



Article

The Nexus between Environmentally Sustainable Practices, Green Satisfaction, and Customer Citizenship Behavior in Eco-Friendly Hotels: Social Exchange Theory Perspective

Ahmed Hassan Abdou ^{1,2,*}, Thowayeb H. Hassan ^{1,3}, Amany E. Salem ^{1,3}, Azzam Ibrahem Albakhit ¹, Muhanna Yousef Almakhayitah ¹ and Wagih Salama ^{1,4}

- Social Studies Department, College of Arts, King Faisal University, Al-Ahsa 31982, Saudi Arabia
- ² Hotel Studies Department, Faculty of Tourism and Hotels, Mansoura University, Mansoura 35516, Egypt
- Tourism Studies Department, Faculty of Tourism and Hotel Management, Helwan University, Helwan P.O. Box 12612, Egypt
- Department of Hotel Studies, High Institute of Tourism and Hotels, Ismailia 41511, Egypt
- * Correspondence: aabdou@kfu.edu.sa

Abstract: Recently, with increasing customer awareness about environmental issues, guests staying in hotels and potential consumers are more and more concerned about environmentally sustainable practices and their associated consequences. From the hotel industry perspective, empirical studies conducted on the association between customer citizenship behavior (CCB) and environmentally sustainable practices (ESPs) with the existence of green satisfaction (GS) are scarce. Consequently, the primary aim of the current study is to investigate the impact of ESPs on GS and CCB in a sample of five-star eco-friendly hotels in Egypt, as well as exploring the potential mediative role of GS in the relationship between CCB and ESPs. Additionally, we attempt to empirically determine to what extent GS directly impacts CCB. The study suggests a conceptual model for testing four hypothesized relationships between ESPs, GS, and CCB. Structural equation modeling (SEM) with bootstrapping was employed for testing our hypotheses. The findings of the study confirmed the significant positive impacts of ESPs on GS and CCB. Further, GS significantly and positively affects CCB. Moreover, GS partially mediates the relationship between CCB and ESPs. Given the study findings, some practical implications for improving GS and boosting CCBs in the green/eco-friendly hotel industry context are suggested.

Keywords: green satisfaction; eco-friendly practices; green citizenship behavior; green hotel; value co-creation behavior; green customer



check for

Citation: Abdou, A.H.; Hassan, T.H.; Salem, A.E.; Albakhit, A.I.; Almakhayitah, M.Y.; Salama, W. The Nexus between Environmentally Sustainable Practices, Green Satisfaction, and Customer Citizenship Behavior in Eco-Friendly Hotels: Social Exchange Theory Perspective. Sustainability 2022, 14, 12791. https://doi.org/10.3390/su141912791

Academic Editors: Thorsten Merkle and Kayhan Tajeddini

Received: 19 September 2022 Accepted: 3 October 2022 Published: 7 October 2022

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

1. Introduction

Climate change is considered to be one of the most serious changes we have faced in recent years [1]. In order to combat climate change and ecological degradation, industries, primarily the hospitality industry, are increasingly striving to be environmentally sustainable [2]. Today, governments and the public have become increasingly concerned about environmental sustainability [3]. The cause of this concern is that the consumption of natural resources has been negatively affected by economic and demographic growth. The hospitality industry has traditionally been considered to have a smaller environmental footprint than industries such as oil and gas, or other consumer product engineering/manufacturing industries [4]. Nonetheless, the hotel industry, specifically—being the most important business—generates far greater adverse ecological impacts in the hospitality sector [5]. As a result of their activities, hotels consume huge quantities of energy, water, and nondurable goods, as well as emit large amounts of greenhouse gases [6–8]. Implementing environmentally sustainable practices (ESPs) in the hospitality industry, as

Sustainability **2022**, 14, 12791 2 of 20

an emerging business strategy, has been attracting the attention of scholars and practitioners alike. It has been identified that ESPs serve as essential measures that hotels need to meet their environmental management goals [9]. Hotels are under pressure from their customers regarding the adoption of environmentally sustainable practices that satisfy their environmental expectations and needs [10]. Customers are increasingly looking to stay in eco-friendly hotels with minimal environmental impacts [11]. This environmental dimension is increasingly considered by the hospitality industry in its pursuit of offering positive and satisfactory experiences to its customers [9]. Increasing consumer awareness of the environment and concern about environmental sustainability have led to the increased popularity of eco-friendly products, such as eco-friendly hotels (also called green hotels) [12,13]. According to the Green Hotel Association [14], green or eco-friendly hotels are ecologically aware properties whose managers/executives are eager to adopt programs/initiatives that preserve energy, save water, and reduce solid waste—while, at the same time, saving money—to help safeguard both the earth and the environment.

