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# Crafting the Organic Mindset Through Attitude: A PLS-SEM Approach

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## Abstract

Organic food consumption is a crucial concept of sustainability, especially in the quest for a healthy lifestyle, thus having witnessed human beings' attention shift towards eco-friendly products, altogether eradicating the fear of pesticides' adverse impact. Despite numerous research studies on organic food, very few have focused on health and environmental concerns underpinned by the Theory of Reasoned Action (TRA) in Malaysia's context. Utilizing the TRA, the present study investigates the influencing factors and the mediating impact of attitudes on organic food purchases among Malaysian adults. The study utilized purposive sampling, and data analysis was conducted by Partial Least Square, Structural Equation Modeling (PLS-SEM). Findings from 374 respondents accentuate the significance of attitude (ATT) in organic food purchase intention (PI) while confirming the pivotal role of health consciousness (HC) and subjective norm (SN), be it in PI or ATT. Although environmental concerns (EC) were seen to influence ATT directly but not PI, EC was able to render its impact on PI, mediated by ATT. This study offers crucial information that will aid organic food stakeholders in motivating purchase intention while providing impetus to the organic food's body of knowledge. The present study concludes that organic food proponents can strategize through market segmentation, involving producers and marketers sharing information about product quality, ecological benefits, and flavor.

Keywords: Organic Food; Purchase Intention; PLS-SEM; Environmental Consciousness; Subjective Norms.

# 1. Introduction

Demand for food and clean air has been inevitably growing in tandem with human population growth [1, 2], especially after experiencing an escalating trend of issues that impede food safety in addition to environmental

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#### Journal of Human, Earth, and Future

concerns altogether, causing food quality concerns. Although a fraction of the food industry players has gracefully responded to consumer and environmental concerns by switching to renewable production methods, the majority are still clinging to the conventional style. As such, the use of pesticides in conventional foods has accelerated the demand for organic food [3], whereby consumers are increasingly concerned and sensitive to environmental information, product handling, and brands that are deterrents to the environment [4]. This concern has boosted demand for organic food and eco-friendly products, shifting consumers' support towards companies that produce eco-friendly products [5].

Generally, environmental shortcomings gravitate along pollution, unnatural weather change, and the greenhouse effect, which transpire mainly due to the extensive use of non-renewable resources leading to depletion or resource shortages [6]. As it impacts mankind on a global scale, environmental drawbacks received extensive attention, as did debates, be it from corporations or individuals. The United Nations' Sustainable Development Goal Number 12, which was initiated in the year 2015 and aimed at achieving a sustainable planet, stresses the importance of sustainable consumption and production patterns [7]. Similarly, marketing companies are seen to have channeled their focus towards the environment by harnessing a unique selling proposition towards cultivating green consumerism with eco-friendly products coupled with food technologists, designed to promote organic food consumption [8, 9]. In retrospect, organic food has more health benefits than non-organic food, supposedly a major force in consumer purchasing decisions given its health advantages [10-12], which should facilitate the demand for organic products [13, 14]. It is noted that demand for organic food has increased, especially after the Covid-19 pandemic [15], and developing countries are acknowledged to be the major organic food producers. However, the consumption is mostly done by developed nations [16], thereby creating a disparity. As such, actual consumption among developing nations is unconvincing and does not reflect enthusiasm for organic food despite the environmental attention added to the benefits of organic food [17]. Therefore, consumers, especially from developing nations, are seen to be skewed more towards consuming conventional food than organic [13, 18, 19]. In Malaysian soil, the Chinese ethnic group is seen to have a higher propensity to embrace organic food as compared to Malay and Indian counterparts [20]. However, the Chinese ethnicity makes up only a small fraction, 22.4%, of the 34 million Malaysian population; in addition, not all 22.4% of Chinese consume organic food, which shows that organic food consumption is low in Malaysia. Hence, it is vital to discover elements that influence organic food intention, including attitudinal effects.

Prior research on organic food purchase intention (PI) was inconclusive; likewise, it presented a myriad of dimensions. Studies focus on a string of issues, including health benefits and environmental concerns [21-23], ethical considerations, trust in organic food [17], food safety, and price [24]. In addition, some studies observed the influence of skepticism [14]; consumer ethnocentrism [25], perceived value [26], and brand image on the buying behavior of organic food with a fraction, uncovering demographic and socioeconomic influence [27] on organic food PI. The existing studies are, however, clouded with a lack of comprehensiveness that integrates dimensions into a unified framework. Meanwhile, as reiterated by Asif et al. [28], more attention should be focused on the impact of subjective norms or perceived social pressure and the role of attitude in the PI of organic food, as these relationships vary across different contexts. People have adopted eco-friendly practices and grown more conscious of environmental issues in recent times [11]. Studies have also observed that consumers' environmental consciousness (EC) has a significant impact on their attitude toward organic food, indicating a positive attitude toward green and organic products [1, 11].

Hence, the present study utilized the TRA to analyse and predict consumer PI towards organic food, focusing on health, environmental consciousness, and subjective norms (SN) while investigating the mediating impact of attitude (ATT) on PI among Malaysian consumers. The outcome of this study will provide impetus to the body of knowledge on organic food PI and facilitate a more customized policy in the quest to uplift organic food PI.

The current study is structured as follows: Section 2 presents the literature review and development of hypotheses. Section 3 presents the methodology in terms of data collection and measurement of the scale of items. Section 4 and Section 5 present the results and discussion of the study, followed by Section 6, which discusses the implications of the study. Section 7 and Section 8 discuss the limitations, future research avenues, and conclusion of the study.

# 2. Literature Review

## 2.1. Theoretical Background

Prior studies on organic food purchase decisions were broadly built upon TPB [29], which emphasizes the key factors that shape behavior. TPB was seen to be relevant in this context as it allows the prediction of planned behavior that is both conscious and intentional [28, 30-32]. Similarly, Su et al. [33] investigated the determinants of PI among young consumers in a developing country utilizing the TPB, which provides insights into the characteristics of products, consumer concerns, and consciousness as antecedents that affect young consumers' health and social consciousness, impacting their ATT and purchase frequency towards organic foods. Subsequent studies [30, 34] have recapitulated TPB's usefulness in predicting behavior towards organic food. Nevertheless, most studies employing TPB were clouded with inconclusiveness. TPB notably expands TRA by incorporating perceived behavioral control (PBC). Although TPB

#### Journal of Human, Earth, and Future

recognizes external elements such as accessibility and cost, it may not be perfectly positioned to completely grasp the distinct obstacles encountered by consumers in the organic food industry. PBC, which refers to the extent to which an individual believes they can control behavior at will, may not be essential when studying consumer decision processes regarding the PI of organic food. This was seen in several studies on organic-related products where PBC was unsuccessful in rendering its effect on PI [24, 35, 36]. Consequently, perceived behavior control is not considered in the present research framework.

The Theory of Reasoned Action (TRA), developed by Fishbein & Ajzen [37], offers a concentrated perspective on the psychological basis of intentions to purchase organic food. TRA posits that attitude is a predictor of behavioral intention (BI). BI is the motivation or readiness to perform a specific action by an individual. It is influenced by the individual's positive or negative attitudes and subjective norms, which are perceived social pressures to either perform or not perform the behavior. In the context of organic food, TRA suggests that consumers' attitudes towards organic food and subjective norms influence their purchase intention. Beliefs in the health benefits and environmental consciousness drive positive attitudes towards organic food. Similarly, subjective norms (SN) consist of perceived expectations and values of family, friends, and society and also influence the behavioral intention towards organic food. Hence, while studying organic food PI, TRA facilitates inspecting reasons for it, the organic food being valued, whether motivated by health consciousness, environmental concerns, or subjective norms. Examining subjective norms sheds light on whether individuals perceive organic food as socially desirable or whether their social circle encourages its adoption. Therefore, this study leverages TRA to examine how EC, HC, and SN influence individuals' PI towards organic food.

