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Determinants of Green Food Consumption among Malaysian University Students: A Conceptual Perspective

Mohsin Raza^{1,*}, Sethuprakash Vengidason¹

¹ Faculty of Technical and Vocational, Universiti Pendidikan Sultan Idris, 35900 Tanjong Malim, Perak, Malaysia

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ABSTRACT

Sustainability has become a key concern in global development, particularly in the food sector, which significantly affects environmental quality, public health, and socio-economic equity. Despite increasing environmental awareness and the growing availability of green food products, a persistent attitude-behaviour gap limits the translation of pro-environmental values into actual purchasing decisions, particularly among young people and students. This gap remains insufficiently addressed in existing literature, particularly within the Malaysian higher education context, where the role of institutional sustainability practices in shaping student consumption behaviour is underexplored. University students represent a critical segment for promoting sustainable consumption and are increasingly exposed to sustainability initiatives within higher education institutions. This conceptual paper proposes a comprehensive framework to examine the determinants of green food consumption among Malaysian university students, with green purchase intentions serving as a mediating variable. The model identifies key antecedents: perceived corporate social responsibility, environmental awareness, healthy lifestyle preferences, and green advertising. Perceived corporate social responsibility fosters trust and favourable attitudes toward environmentally responsible food brands. Environmental awareness reflects knowledge and concern about ecological consequences, while healthy lifestyle preferences highlight the role of health-oriented motivations in green food choices. Green advertising serves both informational and persuasive purposes, shaping consumer perceptions and intentions. Further, green university practices are proposed as a moderating variable that strengthens or weakens the relationship between individual-level determinants and green purchase intentions. The framework proposes that green purchase intentions mediate the influence of the four antecedents on green food consumption, while green university practices moderate the antecedent-intention relationships. By integrating psychological, motivational, and contextual factors within a mediated-moderated framework, this study offers theoretical and practical insights and provides a foundation for future empirical investigation.

* Corresponding author.

E-mail address: M20232002866@siswa.upsi.edu.my

1. Introduction

1.1 Research Background

Over the last 20 years, sustainability has evolved from a marginal concern to a central issue in global development debates [1]. Escalating environmental destruction, climate change, loss of biodiversity, and public health crises have forced governments, corporations, and consumers to re-evaluate their production and consumption patterns. Among these factors, food consumption has become a central domain due to its direct impact on environmental sustainability, human health, and socio-economic equity [2]. The global food system contributes significantly to greenhouse gas emissions, water depletion, and land degradation, while unhealthy eating habits have been associated with the rise in non-communicable diseases [3]. As a result, green food consumption has attracted significant scholarly and practical attention. It is characterised by environmentally friendly production methods, organic sources, a reduced need for chemicals, ethical practices, and sustainable packaging [4].

Green food consumption is part of a general trend in which individuals are becoming responsible consumers by taking into account not only the individual benefits but also the moral and societal impacts of their purchases. Despite the increase in environmental awareness, the availability of green foods and the increasing purchase of these products, there continues to be a disjunction between pro-environmental attitudes and consumers' actual purchasing decisions [5]. This attitude-behaviour gap implies that sustainable perceptions are not always reflected in consumption behaviour. Further examination of psychological, social, and institutional aspects associated with green consumption and purchase intentions is needed to better understand and encourage sustainable dietary behaviour. In this context, university students are a highly influential group in society [6]. University students are transitional young adults developing habits and attitudes that could carry over into adulthood. They are generally more exposed to the discourse on sustainability via education, social media, and peer networks [7]. In Malaysia, higher education institutions play an important role in national sustainability development, and university students represent a key population segment contributing toward sustainable consumption goals aligned with national policy frameworks such as the Shared Prosperity Vision and environmental sustainability frameworks [8]. Malaysian institutions have increasingly adopted sustainability policies such as green campus management, waste reduction, energy efficiency, and sustainability education programmes to meet growing demand [9]. Not only do these initiatives reduce the institutional environmental footprint, but they might also influence students' environmental perceptions and consumption behaviour. Although green consumption research is gaining attention, integrative conceptual models that reflect multiple determinants of green food consumption in the university context are still required [10]. Much of the prior research considers environmental concern, health consciousness, corporate social responsibility (CSR), or the effectiveness of advertising as variables in isolation [11][12][13]. However, consumer behaviour is inherently complex and simultaneously shaped by cognitive evaluations, emotional orientations, lifestyle choices, and situational influences. An integrated theoretical model of these dimensions may provide stronger theoretical understanding and practical relevance. The purpose of this conceptual paper is to investigate the effect of four predominant antecedents, perceived corporate social responsibility (CSR), environmental awareness, healthy lifestyle preferences, and green advertising, on green food consumption among university students in Malaysia, with green purchase intentions proposed as a mediating variable linking these antecedents to green food consumption. It also introduces green university practices as a moderating variable that strengthens or constrains the influence of individual-level antecedents on green purchase intentions. By integrating individual-level psychological drivers with contextual factors at institutional

