



JOURNAL OF TOURISM, HOSPITALITY AND ENVIRONMENT MANAGEMENT (JTHER)

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CUSTOMERS' BEHAVIORAL INTENTION TOWARDS SUSTAINABLE RESTAURANT

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Article Info:

Article history:

Received date: 30.07.2026

Revised date: 16.08.2026

Accepted date: 30.08.2026

Published date: 17.09.2026

To cite this document:

Ramli, N., Hamid, N. F. S. A.,
Putra, N. E. S. H., Ghani, F. A.,
Kamal, M. H. M., & Nawawi, W.
N. W. (2026). Customers'
Behavioral Intention Towards
Sustainable Restaurant. *Journal
of Tourism Hospitality and*

Abstract:

As environmental sustainability becomes an increasingly important concern, the restaurant industry has begun adopting sustainable practices to reduce environmental impacts through resource conservation and waste reduction. Drawing on the integration of the Norm Activation Model (NAM) and Value-Belief-Norm (VBN) theory, this study examines the effects of awareness of consequences, ascription of responsibility, personal norm, self-efficacy belief, and green perceived value on customers' behavioral intention towards sustainable restaurants. A quantitative approach was employed using an online survey distributed through purposive sampling, yielding 351 valid responses from Malaysian consumers. Data were analyzed using IBM SPSS Statistics for Windows, Version 29, through descriptive statistics, reliability analysis, and multiple linear regression. The findings indicate that all five factors significantly and positively influence customers' behavioral intention towards sustainable restaurants. Among these variables, personal norm emerged as the strongest predictor, highlighting the critical role of moral obligation and personal responsibility in shaping sustainable dining decisions. The study

Environment Management, 11
(45), 453-473.

extends existing knowledge on pro-environmental consumer behavior in the restaurant context and provides practical implications for restaurant operators seeking to develop effective sustainability initiatives that align with customers' environmental values and expectations.

DOI:10.35631/JTHER.1145027 **Keyword:**

Behavioral Intention, Nam Theory, Sustainable Restaurants,
Sustainability, VBN Theory



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Introduction

The topic of environmental sustainability is fast becoming one of the top concerns in the world in the twenty-first century (Mollei, 2026). Climate change, resource exhaustion, food wastage, and higher carbon emissions have led to sustainable practices being embraced by governments, companies, and individuals alike. Among various industries, the restaurant sector plays a significant role in environmental sustainability due to its substantial consumption of energy, water, packaging materials, and food resources (Rodell et al., 2026). Because of this, sustainable practices have started being implemented in many restaurants, ranging from waste management to eco-friendly packaging (McDonagh et al., 2024). Sustainable restaurants try to minimize environmental harm while promoting health and social justice (Sorooshian, 2024).

Consumer behavior has been shaped by increasing awareness about environmental issues. Consumers nowadays have become increasingly aware of the consequences of their consumption habits, including eating out in restaurants (Lau et al., 2025). As a result, environmentally sustainable restaurants have received increasing attention as consumers search for restaurants that reflect their values (Jun and Yoon, 2024). For instance, McDonald's and ZUS Coffee are some of the brands that have gone green with the use of solar power, biodegradable packaging, and recyclable materials (Ko and Jeon, 2024; Agron et al., 2024). Starbucks, a prominent eco-conscious coffee shop chain, implements environmentally friendly practices like utilizing recycled take-out cups, organic food, and reusable mugs (Ko and Jeon, 2024). In Malaysia, restaurants such as Dewakan rigorously upcycle food waste by turning it into umami-rich fermented sauces and seasoning (Citizens Journal, 2024). While Frangipani Langkawi Resort and Spa practices sustainability with edible landscaping, organic farming, and using natural aquatic plant wastewater farming (Rassiah et al., 2023). The shift toward environmental and sustainable practices among businesses, particularly restaurants, not only meets the growing demand for green restaurants but also offers a competitive advantage. These

instances indicate a shift in customer behavioral intention towards selecting businesses that are socially responsible and environmentally friendly.

Even though customers' awareness of sustainability issues is increasing, their stated behavior towards dining at sustainable restaurants continues to be inconsistent (Riva et al., 2022; Joo et al., 2022). Various attempts have been made to gauge consumer behavior on sustainability, yet little is known about the psychological determinants that motivate consumers' intentions to patronize sustainable restaurants, particularly in Malaysia (Yasin et al., 2025). Moreover, most attempts were made among Western populations; however, the findings are not applicable directly to local social and cultural environments (Abdullah et al., 2023)

Furthermore, the use of theoretical frameworks such as the Norm Activation Model (NAM) and the Value-Belief-Norm Theory (VBN) in existing literature has typically been used separately, rather than being comprehensively integrated together in order to understand customers' sustainable behavioral intentions. The use of both theories together can likely facilitate a more thorough explanation of the inner motivational drivers and beliefs that guide customers into choosing restaurants that are committed to sustainability.

Therefore, this study was conducted to fill this gap by examining the impact of internal variables such as awareness of consequences, ascribed responsibility, personal norms, self-efficacy beliefs, and green perceived values on consumer behavioral intentions towards sustainable restaurants among Malaysians. This study should add useful insights to a deeper understanding of the determinants of sustainable behavior in the food service sector.

Literature Review

The Theory of Norm Activation Model (NAM) and Theory of Value-Belief-Norm (VBN)

Schwartz (1977) proposed the Norm Activation Model (NAM) to explain how people participate in pro-environmental actions when their standards show a moral obligation to act pro-socially and environmentally. NAM has been successfully used in several studies on consumer behavior since its inception (Le & Nguyen, 2022). NAM has been adapted in studies to describe various pro-environmental behaviors such as electricity saving behavior, eco-friendly travel choices, recycling, and buying eco-friendly products (Le & Nguyen, 2022). This theoretical model consists of three core variables to predict behavioral intentions, which are awareness of consequences (AC), ascription of responsibility (AR), and personal norms (PN) (Joo et al., 2022). When an individual understands that their choices cause harm (AC) and accepts that they are responsible for fixing it (AR), it triggers a Personal Norm (PN).

Stern et al. (1999) introduced the Value-Belief-Norm (VBN) theory as a sociological and psychological framework to explain why and how people engage in pro-environmental behaviors. The value-belief-norm theory of environmentalism suggests that people act in environmentally friendly ways when they hold personal values that support such actions, believe that environmental conditions threaten things they value, and feel a personal obligation to take corrective action (Majeed et al., 2023). Value-belief-norm theory is formed based on pro-environmental objectives towards the understanding of green/sustainable human consumption behavior (Fauzi et al., 2024). VBN theory is formed based on pro-environmental objectives towards understanding green/sustainable human consumption behavior.

Behavioral Intention Towards Sustainable Restaurants

Behavioral intention refers to an individual's willingness and likelihood to perform a specific behavior, and it is widely recognized as the most immediate antecedent of actual behavior. In the context of sustainable restaurants, behavioral intention reflects customers' willingness to patronize, revisit, recommend, and support foodservice establishments that implement environmentally responsible practices. Recent studies highlight that increasing environmental awareness among consumers has significantly influenced their dining decisions, particularly in relation to sustainability attributes such as waste reduction, energy efficiency, and eco-friendly packaging (Li et al., 2023; Nguyen & Johnson, 2022). As consumers become more environmentally conscious, their intention to support green restaurants is shaped not only by functional service quality but also by perceived environmental responsibility (Kim et al., 2024).