Customer citizenship behavior (CCB) and customer satisfaction are considered to be two of the most critical aspects of customer attitude and behavior that have been extensively examined by marketers and consumer researchers [15,16]. It is vitally important for tourism and hospitality service providers to comprehend customer satisfaction to remain competitive [17,18]. Customer satisfaction directly impacts customer loyalty and retention, post-purchase behavioral intentions, positive recommendations, citizenship behavior, and consumption rates [17,19,20]. In the green-marketing context, the concept of green satisfaction (GS) has received limited attention [21,22]. Chang and Fong ([21], p. 2837) define green customer satisfaction as the process whereby "the customer sensed that consumption fulfilled some need, goal, desire about environmental or green concerns and that this fulfillment was pleasurable". However, CCB is perceived as a form of customer value creation, focused on the extra-role behavior that adds exceptional value to the organization [15,23]. In particular, Ford [24] identified the importance of CCB as a tool for taking advantage of customer talent. It has been argued that customers are positively involved in an array of cooperative behaviors targeted toward a particular firm/organization. CCB accentuates the non-purchasing behavior of the customer [25]. Consequently, these behaviors include extrarole conduct in the form of information, ideas, and physical cooperation that customers provide voluntarily during or after service delivery [20]. Subsequent to Ford's empirical study [24], several studies examined CCB from numerous perspectives [20,26–28].

Recently, numerous studies have investigated the nexus between ESPs, customer satisfaction (CS) as well as CCB in different areas of tourism and non-tourism, and hospitality contexts (i.e., green hotels, green restaurants, green cafés, airlines, banking fitness centers, and cultural and creative industries) [10,17,29–40]. With regard to the nexus between ESPs and CS, Moise et al. [10], Park et al. [32], and Jeong et al. [33] concluded in their studies that green hotel practices (GHPs) and green restaurant practices are key predictors that significantly positively affect customer satisfaction. Concerning the relationship between ESPs and CCB, the findings of Abdou et al. [34] on eco-friendly hotels agreed with Fatma et al. [36] and Hwang and Lyu [37] that ESPs have a significant positive effect on CCB. Similarly, regarding the link between CS and CCB, the findings of the previous studies confirmed that CS is one of the key antecedents of CCB [17,28,38–40]. For instance, in Malaysian cultural and creative industries, Al Halbusi et al. [17] suggested that tourist satisfaction is significantly positively correlated to the eight dimensions of CCBs (i.e., positive word-of-mouth, policing with others, benevolent act-of-service facilitation, participation in a firm's activities, suggestions for service improvement, etc.).

Although several studies have explored the interrelationships between ESPs and customer satisfaction, as well as CCB and customer satisfaction, the association between ESPs and CCB is still scarce, particularly in the green/eco-friendly hotel industry. Additionally, in the green hotel marketing literature, the relationship between ESPs, GS, and CCB in developing countries specifically has not attained a remarkable amount of attention. According to Myung et al. [41], most of the environment-related research in the hospitality

Sustainability **2022**, 14, 12791 3 of 20

industry context was undertaken in developed countries, while environment-related research focusing on developing countries is still limited. In light of this, more empirical investigations are needed, as the ESPs perceived in developed countries may differ from those in developing ones. With the intent of filling this gap in the academic literature in the hospitality industry context, the primary aim of this study is to investigate the impact of ESPs on GS and CCB in a sample of five-star eco-friendly hotels in Egyptian destinations, as well as explore the potential mediative role of GS in the nexus between CCB and ESPs. In addition, we empirically determine to what extent GS directly impacts CCB. To achieve the study aim and its related objectives, a self-administrated questionnaire is developed and distributed to a sample of guests in the investigated hotels, seeking to answer the following questions: (1) To what extent do eco-friendly hotels' guests perceive ESPs implemented in the investigated hotels?; (2) How do the ESPs directly affect GS and CCB?; (3) How do the GS directly affect CCB?; and (4) What is the potential mediating role of GS in the nexus between CCB and the perceived ESPs?