levels, the proposed model may enhance comprehension of sustainable consumption at the higher education level. Perceived corporate social responsibility is understood as the degree to which consumers perceive an organisation to be socially responsible in moral, environmental, and social terms beyond the maximisation of profit [14]. CSR in the food sector might involve sustainable sourcing, fair trade, eco-friendly packaging, waste reduction, and community programmes. When food businesses are perceived as socially and environmentally responsible, consumers are more likely to develop trust, positive perceptions, and purchase intentions [15]. For university students and socially conscious value-driven consumers, CSR perceptions may strongly influence sustainable food choices. Yet the effects of CSR are not guaranteed as they depend on credibility, transparency, and alignment with consumers' values. In addition, consumers' consciousness of the environment is a major predictor of green consumption [16]. It includes knowledge of environmental issues, perceived environmental responsibility, and concern about ecological consequences. Higher awareness of the environmental impacts of traditional food production and green alternatives may lead students to have a stronger intention to select a green alternative. However, awareness alone may be insufficient to influence behaviour when structural barriers, price sensitivity, or limited availability constrain the action [17]. Thus, contextualising environmental awareness is important for understanding its influence on behaviour. Also, healthy lifestyle preferences constitute a key potential driver for consuming green food [18]. Rising evidence indicates that consumers tend to perceive green or organic foods as linked to health benefits, nutritional value, and safety [19]. University students may prefer products that enhance physical well-being, fitness, and dietary quality, and may therefore show favourable attitudes toward green food consistent with their lifestyle preferences. In this regard, green food consumption represents not only an environmental behaviour but also a self-oriented health choice. The relationship between altruistic environmental motives and egoistic health motivations requires conceptual clarification, particularly regarding their relative influence on green purchase intentions [20]. Furthermore, green advertisements have an important role in determining consumer perception and purchasing decisions [21]. Advertisements communicating environmental benefits, sustainability claims, and ethical sourcing may positively influence perceptions of green products. However, message credibility, avoidance of greenwashing, consistency with consumer beliefs, and message relevance are essential for green advertising effectiveness [22]. Since university students are highly digitally connected and exposed to diverse marketing communications, their responses to green advertising may vary depending on scepticism and environmental values. Thus, green advertising can be conceptualised as both an informational and persuasive signal influencing consumption decisions. While individual-level variables are important, contextual effects within universities may make a considerable contribution. Green university practices refer to institutional initiatives that promote sustainability, such as recycling programmes, energy-efficient infrastructure, environmental awareness programmes, sustainable cafeterias, environmental campaigns, and integration of sustainability into curricula [23]. They promote a normative and structural environment that can help or hinder green consumption [24]. Universities promoting environmental responsibility may create social and organisational support that strengthens the influence of CSR perceptions, environmental awareness, and green advertising on purchase intentions. On the other hand, without visible green practices, the conversion of favourable attitudes into behaviour may be diluted. This conceptual model is grounded in established behavioural theories, including the Theory of Planned Behaviour [25], stakeholder theory [26], signalling theory [27], norm activation theory [28], and lifestyle-based perspectives on consumption behaviour [29]. Building on that framework, the research aims to situate green food consumption in the context of the attitudinal, motivational, informational, and contextual determinants. The moderating role of green university practices extends the literature by recognising that consumer

behaviour does not occur in isolation but is embedded within institutional ecosystems where normative conditions and structural opportunities are established. Practically, these associations are important for policymakers, university management, food markets, and sustainability campaigners. Higher education institutions can serve as living laboratories for sustainable development if green university cultures support and reinforce positive consumption behaviours [30]. Food businesses may tailor CSR communication strategies to better appeal to environmentally conscious and health-oriented students, while advertisers can develop credible green campaigns that reduce scepticism. Promoting green food consumption among university students contributes not only to environmental sustainability but also to the development of socially responsible future consumers. In summary, this paper proposes a conceptual model examining how perceived CSR, environmental awareness, healthy lifestyle preferences, and green advertising influence green food consumption among Malaysian university students, mediated by green purchase intentions. Green university practices are additionally proposed as a moderating variable influencing the relationship between individual-level antecedents and green purchase intentions. Understanding individual motivations within institutional contexts allows this study to contribute to the growing literature on sustainable consumption while providing a structured basis for future empirical studies.

