

## **The Influence of Hotel Restaurants' Sustainable Practices on Customers' Attitudes and Behavioral Intentions: Guest Satisfaction as a Mediator**

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### **Abstract**

This study aims to examine the influence of sustainable practices on customer satisfaction and behavioral intentions in hotel restaurants. This study proposes and evaluates a structural equation model to analyze and assess the influence of sustainable practices on customers' attitudes and behavioral intentions. A questionnaire, created as a self-reported survey was used to gather information from a sample of 301 green hotel guests who have recently experienced the services of green hotels' restaurants in the Red Sea governorate through convenience sampling. The results reveal how sustainable practices may improve consumer satisfaction and behavioral intentions because guests' expectations are vital and must be fulfilled to get their commitment to green hotel restaurants. In general, this study gives essential insights into the food service sector since it proposes important tactics for food service business managers to enhance their customers' satisfaction and behavioral intentions by supporting sustainable practices in restaurants.

**Keywords:** Restaurants' sustainable practices, customers' attitudes, customer satisfaction, customer behavioral intentions, Red Sea governorate, green hotels restaurants.

### **Introduction**

Sustainability has emerged as one of the most pressing concerns confronting the food service sector (Moise et al., 2019; Herrero et al., 2020), for example, green practices have enhanced the restaurant sector's economic sustainability and financial gains (Han, 2020). Additionally, restaurants can gain a competitive edge by offering locally produced, organic, vegetarian food, promoting recycling, and minimizing waste (Hussain et al., 2020). Furthermore, the analysis of restaurant customers' attitudes and behavioral intentions was focused on figuring out their causes and effects (Meirovich et al., 2013; Tsaur & Lo, 2020).

Despite the importance of customers' attitudes and behaviors for supporting eco-friendly practices, the knowledge of sustainable restaurant practices has not been fully researched considering the related conceptual theories (e.g., Shin et al., 2017, 2018, 2019; Joo et al., 2018; Teng and Wu, 2019). Furthermore, the most significant obstacles to implementing sustainable practices in restaurants include a lack of appropriate legislative guidelines, human resources, awareness of green concept implementations, environmental understanding, and efficient marketing methods (Moon, 2021). Customers are growing more aware of and worried about current environmental challenges, and they are showing positive attitudes about purchasing eco-friendly services (Adnan et al., 2017; Chaturvedi et al., 2020, 2022).

According to Hsu et al. (2018), restaurant managers should be aware of customer needs, yet some of them fall short in doing so, which negatively affects restaurant manager performance. Customers are frequently unconvinced about the green aspects of

restaurants, including their environmental values and other green qualities (Namkung and Jang, 2013).

Restaurants can improve customer satisfaction levels by applying sustainable practices (Michalisin & Stinchfield, 2010). Green practices influence restaurant patronage preferences (Hu et al., 2010). Furthermore, customers' eco-friendly decision-making processes have been investigated by hospitality researchers (Choi & Parsa, 2007; Tseng et al., 2011). Han et al., (2009) studied the mechanism of the customer's decision to visit a green hotel using Ajzen's Theory of Planned Behavior (TPB) (1991), according to their findings, all of the variables of attitude, subjective norm, and perceived behavioral control had a beneficial influence on consumers' inclination to visit a green hotel.

A restaurant's green image increases customer behavioral intentions (Jiang and Wen, 2020). Restaurants that prioritize sustainability can attract repeat green consumers (Han et al., 2019; Xu and Jeong, 2019). Green perceived value is viewed as a significant component in preserving long-term customer ties, as well as in growing GS and green BI (Juliana et al., 2020). Many studies have been conducted to investigate customers' behavioral intentions toward eco-branding, green advertising, and restaurant sustainability practices (Atzori et al., 2018; Lin and Niu, 2018; Nicolau et al., 2020).

Regarding the intangible direct advantages of the restaurant's green practices (Jang et al., 2011), earlier research has not satisfactorily demonstrated a link between green attributes and revisit intentions. Customers frequently assume that products with sustainability qualities are of lower quality (Skard et al., 2021). Therefore, more research into how customers view the advantages, worth, and caliber of green restaurants is required. In addition, a growing number of customers have favorable attitudes toward green consumption but do not always end up purchasing green services, empirical research in the field of pro-environmental behaviors has long argued that purchase intentions do not always translate into actual purchasing behavior (Park & Lin, 2020), and the transition from environmental awareness to changes in behavioral intentions is not always easy (Hojnik et al., 2020).

There are many empirical studies on green restaurants' sustainable practices (Dutta et al., 2008; Hu et al., 2010; Han et al., 2010, Yoo et al., 2020; Singh & Alok, 2022), however, studies that have examined sustainable practices' impact on Guest Attitude (GA), Guest Satisfaction (GS), and Behavioral Intention (BI) in green hotel restaurants are still insufficient. This study contributes to the research in the context of sustainable restaurants because there is still insufficient research on guests' perceptions of sustainable practices, with consensus on how often customers make any intentional decision to eat in green restaurants (Nicolau et al., 2020; Al-Swidi and Saleh, 2021), and our knowledge of the process by which customers attitudes affect their behavioral intentions at green hotel restaurants will advance as we better understand the mediating role of customer satisfaction. Although earlier studies have taken into account customers' behavioral intentions as well as their preferences for eating out at restaurants that implement sustainable practices (Lavuri, 2021), the effects of sustainable practices quality are still not entirely obvious.

The current study attempts to combine sustainable practices with two additional cognitive qualities, GA and GS, to see if these factors may also be used as a predictor and a mediator of behavioral intentions toward green restaurants, to contribute to the

growing quantity of studies on the sustainability practices in restaurants (Line et al., 2016; Pulkkinen et al., 2016; Salzberg et al., 2019; Higgins et al., 2019).

In describing customers behavioral intentions, relatively few researches focused on sustainable food selections (Shin et al., 2018; Lu and Chi, 2018; Shin & Mattila, 2019). Furthermore, Prior research on sustainability in the hotel business has mostly concentrated on American (Xu & Gursoy, 2015) or European contexts (Modica et al., 2018). Prior research has revealed differences in the attitudes and behaviors of American and European customers toward sustainability practices (Thompson, 2007). These findings imply that it is crucial to look at the attitudes and behaviors of consumers in various geographic contexts (Modica et al., 2018).

The purpose of this study is to examine guest attitude, customer satisfaction, and behavioral intentions towards green restaurants' sustainable practices in green star hotels in the Red Sea governorate in Egypt, therefore filling a gap in previous research by examining the influence of green hotels restaurant sustainable practices on guests' attitudes, satisfaction, and behavioral intentions. This research will examine the mediating role of guest satisfaction between guest attitude and guest behavioral intention. Furthermore, the current research provides critical insights to restaurant managers to help them focus their efforts on sustainable practices that will delight their customers and provide them with a competitive advantage. This study would assist restaurant owners and managers and provide them with effective guidelines for attracting more customers through designing services that are more customer-oriented in terms of sustainability.

## **Literature Review and Hypotheses Development**

### **Restaurant's Sustainable Practices**

In foodservice literature, sustainability practices are related to a restaurant's efforts to embrace ecologically friendly practices aiming at becoming a green restaurant (Xu & Jeong, 2019; Park et al., 2020). Green restaurants additionally referred to as ecological restaurants operate in an ecologically responsible way (Iamkovaia et al., 2019). According to Jang et al. (2011), green restaurants have practices such as recycling and composting, water and energy efficiency, and waste management, as well as serving locally grown or organic foods. Tan et al. (2018) described green restaurants as brand-new or renovated buildings that were planned, constructed, and functioned in an energy-efficient and pro-environmental method.

