

ENVIRONMENTAL ATTITUDE AS MEDIATOR IN SUSTAINABLE FOOD CONSUMPTION INTENTION AMONG YOUTH CONSUMERS IN MALAYSIA

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ABSTRACT

Sustainable food consumption (SFC) stands as a critical solution to address the urgent global challenges posed by food security, environmental degradation, and public health concerns. Amidst issues like climate change and resource depletion, transitioning to sustainable food systems becomes imperative for safeguarding the well-being of current and future generations. This study aims to investigate the impact of environmental attitudes and environmental concerns on SFC intention among Malaysian university students. Additionally, the research seeks to examine the mediating role of environmental attitude in the relationship between environmental concern and SFC intention. Utilizing structural equation modelling in SPSS AMOS, the findings reveal significant positive influences of both environmental attitude and environmental concern on SFC intention. Environmental attitude is found to partially mediate the relationship between environmental concern and SFC intention. Fostering positive environmental attitudes and increasing environmental concern among individuals can encourage the adoption of SFC practices, contributing to mitigating environmental degradation and promoting a healthier planet for future generations. This study contributes to academia by providing empirical evidence on the determinants of SFC intention among Malaysian university students, filling a gap in the literature on SFC in the Malaysian context. It provides insights

for policymakers, highlighting the significance of addressing psychological factors to promote SFC behaviours among youth. Practitioners can utilize these findings to design targeted interventions and educational campaigns, fostering environmentally conscious attitudes and behaviours among consumers.

INTRODUCTION

The challenges posed by climate change and the future of food security loom large over contemporary society, with prevailing dietary norms exerting profound effects on these pressing global concerns (Owino et al., 2022). The consumption and production of food significantly affect environmental sustainability, with shifts in dietary habits also contributing to various health-related concerns (Vermeir et al., 2020). Consequently, there exists an urgent necessity to enact transformative changes in consumer behavior with regard to food consumption. This imperative is rooted in the dual objectives of ensuring a resilient food supply and promoting the holistic health of individuals and the planet (Ammann et al., 2023; Hoek et al., 2021).

In recent times, the topic of sustainable food consumption (SFC) has garnered considerable interest on a global scale, owing to its pivotal importance in tackling pressing global issues such as climate change, food security, and public health (Herrero et al., 2023). The escalating concerns surrounding sustainability in the food sector have spurred research efforts aimed at understanding consumer behavior and preferences towards sustainable food choices (Vermeir et al., 2020). As consumers become more aware of the environmental and social impacts of their food choices, they are increasingly seeking transparent information and ethically sourced products that reflect their values and beliefs. This shift towards SFC reflects a broader societal movement towards more responsible and environmentally friendly lifestyles,

necessitating comprehensive strategies to promote sustainable food practices across various sectors.

Malaysia's urban population has been steadily increasing, resulting in a shift towards urban lifestyles characterized by convenience-oriented food choices (Azman et al., 2023). The fast-paced nature of city life often encourages the consumption of convenience foods, which are typically less sustainable in terms of production, packaging, and transportation (Piscopo, 2015). Traditional diets have been gradually replaced by processed and fast foods, leading to various health issues, including obesity, diabetes, and cardiovascular diseases (Weerasekara et al., 2018). As a rapidly developing country, Malaysia faces challenges concerning SFC. Malaysia, known for its rich cultural diversity and culinary heritage, has witnessed significant changes in dietary patterns over the past few decades (Moy & Zulkefli, 2023).

Food waste emerges as a pressing issue in Malaysia, exacerbated by both consumer and producer behaviors (Mohd Som, 2023; Abas, 2023). According to the Solid Waste Corporation Malaysia (2019), Malaysians waste 16,688 tonnes of food daily. This substantial amount of food wastage underscores the potential to alleviate hunger and reduce food insecurity by redirecting surplus food to those in need. Concurrently, unsustainable farming practices, such as using pesticides and fertilizers, contribute to environmental degradation and health risks for farmers and consumers. These practices can lead to soil degradation, water pollution, and health problems for farmers and consumers. Concurrently, the country grapples with food security concerns and environmental degradation resulting from unsustainable agricultural practices (Ramli et al., 2023).