1.2 Literature Review

1.2.1 Green food consumption and purchase intentions

Green food consumption is a key dimension of sustainable consumption research, now considered one of the most important aspects of consumer behaviour, referring to consumers who purchase environmentally sustainable food products with lower chemical inputs and ethical sourcing and packaging [31]. Green has long been linked to organic, eco-labelled, local, or sustainably certified foods [32]. More generally, food consumption, among many other concerns, is important for sustainability, particularly considering its environmental, economic, and public health implications. The agricultural sector is significant in greenhouse gas emissions, water consumption, and biodiversity loss, so changes in consumer preferences for green foods are seen as a key element in realizing longer-term sustainability aims [33]. Purchase intention refers to an individual's planned likelihood of purchasing a product; it is often used as a proximate predictive factor for actual consumer behaviour [34]. According to the Theory of Planned Behaviour (TPB), attitude, subjective norm, and perceived behavioural control are factors that influence behavioural intention [25]. Positive attitudes toward green food consumption, social support for sustainable consumption, and perceived ease of purchasing have been found to influence purchase intentions in the context of green food consumption [12]. Nevertheless, despite theoretical links between attitudes and intentions, empirical studies highlight an attitude-behaviour gap, with positive attitudes not always directly affecting purchase intentions [35]. The lack of a relationship between the two variables may be due to factors such as price sensitivity, limited availability of green alternatives, scepticism toward claims, or insufficient institutional support. University students are unique consumers in this situation [36]. As identity formation and value development are important during this stage, students tend to exhibit greater environmental sensitivity and a higher propensity for ethical consumption [37]. However, limited financial resources and dependence on university food systems may constrain the translation of these attitudes into actual behaviour [38]. Therefore, the study of the predictors of green food consumption and purchase intentions has theoretical relevance and practical implications within the university context. Beyond their individual significance as outcome variables, green food consumption and green purchase intentions occupy distinct but related positions within the proposed framework. Specifically, green purchase intentions are conceptualised as a mediating

variable that links individual-level antecedents to actual green food consumption behaviour [39]. This positioning is grounded in the Theory of Planned Behaviour, which holds that behavioural intentions serve as the proximate cognitive mechanism through which attitudes, motivations, and perceptions translate into observable behaviour [25]. Rather than assuming a direct path from drivers such as environmental awareness or perceived CSR to actual consumption, the framework recognises that these antecedents first shape purchase intentions, which subsequently influence green food consumption [40]. This two-stage process also helps explain the persistence of the attitude-behaviour gap, wherein favourable dispositions do not always result in corresponding purchasing decisions [5]. Positioning green purchase intentions as a mediator therefore provides a more precise and theoretically grounded account of how antecedent factors translate into sustainable food behaviour among Malaysian university students.

1.2.2 Perceived corporate social responsibility

Corporate Social Responsibility (CSR) has transitioned from a philanthropic add-on to a strategic business imperative [41]. CSR encompasses corporate initiatives aimed at addressing social, environmental, and ethical concerns beyond profit maximisation. CSR practices in the food sector include sustainable sourcing of raw materials, reduction of carbon footprints, eco-friendly packaging, waste minimisation, fair labour practices, and community engagement [42].

In order to remain competitive, organisations are increasingly expected to embed CSR initiatives within their operations. According to stakeholder theory, organisations are accountable to a broad range of stakeholders including consumers, employees, communities, and the environment [43]. Consumers are now more likely to assess organisations on their perceived social and environmental commitments. The impact of perceived CSR rather than actual CSR performance is important in determining consumers' behaviour [44]. Communication, corporate reputation, media coverage, and personal experience guide consumers' perceptions. According to signalling theory, CSR initiatives act as signals of corporate credibility and ethical conduct, thereby reducing information asymmetry between organisations and consumers [27]. CSR signals in green food markets may also improve trust and perceived product quality, resulting in improved purchase intentions. Perceived CSR has been shown to correlate positively with consumer attitudes, brand loyalty, and willingness to pay premium prices for sustainably produced products [45]. Consumers who perceive a brand as genuinely committed to environmental and social causes are more likely to prefer its products. However, scepticism regarding greenwashing, the practice of exaggerating or falsely claiming environmental benefits by organisations, can weaken that relationship [46]. Hence, the authenticity and transparency of CSR communication are essential. Perceived CSR may play a particularly significant role in the students' behaviour in higher education institutions. Socially conscious and value-driven younger generations are likely to support those businesses who share these ethical values [47]. Malaysian university students, who are already exposed to the global sustainability discourses via education and digital media platforms, could be particularly attentive to CSR programmes in the food industry [48]. Accordingly, perceived CSR is considered a well-established predictor of green food consumption and purchase intentions among environmentally conscious consumers [49].