Sustainability and waste reduction methods are increasingly being adopted in the restaurant business (Sakaguchi et al., 2018; Salzberg et al., 2019). Excessive resource use and food waste issues are likely to get worse with the development of the foodservice business (Kim et al., 2018; Boccia et al., 2021; Chaturvedi et al., 2022). Many restaurants have started implementing sustainable practices recently, such as recyclable tableware, organic foods, and water-saving technology, reducing food waste, and creating an eco-friendly environment (Hamerman et al., 2018; Filimonau et al., 2020).

Green practices commonly observed in restaurants include using energy and water-capable equipment, using organic foods, providing healthy menus, prohibition disposable tableware and containers, training employees in green practices, recycling

and disposal of cooking oils, conserving energy, and the reduction of pollution (Dutta et al., 2008; Schubert et al., 2010; Gázquez-Abad et al., 2015). A considerable number of green certification schemes have been introduced in the restaurant business (DiPietro et al., 2013). Using biodegradable goods, actively preserving energy and natural resources, investing in energy-efficient equipment, reducing and recycling rubbish, and participating in environmental protection campaigns are all examples of sustainable restaurant practices (Schubert, 2008).

According to the existing literature, sustainable development in restaurant operations includes both food-related elements such as hygiene, food safety, and food quality, as well as non-food aspects such as energy and water waste (Filimonau & De Coteau, 2020; TM et al., 2021). According to empirical studies, the implementation of environmental measures in the hotel business promotes customer satisfaction and loyalty (Kassinis & Soteriou, 2003).

To attract environmentally concerned guests, many restaurants have introduced ecologically sustainable policies (Kim & Han, 2010; Jones et al., 2014). Customers have begun to show favorable symbols toward restaurants that are more environmentally conscious and useful (Han et al., 2020), and customers favor restaurants that adhere to green processes and policies (DiPietro et al., 2013; Park et al., 2020). According to Li et al. (2018), environmental legitimacy is an organization's strategy for green innovation in restaurants which focuses on developing creative products, services, processes, and management programs to decrease environmental pollution and support sustainability, in addition to aligning with customer preferences.

Several investigations have been conducted to examine guest perceptions of green practices in restaurants (Manaktola & Jauhari, 2007; Dutta et al., 2008; Choi et al., 2009). There is a strong association between hotel guests' knowledge of green services, their purchasing behavior, and their readiness to pay more for services offered by firms that apply sustainable practices (Choi et al., 2009). Hu et al. (2010) examined the relationships among restaurant customers' awareness of sustainable procedures, environmental concerns, and ecological behavior and their willingness to return.

Green products may improve an organization's environmental image, attract new consumers, and increase satisfaction among consumers (Manaktola & Jauhari, 2007). According to Jeong et al. (2014), customers' impressions toward building a good green image and sustainability practices will influence their satisfaction. According to Namkung and Jang (2013), the study discovered that sustainable practices in both food and service functions affected restaurant guests' behavioral intentions substantially. In the restaurant industry, "green food" has evolved to represent organic, local, and sustainable cuisine (La Vecchia, 2008). According to Hu et al. (2010), green food practices remain critical when selecting a green restaurant. Furthermore, food-related elements increase customers' willingness to spend extra and frequent green restaurants (Kwok et al., 2016).

The restaurants demonstrate their social responsibility by making valuable contributions to environmental plans and systems (Schubert et al., 2010), and providing effective training to apply sustainability practices, and these activities can impact the purchasing decisions of environmentally conscious customers (Manaktola & Jauhari, 2007). Furthermore, natural foods have been highlighted as essential features of health awareness plans that influence customers' purchase decisions (Jang et al., 2011).

Previous research has demonstrated that applying long-term interventions can increase GS and loyalty (Eiadat et al., 2008; Ma & Ghiselli, 2016).

### **Sustainable Practices Impact on Guest Attitude**

According to Ajzen (1991), attitude can be defined as the extent to which an individual holds a positive or negative assessment or appraisal of the behavior under consideration. A person's level of concern for ecological issues can be used to define their attitude toward the significance of adopting eco-friendly behaviors (Laroche et al., 2001). Actually, because of growing consumer awareness, hotel sustainability practices have become a significant factor in influencing the attitudes and behaviors of guests, such as GS, loyalty, and decision-making (Berezan et al., 2013; Modica et al., 2020). Furthermore, GA toward green restaurants determines their eco-friendly choices and behaviors (Manaktola and Jauhari, 2007; Han et al., 2009; Jeong et al., 2014; Line et al., 2016; Kim & Hall, 2020).

Jeong et al. (2014) indicate that customers' perception of restaurants' green practices impacts their perceived green image, which in turn influences their attitudes towards the restaurant, especially: recyclable containers, waste recycling, and energy-efficient lighting, especially among environmentally conscious patrons. Furthermore, according to Line et al. (2016), green restaurant practices are crucial for fostering a favorable customer attitude toward the organization as well as for influencing customers' behavior when it comes to sustainable products. It is also assumed that these practices influence customer behavior (Kim & Hall, 2020). Based on existing literature, a restaurant's sustainable practices have an impact on guest attitude. Hence, the research proposes the following hypotheses:

Hypothesis 1: Sustainable practices positively affect guest attitude (GA)

*Hypothesis 1a: Waste Reduction and Recycling (WRC) positively affects GA.*

*Hypothesis 1b: Energy and Water Efficient Equipment (EWEE) positively affects GA.*

*Hypothesis 1c: Food Sustainability Practices (FSP) positively affects GA.*

*Hypothesis 1d: Food Quality (FQ) positively affects GA.*

*Hypothesis 1e: Food Safety (FS) positively affects GA.*

### **Sustainable Practices Impact on Guest Satisfaction**

According to Cakici et al. (2019), customer satisfaction is the measurement and evaluation between the pre-purchase expectations and the post-purchase outputs. Furthermore, GS is defined by Hellier et al. (2003) as converting customers' expectations and desires into enjoyable experiences. A broader definition of GS is an evaluation of the customer's feelings (Cakici et al., 2019).

Restaurants can improve GS levels by applying sustainable practices (Michalisin & Stinchfield, 2010). Green practices influence restaurant patronage preferences (Hu et al., 2010). Restaurants can improve GS and boost their bottom line by implementing green practices. Additionally, it can benefit society and the environment (DiPietro et al., 2013). Restaurants that prioritize sustainability can attract repeat green consumers (Han et al., 2019; Xu and Jeong, 2019). Green perceived value is viewed as a significant component in preserving long-term customer ties, as well as in growing GS and green BI (Juliana et al., 2020).

The impact of sustainability practices on guest satisfaction has also been the subject of numerous studies (Berezan et al., 2013; Hossein et al., 2020, Mai et al., 2023), all of which have concluded that hotel/restaurant sustainability practices have a positive effect on guest satisfaction.

According to Namkung and Jang (2013), the study discovered that sustainable practices in both food and service functions affected restaurant guests' behavioral intentions substantially. In the restaurant industry, "green food" has evolved to represent organic, local, and sustainable cuisine (LaVecchia, 2008). According to Hu et al. (2010), green food practices remain critical when selecting a green restaurant. Furthermore, food-related elements increase customers' willingness to spend extra and frequent green restaurants (Kwok et al., 2016).