SFC is essential to environmental protection and human health. However, there are several issues and problems related to SFC

in Malaysia. One of the significant issues is the high consumption of fast food, especially among youth in Malaysia. Studies have shown that young adults in Malaysia tend to consume more fast food than fruits and vegetables (Abdullah et al., 2015; Phang et al., 2020). This is a major issue as fast food is often high in calories, fat, and sugar, which can lead to health problems such as obesity, diabetes, and heart disease. Malaysia stands out in Southeast Asia with the highest prevalence of adult obesity. Over the past two decades, Malaysia has seen a significant rise in obesity, from 4.4 percent in 1996 to 19.7 percent in 2019 (Mohd-Sidik et al., 2021). The National Health Screening Initiative (NHSI) 2023 revealed that out of 283,100 individuals screened in Malaysia, 31.3 percent were overweight (BMI > 25 kg/m²) and 22.2 percent were obese (BMI > 30 kg/m²), totaling 53.5 percent with weight issues (Codeblue, 2023). Globally, projections suggest alarming figures, with an estimated 1 billion adults being obese and 2.7 billion overweight by 2025 (World Health Organization, 2021).

In the context of Malaysia, there exists a notable gap in the literature pertaining to SFC. While various studies have explored related concepts such as organic food and green food consumption, the specific term "sustainable food consumption" remains relatively underrepresented. Several studies, for instance, by Jaafar et al. (2023), Chekima et al. (2023), Saleki & Mohammad (2019), and Jaffery & Annuar (2022) delved into the various topics of organic food consumption in Malaysia. Khan et al. (2015), Leong & Mariadass (2019), and Ganesh et al. (2021) conducted studies related to the factors affecting the purchase intention of green food products in Malaysia. Despite these efforts, there remains a lack of comprehensive research explicitly addressing SFC practices and their determinants in Malaysia. Addressing this gap is essential to identify practical solutions and policies that facilitate a transition toward more sustainable dietary habits.

University students play a pivotal role in determining SFC patterns. At this stage of life, they are developing habits and preferences, making them more receptive to new ideas and behaviors. The authors explore the relationship between young consumers and sustainability. They identify three crucial areas: building sustainable consumption and production literacy, limiting advertising, and eliciting visions for a sustainable future. Moreover, university students tend to be more educated and environmentally aware than the general population (Szeberenyiet al., 2022; Aniket et al., 2022; Libelo et al., 2022). Empowering young people with knowledge and encouraging conscious consumer choices can significantly contribute to achieving a sustainable consumption future.

However, despite their potential for positive impact, young consumers often exhibit unsustainable dietary habits. These habits include high meat consumption and food waste generation (Bernardo et al., 2017). Economic disparities among university students further complicate SFC (Elizabeth et al., 2023). Students from lower-income backgrounds may struggle to afford sustainably sourced foods or engage in ethical food choices due to limited financial resources (Koh & Lee, 2019). Moreover, sustainability education is deficient among university students (Alsaati et al., 2021). Many consumers remain unaware of the environmental impact of their food choices, lacking the knowledge needed to make informed decisions regarding sustainable diets (Morren et al., 2021; Hartmann et al., 2021). Therefore, studying SFC among university students in Malaysia provides valuable insights into the factors influencing SFC and can drive targeted efforts to promote sustainable practices within this demographic.

SFC is not only crucial for environmental protection but also impacts human health. However, challenges persist in Malaysia, including high fast-food consumption, lack

of awareness, food waste, and unsustainable farming practices. Understanding young consumer's perspectives on environmentally responsible behavior is vital, as they represent the future of society. Young consumers exhibit forward-looking behavior, considering both immediate and long-term consequences of their actions, particularly in their preference for eco-friendly products.

They rely on digital platforms and social media for information before making purchasing decisions. While SFC intention among young Malaysian consumers has received limited attention, further exploration is necessary. This study aims to investigate the impact of environmental attitude and environmental concern on SFC intention among young consumers in Malaysia and examine the mediating role of environmental attitude.

LITERATURE REVIEW

Sustainable food consumption intention

Sustainable food consumption (SFC) refers to the act of consuming food that "responds to fundamental requirements and increases the quality of life while reducing the use of natural resources, harmful materials, waste, and pollution emissions throughout the life cycle so as not to jeopardize the needs of future generations" (Roundtable, 1994). Sustainable food practices have become essential strategies for fostering resilience, equity, and environmental stewardship within food systems. These practices, including home gardening (Mansor, 2024), buying locally (Cappelli et al., 2022), eating seasonally (Régnier et al., 2022), reducing food waste (Nordin et al., 2024), and using sustainable packaging (Otto et al., 2021), offer tangible ways to promote sustainability and mitigate the adverse impacts of conventional food production and consumption practices.