Empirical research further shows that sustainable restaurant practices such as green sourcing, carbon reduction initiatives, and responsible food waste management positively influence customers' behavioral intentions, including revisit intention and word-of-mouth recommendation (Zhang et al., 2022; Rahman et al., 2023). Additionally, perceived environmental benefits and green value perception have been identified as key determinants that strengthen customers' willingness to engage in sustainable dining behavior (Chen & Huang, 2024; Ali et al., 2025). Overall, behavioral intention is consistently recognized as a critical predictor of actual sustainable consumption behavior in the hospitality industry, emphasizing the importance of aligning restaurant sustainability strategies with consumer environmental values and expectations (Wang et al., 2023; Singh & Lee, 2024).

Awareness Of Consequences

NAM holds that taking responsibility for one's actions can result from being aware of their effects (Schwartz, 1974). Stated differently, being aware of the potential harm that particular behaviors can do to the environment (also known as the negative impacts of action) can make one feel compelled to act properly, such as by being pro-environmental rather than not (Wahid et al., 2022). These days, many consumers are more conscious of the negative environmental impacts of food production, such as resource depletion, deforestation, and the carbon footprint (Tang et al., 2023). Consumers who are aware of how food production affects the environment are more likely to patronize eateries that actively support sustainability, such as those that employ organic, locally produced goods. Customers who care about the environment want to lessen their own personal influence on the earth, which has increased demand for firms to implement sustainable practices (Gazzola et al., 2024). Besides that, nowadays, a lot of consumers are attaching sustainability to improve nutrition and health. Customers are aware of the long-term health benefits of sustainable eating, such as decreased exposure to pesticides and other dangerous chemicals found in conventionally cultivated food (Joo et al., 2022). Furthermore, previous studies have reported the impact of Awareness of consequences on proenvironmental behaviors in different contexts, including in fruits and vegetable waste management behavior (Obuobi et al., 2022), seaweed consumption (Govaerts & Olsen, 2022), pest management, waste mitigation (Long et al., 2022), and rural tourist destinations (Tang et al., 2023).

Hypothesis 1 (H1): Awareness of consequence (AC) has a significant positive effect on behavioral intention towards sustainable restaurants.

Ascription Of Responsibility

According to Schwartz (1974), ascription of responsibility refers to beliefs, attitudes, or presumptions on who ought to bear responsibility for a particular situation. According to psychology, a person's propensity to overtly wield authority and responsibility in all facets of life is known as attribution of responsibility (Long et al., 2022). Ascription of responsibility is the term used to describe how customers feel accountable for the unfavorable outcomes of using non-sustainable products.. According to Ritchie et al. 2022), by taking ascription for responsibility for their actions or conduct, people demonstrate attribution of blame. Moreover, individuals' perceived responsibility greatly influences how they behave in their surroundings. According to this study, assigned responsibility is the feeling of accountability for the unfavorable consequences that arise from a lack of personal duty to the environment. When people are aware of their harmful effects on the environment and feel shared responsibility for the ensuing negative repercussions, they are more likely to act in an environmentally beneficial manner (Dong et al., 2023). Furthermore, AR indicates a feeling of responsibility for the negative consequences of not taking prosocial action (De Groot and Steg, 2009). People who take responsibility for themselves on environmental issues are more likely to advocate and exhibit pro-environmental behaviors (Nguyen, 2022; Steg et al., 2005). Previous studies have investigated the impact of AR on socially responsible consumption (Sajjad et al., 2024), interventions for the Great Barrier Reef (Ritchie et al., 2022), drone food delivery services (Kim & Hwang, 2020), and waste reduction (Long et al., 2022).

Hypothesis 2 (H2): Ascription of responsibility (AR) has a significant positive effect on behavioral intention towards sustainable restaurants.

Self- Efficacy Belief

Self-efficacy belief refers to an individual's confidence in their ability to successfully perform a specific behavior and achieve desired outcomes (Waddington, 2023). In environmental contexts, it reflects consumers' belief that their personal actions can meaningfully contribute to environmental protection. In the context of sustainable restaurants, customers with higher self-efficacy are more likely to engage in green dining behavior because they perceive their choices as impactful in reducing environmental harm (Yan et al., 2024). Recent studies in hospitality and environmental behavior research indicate that self-efficacy plays a significant role in strengthening pro-environmental intentions by increasing individuals' perceived control over sustainable actions (Ding, 2022; Park & Shin, 2023). Furthermore, self-efficacy has been found to positively influence ethical judgment and behavioral intention toward environmental practices, including food waste reduction and sustainable consumption behaviors (Ding, 2022). Empirical evidence also shows that self-efficacy contributes directly and indirectly to pro-environmental intentions through moral and cognitive mechanisms (Dong et al., 2024). All in all, individuals who believe in their ability to make a difference are more likely to demonstrate stronger intentions toward sustainable consumption in hospitality settings (Chen et al., 2023).

Hypothesis 3 (H3): Self-efficacy belief (SEB) has a significant positive effect on behavioral intention towards sustainable restaurants.

Green Perceived Value

Green's perceived value is the overall assessment of customers of all the benefits of a good or service, considering their ecological needs, sustainable expectations, and environmental preferences. According to Teng and Wu (2023), perceived value is one of the significant and noticeable factors that affect customer satisfaction and post-purchase behavior. Customers base their overall assessment of the benefits they receive from a market offering on their requirements, expectations, and environmental preferences (Ali et al., 2025). Green perceived value is considered a vital factor in maintaining long-term customer relationships. It also has a significant effect on customer satisfaction and green purchase intentions (Riva et al., 2022). According to Li and Huang (2023), perceived value is also considered an important factor in understanding the actual behavior of customers. It also has an impact on customer happiness and green purchase intentions of customers. In addition, green perceived value has been reported to have a strong impact on customer satisfaction, revisit intention, and word-of-mouth in the context of green hospitality (Riva et al., 2022; Kim et al., 2024). Empirical studies also reveal that perceived environmental value enhances customers' behavioral intentions by increasing their positive evaluation of sustainable service offerings and involvement with green restaurants.