The results of this study effectually contribute to the existing literature about green marketing in the hospitality industry in several ways. Firstly, a better understanding of ESPs' direct plus indirect effects (through GS) on CCB is achieved. Secondly, we empirically investigate the direct effect of ESPs in the hotel industry on GS, a new concept. Thirdly, the conclusions of this study may be a valuable resource for hospitality scholars in investigating the factors affecting the extra-role behavior of the customer (i.e., CCB), and may be perceived to be a basis for future studies aimed at examining justifications for enhancing customers' green satisfaction and improving their CCB in the context of the green hospitality industry. Finally, the findings of the study provide valuable insights for eco-friendly hotel operators seeking to increase customer green satisfaction and boost customer citizenship behavior.

The study is structured as follows. The introduction is followed by Section 2, which focuses on a review of the literature and hypothesis-development related to the interrelationships between ESPs, GS, and CCB. Section 3 describes the development of measures and instruments, the sample, data collection, and the statistical methods used for data analysis. Next, Section 4 presents descriptive statistics, validity and reliability of measures, factor analysis, common method variance, and structural equation modeling (SEM). In Section 5, the findings of the study along with practical and theoretical implications are discussed. Lastly, the research limitations and directions for forthcoming research are presented in Section 6.

2. Literature Review

2.1. The Concept of ESPs in the Hospitality Industry

Recently, tourism and hospitality customers are increasingly interested in green products such as eco-friendly and green hotels [30,42], green resorts [43], green restaurants [32,44], green cafés [33], green cruises [45], and green airlines [46]. Consequently, many hospitality organizations are increasingly taking initiatives to make their products and services provided green [47]. Owing to their pledge for sustainability and sustainable development, hotel chains have undertaken various initiatives including the placement of eco-labels, taking part in environmental management systems, and implementing environmentally sustainable practices [48]. These practices have been deemed vital measures intended to assist enterprises/organizations in reaching their environmental management objectives [9]. Giordino and Crocco [49] suggest that ESPs refer to the practices used by organizations to maintain the quality of the natural resources they use in their business operations. Environmentally sustainable practices, also known as green practices, ecological practices, and environmentally responsible practices, are defined as "a value-added business strategy that benefits a hospitality operation that engages in environmental protection initiatives" ([50], p. 721).

ESPs in the hotel business are primarily concentrated on three main areas: water conservation, saving energy, and waste reduction and management [51]. Regarding energy

Sustainability **2022**, 14, 12791 4 of 20

conservation, hotels often install energy-saving appliances and light bulbs, automatic motion sensors in low-traffic areas, digital thermostats in guestrooms, and reflective glass or triple-glazed windows, as well as utilizing sources of renewable energy such as solar and wind [9,52]. Installing low-flow toilets and showerheads, reusing towels and linens, keeping track of water usage in the various hotel departments, and using infrared-activated faucets are the most commonly adopted practices for water conservation [53,54]. Concerning waste management and reduction, hotels place recycling-colored bins, purchase recycled-content products, use refillable amenity dispensers (such as shampoo and soap dispensers), purchase raw materials in bulk, compost organic waste from the kitchen, and adopt donation campaigns for local charities [55,56]. Hoteliers have recently expanded the adoption of ESPs to entail green purchasing (i.e., purchasing from local sources, green cleaners, and ingredients), green construction, indoor air quality, environmentally responsible sourcing (i.e., environmentally friendly suppliers), green transportation, noise control, increasing environmental awareness among hotel guests, and encouraging guests to be eco-friendly [57]. It has become evident that a hotel industry that is not committed to sustainability and conservation of natural resources will not be able to move forward in the future, as polluting the environment may harm the foundation for its future development [13].

The top international hotel chains currently emphasize environmental sustainability and have integrated it into their strategic plans. For instance, Hilton ([58], p. 16) reported its commitment to sustainability as follows: "via destination stewardship and climate action, we aspire to lead to a net-zero future for our enterprise as well as the industry of global travel and tourism". In 2018, Hilton was a pioneering hospitality company, setting science-based targets with the intent of reducing greenhouse gas emissions. Marriot International ([59], p. 1) reported that by 2025, it targeted to reduce "waste to landfill by 45%, water intensity by 15%, food waste by 50%, and carbon intensity by 30%" from a baseline of 2016. In addition, the Intercontinental Hotel Group (IHG) [60] illustrated that hotels and resorts committed, by 2030, "to implementing a 2030 science-based target that delivers a 46% decline in the emissions from the energy, pursuing 100% new-build hotels to function at very low/zero carbon emissions, optimizing the renewable energy role, and eliminating single-use items, or moving to recyclable or reusable alternatives through the stay of the guest".

