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Sustainable by Choice: What Influences University Student Consumption of Local Products?

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Abstract

The study aims to identify the factors influencing consumption of local sustainable food products. A survey was conducted involving 411 students using questionnaires. Descriptive statistics and Spearman's Correlation were used for data analysis. 240 respondents exhibited high attitudes toward local sustainable food. The findings indicated that ethical labels on food packaging ($\bar{x} = 4.13 \pm 0.18$) and actual consumption ($\bar{x} = 4.21 \pm 0.14$) received the highest agreement. The correlation test revealed a significant positive relationship between all five attitude factors and consumption behaviour, indicating that local food producers should align their offerings with consumers preferences.

Keywords: Sustainable; Attitudes factors; Consumer behavior; Local food product

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1.0 Introduction

The environment, human and societal health, and community unity, food consumption has been a significant debate in the politics of sustainable consumption and production. Climate change, water pollution, water scarcity, soil degradation, habitat loss, and biodiversity loss are just a few of the significant ecological problems linked to food production and consumption (Ahmed et al., 2023). These changes influence consumer awareness of sustainable food, as people become more exposed to and conscious of the challenges related to sustainable food production and consumption (Burkert et al., 2023). In the sustainable consumption aspects, it emphasises the importance of reducing consumption, satisfying human needs, providing a good quality of life, and an acceptable standard of living, sharing available resources between rich and poor, considering the needs of future generations to come, and minimising consumption of resources as well as the production of pollutants and waste (Bauerné Gáthy et al., 2022).

1.1 Local food sustainability

Food sustainability is associated with practices such as consuming organic, local sourced and seasonal products. Choosing seasonal and local food can significantly reduce environmental impacts while strengthening local economies and promoting healthier ecosystem (Vargas et al., 2021). To consumers that are concerned with environmentally sustainable food product they would respond positively toward products that sold with environmental sustainability labels, which serve as crucial sign of low-impact production method, including pesticide-free and biodiversity friendly practices (Aprile et al., 2022), which show the importance of promoting transparent labeling and educating consumers to foster a sustainable food system.

Although the concept of sustainable food consumption has been widely studied globally, existing research tends to focus on countries such as Italy, India and others in Europe and Asia (Annuziata & Scarpato, 2014, Sigh & Verma, 2017, Lago et al., 2020). However, in the Malaysia context, studies exploring consumer attitudes and awareness toward sustainable food remain comparatively limited toward topic such as consumer knowledge, attitudes and purchasing behaviour (Ganesh et al, 2021), sociodemographic influences on organic food consumption (Jaafar et al. 2024) and consumer willingness to pay (Kalyana Sundram & Matthew, 2025).

1.1 Factors influencing food sustainability

Consumer awareness and knowledge are key drivers of sustainable food production development. As Dupuits et al, (2022) stated that knowledge of sustainable diets has grown in the past few years, there is still a misconceptions on factors that hinder the behaviour changes while Rasool et al., (2021) have find a multidimensional model of consumer awareness encompassing hunger, economic, landfill and water concerns which highlight that structured education can boost ethical purchase intention.

Other studies on sustainable food products focus on consumers' factors that influence attitudes and purchasing behaviour related to sustainable food. These factors encompass values, environmental concerns, knowledge, perceived quality, emotions, health consciousness, and concerns regarding nutrition, food taste, and safety (Lago et al., 2020). At the same time, Jaafar et al. (2024) highlighted that health, nutrition, and food safety influence organic food choice, especially among higher-income groups. Similarly, Loges and Matthew (2025) reported that the willingness to pay for sustainable food products and knowledge on certifications do play a role in consistent sustainable food behaviour. It is importance to identify the attitude factors influencing consumption of local sustainable food products among students at Universiti Malaysia Sabah (UMS).

2.0 Methodology

This study is a quantitative method using a cross-sectional survey conducted from June to September 2023 involving 411 undergraduate students at main campus University Malaysia Sabah. The purposive and snowball sampling method has been used with respondent criteria: knowledgeable on food sustainability concepts. The structured questionnaire adopted from Azzurra et al. (2019), Clonan et al., (2010), Lago et al. (2020) and Ahamad & Ariffin (2018). It is comprised of four sections: A (sociodemographic, 4 items), B (consumer Attitude, 5 items), C (attitude factors including concern toward sustainability, healthy lifestyle, price, quality, and ethical labels, 15 items), and D (consumption of local sustainable food products, 4 items). A pilot test was performed to ensure the reliability of the questions. Results showed ($\alpha > 0.80$) show a good internal consistency. The data is interpreted using descriptive statistics (frequency, percentage, mean, standard deviation) and Spearman's Correlation.

