

Sustainable eating begins with youth: exploring organic food consumption intentions among young adults in Malaysia

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ABSTRACT

As Malaysia moves towards more sustainable food practices, organic food consumption has gained traction, especially among young adults. This study discusses the factors that have been found to be most significant in determining the intentions of young adults to consume organic food. The model is based on the Theory of Planned Behavior (TPB) but adds two more constructs to this framework, health consciousness and environmental concern, to explain more about the behavior. The online survey in Malaysia included Sabah and Sarawak (n = 324) was employed to gather the data based on a purposive sampling method and analysed via Partial Least Squares Structural Equation Modeling (PLS-SEM). Here, the outcomes reveal that attitude, perceived behavioral control, health consciousness, and environmental concern significantly predict intention to consume organic food, with health consciousness emerging as the strongest determinant. However, subjective norms were found to be statistically insignificant in shaping intention. These results underscore the relevance of personal health orientation and environmental values in driving organic food choices among Malaysian youth, while suggesting a diminishing role of social influence. The study offers valuable implications for policymakers, marketers, and organic food producers in crafting effective strategies that align with health-driven and eco-conscious consumer motivations.

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1. INTRODUCTION

The growing urgency of environmental degradation, food insecurity, and public health concerns has sparked global interest in sustainable food systems. In recent years, the development of food products with health-related claims, particularly organic labels, has gained significant attention, as such products are perceived to offer added value and meet the growing consumer demand for healthier, more natural dietary options (Yasin et al., 2023). As part of this shift, organic food consumption has emerged as a key pillar of sustainable consumption patterns, particularly in the context of achieving the United Nations Sustainable Development Goals (SDGs), especially Goal 12 (responsible consumption and production) and Goal 3 (good health and well-being) (FAO, 2023). Organic food, characterised by the absence of synthetic inputs and minimal environmental impact, has garnered increasing attention among consumers who prioritise health and ecological sustainability in their lifestyle choices (Khan et al., 2023).

In Malaysia, the organic food market is experiencing

steady growth, driven by increased environmental awareness, rising health consciousness, and a generational shift in consumer values (Zailani et al., 2022). Nevertheless, the food service industry has a significant research gap concerning green practices and especially through the lens of green consumers in Malaysia (Yasin et al., 2025). Young adults, particularly those in urban and educated segments, represent a critical demographic in this transition toward sustainable food consumption (Rahman et al., 2023). Despite positive attitudes and growing media attention toward organic products, actual consumption remains relatively low, revealing a persistent gap between intention and behaviour. Understanding the underlying psychological and motivational factors that shape young consumers' intention to consume organic food is therefore essential for advancing both public health and environmental sustainability.

To investigate this behavioural dimension, the current study adopts the Theory of Planned Behaviour (TPB) as the foundational framework. TPB posits that intention to perform a behaviour is determined by three core factors:

subjective norm, attitude, and perceived behavioural control (Ajzen, 1991). While TPB has been extensively implemented to various domains of consumer behaviour, including green and ethical consumption, critics argue that its scope is limited in explaining complex, value-laden behaviours such as organic food consumption (Paul et al., 2016). As such, researchers have called for extensions of the TPB model to include additional predictors relevant to health and environmental values (Nguyen et al., 2023; Tanveer et al., 2024).

Responding to this call, the current study incorporates two key extensions to the TPB model: health consciousness and environmental concern. Health consciousness reflects an individual's awareness and motivation to engage in behaviors that promote physical well-being (Sogari et al., 2021), while environmental concern captures the degree of awareness and worry regarding environmental degradation and ecological sustainability (Khan et al., 2023). Both constructs are highly relevant in the Malaysian context, where rising non-communicable diseases and climate-related vulnerabilities are shaping new patterns of consumer behavior.

Despite the importance of these constructs, there remains a lack of empirical research that integrates health and environmental motives into a unified behavioral framework targeting young adult consumers in emerging economies. Previous studies in Malaysia have largely focused on general consumer populations, lacked theoretical integration, or employed limited analytical techniques (Zainuddin et al., 2022; Ahmad & Omar, 2021). Moreover, there is insufficient clarity on the relative influence of each factor within the expanded TPB framework, particularly in distinguishing between personal and social influences on intention.