The benefits of implementing ESPs have been examined in several studies. Generally, these benefits are classified as either financial or non-financial [61]. Profit maximization, reduced operational costs, and revenue generation contributed to the financial benefits. Besides increasing the hotel's financial performance, the implementation of ESPs provided several non-financial advantages, such as enhancing the image of the hotel to existing as well as potential customers, offering a healthy and safe environment for hotel guests, gaining competitive advantages, improving customer satisfaction and loyalty, protecting the environment, and boosting the hotel's environmental performance [61–64]. Moreover, numerous studies indicate that tourists perceive ESPs as essential measures, and they are dedicated to sacrificing some level of comfort and luxury to support environmentally responsible hotels [65]. Relatedly, Lee et al. [11] observed that eco-certification has significantly affected tourists' hotel choices. Owing to their concern about the environment, customers are willing to support hotels that adopt eco-friendly practices in their daily activities and stay in such places [66]. Further, regarding sustainable development, ESPs play a vital role in realizing sustainable development goals (SDGs) pertinent to clean water and sanitation (SDG 6), affordable and clean energy (SDG 7), responsible consumption and production (SDG 12), and climate action (SDG 13) [67].

2.2. The Concept of CCB

An array of definitions and conceptualizations of CCB have been acknowledged. As an example, CCB can be viewed as creating customer value based primarily on additional-role behaviors that provide the company with extraordinary benefits [24]. Ford [24] described it as any kind of behavior a client/customer performs voluntarily, beyond purchasing products or services, which may be beneficial for an enterprise/organization. Bettencourt ([68], p. 384)

Sustainability **2022**, 14, 12791 5 of 20

defined CCBs as "beneficial, flexible behaviors of the clients/customers which underpin the capability of the firm to provide service quality". Moreover, Groth [20] explained them as those discretionary and voluntary behaviors which are not obligatory for the successful production and/or provision of the service, but overall assist the service organization generally.

The concept of CCB was introduced in conformity with organizational citizenship behavior theory [20]. According to this theory, employees are required to engage in various spontaneous behaviors that are not explicitly defined in their job descriptions for effective organizational performance. Ford [24] revealed that similar to employees, customers could be involved in an array of CCBs, including advocating for an organization by displaying an advertising sticker indicating their support, recommending the company to their families and friends, and reporting problems to the employees. Bettencourt [68] added that CCBs may also include sharing a positive experience with other customers and treating employees with reverence and respect.

Gong and Yi [15] demonstrated that CCBs could target the brand, the company, its workforce, and other customers. In light of this, Yi and Gong [69] proposed a two-dimensional conception of CCB; CCB targeting the customer (i.e., assisting other clients) and CCB targeting the organization (i.e., providing feedback and making recommendations to the organization). Following Yi and Gong [69], Curth et al. [70] distinguished two dimensions of CCB, "customer-directed CCB and organization-directed CCB". Further, Gong [71] expanded the notion of CCB to include the brand of the organization (i.e., brand loyalty, brand feedback, and brand-positive WoM).

Theoretical and empirical studies have highlighted various aspects of CCB. Three generic aspects of CCB are outlined by Bettencourt [68] as follows: cooperation, participation, and loyalty. Another study by Groth [20] emphasized three dissimilar aspects encompassing giving feedback, making recommendations, and helping other customers. Taking a wider look at behavioral elements, Bove et al. ([26], p. 699) introduced seven distinct conceptual types of CCB which included "suggestions for service improvement, positive word-of-mouth, customer voice/feedback, policing of other customers, displays of affiliation, participation in the firm's activities, and benevolent acts of service facilitation". Furthermore, Yi and Gong [69] classified CCBs into four aspects, namely: helping, feedback, advocacy, and tolerance. Feedback includes unsolicited and solicited information that customers make available to the employee, which eventually assists employees and their firms in improving the service creation process. Advocacy encompasses introducing the business, employees, or both to friends and family via optimistic WoM. Helping is referred to as voluntary assistance to other customers (i.e., giving customers advice, expertise, and companionship, as well as assisting and supporting them). Meanwhile, tolerance is explicated as customer preparedness to be tolerant in the case that the delivery of the service does not meet his/her expectations of acceptable service, such as equipment shortages or delays [69].