1.2.3 Environmental Awareness

Environmental awareness is an individual's knowledge of environmental issues, understanding of ecological consequences, and concern about environmental degradation [50]. Environmental awareness is widely seen as a multifaceted construct that combines cognitive (knowledge or information), affective (concern-based), and behavioural (action) dimensions [51]. Environmental awareness is often proposed as a first-order factor which influences pro-environmental attitudes [52]. Literature in environmental psychology indicates that awareness of environmental problems has the potential to enhance moral obligation, strengthen individual responsibility, and encourage conscientious consumption [53]. When individuals are aware of the environmental issues of traditional food production (e.g. pesticide application, deforestation, carbon emissions), they are more likely to select green options. Norm activation theory holds that awareness of implications and the assignment of responsibility trigger the activation of personal norms and drive personal pro-social behaviour [28]. Environmental awareness at the university level is frequently promoted through sustainability education, student activism, and peer influence among university students [54]. Increasingly, Malaysian universities combine environmental education with their curriculum and extracurricular activities [55]. Hence, it is possible to improve students' ecological awareness. Nevertheless, mere awareness does not lead to positive behavioural change. The value-action gap persists when individuals encounter constraints such as price, availability, or concerns regarding product credibility [56]. In addition, environmental awareness does not operate independently but combines with other motivational factors in shaping green consumption decisions. Environmental awareness may also complement the influence of perceived CSR and increase consumer receptivity to green advertising messages, suggesting its role as a foundational cognitive driver within the broader set of green consumption determinants. As a result, environmental awareness is viewed as not simply a sole factor, but rather one part of the basic cognitive foundation that affects green food consumption and purchase intentions [12].

1.2.4 Healthy lifestyle preferences

Healthy lifestyle preferences are an important factor influencing green food consumption [57]. A healthy lifestyle includes behaviours aimed at maintaining good physical health, such as a balanced diet, regular physical activity, reduced consumption of harmful substances, and stress management [58]. Health awareness, one related construct, is the degree to which one has concern about and is motivated to improve health. Green food (e.g., organic or natural products), characterised by low chemical and synthetic input, is often regarded as a healthier alternative [59]. As a result, health motivation may often coexist with the environmental motive in driving green food purchasing. Some scholars differentiate between altruistic motivations (environmental protection) and egoistic motives (personal health benefits) and suggest that health motivations may be more relevant to predicting green consumption than ecological ones [60]. Increased exposure to health information through social media and academic programmes makes university students more likely to prioritise healthy and safe food consumption [61]. However, dietary choices are also influenced by convenience, peer norms, and budget constraints. Therefore, the relationship between healthy lifestyle preferences and green food consumption reflects rational evaluation shaped by lifestyle identity. According to lifestyle theory, consumption choices reflect self-identity and social positioning within a broader set of socially shared norms [29]. Students who adopt a healthy lifestyle may perceive green food consumption as consistent with their self-concept and that kind of congruence

strengthens intentions to purchase [62]. Hence, healthy lifestyle preferences are considered to be one of the important motivators of green food consumption behaviour.

1.2.5 Green advertising and student response

Advertising is a primary communication channel through which organisations communicate product features, brand values, and sustainability commitments. In particular, green advertising stresses environmental benefits, eco-friendly production processes, and corporate sustainability initiatives [63]. It seeks to educate, persuade, and remind consumers about the sustainability benefits associated with green product consumption. The effectiveness of green advertising rests upon message framing, credibility, and consumer trust [64]. The Elaboration Likelihood Model (ELM) suggests that consumers process advertising messages through central or peripheral routes, depending on their level of involvement and prior knowledge [65]. Environmentally aware students are more likely to engage in central processing, critically evaluating the authenticity of green claims. Less engaged consumers are more likely to rely on peripheral cues such as eco-labels or visual imagery. One of the main barriers to green advertising is greenwashing. Misleading or exaggerated environmental claims can undermine trust and increase scepticism, thereby negatively affecting purchase intentions [66]. Transparency, certification, and evidence-based claims are therefore critical to the effectiveness of green advertising. University students are likely to encounter various forms of green advertising through digital channels, including social media, influencers, and online platforms [67]. Interactive communication tools may allow students to verify environmental claims and share consumption experiences. Positive responses to credible green advertising can facilitate brand attitudes and purchase intentions. Conversely, scepticism can undermine this effect [68]. Thus, green advertising is conceptualised as both an informational influence and a persuasive stimulus shaping consumer perceptions, attitudes, and behavioural intentions toward green food products.