## 2.2. Development of Hypotheses

Consumers' PI comes from individuals' intention to buy products according to their quality and brands. When customers are eager to purchase a particular product or service, they rely on internal and external factors [34]. PI also includes the probability of a consumer repurchasing the same item based on their previous purchase history, or it is a need for a product that can force a customer to buy the product again and again. Similarly, cognitive factors about mental processes and purchase decisions constitute PI [38]. In line with this notion, customers having the PI will translate it to actual purchases compared to customers devoid of PI, reiterated by Spears and Singh [39], who explained that buyers aim to acquire organic food as the precursor to actual purchases.

Purchasing intention (PI) is a crucial factor in marketing strategies, as it drives consumers' eagerness to buy certain items and services. PI helps marketers anticipate customer behavior and gauge market share [40]. Associations can make critical decisions related to new and existing products and marketing programs [40]. PI can be a development plan but may only sometimes lead to actual purchases. An increase in purchase intention (PI) is associated with a higher likelihood of consumers making a purchase decision. Consumers who exhibit a stronger preference for a product are more inclined to take action by making a purchase [41].

Numerous factors impact the decision to purchase organic food. Research by Desai et al. [42] concludes that emotional value is a significant factor affecting PI. This study observed that emotional value has a stronger positive correlation, while sensory appeal shows a negative correlation. Various studies have highlighted the importance of health motives, food safety, and knowledge about organic food in facilitating purchases [21, 43, 44].

## 2.2.1. Health Consciousness (HC)

Health consciousness has been one of the key areas of focus given the adverse impact of unhealthy eating habits; as such, organic food is seen as an excellent alternative [45]. As such, a shift in pattern skewed towards healthy consumption and food security was taking place expansively, particularly on organic items [41, 46, 47]. Thus, the demand for organic food has grown substantially, driven by the belief that it is more beneficial to health than non-organic options [46]. Health-conscious individuals prefer organic food products due to their reduced toxicity and adulteration, with most being free of harmful pesticides [47]. Studies have indicated that there is a consumer perception associating organic food products with higher nutrient content, antioxidants, and overall nutritional value, which can provide numerous health benefits [48, 49]. Health is crucial in influencing consumer choices, and many opt for environmentally friendly products to prevent degradation and maintain a healthy lifestyle [30, 50]. Another study by Eberle et al. [51] examined the connection between ecological and health awareness and PI and how this connection is influenced by factors like gender and household income. Organic food is viewed as a vital nutritional component that helps prevent diseases and ensures overall well-being. Based on these, the following proposition is developed.

H1: HC positively affects the PI of organic food.

## **2.2.2. Environmental Consciousness (EC)**

Environmental concern refers to the mindset of individuals about the environment and its degradation. Recently, people have become more concerned about the environment and have implemented eco-friendly behavior to reduce issues. Consumers prefer eco-friendly and organic products with less environmental impact [12, 30]. Existing studies have shown that environmental concern is a significant predictor of PI for eco-friendly products.

EC directly impacts the consumers purchasing ATT towards organic food [52, 53]. This shows that a consumer who is serious about protecting his environment will tend to have a positive ATT towards green products. Research indicates that individuals with greater environmental concerns tend to prefer organic food [54]. Some studies have also noted that age influences organic food consumption. Older consumers, more committed to society due to their moral sense, are more likely to consume organic food [32, 47]. Older consumers can acknowledge the social significance of organic food if it offers social duty (e.g., less ecological damage) and physical advantage (e.g., more health, fewer food safety concerns), which can significantly develop their PI [47]. Therefore, the proposition developed is as follows:

H2: EC positively affects the PI of organic food.

## 2.2.3. Subjective Norms (SN)

As per Ajzen's [29] definition, SN refers to the perceived social pressure towards a particular behavior or action. SN is a social factor that changes the individual's mindset to act towards a specific behavior. It comes as a result of normative belief (NB) and motivation to comply. NB is the observation towards a specific situation that is done by an individual and is important to the mindset of an individual. On the other hand, the motivation to comply is to meet the specific standards of the opinion of other individuals [29]. SNs are important components that can impact a consumer to purchase a certain product. Many consumers are not aware of particular behaviors' outcomes and thus, look for others to support them [55]. Various studies and research in the past have found a significant correlation between SN and ATT [21, 56].

Studies on the impact of SN on the PI of organic food have yielded different results. Studies found both positive and negative associations between SN and organic food PI [34, 57]. In addition, Irianto [58] observed the effect of SN mediated by ATT towards the PI of organic food. Therefore, the study developed the following proposition:

H3: SN positively affects the PI of organic food.

## 2.2.4. Attitude (ATT)

The concept of ATT refers to how consumers perceive and evaluate a particular behavior, which can be either positive or negative [54]. ATT is based on two factors: consumers' beliefs about the outcomes of a particular behavior (behavior belief) and their judgment about potential outcomes (outcome evaluation) [29]. ATT is a psychological construct that encompasses thoughts, beliefs, and emotions related to a specific object [47]. The TPB states that ATT is the main factor influencing behavioral intentions. As a result, the intention to take action will increase as the ATT level rises [29].

According to the study conducted by Bazhan et al. [34] and Irianto [58], an individual's attitude towards organic foods performs a mediating role in their PI of organic foods. Rashid & Lone [52] revealed that various internal factors, such as a positive ATT towards organic food and a strong HC, and external factors, such as SN and EC, positively influence PI. Therefore, ATT plays a significant role and influences the direct and indirect effects of SN. Other studies also emphasized consumer ATT to have an impact on organic food PI [52].

Therefore, the present study develops the following hypotheses. Additionally, it considers ATT as a mediator in this relationship. The study framework is shown in Figure 1.

H4: ATT has positive influences on the PI of organic food.

H5: HC positively influences ATT of organic food.

H6: EC positively influences ATT of organic food.

H7: SN and ATT have a significant positive relationship.

H8: ATT has a mediating role between HC and the PI of organic food.

H9: ATT has a mediating role between EC and the PI of organic food.

H10: ATT mediates the relationship between SN and the PI of organic food.

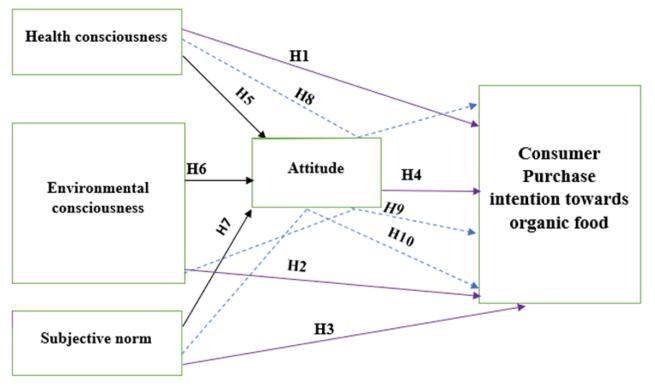


Figure 1. Research Framework of the study

# 3. Research Methodology

## 3.1. Data Collection

The present study is conducted on adult Malaysian citizens residing in the Klang Valley region, including professionals, students, and self-employed individuals. The focus is on those possessing purchasing power and managing their daily consumption. The research involves individuals aged 18 and above with diverse education levels, ages, marital statuses, genders, occupations, and income levels. The research methodology utilizes purposive sampling designs, with a survey sample size of 374 sets of questionnaires. Purposive sampling, also known as judgmental sampling, is a non-probability sampling technique. The primary aim of this method is to focus on specific population characteristics of interest, which will best facilitate addressing the research questions [59]. The target respondents include adults with purchasing power and influence, such as students and individuals with varied backgrounds. Respondents were chosen from various locations, including universities, corporate offices, shopping malls, and community centers. A total of 400 structured questionnaires were distributed using Google Forms via WhatsApp. After several follow-ups, 374 completed responses were obtained for analysis.