In promoting SFC, consumers increasingly opt for various practices, such as elevating the intake of plant-based foods (Daniel et al., 2023) while reducing their meat consumption (Hoek et al., 2004) and favoring seasonal products (Tekinbaş Özkaya et al., 2021). Some consumers prioritize purchasing locally sourced and/or organically produced food (Basha & Lal (2019) as potential strategies for enhancing environmental sustainability, although the effectiveness of these practices varies across different contexts. The ecological sustainability of private food consumption is contingent upon numerous variables within the diverse domain of dietary practices. These factors encompass elements such as dietary composition, production methods (e.g., organic versus conventional), and transportation logistics of food products. Contemporary studies advocate for specific measures that affluent consumers can adopt to enhance the sustainability of their dietary behaviors. These measures encompass reducing meat intake, especially beef, opting for organic food alternatives over conventionally produced ones, and refraining from purchasing products transported by air freight (Weibel et al., 2019; Pais et al., 2023). Recent research by Edenbrandt et al. (2021) emphasizes the importance of considering environmental labels and certifications when making food purchasing decisions. Moreover, findings from a study by Pais et al. (2023) underline the significance of dietary shifts toward plant-based foods in promoting environmental sustainability.

Environmental attitude

Environmental attitude significantly influences consumers' intentions and behaviors regarding SFC. Termed as "a learned predisposition to respond in a consistently favorable or unfavorable manner concerning a given object" (Fishbein & Ajzen, 1975), environmental attitude reflects individuals' feelings towards products, affecting their acceptance or rejection. Based on Ajzen's

(1991) conceptualization, attitude toward behavior refers to an individual's favorable or unfavorable evaluation of the behavior under consideration, as demonstrated by consumers. This attitude encompasses both general and specific perceptions related to purchasing decisions. General attitudes refer to overall predispositions toward appropriate behaviors within a category, while specific attitudes are particularly influential in predicting behaviors toward individual objects (Tan & Lau, 2011). Customers' beliefs and emotions towards purchasing sustainable food products often constitute specific attitudes. Consequently, customers with more favorable attitudes are more likely to purchase sustainable food products, especially when they perceive a high level of involvement in the decision-making process (Thøgersen et al., 2016; Woo & Kim, 2019).

Environmental attitudes, as described by Ogiemwonyi and Jan (2023), involve individuals' evaluations of values related to environmental protection, representing their personal recognition of the significance of environmental preservation. Recent research by Bazhan et al. (2024) found a significant influence of environmental attitude and environmental concern on behavioral intention to purchase organic food in Tehran. Bernabéu et al. (2022) highlighted that consumers displaying concern for the environment are more likely to develop positive attitudes towards purchasing sustainable food products at premium prices. Prior research has consistently shown that environmental attitudes significantly impact the purchase intentions of organic food. Cheah & Aigbogun (2022) and green items (Sethi, 2018). Based on the cumulative evidence, this study proposes the following hypothesis:

H1a: Environmental attitude significantly influences youth consumers' SFC intention.

Environmental concern

Environmental concern is cultivated through individuals' acknowledgment of their interconnectedness with the natural environment (Nabilla, 2019). This recognition instills a sense of duty toward preserving ecological integrity and promoting sustainable behaviors. The concept of environmental concern reflects consumers' general attitude towards safeguarding the environment (Fransson & Gärling, 1999). As a result, environmentally concerned individuals advocate for proactive approaches to mitigate environmental degradation and uphold the well-being of ecosystems. A plethora of studies has highlighted environmental concern as an essential predictor of ecologically friendly behavior in pro-environmental literature. Taufique & Vaithianathan (2018) revealed a significant positive impact of environmental concern on ecologically conscious consumer behavior (ECCB) among young urban consumers in India. Meanwhile, findings by Hoang Yen & Hoang (2023) discovered that environmental concerns play a crucial role in influencing customers' engagement with green consumption in Vietnam.

Esmailpour & Bahmiary (2017) established a positive relationship between environmental concerns and intentions to purchase green products in Iran. Their findings indicate that consumers who are environmentally concerned are less likely to choose products that have a low environmental impact or are more destructive to the environment. Essentially, consumers who prioritize environmental considerations tend to avoid products that contribute to environmental harm or have a negative ecological footprint. Recent study by Maduku (2024) among South African consumers have reinforced these conclusions, highlighting the substantial influence of environmental concerns on sustainable consumption patterns. As consumers prioritize environmental considerations, they anticipate experiencing

positive emotions when actively engaging in sustainable consumption behaviors, contrasting with negative emotions that arise when they fail to adhere to such practices.