2.3. Green Satisfaction (GS)

Satisfaction is referred to the feeling of well-being and pleasure one experiences as the result of receiving what she/he anticipates from an appealing service or product [72]. Ardani et al. [73] revealed that customers' satisfaction is derived from comparing their expectations before and after consumption. Ardani et al. [73] divulged customer satisfaction by collating anticipations prior to and after using the service or product. Dissatisfied customers are those who have received less than they expected. Their dissatisfaction will arise when they find that product and service performance does not match their expectations. Meanwhile, satisfied customers include those who received products or services according to their desires. If the product and service performance exceeds the hopes of the customers, they will be delighted and extremely satisfied [74]. According to Gundersen et al. ([75], p. 74), consumer satisfaction may be explained as "a post-consumption evaluative judgment concerning a specific product or service". In addition, customer satisfaction may be referred to as the emotional and subjective state of the customer towards his/her needs and wants [76].

Sustainability **2022**, 14, 12791 6 of 20

Although previous studies explored customer satisfaction issues extensively, studies examining the concept of green satisfaction, particularly in the tourism and hospitality industry context, are limited [22]. The concept of green satisfaction was introduced by Chen [22] and described as a sense of fulfillment attached to consumption that meets the environmentally friendly expectations, sustainable needs, and environmental desires of a customer.

Various antecedents affect green satisfaction. For instance, Chen [77] suggests that perceived green value positively affects GS. Further, the results of the study undertaken by Chen et al. [78] indicate that perceived green quality positively and significantly affects green satisfaction. A later study conducted by Zubair Tariq [79] concludes that green advertisement and green brand-awareness positively affect GS. Furthermore, Chen et al. [66] highlight that green satisfaction is significantly positively affected by environmental friend-liness. Additionally, GS acts as a key predictor in different studies. Numerous scholars emphasized that GS positively affects green brand equity [22], green loyalty [21,77], green WoM [78], green trust [66], and green purchase intention [80,81].

2.4. The Nexus between ESPs and CCB

Empirical investigations on the nexus between CCB and ESPs in the green/ecofriendly hotel industry context are still limited. In the context of green restaurants, Hwang and Lee [27] empirically examined the impact of green-restaurant customers' public selfawareness (PSA) on CCB. The results of the study confirmed that CCB is significantly and positively impacted by green-restaurant customers' public self-awareness. In a café setting, the empirical investigation carried out by Aljarah [82] on a sample of 439 Starbucks customers in Lebanon found that two forms of CCBs—helping and policing other customers—are positively correlated with environmental marketing strategies. Thai and Nguyen [28] investigated the impact of green hotel practices (GHPs) on CCB and highlighted that CCB is significantly and positively affected by green hotel practices. Another empirical study conducted by Abdou et al. [34] examined the effects of ESPs on CCB and confirmed that ESPs directly and indirectly (through green perceived value) have significant positive effects on CCB. Regarding the non-tourism and hospitality perspective, van Tonder et al. [83] showed that green advocacy and feedback behaviors are significantly positively affected by favorable green attitudes (for the participants from the USA). Further, for the participants from South Korea, the favorable green attitude had a significant positive effect on only green feedback behavior. Upon considering the prior findings, it could be assumed that:

H1: ESPs significantly and positively impact CCB in eco-friendly hotels.

2.5. The Nexus between ESPs and GS

The nexus between green/environmentally sustainable practices and customer satisfaction has been previously examined by different scholars in various contexts. Berezan et al. [29] investigated how sustainable hotel practices impact the overall satisfaction of hotel guests from diverse nationalities. The study findings demonstrated that green hotel practices (GHPs) positively affect customer satisfaction for Mexicans, Americans, and other nationalities. Another study conducted by Yu et al. [84] revealed that advanced GHPs are more apt to have remarkable effects on customer satisfaction than fundamental ones. In the American green restaurant context, Park et al. [32] revealed that customer satisfaction is positively influenced by green restaurant practices. Findings of other empirical and review studies in various destinations confirmed that green/environment-friendly practices significantly positively affect customer satisfaction (i.e., [85,86]).GHPs are an integral part of hotel service. Guests will be dissatisfied if they perceive there to be a lack of them [65]. Hence, we hypothesize that:

H2: *ESPs significantly and positively impact GS in eco-friendly hotels*.