1.2.6 Green university practices

Although individual-level factors influence behaviour, consumer behaviour is embedded within social and institutional contexts. The term green university practices refers to institutional approaches aimed at fostering sustainability within university environments [69]. Such practices can include initiatives such as recycling programmes, energy-efficient infrastructure, sustainable procurement policies, eco-friendly cafeterias, environmental awareness campaigns, and integration of sustainability into curricula. According to institutional theory, organisational practices create normative and structural environments that influence individual behaviour [70]. When universities engage in tangible sustainability commitments, they establish social norms and enable pro-environmental behaviours [71]. As an example, green food options present in campus cafeterias help reduce behavioural barriers and promote perceived behavioural control [72]. Sustainability campaigns may reinforce subjective norms favouring green consumption. As a moderating variable, green university practices are proposed to strengthen or weaken the relationships between perceived CSR, environmental awareness, healthy lifestyle preferences, green advertising, and green purchase intentions [73]. The moderating effect operates at the path between individual-level drivers and the formation of purchase intentions, such that a supportive institutional sustainability environment may amplify these relationships while a weak institutional commitment may constrain them. While a strengthening effect is expected under conditions of high institutional sustainability commitment, a weakening effect may occur in contexts where students take available green options for granted, thereby reducing the perceived salience of external CSR or advertising signals. The

positive attitudes and motivations of learners in well-resourced settings are more likely to result in real action. Without institution-level support, however, very strong motivations may have little effect [74]. For instance, students who perceive food companies as socially responsible may be more inclined to purchase green products when their university cafeteria actively provides and promotes such options. Also, environmentally aware students may act on their knowledge with green options already being available and socially endorsed on campus. Thus, green university practices provide an enabling contextual environment that either strengthens or constrains the impact of individual determinants.

2. Methodology

Informed by this theoretical framework, the study takes a conceptual research design to develop a conceptual framework explaining green food consumption and purchasing intentions among Malaysian university students [75]. Rather than collecting and analysing primary data, the study synthesises existing literature, integrates theoretically established constructs, and logically articulates relationships among variables to generate a structured conceptual model. This approach aims to systematically clarify the interactions among psychological, behavioural, marketing, and institutional dimensions of sustainable food consumption within university settings. The conceptual model was developed based on an organised and systematic overview of relevant interdisciplinary literature in the areas of sustainability, marketing, consumer behaviour, public health, and higher education. Academic journal articles, peer-reviewed studies, policy reports, and scholarly books were reviewed to identify common themes, dominant constructs, and theoretically supported relationships among factors pertinent to green food consumption. Studies focusing on young consumers and university students were prioritised, as this demographic represents the primary population of interest in the proposed framework. A comparison of previous studies enabled the identification of significant predictors of green consumption while also revealing gaps in the incorporation of institutional and contextual factors. The study framework proposes one dependent variable (green food consumption) and one mediating variable (green purchase intentions). Green purchase intentions is conceptualised as a mediator through which the four antecedents exert their influence on green food consumption. Green food consumption describes students' true or planned choice of environmentally friendly food products, whereas purchase intention represents their willingness or planned behaviour to purchase such products. Once the outcome variables were specified, four important antecedents were chosen for their conceptual significance, research evidence, and conceptual uniqueness. First, perceived corporate social responsibility was added to capture student perceptions of food businesses' ethical, environmental, and social responsibilities. Consumers' perceptions of corporate responsibility have been shown to significantly influence trust, brand attitudes, and purchase decisions [76]. Second, environmental awareness was included to represent knowledge of environmental issues and ecological sustainability at both cognitive and affective levels. Third, healthy lifestyle preferences were incorporated to capture health-related reasons for green food consumption that were frequently identified. Research suggests that health-conscious consumers are more likely to adopt green food behaviours, making healthy lifestyle preferences a particularly relevant construct among university students who are in the process of forming long-term lifestyle patterns [77]. Fourth, green advertising was included as a marketing influence that shapes perceptions, communicates environmental benefits, and contributes to the development of purchasing intentions. Finally, green university practices were adopted as a contextual moderating variable after establishing these antecedents. Specifically, green university practices are proposed to moderate the paths from the four antecedents to green purchase