2. MATERIALS AND METHODS

2.1. Research approach

The research utilize quantitative research approach or deductive approach. Since the current study aimed at examining the effects of intention to buy organic food, it was deemed appropriate to apply the deductive method as the most suitable method to be used in the research. As Saunders et al. (2019) note, the researcher can apply a deductive approach in a case where the research project is aimed at testing a theory or taking a specific theoretical stance that will be proven during the gathering of data. In this study, the deductive approach will be used to enable the researcher to test the theory associated with the objective of this study and come up with a list of hypotheses.

2.2. Research design

This research was done through a quantitative research method which involved the use of a cross-sectional research design. An online survey was employed to collect the data. As stated by (Hair et al, 2017), an online survey will assist in reducing errors in the process. The cross-sectional design has the benefit of measuring differences among a variety of persons, disciplines, or phenomena rather than a process of change.

2.3. Data collection

In this study, google form was used to build online questionnaire. Whereas the online questionnaire weblink was at that time circulated through the social media, for instance, WhatsApp and Facebook, and via personal contacts of the researcher.

2.4. Sampling method

This study employed a purposive sampling method, which would be a non-probability sample selected according to demographic characteristics as well as the study's purpose. Non-probability sampling techniques are suitable for studying theoretical impact based on conceptual frameworks. Purposive sampling, as opposed to convenience sampling, is used to choose respondents among young adults.

2.5. Data analysis

In this study, all the data gathered were analysed by utilising a statistical program known as SSPS version 22.0 and Smart PLS 3 to analyse partial least squares structural equation modelling (PLS-SEM) approach (Ringle, Wende, & Becker, 2015). SEM is a convenient tool in behavioural and social sciences when numerous constructs are not observable. To be specific, there was five data analysis employed in this study, namely frequency analysis, convergent reliability, descriptive analysis, discriminant validity, and direct hypothesis analysis.

3. RESULT AND DISCUSSION

3.1 Respondent's profile

The respondents comprised of young adults in Malaysia; the majority were female (69.8%), and the remaining respondents (30.2%) were male. In terms of the age of respondents, some ranged between 18 and 22 years (26.5%), more than half of the respondents (67.3%) were aged between 23 and 25 years, and 6.2% of respondents were aged between 26-30 years. Concerning the race of respondents, majority (88.6%) were Malays as compared to Indian (6.2%) Chinese (4.0%) and others (1.2%). Concerning their marital status, 90.1% were single, 8.6% were married,

and the remaining respondents were divorced (1.2%).

With regards to the level of education, the respondents held an SPM (7.7%), with (14.8%) being Diploma holders, while more than half of the respondents held a degree (67.9%). Only 9.6% of respondents held a Master's degree. Lastly, the descriptive analysis revealed that most of the respondents occupational is as students (82.1%) while 14.2% are employed. The remaining 1.9% of the respondents are self-employed and 1.9% are unemployed.

Table 1: Respondent's Profile

Characteristics	Frequency	Percentage (%)
Gender		
Male	226	69.8
Female	98	30.2
Age		
18-22 years	86	26.5
23-25 years	218	67.3
25-30 years	20	6.2
Race		
Malay	287	88.6
Chinese	13	4.0
Indian	20	6.2
Others	4	1.2
Marital Status		
Single	292	90.1
Married	28	8.6
Divorced	4	1.2
Highest Education		
SPM	25	7.7
STPM	0	0
Diploma	48	14.8
Degree	220	67.9
Master Degree	31	9.6
Occupation		
Student	266	82.1
Employed	46	14.2
Self-employed	6	1.9
Unemployed	6	1.9

3.2 Measurement result analysis

The assessment concerning the measurement model in the study, as shown in Figure 1, was conducted through an examination of construct reliability and convergent validity. Construct reliability was assessed using key indicators such as item loadings and Cronbach's alpha (CA), while convergent validity was evaluated to determine whether multiple indicators effectively represent the same latent construct. As presented in Table 2, all item loadings varied from 0.829 to 0.920, which exceeds the minimum threshold of 0.5. Additionally, CA coefficients for all constructs exceeded the recommended level of 0.700, demonstrating internal consistency. The composite reliability (CR) values, ranging from 0.887 to 0.955, also surpassed the 0.7 benchmark, affirming construct reliability. Regarding convergent validity, the average variance extracted (AVE) values ranged from 0.724 to 0.811, surpassing the minimum acceptable 0.5 threshold. Collectively, these results, as summarized in Table 2, demonstrate that the constructs utilized in the study possess robust reliability and acceptable convergent validity.