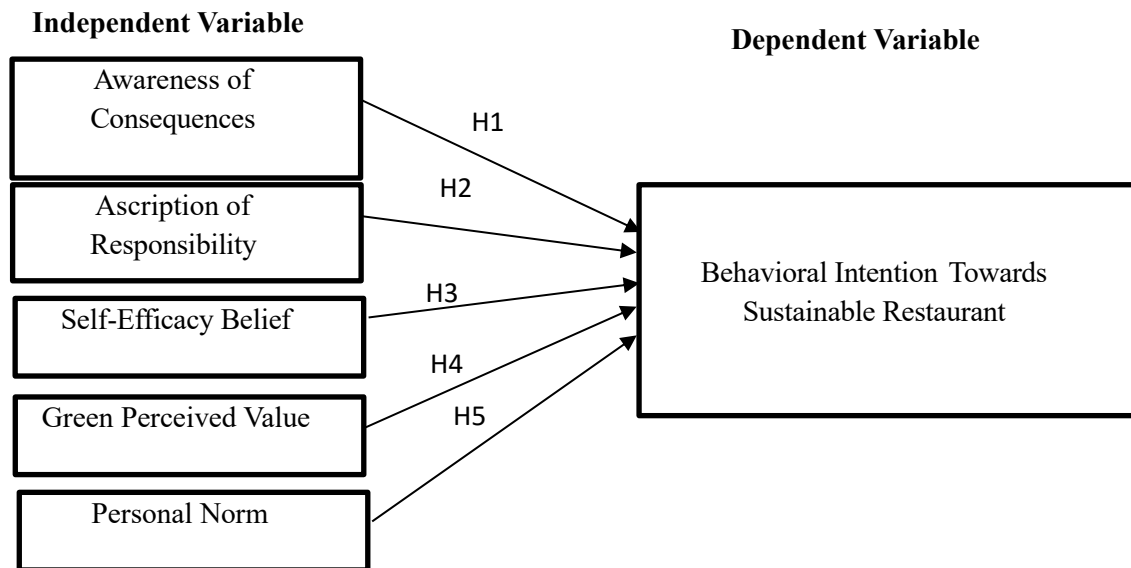
Hypothesis 4 (H4): Green perceived value (GPV) has a significant positive effect on behavioral intention towards sustainable restaurants.

Personal Norm

Personal norms have been considered a key construct in the norm activation process because they are the most proximal variables of behavioral intentions in the theoretical model (Joo et al., 2022). Some researchers have supported the NAM moderating model, which argues that the causal relationship between personal norms and behavioral intentions is weakened by awareness of consequences and perceived responsibility (Joo et al., 2022). Personal norms are defined as self-expectations of certain actions in certain situations, experienced as feelings of moral responsibility (Le & Nguyen, 2022). This definition is widely accepted in social psychology research (Le & Nguyen, 2022). It is generally assumed that individuals adhere to personal norms for internal reasons, that is, because they feel it is the (morally) right thing to do[s]. Previous studies (Le & Nguyen, 2022) have found that personal norms positively influence the intention to buy organic food (Le & Nguyen, 2022). Even scholars identified the role of values to interpret the organism of the process of norm activation (Majeed et al., 2023). In the context of sustainable restaurants, customers with stronger personal norms are more likely to support environmentally friendly dining establishments because such choices align with their personal values and ethical beliefs. Previous studies have consistently identified personal norm as a significant predictor of sustainable behavioral intention (Govaerts & Olsen, 2022; Kim et al., 2022).

Hypothesis 5 (H5): Personal Norm (PN) has a significant positive effect on behavioral intention towards sustainable restaurants.

Conceptual Framework



Schwartz (1977); Stern et al, (1999)

Methodology

The authors used a quantitative method to answer the hypotheses to fit the research framework. As the unit of analysis was at an individual level, an online survey method was the best suited to the research purpose. The questionnaire was developed using Google Forms and distributed via Social media platforms (Facebook, Instagram, WhatsApp, Telegram). The questionnaire consisted of two parts. The first part addressed respondent demographic profiles such as age, gender, educational qualification, job, and monthly income, while the second part comprised questions related to the variables in this study. Before the real data collection, a pre-test was conducted among the researchers' colleagues to ensure the clarity of the statements and comprehension of the measurement items. A total of 10 respondents were involved in the pre-test, which was conducted face-to-face, as in the situation during a real data collection. Besides, a pilot test with 42 responses was conducted to assess reliability and validity. The rule of thumb for Cronbach's Alpha and Composite Reliability values for measuring reliability is not less than <0.7 (Hair et al., 2023). From the results, it can be seen that all six constructs in this study have Cronbach's Alpha values above 0.85, indicating a high level of reliability and internal consistency in all of the variables. Overall, the instrument used in this study demonstrated a high level of reliability as all constructs exceeded the minimum threshold of 0.70, indicating satisfactory internal consistency.

Table 1: Reliability Analysis

Variable	Cronbach's Alpha	No. of Items
Awareness of consequences	0.887	3
Ascription of responsibility	0.901	3
Self-efficacy belief	0.923	4
Green perceived value	0.915	4
Personal norm	0.914	2
Behavioral intention	0.943	3

Data were collected among consumers who are Malaysian respondents aged 18 years and above. The respondents were likely restaurant consumers who have experience dining in restaurants in Malaysia, particularly those familiar with or exposed to sustainability-related practices such as eco-friendly packaging, waste reduction initiatives, or green menu options. To ensure the sample really represents consumers who have experience dining at sustainable restaurants, a clear definition of a sustainable restaurant was provided before the respondents began answering the questions. Then, a screening (filtering) mechanism before or at the beginning of the online survey was added. Two filter questions were formulated as “Have you ever dined at a restaurant that practices environmental sustainability?” and “Which of the following sustainable practices have you experienced in restaurants? The List of sustainable practices given included eco-friendly packaging (paper/biodegradable materials), food waste reduction initiatives, and energy-saving practices (LED, smart systems). These filtering questions were inserted in the questionnaire to ensure the respondents’ validity.

The purposive sampling technique was chosen as the respondents were selected based on specific criteria, which included having dined in restaurants within the last 3–6 months, being aware of or having experience with sustainable or green practices in restaurants and being willing to participate voluntarily in the survey. Only those who consented to participate were provided with the survey questions. A total of 371 respondents completed the online survey. After sorting, 20 sets of questionnaires were deemed unsatisfactory due to poor data quality, such as answering in a straight line, and were discarded. There were no missing values in the data in the remaining 351 sets of questionnaires. As proposed by Hair et al. (2017) and Ngah et al.(2019), the sample size should be determined according to the power of analysis, which is based on the number of predictors. Based on Green’s (1991) study, with 5 predictors, a minimum sample size of 92 respondents is necessary to achieve a power of 80% with a medium effect size and significance level of 5%. Hence, a total of 371 respondents can be considered strong and sufficient for statistical analysis using SPSS. All the items for measuring the constructs were adopted and adapted from previous studies. Although some of the items were from other study contexts, the content of the items was changed into the present study’s context without changing its initial purpose. The items were behavioral intention, self-efficacy belief, green perceived value, and personal norm from Majeed et al. (2023). Awareness of consequences and ascription of responsibility were from Joo et al. (2022).

Analysis and Findings

Respondent’s Demographic Distribution

A total of 351 respondents participated in this study, representing a mix of age groups, genders, race, marital status, and employment status. The majority were young adults, and most were employed in this study. These demographic details are important in understanding the background of respondents and how it may influence their behavioral intention toward sustainable restaurants. The questionnaire data have been analyzed using SPSS (Statistical Package for Social Sciences) Version 29. Based on Table 2, results show demographic analysis revealing a diverse sample of 351 respondents. The sample slightly showed that average 21-30 years old (53.3%), with a strong representation contributing to this research. Meanwhile, the smallest group is respondents aged >51 years old. Next, the highest race in this study is Malay, which contributes 52.4%; meanwhile, the smallest is other, which is Iban, that contributes 0.30%. For gender, this research was showed female is highest which 59.8% other than male that contributes 40.2% in this study. For marital status, married showed the highest, which is

49.6 and followed by single, which is 49.3%. Lastly, for employment status, employed showed the highest, which is 57.3%, and the smallest is unemployment, which is 6.3%.