Moslehpour et al. (2023) found a positive association between environmental concern and green purchase intention in Taiwan and Mongolia. Environmental challenges arising from business practices in Taiwan and Mongolia prompt consumers in these regions to develop a heightened consciousness regarding these environmental issues, their underlying causes, and the ensuing consequences. This awareness contributes to the cultivation of green purchasing intentions among consumers as they seek to address environmental concerns within their respective contexts proactively. Thus, the body of research suggests that environmental concern plays a pivotal role in supporting intentions to purchase environmentally friendly products. Therefore, this study proposes the following hypothesis:

H1b: Environmental concerns significantly influence youth consumers' SFC intention.

The mediating role of environmental attitude

There has been limited research specifically examining environmental attitudes as a mediator in the relationship between environmental concern and SFC intentions, particularly within the context of Malaysia. Environmental concern initiates the development of pro-environmental attitudes among individuals, thereby positively influencing their inclination towards green purchase behavior (Esmaeilpour & Bahmiary, 2017; Jaiswal & Kant, 2018). This association is characterized by the intermediary function of environmental attitude, wherein heightened environmental concern cultivates a mindset emphasizing ecological values and sustainability. As awareness of environmental issues and their implications grows, individuals are more inclined to adopt attitudes aligned

with environmentally responsible practices (Sharma et al., 2022). These pro-environmental attitudes serve as intermediaries linking environmental concerns to actual purchasing decisions, guiding consumers toward favoring environmentally friendly products and services (Kautish & Sharma, 2019). Consequently, environmental attitude plays a crucial role in translating individuals' environmental concerns into actionable behaviors that contribute to sustainable consumption patterns, including green purchasing behavior.

Environmental attitude serves as an intermediary factor that influences how environmental concern translates into actual behaviors. Ojedokun & Balogun (2010) investigated the mediating role of environmental attitude in the context of responsible environmental behavior among respondents in Nigeria. Their research emphasizes that environmental attitude significantly mediates between self-concept, environmental self-efficacy, and responsible environmental behavior. Onurlubaş (2018) conducted a study among consumers in Turkey, observing a significant mediating effect of environmental attitude on the relationship between environmental concern and the intention to purchase green products. Shen et al. (2024) examined hospital workers in China and discovered that pro-environmental attitudes mediated the relationship between climate change health risk (CHRP) and pro-environmental behavior.

Liu et al. (2020) conducted their research among consumers in China, demonstrating a significant mediating effect of environmental attitude in the relationship between environmental knowledge and environmental behavior intention. Furthermore, Domínguez-Valerio et al. (2019) discovered that the attitude towards sustainable development acts as a mediator between knowledge of sustainable development and behavior towards sustainability. This implies that despite students possessing considerable

knowledge about sustainable development and displaying behaviors that align with sustainability, it is imperative to enhance their attitudes toward sustainable development. Such enhancements can have enduring impacts on their final behaviors over the long term. Given the insights from earlier research, this study hypothesizes that:

H2: Environmental attitude mediates the relationship between environmental concern and SFC intention

RESEARCH METHODOLOGY

Research framework

Figure 1 depicts the research framework adopted for this study, aiming to explore the influence of environmental attitude and environmental concern on sustainable food consumption intention (SFCI) among Malaysian undergraduate students. The framework places particular emphasis on examining the mediating role of environmental attitude in this relationship.

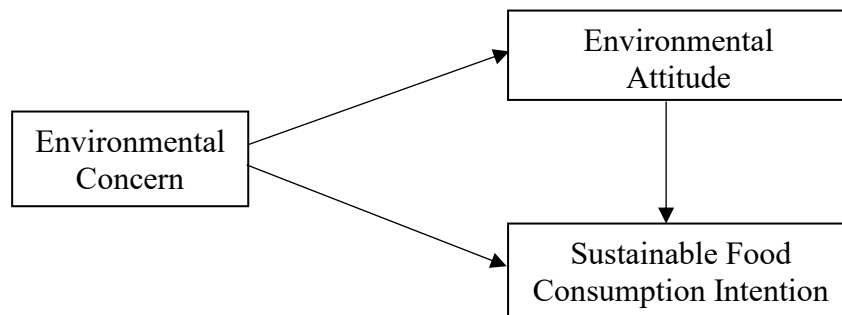


Figure 1 Research framework

Population and sample size

In this study, the population under investigation comprises students enrolled at public universities in Malaysia. According to data from the Ministry of Higher Education Malaysia (2022), the total population of university students in Malaysia stands at approximately 384,706. The target population for this study was public university students in Malaysia who were enrolled in an undergraduate degree during the 2021-2022 academic year. Convenience sampling was employed to select participants, facilitating ease of access and data collection from the target population within the constraints of time and resources.