The study employs a structured questionnaire that measures constructs based on existing studies. The study involved a three-part questionnaire consisting of sections A, B, and C. The sections covered demographic information (gender, age, race, education, income, and occupation), respondents' knowledge of organic food to ensure a thorough understanding of the topic, and finally the PI variables. A closed-ended questionnaire was utilized to allow for easy participant response. Figure 2 presents the methodological workflow of the study.

## 3.2. Measurement Scale and Item

The study's objective was to determine consumer purchase intention on organic food. The survey consisted of 7 items to ascertain respondents' demographic information and one screening question to assess their knowledge of organic food. This was followed by 25 items to measure the latent variables using a 5-point Likert scale. The instruments were developed with reference from past validated studies, all of which recorded a reliability value of 0.7 and above. 5 items to measure subjective norms were adapted from [60], followed by health consciousness [61], attitude [60], environmental consciousness [62], and organic food purchase intention [61]. A pretest activity was undertaken using 6 respondents to avoid ambiguities; hence, respondents understand the items as they intend to measure [63]. A variance-based structural equation modelling; PLS-SEM was employed to analyse exogenous-endogenous relationships.

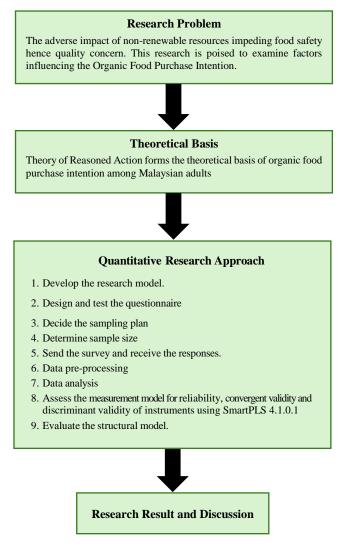


Figure 2. Methodological Flow of the study

# 4. Result

## 4.1. Demographic Analysis

Annex I present the demographic statistics of the study. The table presents the respondents in terms of race, gender, age, educational level, occupation, and income. The majority of the respondents were male. Moreover, the maximum respondents were 18-25 years old (84.2%). Out of the total respondents, the majority were Malay (49.5%), followed by Indian (20.9%) and Chinese (20.1%). The remaining 9.6% belonged to other ethnic groups. In terms of education, the maximum respondents belong to the group of Bachelor's degree. 66% of respondents did not disclose their income, followed by 17.1% in the income group of RM 2000 and below.

## 4.2. Descriptive Analysis

The descriptive analysis measures the central tendency, or the variability of the data collected on both the dependent and independent variables. The mean and standard deviation are depicted via descriptive analysis for each variable.

Lable	Table 1. Descriptive Analysis (N=3/4)				
Variables	No. of items	Mean	Std. Dev		
SN	4	3.2473	0.72604		
HC	6	3.8775	0.65794		
EC	3	3.5555	0.52526		
ATT	6	3.6805	0.66445		
PI	5	3.4706	0.66028		

Table 1. Descriptive Analysis (N=374)

#### Journal of Human, Earth, and Future

#### 4.3. Measurement Model Assessment

The measurement model undergoes evaluation based on internal consistency reliability, convergent validity, and discriminant validity [64, 65]. Table 2 displays Cronbach's alpha (CA) and Composite Reliability (CR) to show the internal consistency of the model. The acceptable range for reliability is between 0.7 and 0.9, as prescribed by Hair & Alamer [64]. To measure convergent validity, the study used the Average Variance Extracted (AVE) method. The AVE is a useful tool for testing both convergent and divergent validity [66]. It measures the level of variance between constructs, as opposed to the level of variance caused by measurement error. According to Hair et al. [67], a value of 0.70 is considered good, while a value of 0.50 is deemed acceptable. In this study, all variables have achieved a minimum threshold value of 0.50, indicating that they explain fifty percent of the variance of their respective indicators. Moreover, the outer loading of the items included in the measurement model is within the recommended level of 0.708 [64] except for three items (0.620, 0.674, and 0.697). However, loading values of 0.5 or greater are acceptable if the AVE scores exceed 0.5 [68].

Variable	Item	Loading	CR	AVE
	PI1	0.812		
	PI2	0.817		
	PI3	0.759		
Purchase Intention	PI4	0.772	0.892	0.622
	PI5	0.782		
	AT1	0.62		
	AT2	0.806		
	AT3	0.792		
Attitude	AT4	0.809	0.893	0.583
Attitude	AT5	0.803	0.895	0.585
	AT6	0.733		
	EC2	0.812		
Environmental Concern	EC3	0.708	0.776	0.538
	EC4	0.674		
	HC1	0.804		
	HC2	0.706		
Health Consciousness	HC3	0.74	0.888	0.569
Health Consciousness	HC4	0.775	0.888	0.569
	HC5	0.799		
	HC6	0.697		
	SN1	0.734		
CN	SN2	0.741	0.940	0.594
SN	SN3	0.778	0.849	0.584
	SN4	0.802		

Note: EC1 was deleted due to low loadings

To assess the extent to which different constructs differ from one another, a discriminant validity test is performed. Our current study employs the HTMT ratio by Henseler et al. [69]. HTMT is a new and more reliable alternative that should be applied. According to Tabri & Elliott [70], the HTMT value should be below 0.85, indicating that the two constructs are not highly correlated. Hence, the discriminant validity is established, as all values are smaller than 0.85 (see Table 3).

Table 3. HRMT Ratio					
Variables	ATT	EC	НС	PI	SN
ATT					
EC	0.732				
HC	0.435	0.376			
PI	0.793	0.539	0.447		
SN	0.596	0.535	0.337	0.686	

## 4.4. Structured Model

To evaluate the structured model and the explanatory power of the dependent variable, the coefficient of determination ( $R^2$ ) was computed. The  $R^2$  of Attitude was 0.399 and for PI it was 0.538, which is higher than the level of 0.26 for strong explanatory power [71]. The results show that the independent variables explain a 39.9% variance in Attitude and 53.8% variance in PI. The findings of the study's structural model are shown in Table 4. Through the hypothesis test, the relationship between variables was tested. Health Consciousness ( $\beta = 0.130$ , p<0.01), Subjective Norms ( $\beta = 0.282$ , p<0.01) and Attitude ( $\beta = 0.502$ , p<0.01) were all positively related to Purchase Intention while Environmental Concern was statistically insignificant. Thus, H1, H3 and H4 were accepted while H2 was rejected.

Health Consciousness ( $\beta = 0.191$ , p< 0.01), Environmental Concern ( $\beta = 0.354$ , p< 0.01) and Subjective Norms ( $\beta = 0.304$ , p< 0.01) were all positively associated with Attitude which supports H5, H6 and H7 of this study.