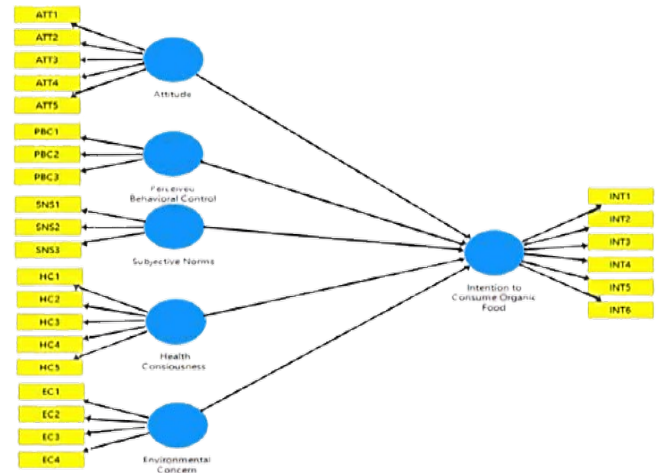


Figure 1: Measurement Model

Table 2: Convergent Validity

Constructs	Items	Loadings	AVE	CR
Attitude	ATT1	0.890	0.811	0.955
	ATT2	0.920		
	ATT3	0.914		
	ATT4	0.908		
	ATT5	0.870		
Perceived Behavioral Control	PBC1	0.872	0.724	0.887
	PBC2	0.852		
	PBC3	0.829		
Subjective Norms	SNS1	0.865	0.758	0.904
	SNS2	0.898		
	SNS3	0.849		
Health Consciousness	HC1	0.850	0.765	0.942
	HC2	0.865		
	HC3	0.887		
	HC4	0.894		
	HC5	0.876		
Environmental Concern	EC1	0.833	0.736	0.918
	EC2	0.894		
	EC3	0.852		
	EC4	0.851		
Intention to Consume Organic Food	INT1	0.850	0.764	0.951
	INT2	0.846		
	INT3	0.876		
	INT4	0.891		
	INT5	0.884		
	INT6	0.895		

Discriminant validity is determined by the use of HTMT criterion, which ought to remain less than 0.9. Here, Table 3 presents the discriminant validity outcomes that proves that all the values are less than 0.9. This suggests that respondents were able to distinguish between the provided constructs. As a result, the measurement items are valid as well as reliable for this research.

Table 3: Discriminant Validity Utilising HTMT Criterion

	1	2	3	4	5	6
1. Attitude	1					
2. Environmental Concern	0.729	1				
3. Health Consciousness	0.708	0.818	1			
4. Intention	0.728	0.859	0.789	1		
5. Perceived Behavioural Control	0.818	0.824	0.879	0.863	1	
6. Subjective Norms	0.689	0.750	0.780	0.821	0.873	1

3.3 Structural model analysis

Prior to analyzing the structural model, it is important to ascertain that no issues exist with multicollinearity. In order to determine this, the Variance Inflation Factor (VIF) was used

to determine whether there was collinearity among the predictor variables. Table 4 reveals that the VIF values of all constructs were lower than the admissible value of 3.3, which means that multicollinearity is not a problem in this model.

Table 4: Results of Direct Hypotheses

	Relationship	Std Beta	Std Error	t value	P value	CI LL	CI UL	VIF	Decision
H ₁	Attitude → Intention	0.106	0.061	1.770	0.039	0.001	0.204	2.297	Supported
H ₂	Environmental Concern → Intention	0.361	0.058	6.221	0.000	0.267	0.453	2.276	Supported
H ₃	Health Consciousness → Intention	0.733	0.042	17.360	0.000	0.656	0.797	1.000	Supported
H ₄	Perceived Behavioral Control → Intention	0.342	0.067	5.005	0.000	0.234	0.451	2.823	Supported
H ₅	Subjective Norms → Intention	0.116	0.077	1.495	0.068	-0.012	0.246	2.938	Not Supported

Table 4 portrays the results of hypothesis testing for the direct relationships between the independent variables and purchase intention. The findings show the attitude is positively associated to intention ($\beta = 0.106$, $t = 1.770$, $p = 0.039$). This implies that a more favourable evaluation of the behaviour contributes positively to the purchase intention of organic food, conforming the Theory of Planned Behaviour (TPB) (Ajzen, 1991). While the influence is weaker compared to other predictors, it supports the assertion that attitudinal favourability is still essential in shaping behavioural intent (Nguyen et al., 2023). This suggests that consumers who believe that engaging in the behaviour (e.g., buying organic food) is beneficial are more likely to intend to perform it.