The inclusive criteria for respondents in this study encompass two key requirements. Firstly, respondents must be undergraduate university students, with a particular emphasis

on those pursuing diplomas and bachelor's degrees. Secondly, respondents must be enrolled in a public university in Malaysia. Referring to the methodology proposed by Krejcie and Morgan (1970), the sample size can be determined relative to the population size. Given the estimated population of approximately 384,706 university students in Malaysia, a sample size of 384 respondents is deemed appropriate for this study.

Research instrument

The questionnaire items utilized in this study were adapted from previous research studies conducted by Roberts (1996), Smith et al. (1994), Tanner & Kast (2003), and Nguyen et al. (2021). The decision to incorporate these items into the questionnaire was based on their validation in prior research, thereby enhancing the reliability of the instrument. Ethical approval for data collection was obtained from

the Universiti Putra Research (UPM) ethics committee prior to commencement. Each statement in the questionnaire was assessed using a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). This standardized scale facilitated the systematic measurement of participants' responses, ensuring consistency and comparability across survey items.

Data collection

This research employed a survey questionnaire comprising multiple sections to gather data. Given the wide geographic distribution of participants across various universities in Malaysia, questionnaire forms or links were disseminated through online media platforms such as WhatsApp, Facebook, Instagram, and email. The data collection process was commenced from October to December 2022, allowing sufficient time to collect responses from participants. Furthermore, utilizing an online survey method offers advantages such as increased efficiency, cost-effectiveness, and the ability to reach a diverse participant pool across different regions of Malaysia.

RESULTS

Demographic profiles

The demographic profiles of participants in the study exhibit a varied composition across several key parameters. In terms of gender distribution, the sample encompasses 250 females, representing 69.3% of the total respondents, and 111 males, constituting 30.7% of the sample population. Regarding age demographics, a predominant proportion of respondents, comprising 327 individuals (90.6%), fall within the 18-24 age category, while a smaller contingent of 32 individuals (8.9%) belong to the 25-34 age bracket, and only 2 individuals (.6%) are aged between 35 and 44. Ethnically, the sample displays diversity, with the majority identifying as Malay, comprising 176 individuals (48.8%). Chinese respondents constitute the second-

largest group, comprising 84 individuals (23.3%), followed by Bumiputra Sarawak (62 individuals, 17.2%), Bumiputra Sabah (20 individuals, 5.5%), and Indian (19 individuals, 5.3%).

In terms of religious affiliation, the majority of participants identify as Muslim, with 214 individuals (59.3%) professing this faith. Other religious affiliations include Buddhist (73 individuals, 20.2%), Christian (52 individuals, 14.4%), Hindu (17 individuals, 4.7%), and a small minority identifying as non-religious (5 individuals, 1.4%). In relation to household income, the majority of respondents (268 individuals, 74.2%) report an income below RM4360, while 67 respondents (18.6%) fall within the RM4360 – RM9619 income bracket, and a smaller cohort (26 individuals, 7.2%) report earning more than RM9619. Lastly, regarding educational attainment, the data indicates that the majority of respondents hold a bachelor's degree (312 individuals, 86.4%), while a smaller proportion possess a diploma qualification (49 individuals, 13.6%).

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Confirmatory factor analysis

Test of model fit for measurement model

Table 1 provides a comprehensive review of these goodness-of-fit indices in regard to each variable inside the measurement model. The results show that the RMSEA produced a value of 0.068, which is below the acceptable threshold of 0.08 (Browne & Cudeck, 1993). In addition, the CFI established a robust fit at 0.956, exceeding the proposed level of 0.90 (Bentler, 1990), while the TLI was likewise beyond the recommended threshold at 0.949 (Bollen, 1990). The relative Chi-Square value amounted to 2.989, which comfortably met the criterion of staying below 3.0 (Marsh & Hocevar, 1985). To sum up, the combination of these four indices verifies the adequacy of the measurement model for the data set, indicating its strong fit.