Table 2: Respondent's Demographic Distribution

Variable	Categories	Frequency	Percentage (%)
Age	18- 20 years old	42	12
	21-30 years old	187	53.3
	31-40 years old	84	23.9
	41-50 years old	30	8.5
	>51 years old	8	2.3
Race	Malay	184	52.4
	Chinese	93	26.5
	Indian	73	20.8
	Others	1	0.30
Gender	Male	141	40.2
	Female	210	59.8
Marital Status	Single	173	49.3
	Married	174	49.6
	Divorced	4	1.1
Employment status	Employed	201	57.3
	Self employed	27	7.7
	Student	101	28.8
	Unemployed	22	6.3

Descriptive Analysis

Descriptive analysis was employed to examine the average responses and variation of respondents for all study variables. The variables included four independent variables (awareness of consequences, ascription of responsibility, self-efficacy belief, and green perceived value and personal norm), and one dependent variable (behavioral intention towards sustainable restaurants). Each variable was measured with a number of items on a 5-point Likert scale. Mean and standard deviation were applied in the study for analysis purposes to provide an overall impression of data obtained from the 351 participants.

A total of 351 valid responses were included in the analysis. Descriptive statistics were conducted to examine the mean and standard deviation of all study variables. As shown in Table 3, respondents reported relatively high levels of awareness of consequences ($M = 4.03$, $SD = 0.58$), ascription of responsibility ($M = 4.10$, $SD = 0.53$), self-efficacy belief ($M = 4.06$, $SD = 0.62$), green perceived value ($M = 4.21$, $SD = 0.54$), personal norm ($M = 4.09$, $SD = 0.63$), and behavioral intention towards sustainable restaurants ($M = 4.02$, $SD = 0.70$). Among the independent variables, green perceived value recorded the highest mean score ($M = 4.21$, $SD = 0.54$), indicating that respondents generally perceived substantial environmental value in sustainable restaurant practices. Overall, the findings suggest a favorable perception of sustainability-related attributes and a strong intention to support sustainable restaurants among Malaysian consumers.

Table 3: Descriptive Analysis Independent Variable

Construct	Mean	Std. Deviation
Awareness of consequences	4.03	0.58
Ascription of responsibility	4.10	0.53
Self-Efficacy belief	4.06	0.62
Green Perceived Value	4.21	0.54
Personal Norm	4.09	0.63
Behavioral Intention	4.09	0.70

As shown in Table 4, for the Awareness of Consequences construct, the mean scores were $M = 4.00$ ($SD = 0.598$), $M = 4.02$ ($SD = 0.652$), and $M = 4.07$ ($SD = 0.708$). These results indicated that the respondents tended to agree with the statements on the awareness of the environmental consequences of their restaurant food choices. This suggests that participants are cognizant of the potential consequences of unsustainable restaurant operations. The Ascription of Responsibility items scored means $M = 4.13$ ($SD = 0.623$), $M = 4.07$ ($SD = 0.615$), and $M = 4.10$ ($SD = 0.569$). These readings reflect a moderate to high level of agreement among the respondents regarding their own responsibility for causing environmental issues through their restaurant eating.

For Self-Efficacy Belief, mean scores obtained were $M = 4.07$ ($SD = 0.694$), $M = 4.06$ ($SD = 0.643$), $M = 4.08$ ($SD = 0.652$), and $M = 4.05$ ($SD = 0.674$). These were all very high scores that show that the majority of the respondents are sure they are able to make environmentally friendly decisions when choosing where to dine out. The Personal Norm scale, measuring an individual's sense of moral obligation, produced a mean score of $M = 4.08$ ($SD = 0.663$). $M = 4.10$ ($SD = 0.652$). This indicates that the respondents indicated a sense of personal duty to adopt sustainable consumption behavior, supporting the Norm Activation Model argument that internalized values significantly influence environmental action. Lastly, the Behavioral Intention scale had a mean of $M = 4.01$ ($SD = 0.765$), $M = 4.01$ ($SD = 0.744$), and $M = 4.03$ ($SD = 0.713$), showing respondents were ready to consent to or intend to dine in sustainable restaurants in the future. While overall agreement was affirmative, the marginally increased standard deviation indicates increased variation in the responses, showing some may be less certain or less strong.

Table 4: Descriptive Statistics for Each Variable

	N	Mean	Std. Deviation
Awareness of consequences			
The food service industry can lead to environmental pollution (eg, carbon emissions, food waste, disposable products).	351	4.00	0.598
The food service industry has the potential to negatively impact global warming	351	4.02	0.652
The food service industry can cause depletion of natural resources.	351	4.07	0.708
Ascription of responsibility			

I believe that every restaurant customer is partially responsible for the environmental pollutants (eg, carbon emissions, food waste, disposable products, etc.) caused by the food service industry.	351	4.13	0.623
I feel that every restaurant customer is jointly responsible for the environmental degradation caused by the environmental pollutants generated in the food service industry.	351	4.07	0.615
Every restaurant customer must take partial responsibility for environmental problems caused by environmental pollutants generated in the food service industry.	351	4.10	0.569
Self-Efficacy Belief			
I feel I can succeed in accomplishing environmental goals.	351	4.07	0.694
I can perform effectively on environmental missions.	351	4.06	0.643
I can overcome environmental problems.	351	4.08	0.652
I can find creative solutions to environmental problems	351	4.05	0.674
Green Perceived value			
The environmental function of this sustainable restaurant provides a very good value for me.	351	4.19	0.618
This sustainable restaurant is environmentally friendly	351	4.20	0.599
This sustainable restaurant has more environmental benefits than other restaurants.	351	4.23	0.592
This sustainable restaurant is more concerned about the environment than other restaurants	351	4.23	0.588
Personal Norm			
I feel morally responsible to visit a sustainable restaurant instead of another restaurant	351	4.08	0.663
I feel a personal responsibility to travel in an environmentally friendly way, such as by visiting a sustainable restaurant	351	4.10	0.652
Intention Behavioral			
I am willing to visit at a sustainable restaurant when traveling in the future.	351	4.01	0.765
I plan to visit at a sustainable restaurant instead of another restaurant when traveling in the future	351	4.01	0.744
I will try to visit at a sustainable restaurant instead of a restaurant while traveling the future.	351	4.03	0.713

Correlation Analysis

Table 5 shows the Pearson correlation analysis that was conducted to examine the relationships among the study variables. The results revealed that all independent variables were positively and significantly correlated with behavioral intention towards sustainable restaurants ($p < .01$). Personal norm demonstrated the strongest relationship with behavioral intention ($r = .741$, $p < .01$), followed by self-efficacy belief ($r = .698$, $p < .01$), green perceived value ($r = .647$, $p < .01$), ascription of responsibility ($r = .469$, $p < .01$), and awareness of consequences ($r = .210$, $p < .01$). These findings indicate that consumers with stronger moral obligations, higher confidence in their ability to contribute to environmental protection, and greater perceived environmental value are more likely to demonstrate stronger intentions to patronize sustainable restaurants.