Finally, we used the Preacher and Hayes (2008), bootstrapping the indirect effect method to test mediation. Health Consciousness  $\rightarrow$  Attitude  $\rightarrow$  PI ( $\beta$  = 0.096, p< 0.01), Environmental Concern  $\rightarrow$  Attitude  $\rightarrow$  PI ( $\beta$  = 0.177, p< 0.01) and SN  $\rightarrow$  Attitude  $\rightarrow$  Purchase Intention ( $\beta$  = 0.152, p< 0.01) were all significant with 0 not straddling the upper and the lower limits thus confirming that the mediation was significant. This gives support to H8, H9 and H10.

The predictive power of the model was tested using PLSpredict [72]. When all of the item differences for RMSE (PLS-LM) are lower, it indicates strong predictive power. However, if the majority of the items are lower and only a few items are higher, it expresses the moderate predictive power of the model. Conversely, if the minority of the items are lower, there is low predictive power. In the present study, as shown in Table 5, the PLS-LM\_RMSE highlights that PLS-SEM provides a moderate improvement over the simpler LM approach.

				-				
Hypothesis	Relationship	Std. Beta	Std. Dev.	t-value	p-value	PCI LL	PCI UL	f <sup>2</sup>
H1	HC → PI	0.130	0.048	2.701	0.003	0.051	0.211	0.031
H2	$EC \rightarrow PI$	-0.018	0.053	0.347	0.364	-0.106	0.067	0.001
Н3	$SN \rightarrow PI$	0.282	0.044	6.327	p<.001	0.206	0.351	0.127
H4	Attitude $\rightarrow$ PI	0.502	0.044	11.447	p<.001	0.425	0.571	0.328
Н5	HC $\rightarrow$ Attitude	0.191	0.044	4.352	p<.001	0.117	0.261	0.054
H6	$EC \rightarrow Attitude$	0.354	0.053	6.648	p<.001	0.261	0.438	0.175
H7	$SN \rightarrow Attitude$	0.304	0.047	6.454	p<.001	0.225	0.382	0.128
H8	$\mathrm{HC}  \mathrm{Attitude}  \mathrm{PI}$	0.096	0.024	3.915	p<.001	0.051	0.146	0.009
H9	$EC \rightarrow Attitude \rightarrow PI$	0.177	0.032	5.609	p<.001	0.118	0.241	0.031
H10	$\mathrm{SN}  \mathrm{Attitude}  \mathrm{PI}$	0.152	0.026	5.772	p<.001	0.103	0.208	0.023

#### Table 4. Hypothesis testing result

#### Table 5. PLS-Predict

MV	Q <sup>2</sup> predict	PLS-SEM_RMSE	LM_RMSE	PLS-LM_RMSE
PI1	0.239	0.711	0.692	0.019
PI2	0.253	0.767	0.772	-0.005
PI3	0.268	0.717	0.719	-0.002
PI4	0.206	0.708	0.714	-0.006
PI5	0.173	0.776	0.773	0.003

# 5. Discussion

The research findings show that health consciousness is positively related to purchase intention, clearly reflecting and supporting the notion that consumers are increasingly conscious of health-related problems and consider health an essential factor when purchasing food products. A similar pattern was also observed in numerous studies [14, 15, 52, 62]. Perhaps such a scenario is more prevalent after experiencing the brunt of the COVID-19 pandemic, thus individuals exhibit a more health-conscious behavior, leading towards organic food purchase intention. This is especially glaring in developing nations such as Malaysia, India, and Iran, which subsequently underscores the importance of being health-conscious among developing nations and throughout the globe as enshrined in the United Nations' SDG Goal 12 of achieving sustainable consumption. As such, consumers are increasingly conscious of their health concerns and view their overall well-being as a critical consideration when selecting food items [62].

However, the current study has observed no significant relationship between EC and PI. This comes as a surprise because EC refers to the mindset of individuals about the environment, and its degradation could be seen as a precursor to sustainability, yet it was not supported in this study. Nevertheless, the current outcome aligns with the findings of the previous study conducted by Castillo-Apraiz et al. [57]. The results may be influenced by various factors. This could be because most of the respondents are Generation Y, who are generally perceived to be 'now focused' [62] instead of future and sustainability. It is possible that the respondents are not fully aware of the environmental impact of organic food items [73]. Additionally, organic food items tend to be more expensive than regular or conventional items, and students, despite their environmental concerns, may prioritize cost [74]. Another reason that could affect this statistically insignificant result is consumers' uncertainty about the perceived effectiveness or impact of their purchase decisions on the environment [75]. However, a study on young consumers found that environmental awareness predicts the purchase intention of organic food [28]. The present study supported Magnusson et al.'s [76] findings that self-centered motives such as HC are more influential than humanitarian motives such as EC in the decision to buy organic food items across different countries. This result differs from the findings of Arcese et al. [77], where it is observed that EC is negatively associated with consumers' purchase intentions. Conversely, some other studies have observed a positive association between EC and PI of organic foods [51, 78, 79].

The third hypothesis measured was the relationship between SN and PI. The findings present that SN positively influences organic food PI. This result matches with existing studies [28, 80]. A study on the young Chinese consumer observed that subjective norms and environmental awareness predict the PI of organic food items [28]. This indicates increasing consciousness among individuals leads to initiating organic food PI as the social standard [28]. Similar research conducted in the past reveals that SN shows insignificance with (PI), indicating that it has not become a social norm in developing nations [60, 62, 81], thereby contradictory to the results obtained from this study.

The present study noticed that there is a significant correlation between ATT and PI (hypothesis four). Hence, the current study also discovered that having a positive attitude toward organic products strongly influences the intention to make a purchase. Previous research also supports this relationship. It is reasonable to suggest that ATT is a strong predictor of PI, given that consuming organic foods is a highly individual behavior influenced by personal beliefs [62].

This study found a statistically significant relationship between HC, EC, and SN and their impact on ATT towards organic food. These results align with existing literature by Yadav & Pathak [62], Hsu et al. [82], Li & Jaharuddin [83], and Sing & Verma [84]. The eighth, ninth, and tenth hypotheses measure the relationship of HC, EC, and SN with PI, where ATT acts as a mediator. The mediation effect has been estimated by the running process for each of the independent variables. The outcome revealed that all the variables, viz-HC, EC, and SN, show an effect on the PI of organic food with ATT as a mediator. Studies by Mangafic et al. [81], Nagaraj [47], Sing & Verma [84], and Su et al. [33] show consistent results with the outcomes of this study, reflecting the mediating effect of ATT influences (PI). The present study observed similar findings to Mangafic et al. [81], where attitude (ATT) was found to mediate the relationship between subjective norm (SN) and perceived intention (PI). Additionally, Sing & Verma [84] also discovered a positive influence of consumers' attitudes towards organic food on their perceived intention. Unlike the present study, Hsu et al. [82] demonstrated that HC does not mediate the PI. Based on the rise of HC, affects (PI) directly. These findings indicate that improving consumer attitudes through educating about organic food and promoting health consciousness can boost their willingness to purchase.