In sustainable consumption, quality and perceived value have a substantial effect on GS to make future purchases (Konuk, 2019; Wang et al., 2020), for example, environmental concern increases understanding of environmental consequences, driving behaviors and intentions such as favoring green coffee shops (Kim & Yun, 2019). People who are concerned about climate change are more willing to support meat-reduction programs (De Groeve & Bleys, 2017). Implementing environmentally friendly techniques has the potential to improve customer and environmental health throughout the whole cooking ecosystem (Gossling & Hall, 2013). Sustainable food and menu categorization practices have also been demonstrated to increase GS and consumers' perceptions of sustainable meals (Visschers & Siegrist, 2015). According to the above literature, there is a relationship between restaurant sustainable practices and GS, hence, the research proposes the following hypotheses:

Hypothesis 2: Sustainable practices positively affect guest satisfaction

*Hypothesis 2a: WRC positively affects GS.*

*Hypothesis 2b: EWEE positively affects GS.*

*Hypothesis 2c: FSP positively affects GS.*

*Hypothesis 2d: FQ positively affects GS*

*Hypothesis 2e: FS positively affects GS*

### **Guest Attitude Impact on Guest Satisfaction**

Guests' attitudes have a positive effect on their perceptions of value and their levels of satisfaction and loyalty (Moral-Cuadra et al., 2019). Sukhu et al., (2019) demonstrated that attitudes influence people's level of satisfaction and that attitude is a more accurate predictor of guest satisfaction. Green products may improve an organization's environmental image, attract new consumers, and increase GS (Manaktola & Jauhari, 2007). According to Jeong et al. (2014), customers' impressions toward building a good green image and sustainability practices will influence their satisfaction.

Similarly, eco-friendly restaurant practices are important for guest satisfaction and behavioral responses to eco-friendly products (Line et al., 2016). Han et al. (2010) revealed that consumer attitudes towards green hotels are often connected with eco-friendly goals and that eco-friendly practices had a stronger influence on intentions to visit and recommend via word-of-mouth. According to Manaktola & Jauhari (2007) and Kang et al. (2012), green efforts are connected to customers' willingness to pay more for ecologically friendly services. According to Hu et al. (2010), Taiwanese customers'

understanding of sustainable restaurant practices and environmental concerns impact their choice for green restaurants substantially. There is a relationship between guest attitude and GS, hence, the research proposes the following hypothesis:

Hypothesis 3: GA positively affects GS.

### **Guest Attitude Impact on Behavioral Intention**

Theory of Planned Behavior (TPB) originally developed by Ajzen (1991), and utilized in the hospitality researches (e.g., Brown et al., 2010; Han et al., 2010; Han & Kim, 2010), and food consumption (Ajzen, 2015; Wu et al., 2016), according to the theory findings, three factors determine behavioral intention: attitude towards the behavior, subjective norm, and perceived behavioral control, where the favorable attitude, stronger social pressure, and better behavioral control all lead to increased behavioral intention.

According to the TPB model, the goal of behavior has significant effects on attitude, subjective norm, and perceived control, and people's behaviors are reasonable and under their control, with demographics indirectly impacting intentions through attitudes and subjective standards (Ajzen, 1991). Moreover, TPB considers customer intention to be the major dependent variable and is supposed to indicate a person's willingness to act in a specific way (Ajzen, 1991). Intentions, according to Liobikien et al. (2016), are the best predictors of intended behavior. Furthermore, TPB has been extended in several pro-environmental behavior research by integrating additional cognitive components as environmental behavioral intention predictors (Teng et al., 2018). Wu et al. (2016) discovered that all TPB characteristics influenced Chinese visitors' meal choices in the United States positively. According to prior studies, guests' beliefs, subjective standards, and perceived behavioral control all impact their decision to stay at green hotels (Han et al., 2011; Chen & Tung, 2014). Kim et al. (2013) investigated the influence of customer attitudes and concerns on their decision to choose an eco-friendly restaurant using TPB. However, visible improvements in environmental practices may have behavior consequences for customers (Teixeira et al., 2020). According to Jeong and Jang (2010), sustainable restaurant practices might impact consumers' environmental image and behavioral intention, potentially changing their beliefs.

The green hotel's attitude was favorable and significantly connected with the customers' intention to return (Han & Kim, 2010). Customers' attitudes and behavioral intentions towards restaurants that employ food-green practices are successfully influenced when the advantages of such practices are highlighted (Xu & Jeong, 2019). Customer comprehension of environmental issues is an important predictor of customer's decision to visit green restaurants (Hu et al., 2010). Manaktola & Jauhari (2007) suggest that consumer attitudes and behaviors regarding green practices in the hotel industry are significantly correlated. Based on the previous literature the research proposes the following hypothesis: Hypothesis 4: GA positively affects BI.

### **GS impact on BI**

Green practices influence restaurant patronage preferences (Hu et al., 2010). Restaurants that prioritize sustainability can attract repeat green consumers (Han et al., 2019; Xu & Jeong, 2019). Green perceived value is viewed as a significant component

in preserving long-term customer ties, as well as in growing GS and green BI (Juliana et al., 2020). According to Manaktola & Jauhari (2007) and Kang et al. (2012), green efforts are connected to customers' willingness to pay more for ecologically friendly services.

Han & Kim (2010) demonstrate a causal relationship between behavioral intentions and guest satisfaction. Furthermore, previous studies have demonstrated that green practices may improve customer satisfaction, which may have a favorable effect on positive word-of-mouth and loyalty behaviors (Han & Kim, 2010). Sukhu et al. (2019) stated that there is strong evidence linking guest satisfaction to their word-of-mouth (WOM) behavior in the hotel industry, as satisfied guests are more likely to recommend the business to their friends and family. According to Choi et al. (2022), there is a positive correlation between behavioral intentions, such as revisit intention, positive word-of-mouth intention, willingness to pay more, and customer satisfaction. Mai et al. (2023) stated that GS is positively linked with guest revisit intention. According to the previous literature, there is a relationship between GS and BI, hence, the research proposed the following hypothesis: Hypothesis 5: GS positively affects BI.

### **The Mediating Role of GS between GA and BI**

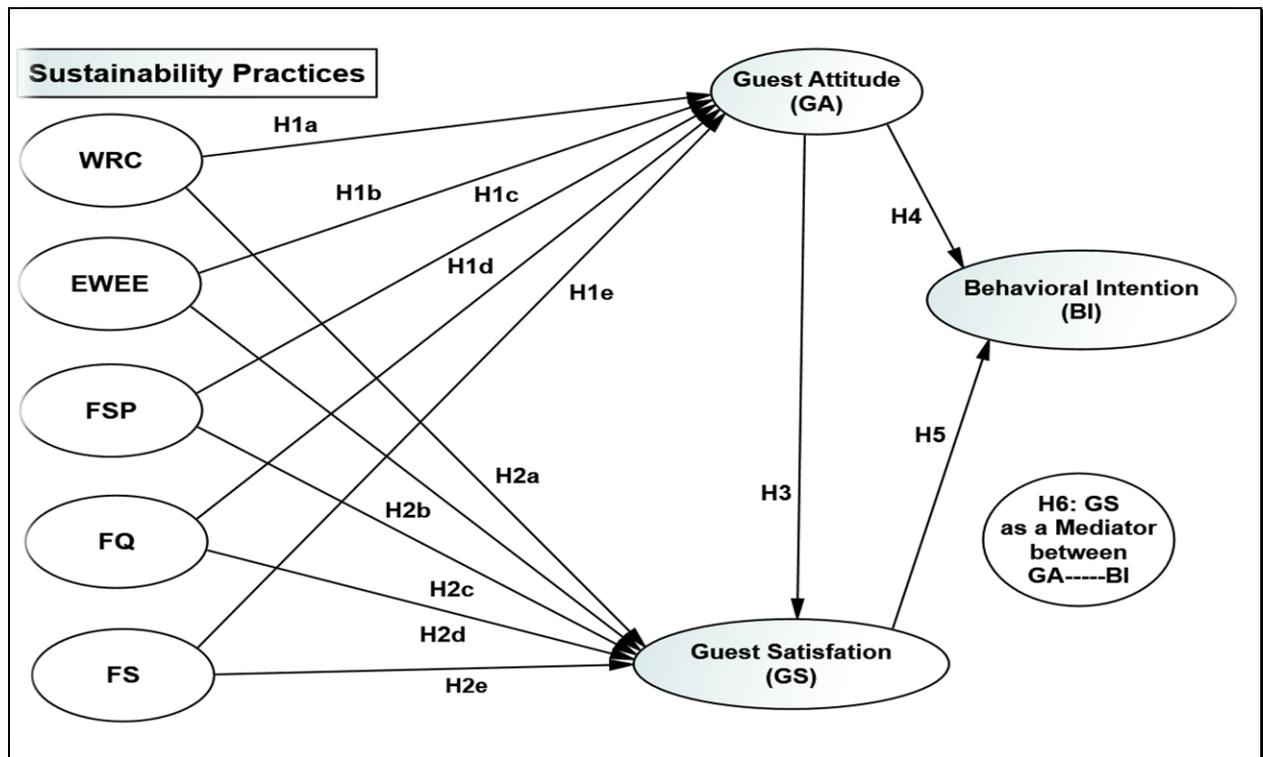
Customers' awareness of environmental concerns significantly influences their intention to choose green restaurants (Hu et al., 2010; Parker, 2011). Sustainable practices in restaurants increase perceived value in the eyes of their consumers, resulting in a greater degree of revisit intention (Yoo et al., 2020; Singh & Alok, 2022). According to Merli et al. (2019), guests' satisfaction and loyalty are significantly impacted by their positive recognition of hotels' environmental commitment. Shahzadi et al. (2018) discovered that restaurants with high quality attributes have positive and significant effects on customers' behavioral intentions as measured by their intention to return to the restaurant, to recommend the restaurant through favorable WOM. In addition, they confirmed that the association between the high-quality attributes and behavioral intentions is partially mediated by GS. Based on the previous literature the research proposes the following hypothesis:

Hypothesis 6: GS mediates the relationship between GA and BI.

### **Theoretical Framework Concerning the Relationships between the Study Variables, Hypotheses, and Model**

This study aims to fill previously identified gaps in the literature by presenting a research model that combines sustainability practices (SP practices) (WRC= Waste Reduction and Recycling; EWEE= Energy- and Water-Efficient Equipment; FSP= Food Sustainability Practices; FQ= Food Quality; FS= Food Safety) with Guest Attitude (GA), Guest Satisfaction (GS), and Behavioral Intentions (BI). This study analyses how SP impacts GA, GS, and BI, and this study model is based on the TPB. Considering the theoretical justification and empirical considerations, the model also implies that GS functions as a mediator between GA and BI. Regarding the suggested model (see Fig. 1), which is based on empirical and theoretical considerations, previous discussion,

and research hypotheses, GS is expected to function as a possible mediator in the interaction between GA, and BI.



*Note: "WRC= Waste Reduction and Recycling; EWEE= Energy- and Water-Efficient Equipment; FSP= Food Sustainability Practices; FQ= Food Quality; FS= Food Safety; GA= Guest Attitude; GS= Guest Satisfaction; BI= Behavioral Intention"*

**Fig. 1: Research Proposed Model**

## Research Methodology

### Research Sample and Data Collection

Data regarding green restaurants was gathered in the Red Sea governorate green hotels. This research involves 53 hotel restaurants that were offered a certificate of Green Star Hotels by the Egyptian Ministry of Tourism. Guests of eco-friendly restaurants in Red Sea governorate green hotels and resorts were invited to participate in this study. The data was collected over two months between July and September: 2023, during the peak period of the summer season. Green hotels were chosen in the Red Sea governorate because it is considered the second largest governorate that contains green hotels after South Sinai Governorate; also because it is considered the governorate with the largest number of guests in Egypt, especially in the summer (Egyptian Ministry of Tourism, 2022).

This study's convenience sample includes 301 customers who visited green restaurants in the previous months. This study updated numerous instruments utilized in previous studies. The instrument content validity was assured by the reviews of experienced academics in hospitality research, the questionnaire includes no flaws and is regarded as valid for the study purpose.

## **Research Instrument**

In addition to the demographic factors that were addressed in the first section, the self-report questionnaire examined guest impressions of sustainable practices, GA, GS, and their BI. First, the researchers conducted a pilot test with six food and beverage managers and five academic lecturers in the restaurants and hospitality field to evaluate the scale items, provide feedback, revise the terminology, and detect and address the potential issues in the study context. Second, after revising the draft questionnaire, we performed a pre-test with 20 guests having lunch in four restaurants to assess the validity of all the scales. The English questionnaire was also evaluated with a sample of guests before data collection to verify that it could be easily understood and comprehended. The research constructs were assessed using multi-item measures that had previously been validated and utilized in previous studies. The scale has been anchored on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree).

**Sustainability Practices:** Sustainability practices include dimensions such as (WRC= Waste Reduction and Recycling; EWEE= Energy- and Water-Efficient Equipment; FSP= Food Sustainability Practices; FQ= Food Quality; FS= Food Safety) twenty-three indicators adopted from Schubert et al. (2010), Wang (2012), Prud'Homme & Raymond (2013), Jeong et al. (2014), Jang et al. (2015), Bai et al. (2018), Kim & Hall (2020), Petrescu et al. (2020), and Mai et al. (2023).

**Guest Satisfaction (GS):** Yuksel et al. (2010), Jang et al. (2015), Yusof et al. (2017), and Mai et al. (2023) developed guest satisfaction.

**Guest Attitude (GA):** The three-item scale of guest attitude was developed by Schubert et al. (2010), DiPietro et al. (2013), and Mai et al. (2023).

**Behavioural Intention (BI):** The seven-item scale for revisit intention has been adopted from Overby & Lee (2006) and Teng et al., (2014).

## **Research Data Analysis**

To investigate the scales, frequencies, and descriptive statistics, the assumptions were examined using the statistical software programs SPSS version 24.0 and AMOS version 22. Furthermore, the measurements were validated using confirmatory factor analysis. The model was estimated in the second step, and causal linkages were studied using maximum likelihood. The extracted average variance (AVE) was utilized to test convergent and discriminant validity. The construct's reliability was examined using composite reliability (CR) and Cronbach's alpha (Hair et al., 2013). The proportion of the mediation test and the Sobel test with boot-strapped standard errors were conducted based on 10,000 resamples.

## **Research Results**

### **The Respondents Profile**

Table 1 illustrates the demographic characteristics of survey respondents. A total of 301 samples were gathered, which is sufficient to determine a large-scale impact (Cohen, 1992). Of the 301 respondents with valid surveys, 55.8% were Egyptians, 7.7% were

of other Arab nationalities (from countries such as Saudi Arabia, Lebanon, Kuwait, Oman, Morocco, Tunisia, and Jordan), furthermore, 36.5% were foreigners (from countries such as Poland, Russia, Ukraine, Czech, Switzerland, Hungary, Belgium, Serbia, UK, Slovakia, Italy, Belarus, Holland, in addition to USA), respondents demographic analysis revealed that 43.2% of the respondents were female. Additionally, 58.1% were married and 34.9 were singles. The target population of this research was over 18 years old, and the largest percentage of the respondents (39.5%) were in their 30s, followed by those in their 20s (35.2%), furthermore, 12.3% were in their 40s, 8.3% were in their 50s, and the remaining 4.7% were less than 20 years of age or over 60, with the vast majority (57.1%) have bachelor's degree (see Table 1).