Table 5: Correlation Analysis

Variable	BI
Awareness of Consequences	.210**
Ascription of Responsibility	.469**
Self-Efficacy Belief	.698**
Green Perceived Value	.647**
Personal Norm	.741**

Multiple Regression Analysis

Model Summary

The model summary results indicate that the five independent variables, namely awareness of consequences, ascription of responsibility, self-efficacy belief, green perceived value, and personal norm, collectively explained 63.2% of the variance in customers' behavioral intention towards sustainable restaurants ($R^2 = .632$). The adjusted R^2 value of .627 suggests that the model has strong explanatory power and provides a good fit to the data. This finding implies that the selected predictors play a substantial role in influencing consumers' intentions to patronize sustainable restaurants, while the remaining 36.8% of the variance may be explained by other factors not included in the present study.

ANOVA

The ANOVA results revealed that the regression model was statistically significant, $F(5, 345) = 118.720$, $p < .001$. This indicates that the set of independent variables significantly predicts customers' behavioral intention towards sustainable restaurants. The significance value below .05 confirms that the regression model provides a better prediction of behavioral intention than a model without predictors. Therefore, the overall model is considered suitable for explaining the relationship between awareness of consequences, ascription of responsibility, self-efficacy belief, green perceived value, personal norm, and behavioral intention towards sustainable restaurants. Therefore, the regression model was deemed adequate for further interpretation of the individual regression coefficients and hypothesis testing.

A Multiple Linear Regression

A multiple linear regression analysis was conducted to examine the influence of awareness of consequences, ascription of responsibility, self-efficacy belief, green perceived value, and personal norm on customers' behavioral intention towards sustainable restaurants. The results revealed that the regression model was statistically significant, $F(5, 345) = 118.720$, $p < .001$, indicating that the set of independent variables significantly predicted customers' behavioral intention towards sustainable restaurants. The model explained 63.2% of the variance in behavioral intention ($R^2 = .632$), while the adjusted R^2 value of .627 suggests that the model has substantial explanatory power.

The regression coefficients indicated that personal norm was the strongest predictor of behavioral intention ($\beta = .412$, $t = 8.150$, $p < .001$). This finding suggests that consumers who possess stronger moral obligations and personal responsibility towards environmental

protection are more likely to support and patronize sustainable restaurants. Self-efficacy belief was identified as the second strongest predictor ($\beta = .314$, $t = 5.981$, $p < .001$). This indicates that consumers who believe their dining choices can contribute positively to environmental sustainability demonstrate stronger intentions to visit sustainable restaurants. Similarly, green perceived value significantly influenced behavioral intention ($\beta = .176$, $t = 3.576$, $p < .001$). The finding implies that consumers are more willing to support sustainable restaurants when they perceive meaningful environmental benefits and value from the restaurants' sustainability initiatives.

In contrast, awareness of consequences ($\beta = -.043$, $t = -1.022$, $p = .308$) and ascription of responsibility ($\beta = .007$, $t = 0.126$, $p = .900$) were not significant predictors of behavioral intention. Although respondents generally demonstrated high levels of environmental awareness and responsibility, these factors did not significantly contribute to behavioral intention when personal norm, self-efficacy belief, and green perceived value were simultaneously considered in the regression model.

Overall, the findings indicate that customers' behavioral intention towards sustainable restaurants is primarily driven by internal moral obligation (personal norm), confidence in their ability to contribute to environmental protection (self-efficacy belief), and perceived environmental value (green perceived value). Among these factors, personal norm emerged as the most influential determinant of sustainable dining intention.

Table 6: Multiple Regression Results

Variables	B	β	t	p-value	Result
Awareness of Consequences	-0.051	-0.043	-1.022	.308	Not Supported
Ascription of Responsibility	0.009	0.007	0.126	.900	Not Supported
Self-Efficacy Belief	0.357	0.314	5.981	< .001	Supported
Green Perceived Value	0.228	0.176	3.576	< .001	Supported
Personal Norm	0.458	0.412	8.150	< .001	Supported

$R^2 = .632$, Adjusted $R^2 = .627$, $F = 118.720$, $p < .001$

Discussion

The Influence Of Awareness Of Consequence, Ascription Of Responsibility, Green Perceived Value, Self-Efficacy Belief, Personal Norms And Behavioral Intention Towards Sustainable Restaurants.

This chapter examines the empirical findings on consumers' behavioral intention towards sustainable restaurants in Malaysia based on the research objectives using the integrated framework of the Norm Activation Model (NAM) and Value. The findings derived from descriptive analysis, correlation analysis, and multiple regression analysis are examined and compared with the previous studies. Consumers tend to have good levels of awareness of consequence, ascription of responsibility, green perceived value, self-efficacy belief, personal norms, and behavioral intention towards sustainable restaurants.

Out of all the predictor variables, the strongest predictor is personal norm, followed by self-efficacy belief and green perceived value. However, the other two predictors, which are

awareness of consequence and ascription of responsibility, did not show any significant influence. This indicates that behavioral intention towards sustainable restaurants is influenced mainly by internal moral and psychological factors and not solely cognitive awareness.

The most significant finding of this study is the strong influence of personal norm on behavioral intention toward sustainable restaurants. This result confirms that moral obligation plays a central role in shaping sustainable consumption behavior. Consumers who feel a strong internal responsibility toward environmental protection are more likely to support sustainable restaurants. This finding is consistent with the Norm Activation Model (Schwartz, 1977), which proposes that personal norms are activated when individuals feel morally responsible for environmental outcomes. Similar findings were reported by Govaerts & Olsen (2022), who found that personal norms significantly predict sustainable food consumption behavior. Likewise, Kim et al. (2022) also emphasized that moral obligation is a key determinant in green behavioral intention. In the context of this study, personal norms appear to be the strongest motivational force, suggesting that consumers are driven more by ethical considerations than by external pressures or awareness alone.

Self-efficacy belief was found to be the second strongest predictor of behavioral intention (Stern et al, 1999). This indicates that consumers are more likely to engage in sustainable dining when they believe their actions can make a meaningful environmental impact. In the context of sustainable restaurants, this suggests that consumers must not only value sustainability but also believe that their dining choices contribute to environmental improvement. Without this sense of control or efficacy, intention may remain weak despite positive attitudes.

Green perceived value was also revealed to have a significant effect on behavioral intention. This suggests that consumers will be more willing to support sustainable restaurants if they perceive the environmental and ethical value of their operations. This result is consistent with the findings of Riva et al. (2022; Kim et al., 2024). who stressed that green perceived value motivates consumers to behave in an environmentally friendly way when making purchases. In the current study, green perceived value is seen as a key factor for positive perceptions about sustainable restaurants, as consumers are not just driven by ethical responsibility but also value. Interestingly, consequence awareness turned out not to be an important predictor of behavioral intentions in this regression analysis. Though the participants showed quite a high level of environmental awareness, it did not have any effect on their behavioral intentions when other factors were included. It can be explained by the opinion of De Groot and Steg (2009), who stated that mere awareness would not have any impact on people's behavior unless it activates personal norms.

Responsibility attribution was also discovered to be insignificant in predicting behavioral intention. This implies that even though consumers can recognize environmental issues, this knowledge does not automatically equate to personal behavioral intention. This finding differs from Stern et al. (1999), who posited responsibility attribution as one of the important elements in activating moral norms. In this particular case, responsibility seems to have already been encompassed by personal norms.