intentions, reflecting the idea that institutional sustainability contexts shape the extent to which individual-level drivers translate into behavioural intentions [78]. At the institutional level, green university practices include eco-conscious initiatives such as green cafeterias, recycling programmes, energy-efficient buildings, sustainability campaigns, and integration of environmental topics into academic activities. Such practices establish an institutional context in which positive dispositions are more likely to be promoted, allowing students to translate knowledge into genuine purchasing behaviours. By incorporating green university practices as a moderator, the model captures the idea that consumer behaviour is influenced by structural and normative contexts and does not occur in isolation. The process of conceptual development involved the mapping of the relationships between the chosen constructs in a logical manner. The model proposes that each antecedent influences green purchase intentions, which in turn mediates the relationship between these antecedents and green food consumption. Students' perceived corporate social responsibility is likely to increase trust and foster positive perceptions toward green food brands, thereby reinforcing green purchase intentions and, subsequently, green food consumption. Environmental awareness is expected to encourage moral responsibility and support sustainable food selections by strengthening green purchase intentions. Students with healthy lifestyle preferences are also expected to perceive green food as consistent with their broader well-being orientation, thereby positively influencing green purchase intentions. Green advertising is anticipated to inform and persuade students by communicating credible environmental and health-related information, thereby strengthening green purchase intentions. While this study has not empirically tested the proposed relationships, the conceptual model has been designed to be operationalizable in future quantitative research. With validated scales available from prior research for each construct, the proposed relationships can be tested statistically [56][57][79][80][81]. Consequently, the conceptual methodology provides a blueprint for proposition development and future data-driven research. In summary, the design of this conceptual analysis relies on a systematic review of existing literature, logical reasoning, integration of constructs across frameworks, and structured development of the proposed model. The study thus contributes to a holistic perspective on sustainable food consumption among Malaysian university students by outlining key determinants of green food consumption together with the moderating role of the institutional context. This approach combines theoretical rigour with practical guidance for further empirical validation.

3. Results

The aim of this conceptual framework is to develop an integrated model of green food consumption among Malaysian undergraduate students, whereby perceived corporate social responsibility, environmental awareness, healthy lifestyle preferences, and green advertising influence green food consumption through the mediating role of green purchase intentions, with green university practices acting as a moderating variable. The framework highlights the theoretical and contextual relevance of integrating these determinants within a unified model and emphasises the need to investigate sustainable consumption practices in higher education. The proposed framework supports the view that green food consumption is motivated not by a single motivational factor but by the interactions between ethical perceptions, cognitive awareness, lifestyle orientation, and marketing effects. This model incorporates perceived corporate social responsibility (CSR) to reflect that students evaluate not only product characteristics but also the ethical nature of the businesses producing the food. In a context where younger generations demand transparency and accountability, CSR perceptions may function as an important trust-building mechanism. Students are, therefore, more likely to demonstrate positive purchase intentions when they perceive

businesses as genuinely invested in environmental and social well-being. This underscores the significance of consistent sustainability practices within the food sector. Environmental awareness further strengthens the explanatory relevance of the framework. University students are frequently exposed to discussions related to sustainability, climate change, and environmental initiatives. Such exposure may increase sensitivity toward environmental concerns and influence consumption decisions. However, awareness alone may not necessarily translate into behaviour. The inclusion of additional motivational and contextual components in the model helps explain why environmentally concerned students may still demonstrate inconsistent purchasing patterns. The framework therefore contributes to understanding the persistence of the attitude-behaviour gap by positioning awareness within a broader set of influencing factors. Healthy lifestyle preferences may act as an additional motivational driver supporting environmentally responsible consumption. For many students, green food choices may be influenced not only by environmental concerns but also by perceived health benefits. The belief that organic or green food is safer, healthier, and in line with health goals may increase its attractiveness. Healthy lifestyle preferences are included in the model, recognising green consumption as both an altruistic and self-reflective choice. Such dual motivations may be particularly relevant in the Malaysian context, where growing health awareness among young adults appears to coincide with the increasing availability of green food products in urban environments. Within the framework, green advertising represents a communication channel linking corporate sustainability initiatives with consumer perceptions. Effective green advertising may increase environmental awareness, highlight CSR efforts, and support alignment between green food consumption and healthy lifestyle goals. However, the effectiveness of green advertising depends largely on credibility and clarity of claims. University students, as relatively well-informed consumers, may critically evaluate environmental claims. Therefore, transparency and credibility are important factors influencing the persuasive potential of green advertising. Green advertising is more effective when aligned with authentic CSR initiatives and institutional sustainability practices. Green university practices provide an important contextual dimension within the conceptual framework. The moderating role is specifically located on the paths between the four antecedents and green purchase intentions, meaning that the strength of the influence of perceived CSR, environmental awareness, healthy lifestyle preferences, and green advertising on purchase intentions varies depending on the level of green university practices present in the institutional environment. University campuses may be viewed as micro-level environments shaped by norms, structures, and institutional culture that influence everyday behaviour. When universities demonstrate commitment to sustainability through initiatives such as eco-friendly cafeterias, recycling programmes, and sustainability campaigns, they create conditions that facilitate green consumption behaviour. Students operating within such environments may be more likely to translate positive attitudes into actual behaviour. Conversely, when sustainable options are limited or institutional commitment is weak, strong motivations may not translate into purchasing behaviour. This perspective emphasises the importance of structural and environmental support in encouraging sustainable consumption. The relevance of the Malaysian context further strengthens the conceptual contribution of the framework. As Malaysia advances sustainability-oriented national agendas, higher education institutions play an important role in developing environmentally responsible citizens. Understanding factors influencing green food consumption therefore carries long-term implications for sustainable development. Taken together, the conceptual integration presented in this study contributes to sustainable consumption literature by linking individual-level motivations with institutional influences. The framework highlights the importance of coordinated actions among businesses, marketers, universities, and policymakers in supporting green food consumption. Sustainable behaviour is influenced not only by awareness and ethical orientation, but also by environmental