Sustainability **2022**, 14, 12791 7 of 20

2.6. The Nexus between GS and CCB

Tourism and hospitality are highly sensitive industries where satisfaction has been identified as a key predictor for tourists' loyalty [87]. Satisfaction bears a substantial effect on tourists' loyalty, post-purchase behavioral intentions, as well as decisions to recommend [19,88]. Generally, the nexus between customer satisfaction and CCB has been investigated by various scholars who confirmed that customer satisfaction positively impacts CCB [17,20,67,89]. In the internet service providers' context, the findings derived from empirical research carried out by Groth [20] on a sample (191) of internet users revealed that customer satisfaction positively and significantly affects the three dimensions of CCB: giving feedback to the business/organization, making recommendations, and facilitating other customers. Focusing on the green/eco-friendly hotels context, limited studies have investigated the relationship between GS and CCB. In the context of green restaurants, Hwang and Lee [27] concluded that the affective satisfaction of green-restaurant customers is positively linked to CCB. In the green hotel industry context, Thai and Nguyen [28] illustrated that green customer satisfaction positively influences CCB. Hence, based on the previous findings, we can assume that:

H3: GS significantly and positively impacts CCB in eco-friendly hotels.

2.7. The Mediating Role of GS on the Nexus between ESPs and CCB

Theoretically, social exchange theory (SET) is considered to be one of the most commonly applied theories in the field of social behavior [15,17]. Further, it is one of the most commonly used theories to clarify the stakeholder–organization relationship [90]. Keeping with the conclusions of a review study conducted by Gong and Yi [15], SET was the most widely used theory to explain CCBs and their related antecedents. It was defined as "an exchange of goods, material goods but also non-material ones, such as the symbols of approval or prestige. Persons giving much to others make an effort to obtain much from them, and persons getting too much from others feel themselves under pressure for giving much to them" ([91], p. 606). SET, which is built upon the principle of reciprocity, states that when customers feel satisfied with the service or perceive that they have been treated better than expected, they are more likely to reciprocate by being willing to engage in voluntary behaviors that will benefit the organization and/or the employees (i.e., CCB) [92].

On the basis of the foregoing and the findings of previous research (i.e., [27,28,34,37]) which confirmed that ESPs significantly affect customer satisfaction and CCB and that GS significantly positively predicts CCB, it might be presumed that the greater the perceived ESPs, the greater the GS that might eventually lead to positive impacts on CCB. Accordingly, we hypothesize that:

H4: *GS* significantly mediates the nexus between ESPs and CCB in eco-friendly hotels.

Grounding on the SET and the findings derived from previous studies, the study conceptual model was developed as illustrated in Figure 1.

Sustainability **2022**, 14, 12791 8 of 20

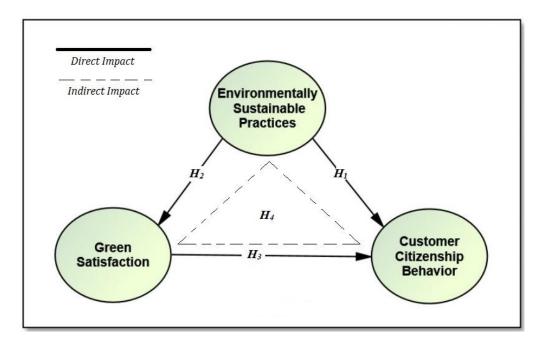


Figure 1. The study conceptual model.

3. Materials and Methods

3.1. Measures and Instrument Development

For this study, the data was collected via a self-administrated questionnaire. According to the literature review of the study, valid and frequently used measures were identified, and a standardized questionnaire was developed. The questionnaire was divided into four parts. The first part dealt with participants' demographic data, including their marital status, age, level of education, and gender. The second part of the questionnaire handled participants' perceptions of ESPs adopted in the investigated hotels. A modified version of the ESPs proposed by Mensah [64] and Bruns-Smith et al. [93] was adopted. The scale is composed of eight items (i.e., "The hotel utilizes energy-saving appliances and light bulbs in guest rooms and public areas"). This scale has a high degree of internal consistency, as shown by the reliability analysis ($\alpha = 0.956$). The third and fourth parts of the questionnaire examined green satisfaction and customer citizenship behaviors, respectively.