**Table 1:** The Sample Demographic characteristics (n=301)

Demographic characteristics		Number	Percentage
<b>Nationality</b>	Egyptian	168	55.8
	Arab	23	7.7
	Foreigners	110	36.5
<b>Gender</b>	Male	171	56.8
	Female	130	43.2
<b>Marital status</b>	Single	105	34.9
	Married	175	58.1
	Divorced	12	4.00
	Widowed	9	3.00
<b>Age Group</b>	<20	8	2.7
	20s	106	35.2
	30s	119	39.5
	40s	37	12.3
	50s	25	8.3
	>60	6	2.00
<b>Education level</b>	Below high-school	13	4.3
	High-school degree	25	8.3
	Institute	33	11.0
	Bachelor's degree	172	57.1
	Post-university	58	19.3
<b>Dining out frequently per month (dining frequency)</b>	1–2	57	18.9
	3–6	122	40.5
	7–10	61	20.3
	>10	61	20.3

### **Research Reliability and Validity Analyses**

Although the scales' reliability had already been confirmed, it appeared essential to repeat the testing given the unexpected luxury restaurant context. The reliability estimates were reasonable and comparable with previous findings (see Tables 2 and 3).

**Table 2. The Research Instrument**

Const.	Item Description	Mean	Sd.	SFL
<b>Sustainability Practices</b>				
<b>WRC Waste Reduction and Recycling</b>				
WRC1	Provide recycling bins in store (Offer recycling bins for plastic cups, paper cups, and cup sleeves in the restaurant).	3.99	0.05	0.832
WRC2	Purchase products made from recycled or rapidly renewable materials.	3.83	0.06	0.897
WRC3	Use of biodegradable take-out containers (paper) or recyclable instead of using Styrofoam.	3.47	0.07	0.622
WRC4	This restaurant uses durable items rather than disposable products	3.74	0.06	0.448
<b>EWEE Energy- and Water-Efficient Equipment</b>				
EW1	Use flow restrictors on faucets, low-flow toilets, and water-less urinals	3.90	0.05	0.675
EW2:	Replace incandescent light bulbs with longer-lasting CFL light bulbs or LED	4.04	0.05	0.838
EW3:	Replace existing lights with LEDs (Use of energy-efficient lighting in seating areas).	4.04	0.05	0.888
EW4	Use motion detectors for lights in the restrooms.	3.92	0.05	0.708
EW5:	Use of a system that monitors and controls comfortable temperatures efficiently with the HVAC (Heating, Ventilating, and Air Conditioning) system	3.92	0.05	0.607
<b>FSP Food Sustainability Practices</b>				
FS1	This restaurant mainly serves vegetable dishes	3.85	0.06	0.781
FS2	This restaurant has menu labeling (e.g., calorie and/or nutrition	3.75	0.06	0.801
FS3	This restaurant primarily uses organic food	3.71	0.06	0.841
FS4	This restaurant uses meat substitutes	3.22	0.07	0.589
FS5	This restaurant uses certified sustainable seafood/fish	3.85	0.06	0.789
FS6	This restaurant primarily uses local foods	3.70	0.06	0.706
<b>FQ Food Quality</b>				
FQ1	Food Quality certification labeling was done by the restaurant Food quality.	3.94	0.06	0.839
FQ2	Ingredients used in food were healthy and fresh.	4.11	0.06	0.954
FQ3	Food has good taste.	4.12	0.06	0.929
FQ4	Food has nutritious values.	4.15	0.06	0.896
<b>FS Food Safety</b>				
FS1	Hygiene standards were followed by the restaurant for food preparation	4.13	0.06	0.935
FS2	Clothes of work staff members appear clean	4.17	0.05	0.921
FS3	Restaurant posts the health certificate of work staff	4.01	0.06	0.918
FS4	The restaurant displays official notice for food safety grades	4.00	0.06	0.912
<b>GA Guest Attitude</b>				
GA1	If the products seriously damage the environment, I will refuse to purchase them.	4.02	0.04	0.811
GA2	When choosing restaurants to dine in, I always select the ones that perform green	3.83	0.05	0.727
GA3	Dining at green restaurants will help to protect the environment.	4.04	0.04	0.818
<b>GS Guest Satisfaction</b>				
GS1	I am happy about the decision to choose this green restaurant because of its	4.00	0.04	0.742
GS2	I am happy about the decision to choose this green restaurant because of its	3.93	0.05	0.724
GS3	I am happy about the decision to choose this green restaurant because of its energy	4.03	0.04	0.777
GS4	I believe this is the right thing to purchase products in this green restaurant because of its eco-friendly facilities	4.06	0.04	0.823
GS5	I believe this is the right thing to purchase products in this green restaurant because of its local/organic ingredients	4.05	0.04	0.746

**Table 2: Continued**

GS6	I believe this is a right thing to purchase products in this green restaurant because of its recycling management	3.99	0.04	0.835
GS7	I believe this is a right thing to purchase products in this green restaurant because of its energy and water efficiency	4.08	0.04	0.891
GS8	Overall, I am glad to dine in this green restaurant because of its environmental	4.07	0.04	0.895
GS9	Overall, I am satisfied with this green restaurant because of its environmental	4.10	0.04	0.868
<b>BI Behavioral Intentions</b>				
BI1	I am willing to patronize a green restaurant when dining out.	3.94	0.04	0.808
BI2	I plan to eat at a green restaurant when dining out.	3.96	0.04	0.896
BI3	I make an effort to dine at a green restaurant when dining out.	3.90	0.04	0.837
BI4	I express my intentions to patronize a green restaurant when dining out.	3.92	0.04	0.868
BI5	I select a green restaurant with my friends when dining out.	3.87	0.05	0.837
BI6	I intend to continue to dine at green restaurants in the future.	3.95	0.04	0.854
BI7	In the future, green restaurants will be one of the first choices when I dine out.	3.97	0.05	0.872

<sup>a</sup>SD, standard deviation; SFL, standardized factor loading.

Table 2 indicates that the mean value of the items for each variable ranged between 3.22 and 4.17. Each item's skewness and kurtosis coefficients were acceptable. According to Churchill (1979), the higher the Cronbach's alpha coefficient value the stronger the scale's internal consistency. Models fit the data, and all fit indices are acceptable, according to the CFA assessment for the constructs. These loadings demonstrated that the objects were correctly loaded on their constructs. According to Hair et al. (2010), factor loading of 0.40 is optimal for a sample size of 200, 0.35 for a sample size of 250, and 0.30 for a sample size of 350. To guarantee a high significant factor level, it was concluded that 0.40 is adequate for the current study's sample size (N = 301). Moreover, the findings revealed that each variable's factor loading was above 0.4, and the outcomes demonstrated that every item had a strong loading on its corresponding factor. All crucial ratio values were greater than the minimum recommended value of 1.96, and all values were statistically significant at the 0.001 levels. Furthermore, the items' standard errors varied from 0.04 to 0.07, and all item loadings were more than twice their standard errors (see Table 2).

Table 3 illustrates the reliability of all variables and their dimensions, indicating a high level of internal consistency. Based on composite reliability, Cronbach's alpha, and AVE, all constructs demonstrated satisfactory internal consistency. The values of AVE varied from 0.521 to 0.849, indicating good convergent validity. The CFA findings corroborate the unidimensionality and convergent validity, which were satisfactory according to the normal threshold criteria of (0.7) for Cronbach's alpha, (0.7) for composite reliability, and (0.5) for AVE (Hair et al., 2013).

The factors' composite reliability varied from 0.804 to 0.957, which above the 0.70 criterion, indicating adequate internal reliability (Hair et al., 2013). Given the nature of cross-sectional data, Harman's single-factor test must be applied to examine common method variance, the results showed that common method bias was not a concern in this study, since the single-factor test only accounted for 37.64 percent of total variance which is less than 50% (Podsakoff et al., 2003). Additionally, all constructs' AVEs were higher than the suggested level of 0.50 (Hair et al., 2013), indicating strong discriminant

validity. All the factor loadings were significant, demonstrating convergent validity (see Table 3).