Secondly, environmental concern exhibits a positive impact on purchase intention ($\beta = 0.361$, $t = 6.221$, $p < 0.001$). This result highlights that individuals with heightened ecological awareness are more inclined to form behavioural intentions aligned with environmental sustainability. This supports Paul et al. (2016), who showed that environmental concern significantly influences green purchase intention, especially among younger, educated populations. The confidence interval [0.267, 0.453] and VIF value of 2.276 indicate robustness and no multicollinearity issues. These findings support broader climate action frameworks where consumer agency is a driver of environmental change (Khan et al., 2023).

Health consciousness stands out with the positive relationship on purchase intention ($\beta = 0.733$, $t = 17.360$, $p < 0.001$), indicating a dominant predictive role. The high magnitude suggests that the perceived link between personal health and behaviour (e.g., organic food consumption) significantly motivates intention. This corroborates earlier studies that position health motivation as a primary determinant of green or organic behaviour (Sogari et al., 2021; Teng & Wang, 2015).

PBC demonstrates a positive relationship with purchase intention ($\beta = 0.342$, $t = 5.005$, $p < 0.001$), consistent with TPB theory. The effect size indicates that individuals' perception of control over performing the behaviour—whether due to access, affordability, or resources—facilitates their intention. Evidence by Yadav and Pathak (2017) reinforces

the significance of perceived ease or difficulty in enacting sustainable consumption.

Contrary to expectations, subjective norms do not significantly influence intention ($\beta = 0.116$, $t = 1.495$, $p = 0.068$). The confidence interval [-0.012, 0.246] crossing zero confirms insignificance. This suggests that social pressure or influence from referents such as friends, family, or social groups may not be a compelling factor in forming behavioural intention within this sample. This finding contrasts with other research in collectivist societies where subjective norms strongly predict behavior (Zhao et al., 2022), but aligns with the possibility that individual-driven motives like health and personal beliefs outweigh social influence in certain contexts or demographics (Liobikienė & Bernatoniene, 2017).

Furthermore, Shmueli et al. (2019) proposed PLS prediction. The procedure of this holdout sample will produce case-level estimates at the item or construct level using the PLS-Predict with a 10-fold method to test predictive relevance. As Shmueli et al. (2019) explain it, in case all of the differences in items (PLS-LM) are lower, predictive power is high; when all of the differences are higher, predictive relevance is not confirmed; when the majority is lower, the predictive power is moderate; and when the minority is lower, the predictive power is low. The results, as shown in Table 5, indicate that the majority of the errors of the PLS model were less than the errors of the LM model; therefore, it can be concluded that the model has moderate predictive power.

Table 5: PLS-Direct

Item	PLS RMSE	LM RMSE	PLS-LM	Q2_predict
HC1	0.644	0.664	-0.020	0.468
HC5	0.560	0.573	-0.013	0.528
HC4	0.615	0.624	-0.008	0.524
HC3	0.610	0.647	-0.037	0.512
HC2	0.625	0.652	-0.027	0.503
INT1	0.576	0.570	0.006	0.497
INT6	0.542	0.536	0.006	0.537
INT4	0.592	0.602	-0.010	0.478
INT5	0.587	0.582	0.005	0.489
INT2	0.548	0.520	0.028	0.502
INT3	0.618	0.613	0.005	0.471

3.4 Assessment of Common Method Variance (CMV)

Common Method Variance is normal in social science research due to the data collection methods and techniques (Podsakoff, MacKenzie, Lee, & N., 2003). Harman's (Harman, 1976) one-factor test was suggested to estimate the impact of CMV on study constructs (Podsakoff et.al, 2003). One-factor Harman's test revealed that CMV was not a critical matter for study, as the main factor accounted for 36.97% variance and less than the recommended limit of 50% (Podsakoff et.al, 2003).

3.5 Multivariate Normality

SEM-PLS is not associated with multivariate normality in the data, as it is a non-parametric analysis instrument (Hair, Risher, Sarstedt, & Ringle, 2019). Multivariate data normality was tested as suggested by Peng and Lai (2012) using an online tool of web power (<https://webpower.psychstat.org/wiki/tools/index>) to confirm data normality. The test results confirm that the data set is not as normal as Mardia's multivariate coefficient p-values that are less than 0.05 (Cain, Zhang, & Yuan, 2017).