Integration of NAM and VBN Framework

The results are a strong indication of the validity of NAM and VBN theories to explain sustainable consumption behavior. According to the VBN theory, the VBN chain is responsible for the formation of values into beliefs and moral norms; NAM explains the transformation of

moral norms into behavioral intention. From the results, it can be seen that the last determinant of the behavior is personal norm, which is activated by value-based perceptions and the environment. This validates Stern's (2000) VBN theory, where personal values affect environmental behavior via belief and norm activation processes. However, it can be concluded from the results that the entire VBN chain (awareness → responsibility → norm) does not work linearly at all times. In the current research, only the last part – personal norm – has an effective direct impact on behavior.

Conclusion and Recommendations

Summary of the study

The primary aim of this research was to identify the factors influencing consumers' behavioral intention toward sustainable restaurants with the aid of the combined NAM-VBN model. This study sought to explore the effect of awareness of consequences, ascription of responsibility, green perceived value, and personal norm on behavioral intention. The findings of this study suggest that a total of 351 valid responses were used for analysis in SPSS Version 29. From the results obtained, it is evident that the respondents had very high levels of environmental values, green perceived benefits, moral obligation, and behavioral intentions toward sustainable restaurants.

From multiple regression analysis, it can be seen that the model accounted for 63.2% of the variance in behavioral intentions, indicating high explanatory power of the integrated NAM-VBN model. Of all the variables tested, personal norm and green perceived value were found to be the most influential on behavioral intention, while awareness of consequence and ascription of responsibility failed to predict behavioral intention.

From the results obtained from this study, it is evident that the consumers' behavioral intention towards sustainable restaurants is determined by their internalized moral norms and green perceived value and not cognitive awareness. Personal norm being the dominant variable indicates that moral obligation is the key determinant for sustainable food consumption decision-making. This finding validates the Norm Activation Model (Schwartz, 1977), which stipulates that people are prone to pro-environmental behavior if they have moral obligation for such behavior. This finding is also consistent with the Value-Belief-Norm theory (Stern, 2000) that suggests that environmental values affect behavior by way of beliefs and norms.

Theoretical and Practical Implications

Theoretically, the current research adds to the existing literature on the application of the integrated NAM-VBN framework in understanding sustainable consumption behavior among consumers in the foodservice environment. Results of the empirical study confirm the hypothesis that environmental behavior is mainly based on moral and value-related reasons, not on pure rational awareness. The predominance of personal norm emphasizes the importance of moral obligation in the NAM model, and the significance of green perceived value shows the relevance of environmental values in the VBN framework. This study examines the direct effects of awareness of consequences, ascription of responsibility, personal norm, green perceived value, and self-efficacy on behavioural intention within the integrated VBN/NAM framework. Thus, the findings provide new evidence on the formation of environmental behavior of consumers, especially in the context of developing countries such as Malaysia.

Practically, findings of this study carry a number of important implications for all parties concerned within the spheres of food services and sustainability. First, for restaurants, the findings indicate that promoting sustainable dining behavior involves much more than informing customers about environment-related issues. As the personal norm is the most important predictor of behavioral intention, the strategies of promoting sustainable behavior through marketing activities should be focused on consumers' moral engagement. It can be ensured through the appeal to consumers' ethical responsibility, environmental impact, and significance of sustainable choices in social life. Moreover, the green perceived value should be made explicit. Restaurants should emphasize their sustainability practices, including waste reduction, ecological packaging, locally sourced food, and carbon footprint reduction. Policymakers and environmental agencies can conclude that awareness campaigns are not enough for the promotion of sustainable behavior. Instead, policies aimed at the development of moral responsibility and value-based education should be used. The campaigns should be directed at the internalization of environmental responsibility as a personal norm rather than at the enhancement of knowledge. In turn, educational institutions and advocacy organizations have to shape environmental values starting from an early age to include sustainability in consumers' moral identity.

Limitations of Study

Although this research provides important insights, it also has some limitations. Firstly, the reliance on self-report questionnaires exposes the findings to social desirability bias, in which respondents may exaggerate their environmentally friendly behavior to fit socially acceptable standards. This can diminish the validity of the results in representing real customer behavior. Secondly, the sample was largely made up of young and urban respondents, which makes the findings less generalizable to older consumers or those in rural settings. Thirdly, the research largely tapped into perceptions of sustainability in urban or high-end restaurants, possibly neglecting the behavior and attitudes of patrons in smaller or traditional restaurants. Contextual differences in terms of location, cultural norms, and demographic differences may affect sustainable behavior.

Recommendations for Future Research

For future research, it is recommended to advance and expand the NAM-VBN approach in the field of sustainable consumption behavior. Longitudinal research can be conducted to investigate how environmental values and moral norms change over time and affect behavior. Moreover, it is recommended to include additional constructs such as perceived cost, trust, and service quality to build a broader model of consumer behavior in sustainable restaurants. Also, qualitative research approaches like interviews or focus groups should be used to obtain a deeper understanding of the way in which consumers perceive environmental values and their moral responsibility when making decisions. Comparative studies across different cultures would be helpful in determining whether the NAM-VBN relationship is similar in all cases or affected by culture. Finally, future studies should be focused not only on intentions but also on behavior in order to decrease the intention-behavior gap that exists in environmental psychology research.

Overall Conclusion

In general, this research reveals that consumers' behavioral intention to patronize sustainable restaurants is mainly determined by personal moral duty and environmental values, proving the applicability of NAM and VBN concepts to explain sustainable consumer behavior. Thus, the developed combined NAM-VBN theory represents an excellent theoretical base for the analysis, accounting for a significant amount of behavioral intention variability. The results reveal that sustainable consumerism is not just an outcome of environmental knowledge, but also a matter of inner values and moral norms. In general, this study adds to the comprehension of sustainable consumer behavior and offers useful information for both scientific and applied aspects.

Acknowledgements: The authors would like to express their sincere gratitude to Universiti Teknologi MARA Cawangan Terengganu for providing the necessary resources and support throughout the course of this research. Special appreciation is extended to colleagues and peers who contributed valuable insights and constructive feedback, which greatly enhanced the quality of this paper.

Funding Statement: No financial support from any agency or grant

Conflict of Interest Statement: There is no conflict of interest regarding the publication of this paper. All authors have contributed to this work and approved the final version of the manuscript for submission to the International Journal of Tourism, Hospitality and Environment Management (JTHERM)

Ethics Statement: This study was conducted in accordance with ethical research standards. All procedures involving human participants were reviewed and approved by the Ethics Committee (REC) UiTM, approval number [100-UiTMCTKD(PJI.23/4)JPN]. Informed consent was obtained from all participants prior to data collection. Participation was voluntary, and respondents were assured of confidentiality and anonymity. The data collected were used solely for academic purposes.

Author Contribution Statement: All authors contributed significantly to the development of this manuscript. [Author C] was responsible for the conceptualization, methodology, and overall supervision of the study. [Author A and B] handled data collection, analysis, and interpretation of results. [Author D,E,F] contributed to the literature review, drafting, and critical revision of the manuscript. All authors read and approved the final version of the manuscript prior to submission.