Table 1 Result of goodness of fit for pooled CFA measurement model

Name of Index	Recommended Value	Result
RMSEA	RMSEA < 0.08	0.076
CFI	CFI > 0.90	0.919
GFI	GFI > 0.90	0.907
Relative Chi-Square	Chi-Sq/df < 3.0	2.684

Table 2 summarizes the standardized factor loadings for each item in its respective variables, average variance extracted (AVE), composite reliability (CR), and Cronbach’s alpha in the measurement model. The factor loadings for all items in the model were statistically significant, and their standardized factor loading estimates were above the recommended value of 0.60. Apart from that, the values of AVE for all variables were greater than 0.50. Overall, the values of AVE ranged from 0.579 to 0.582, which suggests that the variables had passed the convergent validity requirement. With reference to composite reliability (CR), all of the variables demonstrated a value greater than 0.70, ranging from 0.822 to 0.845, indicating good reliability of the variables. The Cronbach’s alpha coefficients for each variable exceeded the threshold of 0.70, indicating a satisfactory level of internal consistency. Specifically, Cronbach’s alpha coefficients for the ten factors ranged from 0.813 to 0.840, affirming a notably high level of internal consistency within the measurement instrument.

Table 2 Summary results of CFA for the measurement model

Item	Factor Loading	CR	AVE
Environmental Attitude		0.822	0.582
EA1	0.617		
EA3	0.624		
EA4	0.713		
EA5	0.795		
EA6	0.706		
Environmental Concern		0.838	0.508
EC1	0.695		
EC2	0.731		
EC3	0.696		
EC4	0.756		
EC6	0.683		
Sustainable Food Consumption Intention		0.845	0.579
SFCI1	0.789		
SFCI2	0.791		
SFCI4	0.778		
SFCI5	0.679		

Model fit for structural model

Figure 2 depicts the structural models and summarizes the relationships and interactions between the latent constructs in the study. It visually represents the pathways through which environmental attitude and environmental concern influence SFC intention. The model fit indicators for the full structural model supported a good model fit, Chi-Sq/df = 2.684, CFI = 0.919, GFI = 0.907, and RMSEA = 0.076.

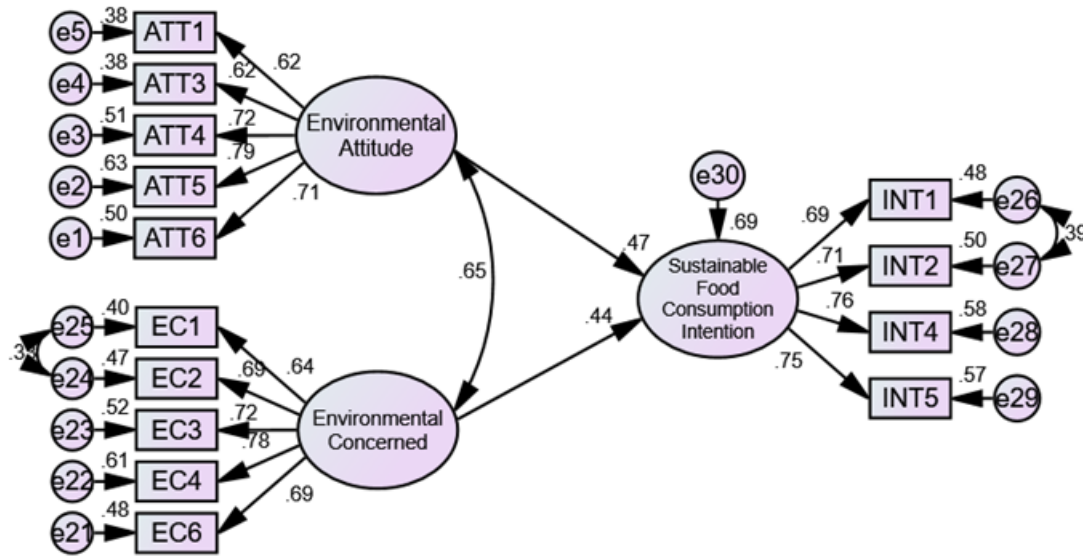


Figure 2 Structural model

Determinants of SFC intention

Table 3 summarizes the hypothesis testing results for factors influencing the SFC intention of young consumers in Malaysia. The results strongly support H1a ($\beta = 0.468, p < 0.001$) indicating that environmental attitude significantly influences SFC intention. In a similar vein, the findings also support H1b ($\beta = 0.444, p < 0.001$), in which environmental concerns significantly influences SFC intention.