Based on Chen and Chang [94], a four-item scale was employed for measuring green satisfaction. A sample item is "Generally, you are satisfied with the hotel's environmental performance". The scale possesses good internal consistency (α = 0.930). In addition, the four-item scale suggested by Yi and Gong [69] was modified and utilized for measuring CCB. A sample item is "In the event that hotel services aren't provided as expected, you'll put up with it". The CCB's internal consistency reliability was 0.928. The Likert scale was utilized for calculating the response rate for all measurement items. The range of the scale varied from 1 = strongly disagree to 5 = strongly agree.

As part of the survey process, the English survey was initially written and then translated into the participants' native Arabic language. Once the Arabic translation was completed, the survey was reverse-translated from Arabic to English to verify that there were no linguistic differences between the two versions. A face validity test was performed on the questionnaire to make sure that it measures the constructs it is designed to measure. Five hospitality academics were asked to provide feedback on the questionnaire form to evaluate its content validity. Further, thirty-five participants were included in a pilot study. They have been excluded from the main sample of the study. The pilot study was conducted to check the viability of the questionnaire by evaluating its understandability, appropriateness, clarity, and consistency. Bearing in mind the comments of the participants, modifications were made to the wording of some statements on the questionnaire. Some statements were rearranged and reorganized, as well.

Sustainability **2022**, 14, 12791 9 of 20

3.2. Sampling and Data Collection

The main objective of this research is to investigate the impact of ESPs on GS and CCB in a sample of five-star eco-friendly hotels in Egypt, in addition to exploring the potential mediation role of GS in the relationship between CCB and ESPs. Additionally, we attempt to empirically determine to what extent GS directly impacts CCB. To achieve the study's objectives, a self-administered questionnaire was created and distributed to the customers of eco-friendly hotels. This study primarily focuses on Egyptian customers staying in five-star eco-friendly hotels which have demonstrated a great commitment to employing ESPs in their operations, especially those in Egyptian destinations, as introduced by Abdou et al. [67]. Based on the green star hotel website [95], there are thirty-two five-star green/eco-friendly hotels in Egypt. Due to the COVID-19 pandemic, a challenge faced was a limited number of eco-friendly hotels (9 hotels, 28.1) consenting to take part in the field study. Accordingly, the convenience sampling method, being the most appropriate for such research, was used. It was described as a non-probability sampling technique where people are simply selected because they are convenient data sources [96]. In total, out of 500 questionnaires distributed, only 437 forms, representing a response rate of 87.4%, were valid for statistical analysis.

The appropriate sample size was determined on the basis of the recommendation of Hair et al. [97]. In their suggestion, the sample size should be calculated according to the number of items being examined. The minimum ratio (item: sample = 1:10) is acceptable. Therefore, 160 participants were necessary for this study, in which 16 variables were being evaluated. For the current study, the sample size of 437 participants was adequate.

Considering the valid responses received from the investigated participants (437 tourists), data presented in Table 1 shows that, concerning the gender of participants, about 57.9% (N = 253) were females and 42.1% were males. Regarding their age, the results reveal that age of the participants on average ranges from 30 to 39 years, representing the highest category (65.2%, N = 285), followed by those whose age ranges from 20 to 29 years (22.2%). Participants who had an age ranging from 40 to 49 as well as those age 50 or higher represented 8.5% and 4.1%, respectively. Concerning participants' educational level, the study findings indicate that more than three-quarters of the investigated participants (78.3%, N = 342) had a university degree. Those who have postgraduate degrees and those who have high school degrees or equivalent constituted 15.3% and 6.4%, respectively. Pertaining to their marital status, about 62.9% (N = 275) of the investigated participants were married, followed by singles who constituted 29.5% (N = 129). The other categories (i.e., divorced and widowed) amounted to 7.6%.

Table 1. Sample descriptive statistics.