**Table 3.** Internal Consistency Estimates Result of Constructs

Const.	Sub-Construct	Final no. of Items	CR	AVE	Cronbach's Alpha
<b>Sustainable Practices (SP)</b>	<i>WRC</i>	4	0.804	0.521	0.794
	<i>EWEE</i>	5	0.836	0.563	0.859
	<i>FSP</i>	6	0.889	0.571	0.881
	<i>FQ</i>	4	0.948	0.820	0.947
	<i>FS</i>	4	0.957	0.849	0.957
	<i>Total</i>	24			
<b>Guest Attitude (GA )</b>		3	0.824	0.618	0.821
<b>Guest Satisfaction (GS)</b>		9	0.946	0.609	0.945
<b>Behavioral Intentions (BI )</b>		7	0.949	0.729	0.949

<sup>a</sup> CR, composite reliability; AVE, average variance extracted.

Note: " WRC= Waste Reduction and Recycling; EWEE= Energy- and Water-Efficient Equipment; FSP= Food Sustainability Practices; FQ= Food Quality; FS= Food Safety; GA= Guest Attitude; GS= Guest Satisfaction; BI= Behavioral Intention"

This study calculated the tolerance values and found that they were more than the critical value of 0.1 (Hair et al., 2013), indicating no significant collinearity. The absence of a serious multi-collinearity issue was indicated by the fact that all Variance Inflation Factor (VIF) values were below the critical value of 10, and actually less than three as well (Kleinbaum et al., 2013). The developed construct validity of the research constructs, as well as the correlation coefficient estimations, indicate the minimal possibility of a Common Method Variance (CMV) problem (Conway & Lance, 2010). The reliability analysis shows that each item has strong internal consistency.

Table 4 compares root square of AVE, averages, standard deviations for all components. To determine if divergent validity exists, root square of construct's AVE and the correlation values between constructs were calculated. According to Hair et al., (2010), the square root of the AVE for each construct should be larger than the correlation estimate between that construct and all other constructs. As demonstrated in Table 4, square roots of the extracted average variance (AVE) (diagonal components) are larger than the construct correlations (off-diagonal factors), indicating high convergent validity. Guest opinions of sustainability practises are positive, with high mean scores above 3.00 leading to higher GA (M=3.96), GS (M=4.03), and BI (M=3.93).

As shown in Table 4, all of the factors in the research demonstrated significant positive relationships ( $p < 0.01$ ). Strong correlations were found between GA and GS ( $r = .642$ ,  $p < 0.01$ ), GA and BI ( $r = .733$ ,  $p < 0.01$ ), and GS and BI ( $r = .665$ ,  $p < 0.01$ ); these findings provide early evidence in favour of the hypotheses; however, a poor correlation was found between WRC and GA ( $r = .290$ ,  $p < 0.01$ ) (see Table 4).

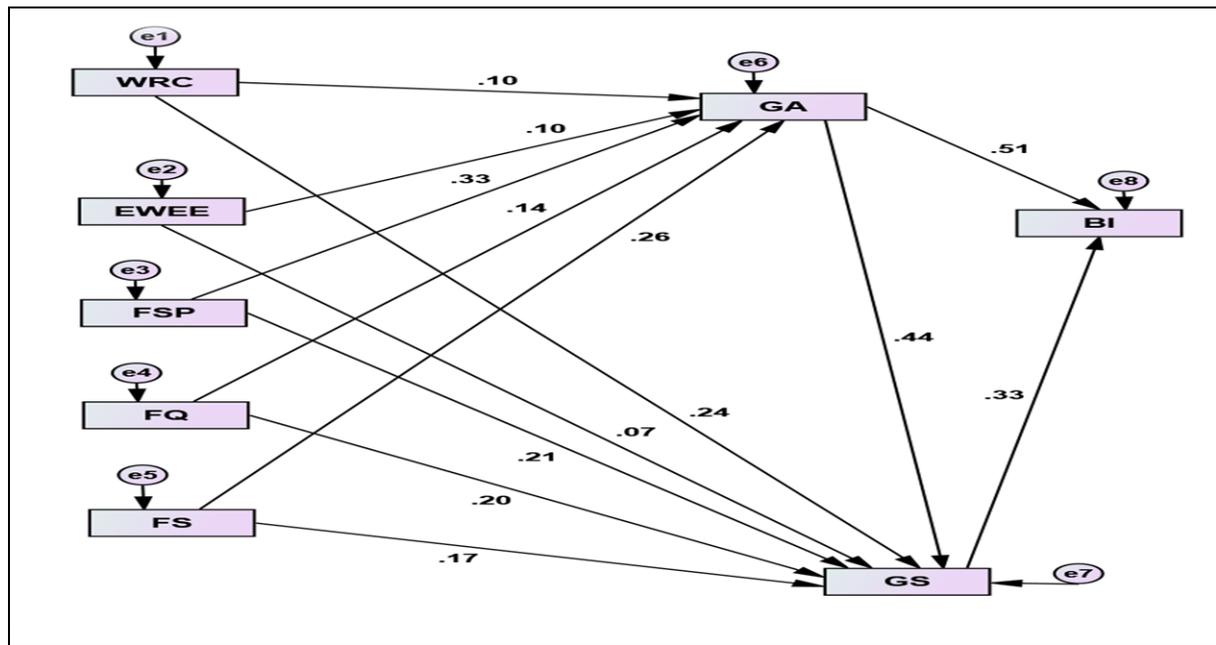
**Table 4.** Means, standard deviations, inter-construct correlations and the square root of AVE.

	<i>Mean</i>	<i>SD</i>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
<b>1.WRC</b>	3.76	0.81	<b>0.722</b>							
<b>2.EWEE</b>	3.96	0.69	.522**	<b>0.750</b>						
<b>3.FSP</b>	3.68	0.82	.406**	.590**	<b>0.756</b>					
<b>4.FQ</b>	4.08	0.90	.201**	.560**	.739**	<b>0.906</b>				
<b>5.FS</b>	4.08	0.93	.154**	.453**	.703**	.864**	<b>0.921</b>			
<b>6.GA</b>	3.96	0.67	.290**	.379**	.496**	.397**	.423**	<b>0.786</b>		
<b>7.GS</b>	4.03	0.60	.471**	.452**	.539**	.368**	.403**	.642**	<b>0.814</b>	
<b>8.BI</b>	3.93	0.67	.300**	.351**	.491**	.359**	.365**	.733**	.665**	<b>0.854</b>

\*\* Correlation is statistically significant with  $p < 0.01$ . Diagonal entries (in bold) are the square root of AVE; sub-diagonal entries are the latent construct inter-correlations.

### **The Structural Model**

Figure 2 represents the structural model as well as the hypothesized links between the components. After removing the insignificant path coefficient between EWEE and GS (H2b), fit indices revealed that the structural model has a satisfactory fit with the data, meeting the corresponding benchmarks (Hair et al., 2013), therefore validating the fundamental model of the study (see Fig. 2). Changes were made to the "Proposed Model" based on an investigation of standardized residual between the variables of the proposed model and associated constructs. The "Modified Model" was created to eliminate weak correlations between (EWEE) and GS (see Fig. 2). According to Kline (2005) recommendations, a revised alternative model was presented in which the researchers examined the fit of a model formed by removing the insignificant path from the first model, the path between EWEE and GS, and as a result of this omission, all of the model's fitness indicators improved. The structural analysis of the Alternative Model "Modified Model" demonstrated that the Alternative Revised Model, like the hypothesized structural model, offered a good fit to the data. As a consequence, it was determined that the Alternative Revised Model is preferable than the "Proposed Model" as well. According to the chi-square difference test, this alternative model fit data significantly better than the proposed structural model, indicating that removing path from EWEE to GS fits the data well (CMIN/DF=3.686, CFI=0.989, GFI=0.958, TLI=0.934, and RMSEA=0.044).