3.0 Finding and discussion

A total of 411 undergraduate and postgraduate students from the Universiti of Malaysia Sabah (UMS), Kota Kinabalu main campus, aged between 18 and 35 years, are involved in studying the factors that influence their attitudes towards local sustainable food products. The findings showed that respondents' attitude towards local sustainable food products were categorised based on percentages. Respondents who scored below 60% were classified as having a poor attitude, 60% to 80% indicated a moderate attitude, and ranging from more than 80% to 100% were classified as demonstrating a high attitude. The average mean value of consumer attitudes towards local sustainable food products influenced by concern towards food sustainability factors have been obtained. Lastly, the relationship between consumer attitude and consumption factors is significant ($p < 0.05$).

3.1 Respondent Profile

A total of 411 respondents participated in this study, with the majority being female 72.7% ($n=299$), while male respondents comprised 27.3% ($n=112$). Most participants were within the 18–23-year age group (80.3%, $n=330$). Followed by those aged 24–29 (18.7%, $n=77$) and a small portion aged 30–35 (1%, $n=4$). In terms of ethnicity, Chinese participants represented the largest ethnic group, at 44.8% ($n=184$), followed by Malays at 24.3% ($n=100$), Bumiputera from Sabah and Sarawak at 20% ($n=82$), Indians at 10.5% ($n=43$), and others at 0.5% ($n=2$).

Regarding monthly food expenditure, the largest proportion of respondents reported spending between RM 201 and RM300 per month (27.5%, $n=113$), followed by RM301–RM400 (24.1%, $n=99$), RM501 and above (19.7%, $n=81$), RM 401–RM500 (15.1%, $n=62$) and below RM200 (13.6%, $n=56$). These expenditure patterns provide valuable insights into the affordability and access issues that potentially influence young consumers' sustainable food choices (Table 1).

Table 1. Demographic background

Item		Frequency ($n=411$)	Percentage (%)
Gender	Male	112	27.3
	Female	299	72.7
Age	18 – 23	330	80.3

	24 – 29	77	18.7
	30 – 35	4	4
Race	Malay	100	24.3
	Chinese	184	44.8
	Indian	43	10.5
	Bumiputera	82	20
	Others	2	0.5
Monthly expenses for food	Below RM 200	56	13.6
	RM 201 – RM 300	113	27.5
	RM 301 – RM 400	99	24.1
	RM 401 – RM 500	62	15.1
	RM 501 and above	81	19.7

These findings provide useful insights of the younger consumers demographic and expenditure patterns particularly regarding affordability, food access, and potential openness to sustainable food options, aligning with previous study on youth driven sustainable consumption trends in Malaysia (Ganesh et al., 2021; Jaafar et al., 2024).

3.2 Attitude level

The study assessed respondents' attitudes toward local sustainable food and categorized them into three levels based on cumulative scores: High (>80%), Moderate (60-80%), and Poor (<60%). As shown in Table 2, the majority of respondents demonstrated a high level of attitude toward local sustainable food, accounting for 58.4% (n=240). A further 31.1% (n=128) exhibited moderate attitudes, while only 10.5% (n=43) were classified as having poor attitudes. These findings suggest a generally favourable perception among young consumers toward sustainable food, aligning with broader trends reported by Ganesh et al. (2021) and Jaafar et al. (2024), who noted increasing awareness and favourable attitudes toward green and organic food among urban consumers. Meanwhile, Loges and Matthew (2025) highlighted positive attitudes do not always translate into purchase behaviour due to various factors like affordability, limited access and lack of knowledge about sustainability. However, the presence of considerable portion with only moderate or poor attitudes indicates a need for targeted awareness campaigns and deeper engagement particularly addressing gaps and practical barriers to sustainable food practices.

Table 2. Attitude level

	Level	Frequency	Percentage (%)
Attitude (n=411)	High	240	58.4
	Moderate	128	31.1
	Poor	43	10.5

* Score : >80% (High), 60-80% (Moderate), <60% (Poor)

3.3 Consumer attitude and Consumption factor

The descriptive analysis of means score for each consumer attitude factor toward local sustainable food is presented in Table 3. Responses were measured on a 5-point Likert scale ranging from 1 (Strongly disagree) to 5 (Strongly agree). Among the five attitude dimensions evaluated, ethical labels received an average score ($\bar{x} = 4.13 \pm 0.18$), indicating that clear and trustworthy product labelling strongly influences consumers' perceptions and attitudes. This reflects the growing consumers' demand for transparency and credibility in sustainable claims.