4. CONCLUSION

4.1 Limitation

This study focuses exclusively on young adults in Malaysia, which limits the generalizability of the findings to other age groups or broader populations. The intention to consume organic food may differ significantly among older adults or other demographic segments. This makes it harder to apply the results to other demographic groups, such as older people, those living in rural areas, or customers with lower education levels, who may have different habits and reasons for consuming organic food.

This research employed a cross-sectional survey design, which captures respondents' perceptions at a single point in time. As a result, the study does not account for changes in consumer attitudes and intentions over time, nor can it establish causality between variables. Furthermore, the data collection in this study involved self-administered online questionnaires. This method might lead to social desirability bias or inaccuracies in responses. Participants could exaggerate their health or environmental awareness to fit in with social expectations.

While the study extended the Theory of Planned Behavior (TPB) by incorporating health consciousness and environmental concern, other potential influencing factors such as price sensitivity, product availability, or lifestyle segmentation were not examined, which might limit the comprehensiveness of the model.

4.2 Contribution

This study contributes to the theoretical development of consumer behavior literature by extending the Theory of Planned Behavior (TPB) framework through the integration of health consciousness and environmental concern as additional predictors of intention. By doing so, the research addresses existing gaps in TPB applications, particularly in the context of value-driven and sustainability-oriented behaviors like organic food consumption. The findings provide empirical evidence that personal health orientation and environmental awareness are more influential than subjective norms among young Malaysian adults, challenging the assumption that social influence is universally significant in intention formation. This study thus advances TPB by highlighting the diminishing role of subjective norms in certain contexts and demographic segments, while emphasizing the importance of intrinsic motivations (health and environmental values) in predicting sustainable consumption intentions.

From a practical perspective, the study offers valuable insights for policymakers, marketers, and organic food producers in formulating strategies to encourage organic food consumption among Malaysian youth. The identification of health consciousness as the strongest determinant suggests that health-focused campaigns and product messaging should be prioritized to effectively influence young consumers' purchasing decisions. Additionally, the significance of environmental concern indicates that awareness initiatives highlighting the ecological benefits of organic food can further strengthen consumer intention. The findings also imply that marketing strategies should place less emphasis on peer influence or social norms and instead focus on personal values and individual motivations. Furthermore, the study provides actionable data that can guide the development of targeted educational programs and promotional activities aimed at fostering sustainable eating habits among young adults, thereby supporting national efforts towards sustainable consumption and production goals.

4.3 Recommendation for future research

Even though limitations exist in all forms and areas of research, these projects often provide new discoveries, which create interest in consuming organic foods. In consideration of the research conducted in this study, the following section provide opportunities for further research to be conducted in this field.

Most of the respondents in this study are Malaysian living in Peninsular Malaysia only aged from 18 to 30 years. Future research should consider expanding the sample to include a more diverse demographic profile, including older

consumers, individuals from rural areas, and different income groups, to enhance the generalizability of findings across the Malaysian population.

Moreover, further studies should explore other influential factors such as perceived price fairness, product availability, trust in organic certifications, and lifestyle segmentation to develop a more holistic understanding of consumption intentions. Exploring these contemporary social influence mechanisms may offer more relevant insights given the technology-oriented nature of young adults today.

4.4 Conclusion

The findings provide empirical support for TPB, especially the predictive roles of attitude, perceived behavioral control, and extended constructs like environmental and health consciousness. However, the non-significance of subjective norms suggests that intention in this context may be more internally than externally driven. It also hints at a shift in social behavior dynamics, where consumers prioritize self-driven motives over conformity. Practically, the findings suggest:

- Health-focused campaigns are likely to have the greatest impact on behavioral intention.
- Environmental awareness efforts should be strengthened to sustain consumer intention over time.
- Reducing barriers to perceived control (e.g., pricing, product availability) will encourage behavior adoption.
- Less emphasis may be needed on peer or societal approval in marketing strategies—at least for this target demographic.

This study reinforces the multidimensionality of behavioral intention, where intrinsic motivations (health, environmental concern, attitude) and perceived capability are pivotal. Future research could further investigate the mediating or moderating roles of generational values or lifestyle segmentation to explain the diminished role of subjective norms.

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