effect size (f^2) will be calculated through PLS algorithms and used to assess the relative impact of an explanatory construct on an endogenous construct. Additionally, bootstrapping was conducted to assess the effect size and significance of the path relationships, and the predictive relevance of the structural model determined through blindfolding procedures (Hair et al., 2017; Ringle et al., 2015). Lastly, in self-reporting surveys, common method bias is a problem because of the nature of the method applied. Using the Harman's one-factor method to examine all the measurement items in the survey questionnaire, no single item accounts for more than 50% of the covariance between the observed variables and constructs (Podsakoff & Organ 1986). As such, common method bias was not an issue in this study.

4. DATA ANALYSIS AND FINDINGS

4.1 Descriptive Statistics Analysis

Table 2: Summary of Respondent's Demographic Profiles

Variable		Frequency	Percent (%)
Gender	Male	83	41.5
	Female	117	58.5
	Total	**200**	**100.0**
Age	18-25	177	88.5
	26-35	22	11.0
	46-55	1	0.5
	Total	**200**	**100.0**
hest Education Level completed	SPM and below 1	8	4.0
	Diploma/Technical School Certificate	23	11.5
	Bachelor	156	78.0
	Masters	11	5.5
	PHD	1	0.5
	Others (STPM)	1	0.5
	Total	**200**	**100.0**
Employment Status	Employed	87	43.5
	Unemployed	113	56.5
	Total	**200**	**100.0**
Monthly Personal Income	No Income	102	51.0
	RM2000 and below	53	26.5
	RM2001-5000	39	19.5
	RM5001-10000	3	1.5
	RM10001-15000	1	0.5

	RM15001-RM20000	1	0.5
	RM20001 and above	1	0.5
	Total	**200**	**100.0**

Table 2 presents the descriptive statistics of the respondents used for this study.

4.2 Measurement Model Assessment

The measurement model used is a reflective model as the indicators point away from the construct. The causal action flows from the construct to the indicators with changes in the indicator reflective of the changes in the construct. As expected, the indicator is interchangeable due to high correlations between the indicators (Freeze & Raschke, 2007). The first step towards the development of SEM is confirmatory factor analysis.

4.2.1 Convergent Validity

Table 3: Confirmatory Factor Analysis Results

Constructs	Items	Outer Loadings	AVE	CR
Environmental Concern	EC1	0.8492	0.5957	0.8797
	EC2	0.6586		
	EC3	0.7334		
	EC4	0.811		
	EC5	0.7925		
Health Consciousness	HC1	0.7706	0.6141	0.8881
	HC2	0.8093		
	HC3	0.8087		
	HC4	0.713		
	HC5	0.8121		
Perceived Affordability	PA1	0.8569	0.5294	0.8339
	PA2	0.8985		
	PA3	0.883		
	PA4	0.4587		
	PA5	0.3399		
Product Quality	PQ1	0.8009	0.6056	0.8838
	PQ2	0.7862		
	PQ3	0.6286		
	PQ4	0.8104		
	PQ5	0.8464		
Purchase Intention	PI1	0.9057	0.7694	0.9434
	PI2	0.814		
	PI3	0.8727		
	PI4	0.889		
	PI5	0.9011		
Trust	T1	0.8807	0.7122	0.9251
	T2	0.8662		
	T3	0.8381		
	T4	0.8551		
	T5	0.7756		

Table 3 shows the outer loadings of all the constructs are above the recommended threshold value of 0.5 (Hulland, 1999); except items PA4 and PA5. This indicates a sufficient level of reliability exhibited by all indicators except PA4 and PA5 which is under the perceived affordability construct. Next, the AVE of the constructs was tested and it exceeded the recommended threshold value of 0.5 (Ringle et al., 2015). The values of all composite reliability (CR) are higher than 0.80 and above the expected minimum level of 0.70 (Sarkar et al., 2001).

These indicate that the constructs' internal consistency and reliability are supported and satisfactory. Hence, except PA4 and PA5, all factors met three criteria of convergent validity. However, the validity of perceived affordability is still adequate as the value of CR and AVE are above the recommended threshold value (Fornell & Larcker, 1981).

4.2.2 Discriminant Validity

Discriminant validity shows the extent to which the measure is novel as well as a reflection of other variables (Churchill, 1979). Discriminant validity for the present study was demonstrated by showing that the squared correlation between two measures is lower than the AVE. This is illustrated in Table 4.