Table 3 Result of hypothesis testing

Hypotheses Statements		β	S.E.	C.R.	p	Results
H1a	Environmental attitude significantly influences youth consumers' SFC intention.	0.468	0.087	6.059	***	Supported
H1b	Environmental concern significantly influences youth consumers' SFC intention.	0.444	0.083	5.770	***	Supported
Note:	β :	Standard Beta Coefficient				
	S.E. :	Standard Error				
	C.R. :	Critical Ratio				
	*** :	Significant at level 0.001				

Mediation analysis

Validating the mediation effect within the structural model

Within the AMOS graphic software, mediation analysis was conducted through the creation of three distinct models: the Full Mediation Model, the Indirect Model, and the Direct Model. The initial step involved confirming the presence of a mediation effect within the overall structural model. During this stage, the Full Mediation and Indirect Models were compared. It is evident that the Full Mediation Model meets two out of the three established criteria, positioning it as a preferable model. Specifically, the CMIN (sig- χ^2) value of 983.461 for the Full Mediation Model is lower than the corresponding value of 1047.877 for the Indirect Model.

Similarly, the AIC value of 1131.461 for the Full Mediation Model is lower than the AIC value of 1187.877 for the Indirect Model. However, it is important to note that the PNFI value of 0.737 for the Full Mediation Model is slightly higher than the 0.735 observed for the Indirect Model, indicating a marginal advantage for the latter. Despite this, the Full Mediation Model satisfies all three primary criteria, establishing its superiority over the Indirect Model. Consequently, the presence of a mediation effect within the model is confirmed.

Determining the mediation effect for individual path

The second procedure was to check for the effect of the mediating variable for an individual path in the structural model. Table 4 provides a summary of the mediation study results, comprising the standardized beta coefficient (β), critical ratio (C.R.), and p-values for both the Direct Model and Full Mediation Model across each relevant path.

Table 4 Results of mediation effects of environmental attitude

Hypothesized Paths	β	C.R.	P-Value	Results
Environmental Concern				
Direct Model				
SFCI ← EC	0.463	3.815	***	Significant
Full Mediation Model				
ATT ← EC	0.673	2.242	0.025	Significant
SFCI ← ATT	0.404	3.209	0.001	Significant
SFCI ← EC	0.423	3.328	***	Significant

Note: β : Standardized Coefficient C.R. : Critical Ratio
 *** : Significant at 0.001 level

Following the decision criteria established by Hair et al. (2010), the study reveals that environmental attitude serves as a mediator between environmental concern and SCFI. Table 5 provides a brief overview of the findings concerning hypothesis testing in the mediation analysis.

Table 5 Summary results for hypothesis testing of mediation analysis

Hypothesis	Hypothesis Statement	Results	Types of Mediation
H2	Environmental attitude mediates the relationship between environmental concern and SFC intention.	Supported	Partial mediation

Figure 3 visually presents the standardized beta coefficients derived from structural equation modeling, offering a detailed insight into the model. As depicted, all exogenous variables in the model exert statistically significant impacts on their respective endogenous variables. The model estimates that environmental concern accounts for 45% of the variance in environmental attitude ($R^2 = 0.45$). Conversely, environmental concern and environmental attitude jointly explain 59% of the variance in SFCI ($R^2 = 0.59$).