References

- Abdullah, A. N., Mohamed, A., & Abd Rahman, M. S. (2023). Green practice: An empirical investigation on the interiors of healthy restaurants in Penang. *Asian Journal of Environment, History and Heritage*, 7(1), 87–98
- Agron, F. A., Librojo, G., Mananzan, J. L., & Mangol, E. M. (2024). *Blue is the New Green: An Analysis of ZUS Coffee's Corporate Image and Corporate Culture* [Unpublished Undergraduate Thesis . Polytechnic University of the Philippines
- Ali, F., Kim, W. G., Li, J., & Jeon, H. (2025). Green perceived value and consumer behavioral intention in sustainable hospitality settings. *Journal of Sustainable Tourism*, 33(2), 210–225.
- Chen, Y., & Huang, S. (2024). Environmental responsibility and green restaurant consumption behavior: Evidence from Asian consumers. *International Journal of Hospitality Management*, 118, 103–114.
- Chen, Y., Huang, S., & Lee, J. (2023). Environmental self-efficacy and pro-environmental behavioral intention in hospitality settings. *International Journal of Hospitality Management*, 114, 103–112.
- Citizen Journals; Dewakan earns first MICHELIN Green Star, two-star rating, November 15, 2024. <https://cj.my/150255/dewakan-earns-malaysias-first-michelin-green-star-two-star-rating/>
- De Groot, J. I., & Steg, L. (2009). Morality and prosocial behavior: The role of awareness, responsibility, and norms in the norm activation model. *The Journal of Social Psychology*, 149(4), 425–449.
- Ding, L. (2022). The effects of self-efficacy and collective efficacy on customer food waste reduction intention: The mediating role of ethical judgment. *Journal of Hospitality and Tourism Insights*, 5(4), 752–770. <https://doi.org/10.1108/JHTI-07-2021-0168>
- Dong, Z., He, C., Hu, T., & Jiang, T. (2024). Integrating values, ascribed responsibility and environmental concern to predict customers' intention to visit green hotels: The mediating role of personal norm. *Frontiers in Psychology*, 14, 1340491. <https://doi.org/10.3389/fpsyg.2023.1340491>
- Fauzi, M. A., Hanafiah, M. H., & Kunjuran, V. (2024). Tourists' intention to visit green hotels: building on the theory of planned behaviour and the value-belief-norm theory. *Journal of Tourism Futures*, 10(2), 255–276. <https://doi.org/10.1108/JTF-01-2022-0008>
- Gazzola, P., Pavione, E., Amelio, S., & Mauri, M. (2024). Sustainable Strategies and Value Creation in the Food and Beverage Sector: The Case of Large Listed European Companies. *Sustainability (Switzerland)*, 16(22). <https://doi.org/10.3390/su16229798>
- Govaerts, F., & Olsen, S. O. (2022). Exploration of seaweed consumption in Norway using the norm activation model: The moderator role of food innovativeness. *Food Quality and Preference*, 99(February), 104511. <https://doi.org/10.1016/j.foodqual.2021.104511>
- Green, S.B. (1991), "How many subjects does it take to do a regression analysis?", *Multivariate Behavioral Research*, Vol. 26 No. 3, pp. 499-510, doi: 10.1207/s15327906mbr2603.
- Hair, J., Hollingsworth, C.L., Randolph, A.B. and Chong, A.Y.L. (2017), "An updated and expanded assessment of PLS-SEM in information systems research", *Industrial Management and Data Systems*, Vol. 117 No. 3, pp. 442-458, doi: 10.1108/IMDS-04-2016-0130.
- Hair, J., Page, M., Brunsveld, N., Merkle, A., & Cleton, N. (2023). *Essentials of Business Research Methods*. Taylor&Francis. <https://books.google.com.my/books?id=g1bJEAAQBAJ>

- Joo, K., Lee, J., & Hwang, J. (2022). NAM and TPB Approach to Consumers' Decision-Making Framework in the Context of Indoor Smart Farm Restaurants. *International Journal of Environmental Research and Public Health*, 19(21). <https://doi.org/10.3390/ijerph19211460>
- Jun, K., & Yoon, B. (2024). Consumer perspectives on restaurant sustainability: an S-O-R Model approach to affective and cognitive states. *Journal of Foodservice Business Research*, 1–24. <https://doi.org/10.1080/15378020.2024.2396687>
- Kim, M., Park, J., & Lee, S. (2024). Sustainability perceptions and consumer behavioral intention in the foodservice industry. *Sustainability*, 16(3), 1452.
- Kim, M., Park, J., & Lee, S. (2024). Sustainability perceptions and consumer behavioral intention in the foodservice industry. *Sustainability*, 16(3), 1452.
- Kim, W., Che, C., & Jeong, C. (2022). Food Waste Reduction from Customers' Plates: Applying the Norm Activation Model in South Korean Context. <https://doi.org/10.3390/land>
- Kim, J. J., & Hwang, J. (2020). Merging the norm activation model and the theory of planned behavior in the context of drone food delivery services: Does the level of product knowledge really matter? *Journal of Hospitality and Tourism Management*, 42(November 2019), 1–11. <https://doi.org/10.1016/j.jhtm.2019.11.002>
- Ko, J.-H., & Jeon, H.-M. (2024). The Impact of Eco-Friendly Practices on Generation Z's Green Image, Brand Attachment, Brand Advocacy, and Brand Loyalty in Coffee Shops. *Sustainability*, 16(8), 3126. <https://doi.org/10.3390/su16083126>
- Lau, M. M., Ng, P. M. L., Chan, J. K. Y. (2025). Sustainable green dining: The power of responsible consumption and waste reduction on revisit intention. *Sustainable Futures*, Volume 9, ISSN 2666-1888, <https://doi.org/10.1016/j.sfr.2025.100641>.
- Le, M. H., & Nguyen, P. M. (2022). Integrating the Theory of Planned Behavior and the Norm Activation Model to Investigate Organic Food Purchase Intention: Evidence from Vietnam. *Sustainability (Switzerland)*, 14(2). <https://doi.org/10.3390/su14020816>
- Li, X., Zhang, Y., & Wang, H. (2023). Consumers' green dining behavior: The role of environmental awareness and perceived value. *Journal of Hospitality and Tourism Management*, 54, 101–112.
- Li, X., Zhang, Y., & Wang, H. (2023). Consumers' green dining behavior: The role of environmental awareness and perceived value. *Journal of Hospitality and Tourism Management*, 54, 101–112.
- Long, F., Ooi, C. S., Gui, T., & Ngah, A. H. (2022). Examining young Chinese consumers' engagement in restaurant food waste mitigation from the perspective of cultural values and information publicity. *Appetite*, 175(April). <https://doi.org/10.1016/j.appet.2022.106021>
- Majeed, S., Kim, W. G., & Kim, T. (2023b). Perceived green psychological benefits and customer pro-environment behavior in the value-belief-norm theory: The moderating role of perceived green CSR. *International Journal of Hospitality Management*, 113. <https://doi.org/10.1016/j.ijhm.2023.103502>
- Majeed, S., Kim, W. G., & Kim, T. (2023b). Perceived green psychological benefits and customer pro-environment behavior in the value-belief-norm theory: The moderating role of perceived green CSR. *International Journal of Hospitality Management*, 113, 10.1016/j.ijhm.2023.103502
- McDonagh, M., O'Donovan, S., Moran, A., & Ryan, L. (2024). An Exploration of Food Sustainability Practices in the Food Industry across Europe. *Sustainability (Switzerland)*, 16(16). <https://doi.org/10.3390/su16167119>