conditions that enable individuals to make environmentally responsible choices. The framework therefore offers a comprehensive basis for future empirical research examining sustainable food consumption among university students.

4. Conclusions

This study proposes an integrated conceptual framework that advances understanding of green food consumption among Malaysian university students. By identifying perceived CSR, environmental awareness, healthy lifestyle preferences, and green advertising as key antecedents, and by positioning green purchase intentions as a mediating mechanism and green university practices as a contextual moderator, the framework offers a multi-dimensional perspective on sustainable consumption. The proposed model provides a structured foundation for future empirical investigation and contributes to the broader literature on sustainable consumer behaviour in higher education settings.

4.1 Theoretical Implications

This conceptual study makes several important theoretical contributions to sustainable consumption, green marketing, and student consumer behaviour literature. Specifically, the research combines multiple determinants of green food consumption in a single conceptual framework, thereby extending theoretical understanding of sustainable consumer decision-making. Prior studies have often explored perceived corporate social responsibility, environmental awareness, healthy lifestyle preferences, or green advertising in isolation or in limited combinations. By integrating these constructs within one model, the present study highlights the multi-dimensional nature of green purchasing decisions and demonstrates that sustainable consumption behaviour is influenced by concurrent ethical, cognitive, motivational, and communicative factors. Furthermore, the study contributes to the literature on green food consumption within the higher education context. Consumer research often treats university students as a homogenous group, but student consumption behaviour is influenced by life stage, financial limitations, peer influence, and institutional environment. This study situates sustainable consumption research within an emerging economy characterised by cultural diversity by focusing on Malaysian university students as the central population. This contextual contribution expands the global understanding of green consumer behaviour, which has predominantly been derived from Western samples [82]. In addition, the incorporation of green university practices as a moderating variable extends theoretical discussions by integrating institutional context into consumer decision-making models. Traditional consumer behaviour theories focus primarily on individual-level determinants such as attitudes, values, and perceptions. However, consumption decisions are embedded in social and structural environments that may enable or constrain behaviour. By conceptualising green university practices as a contextual influence on green purchase intentions, the study connects micro-level psychological determinants with meso-level institutional structures. This integrative perspective contributes to a more comprehensive understanding of sustainable consumption behaviour. Moreover, the study conceptually addresses the persistent attitude-behaviour gap in environmental literature. Consumers may express environmental concern but fail to translate these values into actual purchasing behaviour. By incorporating lifestyle motivations and marketing communication alongside environmental awareness, the framework recognises that moral concern alone may be insufficient to influence behaviour. Purchase decisions are shaped by health motivations, perceived corporate credibility, and persuasive communication strategies. This perspective encourages future

research to move beyond single-variable explanations toward more comprehensive multivariate approaches. Additionally, the conceptual framework provides a foundation for hypothesis development and empirical testing. Each construct included in the model has been widely operationalised in prior research using validated measurement scales [56][57][79][80][81]. Future quantitative studies may examine direct relationships as well as moderating effects within the proposed framework. The model may also be extended to incorporate additional variables such as price sensitivity, peer influence, or digital engagement. Thus, the framework provides flexibility for future empirical refinement and cross-cultural comparison. Furthermore, the study advances the emerging conceptualisation of universities as behavioural ecosystems in which institutional sustainability practices shape individual consumer decisions. Rather than viewing students as isolated consumers, the framework emphasises how institutional sustainability initiatives influence individual decision-making processes. This perspective allows researchers to analyse sustainability as both an individual and socially embedded phenomenon shaped within educational environments. Consequently, the study extends green consumption theory beyond traditional market contexts into institutional settings of higher education. Finally, the study contributes by formally positioning green purchase intentions as a mediating mechanism linking individual-level antecedents to green food consumption. This offers a more precise causal pathway than prior models that treat purchase intentions and consumption as co-equal outcomes, thereby providing greater theoretical clarity on the process through which antecedents translate into sustainable behaviour.