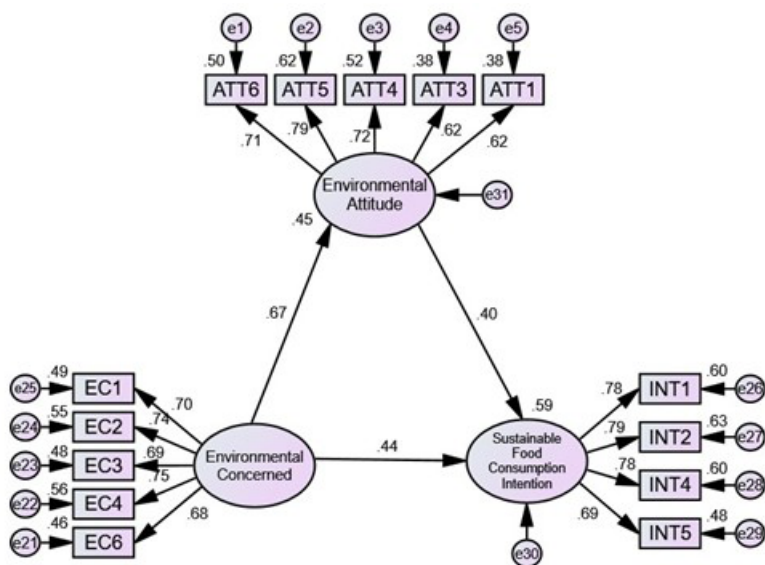


Figure 3 Full mediation model

DISCUSSION

The findings of this study indicate that environmental attitude and environmental concern both exert significant positive influences on the sustainable food consumption intention (SFCI) of young consumers in Malaysia, thus supporting hypotheses H1a and H1b, respectively. The significance of these findings lies in their implications for sustainable consumption behavior among the younger demographic in Malaysia. The positive influence of environmental attitude suggests that young consumers who possess a favorable attitude toward environmental issues are more likely to exhibit intentions to engage in SFC practices. This aligns with existing literature (Bazhan et al., 2024; Bernabéu et al., 2022; Thøgersen et al., 2016; Cheah & Aigbogun, 2022; Sethi, 2018) emphasizing the role of environmental attitude in environmentally conscious behaviors.

Similarly, the significant positive influence of environmental concern on SFCI highlights the pivotal role of concern for the environment in driving sustainable consumption behaviors among young consumers. This finding is in line with previous studies such as those by Taufique & Vaithianathan (2018), Hoang Yen

& Hoang (2023), Esmailpour & Bahmiary (2017), Maduku (2024), and Moslehpour et al. (2023), which have also demonstrated the strong association between environmental concern and SFCI. This finding underscores the importance of raising awareness and fostering a sense of responsibility toward environmental conservation among the youth population.

The findings of the study also support hypothesis H2, which posits that environmental attitude serves as a mediator in the relationship between environmental concern and SFCI. The results indicate a significant relationship between environmental concern and SFCI, with environmental attitude partially mediating this relationship. It also implies that environmental concern has a direct effect on SFCI, in addition to its indirect influence through environmental attitude. The result suggests that individuals who possess a stronger environmental concern are more likely to exhibit favorable attitudes towards the environment, which in turn influences their intention to engage in SFC practices. The findings of this study are consistent with several previous literature that have also identified the mediating role of environmental attitude in the relationship between environmental concern and pro-environmental behaviors

(Kautish & Sharma, 2019; Ojedokun & Balogun, 2010; Onurlubaş, 2018; Shen et al., 2024; Liu et al., 2020; Domínguez-Valerio et al., 2019).

CONCLUSION

In conclusion, the study investigated the roles of environmental attitude and environmental concern in influencing SFC among youth consumers in Malaysia. The results highlight the significance of these factors in influencing SFC behaviors, indicating a need for targeted interventions to foster positive environmental attitudes and raise awareness about environmental concerns among youth consumers. Understanding these determinants is essential not only for promoting the health and well-being of young consumers but also for addressing broader issues such as food security and environmental sustainability in Malaysia.

The implications of the study's results extend to academia, policymakers, and industry stakeholders, each with unique roles to play in fostering SFC among youth in Malaysia. For academia, the findings emphasize the importance of integrating environmental education and awareness campaigns into university curricula. Academic institutions can develop interdisciplinary courses that explore the connections between food systems, environmental sustainability, and consumer behavior. Additionally, research initiatives focusing on understanding the socio-cultural, economic, and environmental factors influencing SFC among youth can provide valuable insights for future policymaking and industry practices.

Policymakers can leverage the study's findings to inform the development of evidence-based policies and initiatives aimed at promoting SFC among youth. This may include implementing regulations to incentivize sustainable food production and consumption practices, such as subsidies for organic farming or tax incentives for businesses offering sustainable food options.

Policymakers can also invest in educational programs and public awareness campaigns to raise awareness about the environmental and health benefits of SFC and provide resources to support sustainable food initiatives at the community level. Industry stakeholders, including food producers, retailers, and restaurants, can play a crucial role in promoting SFC among youth by offering sustainable food options and adopting environmentally friendly practices throughout the supply chain. This involves sourcing locally grown, organic produce, reducing food waste through innovative packaging and distribution methods, and providing transparent information about the environmental impact of products. Collaborating with academic institutions and government agencies to develop and implement sustainability certifications and labeling schemes can also help consumers make informed choices about their food purchases.

In addition to broader initiatives, specific actions to foster SFC among youth include partnering with educational institutions for awareness campaigns, establishing community gardens, implementing sustainable food procurement policies on campuses, collaborating with food retailers for waste reduction programs, and supporting young entrepreneurs in sustainable food ventures. By working together across academia, policy, and industry sectors, stakeholders can create a supportive environment that empowers youth to make sustainable food choices and contribute to a healthier, more resilient food system for future generations.

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