- Mollaei, S. (2026). A scoping review of research-based sustainability-oriented interventions across restaurants and cafes. *Front. Sustain. Food Syst.* 10:1821627. doi: 10.3389/fsufs.2026.1821627
- Nguyen, T. H., & Johnson, K. (2022). Factors influencing green restaurant patronage intention: A behavioral perspective. *Journal of Retailing and Consumer Services*, 65, 102–110.
- Obuobi, B., Zhang, Y., Adu-Gyamfi, G., Nketiah, E., Grant, M. K., Adjei, M., & Cudjoe, D. (2022). Fruits and vegetable waste management behavior among retailers in Kumasi, Ghana. *Journal of Retailing and Consumer Services*, 67(February), 102971. <https://doi.org/10.1016/j.jretconser.2022.102971>
- P.C. Stern, T. Dietz, T. Abel, G.A. Guagnano, L. Kalof (1999). A value-belief-norm theory of support for social movements: The case of environmentalism. *Human Ecology Review*, pp. 81-97. <https://cedar.wvu.edu/cgi/viewcontent.cgi>
- Papagiannakis, G.E.; Vlachos, P.A.; Koritos, C.D.; Kassinis, G.I. Are publicly traded tourism and hospitality providers greenwashing? *Tour. Manag.* 2024, 103, 104893
- Park, Y. N., & Shin, M. (2023). Effect of customers' subjective knowledge on accepting ESG activities in the hospitality industry. *Journal of Travel & Tourism Marketing*, 41(1), 51–67. <https://doi.org/10.1080/10548408.2023.2269975>
- Rahman, M. S., Hossain, M. I., & Abdullah, F. (2023). Sustainable restaurant practices and revisit intention: Evidence from emerging markets. *British Food Journal*, 125(9), 3201–3218.
- Rassiah, P, Nasir NM, Subramaniam RK, Saleeth HM (2024). Sustainable environmental management practices: evidence from hotels in Malaysia. *Global Sustainability* 7, e29, 1–15. <https://doi.org/10.1017/sus.2024.28>
- Ritchie, B. W., Prideaux, B., Thompson, M., & Demeter, C. (2022). Understanding tourists' attitudes toward interventions for the Great Barrier Reef: an extension of the norm activation model. *Journal of Sustainable Tourism*, 30(6), 1364–1383. <https://doi.org/10.1080/09669582.2021.1948048>
- Riva, F., Magrizos, S., Rubel, M. R. B., & Rizomyliotis, I. (2022). Green consumerism, green perceived value, and restaurant revisit intention: Millennials' sustainable consumption with moderating effect of green perceived quality. *Business Strategy and the Environment*, 1–13. <https://doi.org/10.1002/bse.3048>
- Rodell, A. G., Svensson, P., & Leer, J. (2026). The regenerative restaurant: An innovative framework for developing place-based, sustainable restaurant experiences. *International Journal of Gastronomy and Food Science*, 44, 101460, <https://doi.org/10.1016/j.ijgfs.2026.101460>.
- Sajjad, A., Zhang, Q., Asmi, F., Anwar, M. A., & Bhatia, M. (2024). Identifying the motivating factors to promote socially responsible consumption under circular economy: A perspective from norm activation theory. *Journal of Retailing and Consumer Services*, 76(September 2023), 103544. <https://doi.org/10.1016/j.jretconser.2023.103544>
- Schwartz, S. H. (1973). Normative explanations of helping behavior: A critique, proposal, and empirical test. *Journal of Experimental Social Psychology*, 9(4), 349–364.
- Schwartz, S. H. (1977). Normative influences on altruism. In L. Berkowitz (Vol. Ed.), *Advances in experimental social psychology*. Vol. 10. *Advances in experimental social psychology* (pp. 221–279). New York, NY: Academic Press Vol.
- Schwartz, S. H., & Howard, J. A. (1981). A normative decision-making model of altruism. In J. P. Rushton & R. M. Sorrentino (Eds.). *Altruism and helping behavior*. Hillsdale, NJ: Lawrence Erlbaum.
- Singh, R., & Lee, Y. (2024). Green consumption behavior in hospitality: The mediating role of environmental concern. *Tourism Management Perspectives*, 50, 101–115.

- Sorooshian, S. (2024). The sustainable development goals of the United Nations: A comparative midterm research review. *Journal of Cleaner Production*, 453. <https://doi.org/10.1016/j.jclepro.2024.142272>
- Stern, P. C., Dietz, T., Abel, T., Guagnano, G. A., & Kalof, L. (1999). A value-belief-norm theory of support for social movements: The case of environmentalism. *Human Ecology Review*, 6(2), 81–97.
- Tang, H., Hu, D., Long, Y., & Zhao, Y. (2023). The pro-environmental behavioral intention of villagers in rural tourist destinations under China's environmental remediation policy. *Scientific Reports*, 13(1), 13906. <https://doi.org/10.1038/s41598-023-39998-3>
- Teng, Y. M., & Wu, K. S. (2023). Sustainability development in hospitality: The effect of perceived value on customers' green restaurant behavioral intention. *Sustainability*, 15(9), 7124.
- Waddington, J. (2023). Self-Efficacy. *ELT Journal*, 77(2), 237-240. <https://doi.org/10.1093/elt/ccac046>
- Wahid, N. A., Fadzil, S. F. S., & Ariffin, S. K. (2022). Influences of Problem Awareness, Awareness of Consequences and Ascription of Responsibility on Consumer's Personal Norm to Prevent Water Wastage Behavior. *Environment and Ecology Research*, 10(2), 275–283. <https://doi.org/10.13189/eer.2022.100217>
- Wang, C. P., Zhang, Q., Wong, P. P. W., & Wang, L. (2023). Consumers' green purchase intention to visit green hotels: A value-belief-norm theory perspective. *Frontiers in Psychology*, 14, 1139116. <https://doi.org/10.3389/fpsyg.2023.1139116>
- Wang, J., Liu, Q., & Tan, B. (2023). Determinants of sustainable dining behavior: A behavioral intention framework. *Sustainability*, 15(8), 6123.
- Yan, Z., Arpan, L. M., & Clayton, R. B. (2024). Assessing the Role of Self-Efficacy in Reducing Psychological Reactance to Guilt Appeals Promoting Sustainable Behaviors. *Sustainability*, 16(17), 7777. <https://doi.org/10.3390/su16177777>
- Yasin, N. H. M., Samsudin, M., Ridzuan, N. A., Nasir, M. F. M., Musa, M., & Rahim, S. A. Sustainable dining revisited: exploring consumer intentions towards green restaurants in Malaysia. *Journal of Tropical Resources and Sustainable Science Website* : <http://journal.umk.edu.my/index.php/jtrss/> eISSN : 2462-2389 Vol: 13 Issue 2, 2025, 294-302 DOI: <https://doi.org/10.47253/jtrss.v13i2.1940>.
- Zahra, A.T., Hijrah Hati, S.R. (2020). Consumer's Behavioral Intention toward "Green" Restaurant: Empirical Evidence from Indonesia. *Journal of Business and Behavioural Entrepreneurship*, 4(2), p. 1- 12. <https://doi.org/10.21009/JOBBE.004.2.01>
- Zhang, L., Chen, X., & Zhao, R. (2022). Green restaurant attributes and consumer behavioral intention: A post-pandemic perspective. *International Journal of Contemporary Hospitality Management*, 34(11), 4056–4072.