**Fig. 2.** GS partially mediates the relationship between sustainability practices and customers behavioral intentions.

### Testing the research hypotheses

The path coefficients between the dimensions of sustainability practices, GA, GS, and BI are shown in Table 5. Before starting the mediation, calculated coefficients are significant ( $p < 0.001$ ) except the path coefficient between EWEE and GS (H2b). Each of the suggested relationships is supported by the structural model. Table 5 provides results of evaluating hypothesized direct relationships. First, we discover that the overall impact of sustainable practices on GA was positive and significant (ranging from 0.101 to 0.328,  $p < 0.001$ ). This gave support to H1a, H1b, H1c, H1d, and H1e, which reveals that sustainability practices would have a positive impact on GA. This result match with the finding of previous researches such as, Jeong et al., 2014; Line et al., 2016; and Kim & Hall, 2020. Except for the small path coefficient between EWEE and GS (H2b), the results support H2a, H2c, H2d, and H2e where the dimensions of sustainable practices have a favorable and substantial influence on GS. This result agreed with the finding of previous researches such as, Berezan et al., 2013; Hossein et al., 2020; and Mai et al., 2023. The findings show that GA has substantial effect on GS ( $B=0.443$ ,  $p < 0.001$ ), this result match with the finding of previous researches such as, Moral-Cuadra et al., 2019 and Sukhu et al., 2019. However, the findings show that GA has substantial effect on BI ( $B=0.512$ ,  $p < 0.001$ ), this result agreed with the previous researches such as, Manaktola & Jauhari, 2007; Han & Kim, 2010; Ajzen, 2015; Wu et al., 2016; and Xu & Jeong 2019 . Furthermore, GS has a favorable and significant effect on BI ( $B=0.332$ ,  $p < 0.001$ ), this result match with the finding of previous researches such as, Juliana et al., 2020; Choi et al., 2022; and Mai et al., 2023. Providing support for hypotheses H3, H4, and H5. Table 5 summarizes the data, which show that all hypotheses were supported except for hypothesis 2b.

**Table 5.** Hypotheses Test Results for the Proposed Structural Model

Hypothesis	Hypothesized Relationship	Standardized Coefficient	Standard Error	t-value	Result
H1a	WRC ----- GA	0.101	0.040	4.103***	Supported
H1b	EWEE ----- GA	0.105	0.048	4.112***	Supported
H1c	FSP ----- GA	0.328	0.040	6.427***	Supported
H1d	FQ ----- GA	0.136	0.036	2.662***	Supported
H1e	FS ----- GA	0.264	0.035	5.169***	Supported
H2a	WRC ----- GS	0.237	0.029	5.888***	Supported
H2b	EWEE ----- GS	0.073	0.034	0.008	Not Supported
H2c	FSP ----- GS	0.206	0.031	4.842***	Supported
H2d	FQ ----- GS	0.198	0.027	4.898***	Supported
H2e	FS ----- GS	0.172	0.027	4.118***	Supported
H3	GA ----- GS	0.443	0.042	9.818***	Supported
H4	GA ----- BI	0.512	0.048	7.010***	Supported
H5	GS ----- BI	0.332	0.052	10.818***	Supported

\*\*\* $p < 0.001$

**Proportion of mediation of GS on Sustainability Practices, GA and BI Relationship**

The results of the study indicate a partial mediation, and the researchers performed Sobel test to examine the significance of the indirect effects (Sobel, 1982), and proportion of mediation test (Iacobucci et al., 2007), which confirmed the mediating effect of GS. Sobel's (1982) test result demonstrated that the indirect impact on the relationship between GA and BI is significant ( $Z = 5.462, p < 0.001$ ). Given that GS partially mediates the link between GA and BI, hence, H6 is supported. The coefficient associated with indirect path of GS from GA to BI was substantially different from zero, as indicated in Table 6, and the ratio of indirect to total impact equals 0.223. This means that indirect approach via GS accounted for 22% of the BI variation is explained by both GS and GA, whereas the direct path accounted for the remaining BI variance is explained by both GA and GS. This proves that GS has a mediating impact on the relationship between GA and BI, this result agreed with the finding of previous researches such as, Shahzadi et al., 2018; Merli et al., 2019; and Yoo et al., 2020. This result is supporting Hypothesis 6 (see Table 6).

**Table 6.** Results of testing proportion of mediation of GA/GS on SP-BI link

H.	1 Indirect Effect	2 GA → GS (a)	3 GS → BI (b)	4 GA → BI (c')	5 Ratio of Indirect-to- Total Effect <sup>a</sup>
H6	GA ----- GS ----- BI	0.443***	0.332***	0.512***	0.223

\*\*\* $p < 0.001$ , <sup>a</sup>Ratio of direct-to-total effects= 1-column 5

## **Research Discussion, Contributions, and Limitations**

### **Research Discussion and Conclusion**

The study revealed that sustainability practices had favorable and important relationships with both GA and GS. The findings shows that sustainability practices, GA, GS are predictors of behavioral intention, where the dimensions of sustainable practices have a favorable and significant impact on GA, and GS, except the path coefficient between EWEE and GS (H2b) which was not significant. Similarly, results proved statistically significant positive relationship between GS and BI ( $r=0.665$ ,  $p<0.01$ ;  $B=0.322$ ,  $p<0.001$ ). These findings show that sustainable practices achieved the GS level needed for guests to enhance their BI.

These data indicate that when guests are satisfied from dining at a green restaurant, they are more likely to stay loyal and revisit the intention. The study investigated the role of GS as a balancing act between GA and BI (Sobel test = 5.462,  $p<0.001$ ). The high mean scores of sustainability practices supports the effect of this dimension in fostering GA, GS, and BI. Sufficient data is demonstrating the relationship between environmental views and green action (Kim, 2002; Majlath, 2008) to warrant analyzing both general and specialized attitudes toward sustainability. The findings back up Jeong & Jang's (2010) study, which showed that Starbucks' green practices had a significant influence on how customers perceived the company's environmental reputation. Guests are willing to pay if they have positive views toward green behaviors and a positive perception of the green hotels (Han et al., 2009).

Similar to this study findings, Tan & Yeap (2012) asserted that those who have a pro-green mentality are more likely to frequent green restaurants. Moreover, customer perceived values tend to be significant determinants in their attitude, satisfaction, and behavioral intentions in relation to many aspects of sustainability in restaurants (Kallbekken & Salen, 2013; Visschers & Siegrist, 2015; Teng & Wu, 2019).

The findings support the impact of TPB theory on green restaurant behavioral intentions. The study supports the hypothesis that green restaurant food safety precautions enhance GA and GS, indicating significant correlation between sustainability practices and customer satisfaction. Previous studies (Cha & Borchgrevink, 2019; Wei, 2021) indicated that consumers' perception of food safety had a substantial influence on customer satisfaction.

This study found that sustainability practices had considerable favorable influence on BI, which supports previous studies (Lin & Niu, 2018; Xu & Jeong, 2019; Hojnik et al., 2020). Customers that care about the environment seek green services and they put pressure on restaurants to embrace sustainability practices (Nicolau et al., 2020).

Customers favor green firms and pay more for ecologically friendly services (Dutta et al., 2008; Hu et al., 2010; Han et al., 2010). Green values and sustainable practices are the best predictors of BI, according to the theoretical approach based on TPB (Sreen et al., 2018; Hojnik et al., 2020).