## 6. Implications of the Study

Food problems have been seriously discussed lately, especially matters about food adulteration. Food adulteration has reached an alarming point on a global scale; hence, it is not surprising to have consumers who are extremely worried about food safety and health. Therefore, the outcome of this study may be a guiding principle for enacting policies for food safety and health in Malaysia in general. Policies may include HC and EC. Thus, significant changes can be brought about in organic agricultural regulations, keeping consumers' concerns about health in mind. Such changes can bring reformation by decreasing the flow of fake products in the market and inducing consumer trust towards organic food producers, thereby acting as a catalyst in promoting organic food. Organizations can launch educational and marketing campaigns to highlight the health benefits of organic food, such as the absence of pesticides and higher nutritional value. Endorsement from health professionals would foster trust and credibility in organic food products.

A lack of environmental knowledge hinders people who want to buy organic food from taking the initiative. Such people need a clear idea about organic food, which interrupts their process of distinguishing organic and non-organic food. Thus, there is a need to spread adequate knowledge regarding organic food emphasized [85]. Since Gen Y is the largest consumer group, practitioners must take the initiative to educate them about organic food's health and ecological advantages. To enhance the positive attitude through EC, Organic products should be clearly labelled with eco-certifications to help consumers understand the environmental benefits.

This study will serve as a pathway for the producers of organic products to recognize potential customers by revealing the facts on environmental issues on buying organic food. Organic food resellers can go for market segmentation and establish marketing strategies by that. Moreover, the research implies organic food producers and marketers share information about the product quality, ecological benefits, associated flavor, and other features.

Organic food purchasing can be more convenient with increased promotional activities towards organic food and organic farming. Also, factors like SN need to be critically analyzed and used in framing the marketing and promotional strategies. Such promotions can be imparted through digital platforms to create awareness with unambiguous and descriptive information concerning the raw material used in the product formation and manufacturing process and its health benefits. Organizing events such as food fairs promoted by social media influencers and celebrities endorsing the consumption of organic food will increase awareness as well as the intention to purchase these items.

# 7. Conclusion

Health is of paramount importance to the human being. The advancement of education and knowledge leads individuals to demonstrate increased concern for their health and the environment. Organic food demands have been increasing in recent years, gaining more interest and awareness from the public domain. This study aims to investigate the factors influencing the purchase of organic food among Malaysian adults and the mediating role of attitude. It has addressed the insights of consumer purchasing intention from the perspective of organic food underpinned by the TRA. This study has addressed equally important predictors, HC, EC, SN, and ATT, with the inclusion of a mediator that must be put in place to ensure consumer PI towards organic food. The study observed that HC, SN, and ATT had a positive and significant impact on PI. Despite consumers being more concerned about the environment, the present study does not find any statistically significant evidence to suggest that EC has an impact on organic food PI. A lack of environmental knowledge may hamper individuals' interest in purchasing organic food, as they require a clear understanding of organic food, which hinders their ability to differentiate between organic and non-organic food. The present study contributes to the existing literature and also provides an avenue and future scope for the researchers by acting as a guide to identifying the variables that influence consumer purchasing intention towards organic food. Moreover, it will serve as a guide for business analysts to help them formulate policies and strategies that will, in turn, help them understand consumers' psychological preferences for organic food. Moreover, the research suggests that organic food producers and marketers should communicate information regarding health and environmental aspects, product quality, ecological benefits, and other features to enhance purchase intention.

## 7.1. Limitations and Future Research Issues

The present study has certain limitations. The scope of this study was Klang Valley of Malaysia, and hence, only the voices of customers from this region were considered, not those from other areas outside Klang Valley. The data was collected through a cross-sectional study; therefore, the findings only reflect consumers' perceptions at that particular time.

By analyzing the influence of each culture on the inclination to consume organic food, we can enhance our comprehension of how to encourage environmentally conscious behaviors worldwide. Future studies could involve conducting focus group discussions or in-depth interviews among different demographic segments to understand the relationship between EC and organic food PI. Additionally, future studies may delve into product features and pricing specifics, as these are essential factors that influence consumer behavior. It would also be valuable to examine individual product lines to gain insight into consumers' purchase intentions for each category. Since consumer attitudes can shift over time due to various factors, it is essential to reassess to regularly stay attuned to evolving trends. Future studies can include an analysis of the impact of different marketing techniques to promote organic food purchases. Moreover, cross-cultural and comparative studies examining the differences and similarities and the effect of social media influencers on organic food PI can be explored.

## 8. Declarations

## 8.1. Author Contributions

Conceptualization, K.L.A. and F.S.W.; methodology, K.L.A.; software, T.R.; validation, K.L.A., T.R., and A.S.; formal analysis, T.R.; investigation, K.L.A. and F.S.W.; resources, K.L.A.; data curation, F.A.; writing—original draft preparation, K.L.A., A.S., T.R., F.S.W., S.A., N.I., and L.H.S.; writing—review and editing, K.L.A., A.S., T.R., F.S.W., S.A., N.I., and L.H.S. and agreed to the published version of the manuscript.

## 8.2. Data Availability Statement

The data presented in this study are available on request from the corresponding author.

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The authors received no financial support for the research, authorship, and/or publication of this article.

## 8.4. Institutional Review Board Statement

Not applicable.

## 8.5. Informed Consent Statement

Not applicable.

## 8.6. Declaration of Competing Interest

The authors declare that there are no conflicts of interest concerning the publication of this manuscript. Furthermore, all ethical considerations, including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, and redundancies have been completely observed by the authors.

## 9. References

- Paço, A. do, Shiel, C., & Alves, H. (2019). A new model for testing green consumer behaviour. Journal of Cleaner Production, 207(1), 998–1006. doi:10.1016/j.jclepro.2018.10.105.
- [2] Rehman, A., Ma, H., Ozturk, I., & Ulucak, R. (2022). Sustainable development and pollution: the effects of CO2 emission on population growth, food production, economic development, and energy consumption in Pakistan. Environmental Science and Pollution Research, 29(12), 17319–17330. doi:10.1007/s11356-021-16998-2.
- [3] Müller, A. K., Bosgra, S., Boon, P. E., Voet, H. van der, Nielsen, E., & Ladefoged, O. (2009). Probabilistic cumulative risk assessment of anti-androgenic pesticides in food. Food and Chemical Toxicology, 47(12), 2951–2962. doi:10.1016/j.fct.2009.07.039.
- [4] Liu, R., Pieniak, Z., & Verbeke, W. (2013). Consumers' attitudes and behaviour towards safe food in China: A review. Food Control, 33(1), 93–104. doi:10.1016/j.foodcont.2013.01.051.
- [5] Fernqvist, F., & Ekelund, L. (2014). Credence and the effect on consumer liking of food A review. Food Quality and Preference, 32(PC), 340–353. doi:10.1016/j.foodqual.2013.10.005.
- [6] Lee, C. C., Zeng, M., & Luo, K. (2024). How does climate change affect food security? Evidence from China. Environmental Impact Assessment Review, 104, 107324. doi:10.1016/j.eiar.2023.107324.
- [7] United Nations. (2024). Sustainable consumption and production | Department of Economic and Social Affairs. United Nations, New York, United States.
- [8] Manning, L., Brewer, S., Craigon, P. J., Frey, J., Gutierrez, A., Jacobs, N., Kanza, S., Munday, S., Sacks, J., & Pearson, S. (2023). Reflexive governance architectures: Considering the ethical implications of autonomous technology adoption in food supply chains. Trends in Food Science and Technology, 133, 114–126. doi:10.1016/j.tifs.2023.01.015.
- [9] Ruzgys, S., & Pickering, G. J. (2024). Gen Z and sustainable diets: Application of The Transtheoretical Model and the theory of planned behaviour. Journal of Cleaner Production, 434, 140300. doi:10.1016/j.jclepro.2023.140300.
- [10] Polzin, S. S., Lusk, J. L., & Wahdat, A. Z. (2023). Measuring sustainable consumer food purchasing and behavior. Appetite, 180, 106369. doi:10.1016/j.appet.2022.106369.
- [11] Sharma, N., Lal, M., Goel, P., Sharma, A., & Rana, N. P. (2022). Being socially responsible: How green self-identity and locus of control impact green purchasing intentions? Journal of Cleaner Production, 357, 131895. doi:10.1016/j.jclepro.2022.131895.
- [12] Tandon, A., Dhir, A., Kaur, P., Kushwah, S., & Salo, J. (2020). Why do people buy organic food? The moderating role of environmental concerns and trust. Journal of Retailing and Consumer Services, 57, 102247. doi:10.1016/j.jretconser.2020.102247.
- [13] Hoyos-Vallejo, C. A., Carrión-Bósquez, N. G., & Ortiz-Regalado, O. (2023). The influence of skepticism on the university Millennials' organic food product purchase intention. British Food Journal, 125(10), 3800–3816. doi:10.1108/BFJ-02-2023-0093.
- [14] Ayyub, S., Asif, M., & Nawaz, M. A. (2021). Drivers of Organic Food Purchase Intention in a Developing Country: The Mediating Role of Trust. SAGE Open, 11(3), 21582440211045076. doi:10.1177/21582440211045076.
- [15] Raj, V. A., Rai, S. S., & Jasrotia, S. S. (2024). Sustainable purchase intentions towards organic food during Covid-19 pandemic: an exploratory study on Indian consumers. Social Responsibility Journal, 20(2), 243–260. doi:10.1108/SRJ-01-2022-0022.