Table 4: The Square Root of The AVE and Correlation Coefficient

Fornell and Larcker	Environmental Concern	Health Consciousness	Perceived Affordability	Product Quality	Purchase Intention	Trust
Environmental Concern	0.7718					
Health Consciousness	0.6195	0.7836				
Perceived Affordability	0.5796	0.4194	0.7276			
Product Quality_	0.6698	0.6229	0.6378	0.7782		
Purchase Intention	0.6113	0.4334	0.8133	0.6209	0.8771	
Trust	0.646	0.5646	0.6138	0.7597	0.5995	0.8439

Table 4 shows that apart from perceived affordability, the square root of the AVE is greater than the correlations between the measure and all other measures. It is because the value 0.7276 of perceived affordability is lower than the value of purchase intention (0.8133). This explains that perceived affordability did not meet Fornell and Larcker criterion but other constructs had met the criterion. Thus, Fornell and Larcker assessment indicates a lack of discriminant validity.
Although Fornell-Larcker is an accepted method for assessing the discriminant validity of a PLS model, this method has a shortcoming. Henseler et al. (2018) applied a simulation test to prove that heterotrait-monotrait (HTMT) ratio can better detect the lack of discriminant validity. The result is illustrated in Table 5.

Table 5: Heterotrait-Monotrait (HTMT) Results

HTMT	Environmental Concern	Health Consciousness	Perceived Affordability	Product Quality	Purchase Intention	Trust
Environmental Concern						
Health Consciousness	0.749					
Perceived Affordability	0.7261	0.5635				
Product Quality_	0.795	0.7557	0.8463			
Purchase Intention	0.6536	0.4692	0.8624	0.6881		
Trust	0.7247	0.6529	0.7793	0.8835	0.6423	

Based on the results, HTMT values for all constructs were below the recommended threshold of 0.90 (Garson, 2016). In this case, discriminant validity has been established between a given pair of reflective constructs. The SEM model was developed after the convergent and discriminant validity as shown in Figures 2 and 3.