4.2 Practical Implications

The conceptual findings of this study suggest several practical implications for university administrators, food corporations, marketers, policymakers, and sustainability advocates. The framework highlights the importance for universities to implement visible and consistent green university practices. Sustainable campus initiatives such as provision of organic food or environmentally friendly food in cafeterias, reduction of plastic usage, recycling programmes, and environmental awareness campaigns may increase the likelihood that students will choose green food options. Universities function not only as educational institutions but also as living laboratories that demonstrate sustainable practices. Institutional commitment to sustainability may strengthen students' positive attitudes and translate intentions into behaviour. For food businesses operating in Malaysia, the framework emphasises the importance of authentic corporate social responsibility initiatives. Organisations targeting university students should ensure that sustainability initiatives are transparent, credible, and effectively communicated. CSR practices involving environmentally responsible sourcing, ethical production, and community engagement may strengthen brand trust and increase purchase intention. However, organisations should avoid exaggerated environmental claims, as scepticism may reduce consumer trust. Long-term commitment to sustainability is more likely to generate loyalty among younger consumers. The framework also provides insights for marketers and advertisers. Green advertising strategies should communicate both environmental and health benefits of green food products while maintaining accuracy and credibility. Messages linking sustainability with personal well-being may particularly appeal to the university students who prioritise healthy lifestyles. Digital platforms, social media marketing, and campus-based promotional activities may serve as effective channels for communicating green values. However, marketing communication should support authentic sustainability practices rather than substitute for them. Policymakers may also benefit from the framework when developing sustainability initiatives in higher education. Encouraging universities to adopt green campus policies may indirectly influence sustainable consumption behaviour among students. Collaboration between

universities and sustainable food suppliers may increase accessibility and affordability of green food options. Policy incentives supporting environmentally friendly food provision within campus environments may further reduce barriers to green consumption. From a broader societal perspective, encouraging green food consumption among university students may contribute to long-term sustainable development. Early adoption of sustainable behaviours within university environments may encourage long-term behavioural consistency beyond graduation. The framework further suggests that interventions aimed at promoting green consumption should adopt multi-dimensional strategies. Single approaches focusing only on environmental awareness may be insufficient. Integrated approaches combining CSR communication, health-oriented messaging, accessible green food options, and supportive institutional structures may produce stronger outcomes. Collaborative partnerships among universities, businesses, and policymakers may generate synergistic effects encouraging sustainable consumption patterns.

4.3 Limitations

Although this conceptual study provides valuable contributions, several limitations should be acknowledged. First, this study is conceptual in nature, and the proposed framework has not been empirically tested. Therefore, the relationships among perceived corporate social responsibility, environmental awareness, healthy lifestyle preferences, green advertising, green university practices, and green food consumption remain theoretical. Empirical testing is required to examine the strength, direction, and statistical significance of the proposed relationships. Furthermore, the mediating role of green purchase intentions between the proposed antecedents and green food consumption has not been empirically verified, and the proposed indirect pathways remain theoretical at this stage. Second, the framework focuses specifically on Malaysian university students, which may limit generalisability across demographic groups or cultural contexts. Student and consumer perceptions of sustainability may vary according to age, income level, education level, and national culture [83]. Third, the framework does not explicitly incorporate other variables that may influence green purchase intentions, such as price sensitivity, peer influence, product availability, or cultural norms. Finally, the conceptualisation of green university practices as a single moderating construct may oversimplify the diversity and varying intensity of sustainability initiatives across different institutions, which may produce heterogeneous moderating effects that a single construct cannot fully capture.

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Conflict of Interest Statement

The authors declare no conflict of interest.

Author Contributions Statement

Both authors conceptualized and designed the study, supervised the project, reviewed the manuscript, contributed to conceptualization and wrote the draft of the manuscript. Both authors contributed to manuscript revision, read, and approved the final version.

Data Availability Statement

This conceptual study did not generate or analyse any datasets.

Ethics Statement

This study is purely conceptual and did not involve human participants or animals; therefore, no ethical approval or informed consent was required.

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