- [16] Shahriari, E., Torres, I. M., Zúñiga, M. A., & Yarlou, P. M. (2019). Values Driving Organic Food Purchase Intention: A Comparative Analysis between a Developing Eastern Country (Iran) and a Developed Western Country (US). Journal of International Consumer Marketing, 31(4), 317–329. doi:10.1080/08961530.2018.1561345.
- [17] Prakash, G., Singh, P. K., Ahmad, A., & Kumar, G. (2023). Trust, convenience and environmental concern in consumer purchase intention for organic food. Spanish Journal of Marketing - ESIC, 27(3), 367–388. doi:10.1108/SJME-09-2022-0201.
- [18] Sahelices-Pinto, C., Lanero-Carrizo, A., & Vázquez-Burguete, J. L. (2021). Self-determination, clean conscience, or social pressure? Underlying motivations for organic food consumption among young millennials. Journal of Consumer Behaviour, 20(2), 449-459. doi:10.1002/cb.1875.
- [19] Nafees, L., Hyatt, E. M., Garber, L. L., Das, N., & Boya, Ü. (2022). Motivations to buy organic food in emerging markets: An exploratory study of urban Indian millennials. Food Quality and Preference, 96, 104375. doi:10.1016/j.foodqual.2021.104375.
- [20] Abdullah, Z., Putri, K. Y. S., Raza, S. H., & Istiyanto, S. B. (2022). Contrariwise obesity through organic food consumption in Malaysia: a signaling theory perspective. BMC Public Health, 22(1), 99. doi:10.1186/s12889-021-12480-3.
- [21] Kamboj, S., Matharu, M., & Gupta, M. (2023). Examining consumer purchase intention towards organic food: An empirical study. Cleaner and Responsible Consumption, 9, 100121. doi:10.1016/j.clrc.2023.100121.
- [22] Garg, S., Narwal, K. P., & Kumar, S. (2024). Exploring the determinants of purchase intention of organic consumers for organic food items: an exploratory study in India. British Food Journal, 126(3), 1238–1258. doi:10.1108/BFJ-09-2023-0788.
- [23] g, g. (2023). Factors Influencing Organic Food Purchase Intention and the Effect of Attitude towards Organic Food. Kinforms, 18(2), 39–75. doi:10.55819/mrij.2023.18.2.39.
- [24] Pham, T. H., Nguyen, T. N., Phan, T. T. H., & Nguyen, N. T. (2019). Evaluating the purchase behaviour of organic food by young consumers in an emerging market economy. Journal of Strategic Marketing, 27(6), 540–556. doi:10.1080/0965254X.2018.1447984.
- [25] Chaturvedi, P., Agnihotri, D., & Tripathi, V. (2024). Exploring the role of consumer ethnocentrism in predicting the purchase intention for locally produced organic food in an emerging market. British Food Journal, 126(2), 738–757. doi:10.1108/BFJ-04-2023-0323.
- [26] Rohman, A., Asmara, R., & Andriani, D. (2023). The Effect of Multidimensional Consumer Perceived Value on Customer Satisfaction and Purchase Intention of Organic Food. Habitat, 34(2), 213–224. doi:10.21776/ub.habitat.2023.034.2.19.
- [27] Latip, M. S. A., Tumin, S. A., & May, R. Y. Y. (2023). Antecedents of Organic Food Purchase Intention: Does It Moderate By the Receptivity To Green Communication? Journal of Sustainability Science and Management, 18(6), 41–57. doi:10.46754/jssm.2023.06.004.
- [28] Asif, M., Xuhui, W., Nasiri, A., & Ayyub, S. (2018). Determinant factors influencing organic food purchase intention and the moderating role of awareness: A comparative analysis. Food Quality and Preference, 63, 144–150. doi:10.1016/j.foodqual.2017.08.006.
- [29] Ajzen, I. (1991). The theory of planned behaviour. Organizational Behaviour and Human Decision Processes, 50, 179–211. doi:10.1016/0749-5978(1091)90020-T.
- [30] Ahmed, N., Li, C., Khan, A., Qalati, S. A., Naz, S., & Rana, F. (2021). Purchase intention toward organic food among young consumers using theory of planned behavior: role of environmental concerns and environmental awareness. Journal of Environmental Planning and Management, 64(5), 796–822. doi:10.1080/09640568.2020.1785404.
- [31] Dangi, N., Narula, S. A., & Gupta, S. K. (2020). Influences on purchase intentions of organic food consumers in an emerging economy. Journal of Asia Business Studies, 14(5), 599–620. doi:10.1108/JABS-12-2019-0364.
- [32] Liu, M. T., Liu, Y., & Mo, Z. (2020). Moral norm is the key: An extension of the theory of planned behaviour (TPB) on Chinese consumers' green purchase intention. Asia Pacific Journal of Marketing and Logistics, 32(8), 1823–1841. doi:10.1108/APJML-05-2019-0285.
- [33] Su, Y., Khaskheli, A., Raza, S. A., & Yousufi, S. Q. (2022). How health consciousness and social consciousness affect young consumers purchase intention towards organic foods. Management of Environmental Quality: An International Journal, 33(5), 1249–1270. doi:10.1108/MEQ-12-2021-0279.
- [34] Bazhan, M., Shafiei Sabet, F., & Borumandnia, N. (2024). Factors affecting purchase intention of organic food products: Evidence from a developing nation context. Food Science and Nutrition, 12(5), 4015. doi:10.1002/fsn3.4015.
- [35] Gungaphul, M., Seewoo, Y. D., & Kasseean, H. K. (2022). The Purchase Intention of Organic Food in Mauritius: Extending the TPB Model. African Journal of Business and Economic Research, 17(2), 293–318. doi:10.31920/1750-4562/2022/v17n2a13.