Figure 2: SEM Outer Loadings

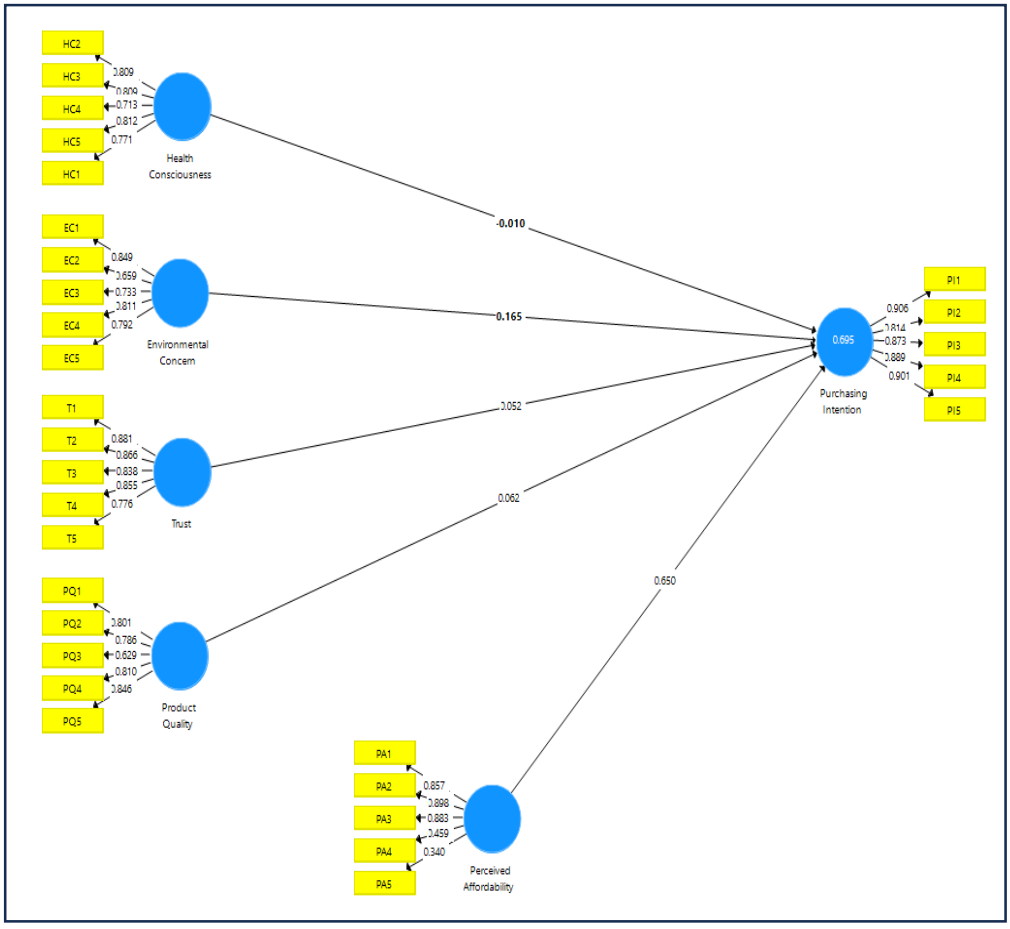
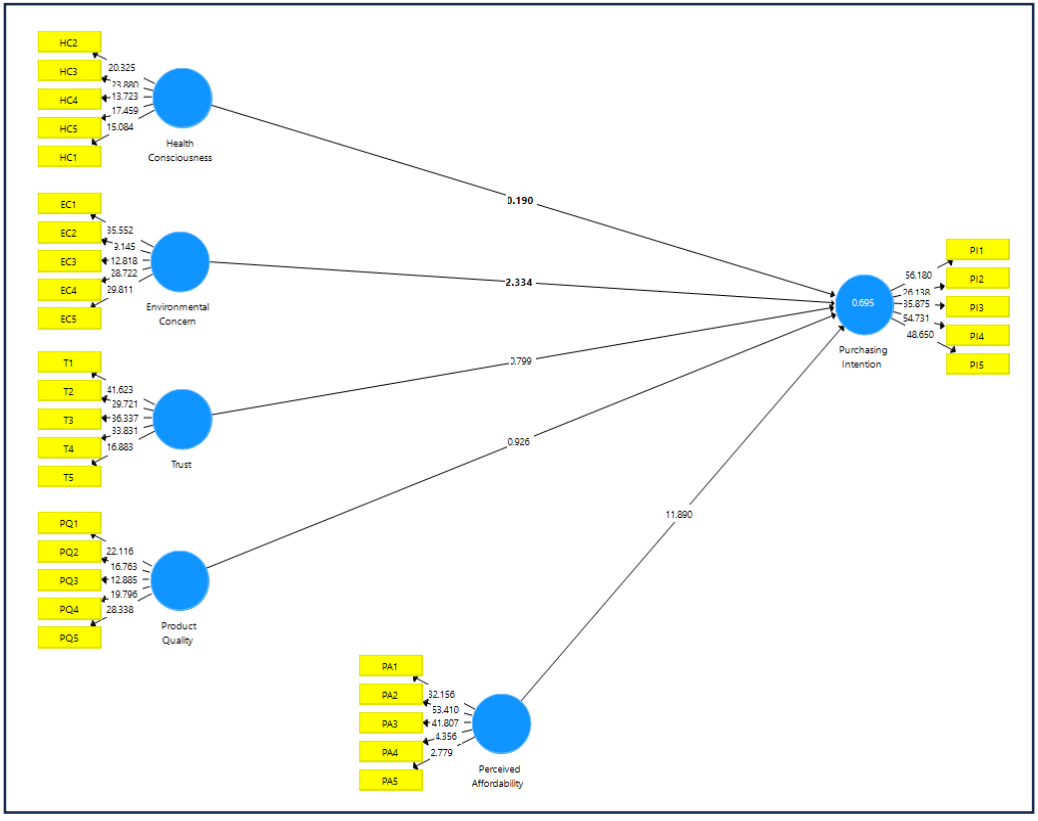


Figure 3: T Statistics



4.3 Hypothesis Testing

Hair et al. (2019) suggested that the collinearity of the formative indicators is measured using variance inflation factor (VIF). Table 6 shows that the VIF values for all the independent variables are less than the minimum threshold of 5, as such collinearity is not a critical issue (Hair et al., 2017). The results from bootstrapping procedure show that health consciousness, has a negative impact on consumer's intention to purchase organic product during Covid-19 pandemic. Also, it was observed that product quality, and trust are found to have no significant impact on consumer's intention to purchase organic product during Covid-19 pandemic. Nonetheless, perceived affordability has a significant positive impact on consumer's intention to purchase organic product during Covid-19 pandemic. Thus, H1, H3, and H4 are not supported. Furthermore, environmental concern has a significant positive impact on consumer's intention to purchase organic product during Covid-19 pandemic. Hence, H2 and H5 are supported.