Healthy lifestyle was the second-highest motivator with an average mean of $\bar{x} = 3.91 \pm 0.08$, underscoring the relevance of health consciousness in shaping sustainable food attitudes among young consumers. Similarly, the quality of local sustainable food products was rated highly ($\bar{x} = 3.80 \pm 0.03$), suggesting that consumers associate sustainable options with product excellence and reliability. Concern towards food sustainability was recorded at a moderately high mean score ($\bar{x} = 3.77 \pm 0.26$), reflecting general awareness and interest in the environmental and social aspects of food production, although possibly lacking deeper engagement or understanding. Price, with the lowest mean score ($\bar{x} = 3.54 \pm 0.20$), indicates that while affordability is a factor, it is less dominant compared to ethical, health, or quality considerations.

In terms of behaviour, the mean score for consumption of local sustainable food products was high ($\bar{x} = 4.21 \pm 0.14$), reflecting strong reported engagement among respondents. This result indicates that young consumers, particularly university students, are open and willing to consume sustainable food products when aligned with their values, health goals and ethical considerations.

These findings emphasise the multidimensional nature of consumer attitudes, where factors such as ethical values, personal health and perceived quality are more prominent drivers of behaviour than price alone. This pattern is consistent with previous findings which suggest that informed and value-driven consumption is increasing among Malaysia's younger population (Jaafar et al., 2024; Loges & Matthew, 2025).

Table 3. Consumer attitude and Consumption factors

Items	Factors Influencing Consumer Attitudes Towards Local Sustainable Food Products	Average Mean \pm std
C1-3	Concern towards food sustainability	3.77 \pm 0.26
H1-3	Healthy lifestyle	3.91 \pm 0.08

P1-3	Price	3.54±0.20
Q1-3	Quality	3.80±0.03
E1-3	Ethical label	4.13±0.18
Items	Consumption of local sustainable food	Mean ± std
S1-4	Consumption	4.21±0.14

*5 = Strongly agree; 4= Agree; 3=Neutral; 2= Disagree; 1= Strongly disagree

3.4 Correlation

A Spearman's correlation analysis was conducted to examine the relationship between five identified consumer attitude factors and the consumption of local food products. As shown in table 4, all five attitude factors demonstrated significant positive correlations with consumption behaviour with p-value less than 0.05, indicating statistically significant relationship.

Among the factors, ethical labels had the strongest correlation with consumption behaviour ($r = 0.557$, $p=0.001$), highlighting the importance of clear, trustworthy labeling and certifications in shaping consumer decisions. This suggests that consumers are more likely to engage in sustainable consumption when sustainability claims are visibly and credibly presented. The second strongest relationship was observed between healthy lifestyle and consumption ($r = 0.481$, $p=0.001$), followed closely by concern toward sustainability ($r = 0.459$, $p=0.001$). These findings indicate that personal health values and environmental consciousness both serve as strong motivators for sustainable food choice among young consumers. Quality also showed a moderate but significant positive correlation with consumption ($r = 0.425$, $p=0.001$), suggesting that perceived quality plays a role in influencing decisions, though perhaps not as decisively as health or ethical labelling. Meanwhile, price had the weakest, though still statistically significant correlation ($r = 0.316$, $p=0.001$). This implies that while costs remain a factor, it is not the primary barrier to the consumption of local sustainable food products in this demographic (Table 4).

The results support previous literature (Ganesh et al., 2021; Loges & Matthew, 2025), which suggests that positive attitudes and value-driven motivations such as ethics labels and healthy lifestyle can outweigh concerns about cost, especially among educated, young consumers. However, strategic interventions such as clearly ethical labeling, greater accessibility, and awareness campaigns can further strengthen these associations and translate positive attitudes into actual behaviour.

Table 4. Correlation

Bil	Consumer attitude factor *Consumption of local sustainable food products	r^2	p value
1	Concern towards food sustainability – Consumption	0.459	0.001*
2	Healthy lifestyle – Consumption	0.481	0.001*
3	Price – Consumption	0.316	0.001*
4	Quality – Consumption	0.425	0.001*
5	Ethical labels – Consumption	0.557	0.001*

* $p < 0.05$

4.0 Conclusion and Recommendations

The study aimed to examine the attitude and consumption behaviour of young Malaysian consumers towards local sustainable food products, with a focus on university students in Sabah. Drawing on responses from 411 participants, predominantly female and aged between 18-23 years old. The study provides valuable insights into the drivers, barriers and underlying patterns associated with sustainable food consumption with a youth demographic. The results revealed a generally positive disposition toward local sustainable food. A majority (58.4%) of the respondents demonstrated a high attitude toward local sustainable food, with another 31.1 % showing moderate attitudes. This suggests a growing awareness and interest among young consumers in making choices aligned with ethical, environmental and health values. Despite this, only a moderate percentage of consumers indicated consistent consumption behaviour, highlighting the gap between intentions and actual purchasing decisions.