- [36] Kim, H. Y., & Chung, J. E. (2011). Consumer purchase intention for organic personal care products. Journal of Consumer Marketing, 28(1), 40–47. doi:10.1108/07363761111101930.
- [37] Fishbein, M., & Ajzen, I. (1974). Attitudes towards objects as predictors of single and multiple behavioral criteria. Psychological Review, 81(1), 59–74. doi:10.1037/h0035872.
- [38] Blackwell, R. D., Miniard, P. W. and Engel, J. F. (2001). Consumer Behaviour. The Dryden Press, Florida, United States.
- [39] Spears, N., & Singh, S. N. (2004). Measuring attitude toward the brand and purchase intentions. Journal of Current Issues and Research in Advertising, 26(2), 53–66. doi:10.1080/10641734.2004.10505164.
- [40] Chaudhary, R., & Bisai, S. (2018). Factors influencing green purchase behavior of millennials in India. Management of Environmental Quality: An International Journal, 29(5), 798–812. doi:10.1108/MEQ-02-2018-0023.
- [41] Eberle, L., Milan, G. S., Borchardt, M., Pereira, G. M., & Graciola, A. P. (2022). Determinants and moderators of organic food purchase intention. Food Quality and Preference, 100, 104609. doi:10.1016/j.foodqual.2022.104609.
- [42] Desai, K., Tapas, P., & Paliwal, M. (2024). Evaluating the effect of values influencing the choice of organic foods. Environment, Development and Sustainability, 1–20. doi:10.1007/s10668-024-04836-7.
- [43] Cheng, S.-J., Jia, H.-X., Philip Pong Weng, W., & Wang, L. (2023). Factors influencing consumers' purchase intention on organic foods via a Theory of Planned Behaviour approach. Journal of Tourism, Culinary and Entrepreneurship, 3(1), 98–116. doi:10.37715/jtce.v3i1.3681.
- [44] Leyva-Hernández, S. N., González-Rosales, V. M., Galván-Mendoza, O., & Toledo-López, A. (2022). Main Factors that Explain Organic Food Purchase Intention: A Systematic Review. INNOVAR, 33(87), 93–108. doi:10.15446/innovar.v33n87.105509.
- [45] Oliveira, A. S. de, Souki, G. Q., & Vilas Boas, L. H. de B. (2024). Organic food-buying intention drivers: a study based on means-end chain theory. British Food Journal, 126(6), 2291–2309. doi:10.1108/BFJ-08-2023-0767.
- [46] Iqbal, J., Yu, D., Zubair, M., Rasheed, M. I., Khizar, H. M. U., & Imran, M. (2021). Health Consciousness, Food Safety Concern, and Consumer Purchase Intentions Toward Organic Food: The Role of Consumer Involvement and Ecological Motives. SAGE Open, 11(2), 21582440211015730. doi:10.1177/21582440211015727.
- [47] Nagaraj, S. (2021). Role of consumer health consciousness, food safety & attitude on organic food purchase in emerging market: A serial mediation model. Journal of Retailing and Consumer Services, 59, 102423. doi:10.1016/j.jretconser.2020.102423.
- [48] Anh, N. T. Van, & Tai, T. T. (2023). Factors Influence Organic Food Purchase Intention of Vietnamese Consumers. Journal of Economics and Business, 6(3), 196–211. doi:10.31014/aior.1992.06.03.531.
- [49] Li, S., & Jaharuddin, N. S. (2021). Influences of background factors on consumers' purchase intention in China's organic food market: Assessing moderating role of word-of-mouth (WOM). Cogent Business and Management, 8(1), 1876296. doi:10.1080/23311975.2021.1876296.
- [50] Chou, F. sha, Wang, C. C., Lai, M. C., Tung, C. H., Yang, Y. J., & Tsai, K. H. (2020). Persuasiveness of organic agricultural products: Argument strength, health consciousness, self-reference, health risk, and perceived fear. British Food Journal, 122(4), 1289–1304. doi:10.1108/BFJ-11-2019-0868.
- [51] Eberle, L., Milan, G. S., Graciola, A. P., Borchardt, M., & Pereira, G. M. (2023). Purchase intention of organic foods from the perspective of consumers. Management of Environmental Quality: An International Journal, 34(5), 1406–1423. doi:10.1108/MEQ-10-2022-0277.
- [52] Rashid, I., & Lone, A. H. (2024). Organic food purchases: does green trust play a part? Asia-Pacific Journal of Business Administration, 16(4), 914–939. doi:10.1108/APJBA-11-2022-0506.
- [53] Ferreira, S., & Pereira, O. (2023). Antecedents of Consumers' Intention and Behavior to Purchase Organic Food in the Portuguese Context. Sustainability (Switzerland), 15(12), 9670. doi:10.3390/su15129670.
- [54] Wang, J., Pham, T. L., & Dang, V. T. (2020). Environmental consciousness and organic food purchase intention: A moderated mediation model of perceived food quality and price sensitivity. International Journal of Environmental Research and Public Health, 17(3), 850. doi:10.3390/ijerph17030850.
- [55] Bratt, C. (1999). The impact of norms and assumed consequences on recycling behavior. Environment and Behavior, 31(5), 630–656. doi:10.1177/00139169921972272.
- [56] Kabir, M. R., & Islam, S. (2022). Behavioural intention to purchase organic food: Bangladeshi consumers' perspective. British Food Journal, 124(3), 754–774. doi:10.1108/BFJ-05-2021-0472.