F^2 is further applied to evaluate the strength of the relationship between the latent variables (Wong, 2013). Cohen (1988) suggested that values greater than 0.35, 0.15, and 0.02 depict large, medium,

and small f^2 effect sizes respectively. The results of the study showed a high f^2 effect size on the relationships perceived affordability and purchase intention (0.7291). A medium effect size (0.039) was seen on the relationship between environmental concern and purchase intention, while the rest show a small effect size.

Table 6: Structural Model Results

Hypothesis	Path Relationship	Path Coefficient β	Standard Error	T Statistics	P Values	VIF	f^2	Decision
H1	Health Consciousness -> Purchase Intention	-(0.004)	0.0512	0.1895	0.850	1.887	0.0002	Not supported
H2	Environmental Concern -> Purchase Intention	0.163	0.0691	2.396***	0.0166	2.305	0.039	Supported
H3	Product Quality -> Purchase Intention	0.0687	0.0658	0.9437	0.345	3.122	0.0041	Not supported
H4	Trust -> Purchase Intention	0.0536	0.0648	0.8021	0.423	2.706	0.0033	Not supported
H5	Perceived Affordability -> Purchase Intention	0.646	0.0541	12.0067***	0.000	1.901	0.7291	Supported

Note: *p< .10, **p < .05, ***p < .01 (one-tailed).

4.4 Coefficients of Determination (R^2) & Predictive Relevance (Q^2)

The coefficient of determination (R^2) result showed that 69.5% of purchase intentions are moderately explained by health consciousness, environmental concern, product quality, trust, and perceived affordability. Hair et al. (2019) noted that the values of 0.25, 0.50, and 0.75 are considered weak, moderate, and substantial respectively. This indicates that the variables have a moderate effect on purchase intention.

The Q^2 results showed that health consciousness, environmental concern, product quality, trust, and perceived affordability have predictive relevance over purchase intention as Q^2 value is above zero (Hair et al., 2017). Hair et al (2019) suggested that values of 0.50, 0.25, and 0 denote large, medium, and small in the predictive relevance measure of the PLS-path model respectively. This indicates that the variables have large predictive relevance over purchase intention. These coefficients can be seen in Table 7 below

Table 7: Coefficients of determination (R^2) & predictive relevance (Q^2) results

Purchase Intention	R^2	Q^2
	0.6953	0.5241

5. DISCUSSION AND CONCLUSION

5.1 Theoretical contribution

The objective of this study is to investigate the factors that influence consumers' decision to purchase organic products during a pandemic situation. Given the limited research on consumers' intentions regarding organic product consumption, this study addresses this critical gap by expanding the attitude component of the Theory of Planned Behaviour (TPB) to include health consciousness, environmental concern, trust, product quality and perceived affordability to understand how consumers in Malaysia make purchasing decisions for organic products. Surprisingly, the study found a negative relationship between health consciousness and purchase intention. This contradicts earlier studies that identified health consciousness as a vital factor in explaining consumers' behavioural intentions towards organic products (Kai et al., 2013; Hassan & Michaelidou, 2008). It also contradicts a previous study in Thailand, which found that health consciousness was an important factor in the purchase of organic products, particularly when consumers were sceptical about residues from synthetic chemicals used in agriculture (Wee et al., 2014). However, some studies have found that health consciousness is not a significant factor in consumers' purchase of organic products (Zaidazuriani et al., 2020; Tarkiainen & Sundqvist, 2005). This suggests that during a pandemic, consumers may not consider organic products as beneficial for their health or may not be actively seeking information about organic food. Additionally, a crisis such as the pandemic may have diminished health consciousness among consumers, especially in developing countries where self-discipline is lacking, and the focus is primarily on survival (Lee, 2020).

On the other hand, the study revealed a significant positive relationship between environmental concern and purchase intention. This finding is consistent with previous research that found environmental concern to be a significant driver of purchase intention for organic products (Saleki et al., 2019; Yogananda & Nair, 2019; Ling, 2013). The study also suggests that consumers in Southeast Asian countries, such as Malaysia, are more aware of the need to care for nature and embrace sustainability due to changes in daily routines during lockdowns (Salleh, 2020). This indicates that consumers prioritize environmental concerns even during a pandemic, demonstrating the extent to which they consider organic food to be environmentally friendly.