Among the five-consumer attitude factors investigated, ethical labeling emerged as the most influential driver ($\bar{x} = 4.13$), followed by healthy lifestyles ($\bar{x} = 3.91$), quality ($\bar{x} = 3.80$), concern toward food sustainability ($\bar{x} = 3.77$), and Price ($\bar{x} = 3.54$). These factors were significantly correlated with consumption behaviour, with ethical labels ($r = 0.557$), healthy lifestyle ($r = 0.481$), and sustainability concern ($r = 0.459$) showing stronger relationships. This reinforces the importance of transparency, trust, and alignment with personal values in shaping consumption choices. The relatively high engagement with local sustainable food ($\bar{x} = 4.21$) shows promising behavioural alignment, but gaps persist in consistent purchase and consumption, likely due to limited product availability, lack of exposure, or inadequate knowledge on sustainability labels and concepts. This gap reflects findings from prior studies, including Loges and Matthew (2025), which suggest that external barriers such as access and information can inhibit the translation of positive attitudes into behaviour.

Based on the findings several recommendations are proposed to support and enhance sustainable food consumption among young consumers. The first recommendation is to enhance the ethical labeling system; ethical labeling had the strongest impact on attitudes and consumption behaviour. Thus, the effort should be made to develop, standardise and promote trustworthy sustainable food certifications. Educational initiatives can demystify labels and help consumers differentiate between meaningful certificate and marketing claims. Second, improving sustainability awareness and education, concern for sustainability literacy should be embedded in the education system especially in university and campus life. General education courses, seminars and student-led activities can promote

deeper understanding of the food system's impact on the environment, economy, and society. Interactive digital content, social media campaigns, peer-to-peer learning models may also be effective in reaching the youth demographic.

Thirdly, health-focused promotion strategies, with health motivations ranking high, integrating sustainability with health promotion initiatives could be a highly effective approach. Framing local sustainable food as beneficial to personal well-being can appeal to young consumers' desire for a healthy lifestyle. Health organisations can organize campaigns, seminars and digital outreach programs emphasizing the health benefits of locally sourced, sustainably grown food. Fourthly, increasing access and availability, even with a strong attitude, access to sustainable food options can limit actual behaviour. Institutions and policy makers should work to increase the physical and digital availability of sustainable food. Enabling university cafeterias and food vendors to stock certified local sustainable food options can also increase everyday accessibility. Fifth, celebrating local and indigenous food heritage, a significant proportion of respondents identified as Bumiputera from Sabah and Sarawak, highlighting the importance of regional and cultural diversity in sustainable food initiatives. Preserving and promoting indigenous and traditional food systems through storytelling, community events and academic research can build stronger cultural identity and support sustainable practices. Integrating food heritage into sustainable food strategies ensures inclusivity and cultural relevance. Sixth, fostering multi-stakeholder partnerships, transforming the food system requires coordinated efforts across sectors, Universities can serve as testing grounds for sustainable food pilots and innovation hubs. Local governments can support logistical and regulatory frameworks, while NGO facilitate outreach and education. Private enterprises can invest in sustainable food ventures and improve distribution networks. Public-private partnerships that include youth voice can create comprehensive, scalable change. Seven, strengthening digital engagement, digital tools are essential for connecting with young consumers, leveraging social media apps, and gamified educational platforms can raise awareness, track sustainable behaviour, and provide accessible purchase option. A national "Sustainable food youth app" could include features like verified vendors directories, sustainable score cards and rewards for conscious purchasing. This study serves as a foundation for further investigation. Future research should explore longitudinal changes in attitudes and behaviour as youth transition into working life. Comparative studies between urban and rural populations, or across regions such as East and West Malaysia, could uncover nuanced differences in sustainable consumption drivers. Qualitative approaches may also help in understanding the emotional and psychological motivators behind food choices.

In conclusion, the findings reveal that young Malaysian consumers exhibit promising attitudes and growing behaviours toward local sustainable food. Ethical concern, health motivation, and quality perceptions are strong influences, with affordability and access still posing some constraints. Addressing these barriers through education, policy, infrastructure, and youth inclusion will be key to scaling sustainable food practices. Empowering youth with the knowledge, tools and opportunities to engage in sustainable food system not only ensures a more environmentally conscious generations but also lay the groundwork for a more resilient and equitable food future in Malaysia.

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Paper Contribution to Related Field of Study

This paper is related to the fields of study of sustainable marketing, consumer behaviour and food studies.

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