- [57] Castillo-Apraiz, J., Palma-Ruiz, J. M., & García-Montes, M. I. (2023). The Impact of Subjective Norms, Perceived Behavioral Control, and Purchase Intention on Purchase Behavior of Eco-Friendly Food Packaging Products. Springer Proceedings in Business and Economics, 99–104. doi:10.1007/978-3-031-34589-0\_11.
- [58] Irianto, H. (2015). Consumers' Attitude and Intention towards Organic Food Purchase: An Extension of Theory of Planned Behavior in Gender Perspective. International Journal of Management Economics and Social Sciences, 4(1), 17–31. http://www.ijmess.com
- [59] Andrade, C. (2021). The Inconvenient Truth about Convenience and Purposive Samples. Indian Journal of Psychological Medicine, 43(1), 86–88. doi:10.1177/0253717620977000.
- [60] Raval, A., & Makhija, D. (2023). Application of the theory of planned behaviour to predict Indian consumers' intention to purchase organic food. International Journal of Services, Economics and Management, 14(4), 396–413. doi:10.1504/IJSEM.2023.134111.
- [61] Teng, L. (2016). Cognitive penetration, imagining, and the Downgrade Thesis. Philosophical Topics, 44(2), 405–426. doi:10.5840/philtopics201644229.
- [62] Yadav, R., & Pathak, G. S. (2016). Intention to purchase organic food among young consumers: Evidences from a developing nation. Appetite, 96, 122–128. doi:10.1016/j.appet.2015.09.017.
- [63] Bougie, R., & Sekaran, U. (2020). Research Methods for Business: A Skill-building Approach. Wiley, New Jersey, United States.
- [64] Hair, J., & Alamer, A. (2022). Partial Least Squares Structural Equation Modeling (PLS-SEM) in second language and education research: Guidelines using an applied example. Research Methods in Applied Linguistics, 1(3), 100027. doi:10.1016/j.rmal.2022.100027.
- [65] Ramayah, T. J. F. H., Cheah, J., Chuah, F., Ting, H., & Memon, M. A. (2018). Partial least squares structural equation modeling (PLS-SEM) using smartPLS 3.0. An updated guide and practical guide to statistical analysis, 978–967.
- [66] Garson, G. D. (2016). Partial Least Squares: Regression & Structural Equation Models. Statistical Associates Publishing, North Carolina, United States.
- [67] Hair Jr., J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). Sage Publications, Thousand Oaks, United States.
- [68] Byrne, B. M. (2016). Adaptation of Assessment Scales in Cross-National Research: Issues, Guidelines, and Caveats. International Perspectives in Psychology, 5(1), 51–65. doi:10.1037/ipp0000042.
- [69] Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. Journal of the Academy of Marketing Science, 43(1), 115–135. doi:10.1007/s11747-014-0403-8.
- [70] Tabri, N., & Elliott, C. M. (2012). Principles and Practice of Structural Equation Modeling. Canadian Graduate Journal of Sociology and Criminology, 1(1), 59-60. doi:10.15353/cgjsc.v1i1.3787.
- [71] Wetzel, H. A., Hammerschmidt, M., & Zablah, A. R. (2014). Gratitude versus entitlement: A dual process model of the profitability implications of customer prioritization. Journal of Marketing, 78(2), 1–19. doi:10.1509/jm.12.0167.
- [72] Shmueli, G., Sarstedt, M., Hair, J. F., Cheah, J. H., Ting, H., Vaithilingam, S., & Ringle, C. M. (2019). Predictive model assessment in PLS-SEM: guidelines for using PLSpredict. European Journal of Marketing, 53(11), 2322–2347. doi:10.1108/EJM-02-2019-0189.
- [73] Aertsens, J., Verbeke, W., Mondelaers, K., & van Huylenbroeck, G. (2009). Personal determinants of organic food consumption: A review. British Food Journal, 111(10), 1140–1167. doi:10.1108/00070700910992961.
- [74] Hughner, R. S., McDonagh, P., Prothero, A., Shultz, C. J., & Stanton, J. (2007). Who are organic food consumers? A compilation and review of why people purchase organic food. Journal of Consumer Behaviour, 6(2–3), 94–110. doi:10.1002/cb.210.
- [75] Bamberg, S., & Möser, G. Twenty years after Hines, Hungerford, and Tomera: A new meta-analysis of psycho-social determinants of pro-environmental behaviour. Journal of Environmental Psychology, 27(1), 14–25.
- [76] Magnusson, M. K., Arvola, A., Hursti, U. K. K., Åberg, L., & Sjödén, P. O. (2003). Choice of organic foods is related to perceived consequences for human health and to environmentally friendly behaviour. Appetite, 40(2), 109–117. doi:10.1016/S0195-6663(03)00002-3.
- [77] Arcese, G., Elmo, G. C., Fortuna, F., Pasca, M. G., & Risso, M. (2024). The role of traditional aspects, health consciousness and environmental concerns in Italian agri-food consumption during Covid-19. British Food Journal, 126(1), 237–254. doi:10.1108/BFJ-10-2022-0841.

- [78] Parashar, S., Singh, S., & Sood, G. (2023). Examining the role of health consciousness, environmental awareness and intention on purchase of organic food: A moderated model of attitude. Journal of Cleaner Production, 386, 135553. doi:10.1016/j.jclepro.2022.135553.
- [79] Nasir, N. (2023). Factors influencing the consumers' purchase intentions toward Organic food. International Journal of Experiential Learning & Case Studies, 8(1), 90–114. doi:10.22555/ijelcs.v8i1.865.
- [80] Roh, T., Seok, J., & Kim, Y. (2022). Unveiling ways to reach organic purchase: Green perceived value, perceived knowledge, attitude, subjective norm, and trust. Journal of Retailing and Consumer Services, 67, 102988. doi:10.1016/j.jretconser.2022.102988.
- [81] Mangafić, J., Pilav-Velić, A., Martinović, D., & Činjarević, M. (2017). Consumer Innovativeness and Organic Food Purchase Intentions. Green Economy in the Western Balkans: Towards a Sustainable Future, 285–320. doi:10.1108/978-1-78714-499-620171010.
- [82] Hsu, S. Y., Chang, C. C., & Lin, T. T. (2016). An analysis of purchase intentions toward organic food on health consciousness and food safety with/under structural equation modeling. British Food Journal, 118(1), 200–216. doi:10.1108/BFJ-11-2014-0376.
- [83] Li, S., & Jaharuddin, N. S. (2020). Identifying the key purchase factors for organic food among Chinese consumers. Frontiers of Business Research in China, 14(1), 1–23. doi:10.1186/s11782-020-00093-3.
- [84] Singh, A., & Verma, P. (2017). Factors influencing Indian consumers' actual buying behaviour towards organic food products. Journal of Cleaner Production, 167, 473–483. doi:10.1016/j.jclepro.2017.08.106.
- [85] Yiridoe, E. K., Bonti-Ankomah, S., & Martin, R. C. (2005). Comparison of consumer perceptions and preference toward organic versus conventionally produced foods: A review and update of the literature. Renewable Agriculture and Food Systems, 20(4), 193–205. doi:10.1079/raf2005113.

# Appendix I

Particulars		Frequency	Percent	
Gender	Male	214	57.2	
	Female	160	42.8	
	18-25	315	84.2	
	26-33	44	11.8	
Age	34-41	11	2.9	
	42-49	4	1.1	
	Malay	185	49.5	
P	Chinese	78	20.8	
Race	Indian	75	20.1	
	others	36	9.6	
	Primary	2	0.5	
	Secondary	69	18.4	
	Diploma	50	13.4	
Education	Bachelors	193	51.6	
	Postgraduate	38	10.2	
	Others	22	5.9	
	Executive	28	7.5	
	Non-executive	28	7.5	
Occupation	Student	294	78.6	
	Unemployed	12	3.2	
	Self-Employed	12	3.2	
	Below 2000	64	17.1	
	2001-3000	26	7.0	
	3001-4000	14	3.7	
Income	4001-5000	8	2.1	
	5001-6000	4	1.1	
	Above 6001	11	2.9	
	N/A	247	66.0	

Table A1. Demography

# **Appendix II: Questionnaire**

# A. Health-conscious

- 1. I reflect about my health a lot
- 2. I am very self-conscious about my health
- 3. I am alert to changes in my health
- 4. I am usually aware of my health
- 5. I take responsibility for the state of my health
- 6. I am aware of the state of my health as I go through the day

# **B.** Environmental Consciousness

- 1. I have switched products for ecological reasons
- 2. Organic food has been produced in a way which has not shaken the balance of nature
- 3. Humans must maintain a balance with nature for sustainability
- 4. Organic food is packaged in an environmentally friendly way.

# C. Subjective norms

- 1. My family thinks that I should buy organic food rather than non-organic food.
- 2. Most people I value would buy organic food rather than non-organic food
- 3. People I value think I should buy organic food
- 4. My close friends whose opinions regarding diet are important to me think that I should buy organic food.

# **D.** Attitude

- 1. I think that purchasing organic food is interesting
- 2. I think that purchasing organic food is a good idea
- 3. I think that purchasing organic food is important
- 4. I think that purchasing organic food is beneficial
- 5. I think that purchasing organic food is wise
- 6. I think that purchasing organic food is favourable

# **E.** Purchase Intentions:

- 1. I expect to consume organic foods
- 2. I would buy organic food items
- 3. I plan to consume organic foods
- 4. I intend to buy organic food during my next purchase.
- 5. I am glad to buy organic food.