Interestingly, the study found no significant relationship between product quality and intention to purchase organic products. This finding is consistent with previous studies (Wee et al., 2014) but contradicts others that found a significant positive relationship between product quality and consumers' intention to purchase organic food (Ozguven, 2012; Basha et al., 2015; Lian et al., 2016). This implies that consumers' perception of product quality is a less important factor and may not be sufficient to motivate them to purchase organic products during a pandemic. The lack

of a significant relationship may be attributed to barriers such as a lack of confidence in organic products (Sudhir & Talukdar, 2004).

Furthermore, the study demonstrated a positive but not significant relationship between trust and purchase intention. This aligns with previous studies that found trust to play a minimal role in consumer decisions to purchase food during the pandemic (Latip et al., 2020). Some studies have found that trust does not significantly impact purchase intention for organic products (Wijesinghe & Aththanayaka, 2021). However, other studies have highlighted the importance of trust in accredited goods and the organic label in influencing consumers' intentions to purchase organic products (Kai et al., 2013; Manson, 2020). It is possible that during a pandemic, there is still a lack of trust and knowledge among consumers regarding organic product labelling, certification, and the honesty of sellers.

Finally, the study found a significant positive relationship between affordability and intentions to purchase organic products during the Covid-19 pandemic. This finding aligns with previous research that identified affordability as a critical factor influencing purchase intentions (Zhen & Mansori, 2012). It also indicates that consumers perceive the higher price of organic products as acceptable and not a barrier to purchase. Despite the economic losses caused by the pandemic, consumers continue to prioritize the consumption of organic products and are willing to pay a higher price, even when conventional products are on sale. Therefore, the economic effects of a pandemic did not result in a negative relationship between affordability and purchase intentions.

5.2 Practical Implication

The managerial implications of the study are multifaceted. Firstly, marketers should leverage online campaigns to bridge the gap between health consciousness and organic product consumption among Sarawakians during the pandemic. Informative campaigns can alter perceptions and cultivate positive attitudes towards the health benefits of organic products particularly during a crisis. Secondly, recognising the significant impact of environmental concern on consumer behaviour, government and marketers should emphasise the eco-friendly aspects of organic production. This entails educating the public about how choosing organic contributes to environmental sustainability, aligning marketing efforts with these values.

Thirdly, addressing the perceived insignificance of product quality, government intervention is crucial to instil consumer confidence. Implementing legislation and monitoring mechanisms to ensure the safety and quality of organic products is imperative. Moreover, building trust in organic products necessitates governmental initiatives, such as labelling standards and certification processes. Marketers, too, should employ strategies that foster consumer trust in organic offerings. Lastly, the affordability factor emerges as pivotal, given the economic impact of the pandemic. Urgent government policies, including wage subsidies and price subsidies on organic products, can alleviate financial burdens and stimulate organic consumption. Private sectors can contribute by incorporating more organic raw materials, fostering affordability and supporting government initiatives. In essence, the managerial implications emphasize the need for collaborative efforts between marketers, government, and private sectors to address health concerns, environmental consciousness, product quality, trust, and affordability, ultimately promoting the adoption of organic products in Sarawak during the COVID-19 pandemic.

5.3 Limitation and future research

This study sheds light on the factors influencing consumers' intentions to purchase organic products during the Covid-19 pandemic. While health consciousness showed a negative impact on purchase intention, environmental concern and affordability exhibited significant positive effects. The findings emphasize the importance of considering consumers' environmental concerns and price sensitivity when promoting organic products during a pandemic. However, further research is needed to explore the specific reasons behind the observed relationships and to investigate these factors in different cultural contexts and countries.

The limitations of the current study include its specific focus on Sarawak, Malaysia, which limits the generalizability of the findings, and the reliance on self-reported data through questionnaires, which may be prone to response bias. Additionally, the study was conducted within a specific time period during the pandemic, potentially overlooking the dynamic nature of consumer behaviours and intentions over time. Future research should aim to address these limitations by conducting cross-cultural comparisons, incorporating qualitative research methods, examining the impact of pandemic information, exploring long-term behavioural changes, and considering supply chain considerations in the organic food industry.

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