The structural equation model presents an integrated model that incorporates the TPB to provide greater insights into how to improve restaurant sustainability practices. According to the findings, the TPB concept "Subjective Norm" impacts customers' inclinations to engage in ecological practices. This concept assessed how customers were motivated to go green by others. The concept of perceived behavioral control has an impact on behavioral intentions. It has also been proposed that the TPB component

"Attitude" influences visitors' aspirations to undertake sustainable practices (Lee et al., 2013). On the other hand, the findings of this study agree with those of Kim et al. (2013) which revealed that subjective norms influenced customers' intentions to choose green restaurants. According to the study findings, consumers' environmental concerns influenced their behavioral intentions to revisit and recommend green restaurants to others (Hu et al., 2010).

In line with the study findings, sustainable practices can increase revisit intentions (Han et al., 2019; Assaker, 2020). Previous research has shown that perceived green quality predicts restaurant customers' inclinations to return (Konuk, 2019; Assaker et al., 2020). Many other sustainability practices such as green image and eco-serve improve guests' behavioral intentions (Bedard & Tolmie, 2018). Customers with high GA are satisfied when they receive ecologically conscious service in a restaurant, and the current study confirms previous findings (Kim & Han, 2010; Kannan, 2017), where food quality of green restaurants has a significant effect on customer satisfaction. Customers evaluate sustainable practices in restaurants positively and appear to be crucial component in customers' tendency to visit green restaurants (Hu et al., 2010). Gupta et al. (2019) revealed a positive relationship between customers' positive impressions of eco-friendly restaurant services and confidence in green programs. Furthermore, according to Visschers & Siegrist (2015), sustainable menus have positive influence on customers.

### **Research Theoretical Contributions**

This study provides crucial insights on customers' pro-environmental behavior in the foodservice industry. Our research contributes to the field of literature on restaurant revisit intention by eliciting psychological commitment from customers via the lens of green perceived value (Nicolau et al., 2020). The research area of guests' perceptions of green marketing and sustainable consumption remains unresolved, knowing that guests make their decision for visiting the eco-friendly restaurants (Nicolau et al., 2020; Al-Swidi & Saleh, 2021). This study contributes to research in the context of sustainable restaurants, policies that are clear and specific may help increase the perceived green quality of services provided, bridging the gap between restaurant visitors' needs and sustainable practices.

Customer behavior may be described using the theory of planned behavior (TPB) in terms of sustainable restaurant practices that are related to green attitude and behavior. The current study addresses a gap in the literature by proposing an integrated model that employs the theory of planned behavior (TPB) in explaining attitudinal and behavioral choice variables relevant to green practices. We have a better knowledge of the visitors' behavioral results after merging these ideas. The model demonstrates that GS has a mediating function in improving green perceived quality, which enhances GA and, as a result, the intention to return.

Furthermore, considerable impact of green restaurant practices on guests' behavior and loyalty broadens the understanding of guests support for sustainability practices in restaurants as well as their attitudes towards these green restaurants (Line et al., 2016). Furthermore, our findings elaborate on the relationships between sustainability concern and the purpose to visit green restaurants for their sustainable menus and organic and nutritious meals (Shin et al., 2019). This study contributes to improving forecasts of

green behavioral outcomes and contributes to the database of hotel industry knowledge about sustainable practices in hotel restaurants.

### **Research Practical Implications**

In terms of managerial contribution, the scale we developed enables owners and management of green hotels and green restaurants to monitor the quality, attitudes, and behavioral intentions of their customers. According to the findings, green restaurants' environmental legitimacy can assist to satisfy customers' expectations and enhance their likelihood of returning since customers see such businesses as ecofriendly, valuable, and trustworthy.

Recognizing GA and GS as determinants of guest revisit intention and loyalty provides marketers interested in sustainable practices a complete understanding of the entire hospitality experience. Restaurants may promote loyalty and future involvement in sustainable dining habits by providing sustainable cuisine, green products, and green services. This might be done by creating restaurant operations that provide guests special dining experiences. Eco-friendly food options from restaurants, for example, may be appealing to environmentally conscious customers (Stockli et al., 2018).

The study provides practical advice for stakeholders, including restaurateurs, lawmakers, and staff, on improving pro-environmental behavior in restaurants, suggesting that green restaurants should raise awareness about their sustainable practices. Additionally, restaurants may publish the food safety inspection findings to their guests to support their revisit decisions (Kaskela et al., 2021).

Restaurants should promote eco-friendly features on their websites, advertisements, and marketing materials. Highlighting locally grown or organic foods on menus, installing motion sensors, and using biodegradable containers can demonstrate environmental concern. As customers become more health-conscious, management should explore effective green marketing methods. In order to accomplish acceptable hygiene standards in restaurants, managers should additionally provide food handlers with food safety training. As a result, restaurant managers should focus on a range of elements, such as flavor, temperature, visual presentation, nutrition, portion size, and flavor, among others, to improve and maintain food quality in restaurants.

Managers should train their employees to prevent food waste through a better inventory management, correct storage capabilities, reducing portions sizes, reducing water and energy use, and so on. Furthermore, managers might hang posters in the restaurants to notify customers about the restaurants' sustainable practices. Owners/managers should promote environmental awareness by utilizing eco-certification systems, such accreditation can increase customer trust and awareness of a restaurant's environmental initiatives and can be used to gain a competitive advantage through enhancing GA, GS, as a crucial mechanism in developing BI.

### **Research Limitations and Future Research**

Because the findings are based on information provided by green hotel restaurants guests in the Red Sea governorate, they cannot be generalized. As a result, future studies may rely on data from bigger sectors of hospitality other than Egypt in the future. Another drawback of using self-reported questionnaires is that respondents are more likely to give socially acceptable answers. Future research may employ a multilevel

response technique to assess managers' perspectives, as well as a longitudinal study to evaluate the causal links between the variables under consideration. Future research could expand on our model by investigating how sustainability practices affect other eco-friendly behaviors such as engaging in green human resources practices and utilizing employees' voices. Future research might look at the relative importance of other sustainability practices, such as green leadership, and may look into the function of other mediating variables as a crucial mechanism for developing BI in the green restaurant context.

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## الملخص العربي

تأثير الممارسات المستدامة لمطاعم الفنادق على مواقف العملاء ونواياهم السلوكية:

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تهدف هذه الدراسة إلى اكتشاف الممارسات المستدامة وأثرها على رضا العملاء والنوايا السلوكية في مطاعم الفنادق الخضراء بمحافظة البحر الأحمر. ومن أجل دراسة وقياس تأثير الممارسات المستدامة على اتجاهات العملاء ونواياهم السلوكية، يقترح هذا البحث ويختبر نموذج معادلة هيكلية يقيس العلاقات السببية بين هذه المتغيرات. تم استخدام استبيان لجمع المعلومات اللازمة من عينة مكونة من 301 من نزلاء الفنادق الخضراء الذين جربوا مؤخرًا خدمات مطاعم الفنادق الخضراء في محافظة البحر الأحمر وعددهم 53 فندق وذلك من خلال أسلوب العينة المريحة. توضح هذه الدراسة في نتائجها كيف يمكن للممارسات المستدامة الفعالة أن تؤثر إيجابياً على مستوى الرضا والنوايا السلوكية للعملاء لأن توقعات الضيوف مهمة لمؤسسات الضيافة ويجب تلبيتها للحصول على رضاهم وولائهم نحو خدمات مطاعم الفنادق الخضراء. وبشكل عام، توفر هذه الدراسة رؤى مهمة للشركات العاملة في مؤسسات الضيافة وخدمة الطعام، لأنها تقترح استراتيجيات مهمة لمديري المطاعم لتحسين رضا عملائهم ونواياهم السلوكية من خلال تعزيز الممارسات المستدامة للمطاعم.

**الكلمات المفتاحية:** الممارسات المستدامة للمطاعم، اتجاهات العملاء، رضا العملاء، النوايا السلوكية للعملاء، محافظة البحر الأحمر، مطاعم الفنادق الخضراء.