Personal Data	Attribute	Number	%
0 1	Male	184	42.1
Gender	Female	253	57.9
	From 20 to 29 years old	97	22.2
A	From 30 to 39 years old	285	62.2
Age	From 40 to 49 years old	37	8.5
	More than or equal to 50 years	18	4.1
	High school degree or equivalent	28	6.4
Level of Education	University degree	342	78.3
	Postgraduate degree	67	15.3
	Single	129	29.5
Marital Status	Married	275	62.9
	Others (i.e., divorced, widowed)	33	7.6
	437	100	

Sustainability **2022**, 14, 12791 10 of 20

The participants of the study were notified that taking part in the study is completely optional. Prior to participating in this study, they were requested to sign a consent form. As a self-administered questionnaire was used in this study, common method variance (CMV) may present some issues. To reduce the probability of common method variance (CMV), the participants were informed that their information would remain anonymous and confidential, and this information would be utilized only for research purposes. The participants were encouraged to offer responses to all questions fairly. Moreover, CMV was detected using a widely used simple statistical test (Harman's single-factor test) [98]. Almost three months were spent on data collection, from January to April 2022.

3.3. Data Analysis

The data analysis of this research was performed via SPSS version 22 and AMOS version 24. A descriptive statistical analysis was employed for analyzing the collected data; means, percentages, frequencies, and standard deviations provided an overview of the participants' demographic data and their perceptions of the study constructs' items. The validity and reliability of the study items were calculated via a reliability analysis (Cronbach's alpha) plus a confirmatory factor analysis (CFA). The average variance extracted (AVE) and the composite reliability (CR) were employed for confirming the convergence validity. Further, discriminant validity was evaluated via the Fornell–Larcker criterion and Heterotrait–Monotrait Ratio (HTMT). Harman's single-factor test was employed for detecting common method variance (CMV). With the purpose of determining direct and indirect nexus study constructs, structural equation modeling (SEM) with bootstrapping was used.

4. Results

4.1. Descriptive Statistics

Table 2 presents the mean and standard deviation of the examined constructs. Participants rated the ESPs at a higher level with an average mean in the range of 3.78 to 4.32. The utilization of energy-saving appliances and light bulbs in guest rooms and public areas was ranked as the most significant variable (M = 4.32, S.D. = 1.014). In contrast, the usage of solar and wind power at the hotel as renewable energy sources was perceived as the least popular practice (M = 3.78, S.D. = 1.068). Regarding green satisfaction, participants were highly satisfied with the hotel's environmental performance, scoring 4.34 on average. According to their perceptions, "Generally, you are satisfied with the hotel's environmental performance" achieved the highest score (M = 4.43, S.D = 0.753). Regarding customer citizenship behavior, the investigated participants were highly committed to providing useful ideas on how to improve service, as well as recommending the hotel and/or staff to friends and relatives with positive reviews, with mean ratings of 4.44 and 4.40, respectively.

Table 2. Descriptive Statistics, Reliability, and Confirmatory Factor Analysis Properties.

Construct/Items	Std. Loading (CFA) ¹	M (S.D.)	Cronbach's Alpha	CR ²	AVE ³		
Environmentally Sustainable Practices (ESPs) $M = 4.14$, S.D. = 0.931							
<i>ES1</i> : The hotel utilizes energy-saving appliances and light bulbs in guest rooms and public areas.	0.877 ***	4.32 (1.014)					
<i>ES2</i> : The hotel puts in place motion sensors in the fewer traffic areas which automatically switches the lights off.	0.787 ***	4.30 (1.062)	0.956	0.955	0.729		
ES3: Solar and wind power are used at the hotel as renewable energy sources.	0.780 ***	3.78 (1.068)	_				

Sustainability **2022**, 14, 12791 11 of 20

Table 2. Cont.

Construct/Items	Std. Loading (CFA) ¹	M (S.D.)	Cronbach's Alpha	CR ²	AVE ³
ES4: Towels and linen reuse program are implemented (reuse of bed linen and towels upon guests' request).	0.993 ***	4.17 (1.115)			
ES5: The hotel utilizes infrared-activated faucets, low-flow toilets, and water-saving showerheads.	0.946 ***	4.22 (0.988)	_		
<i>ES6</i> : As an alternative to individual bottles, the hotel offers shampoo and soap dispensers.	0.924 ***	4.00 (1.075)	_		
<i>ES7</i> : Hotel's wastes are segregated using colored bins and visibly labeled containers.	0.677 ***	4.29 (1.029)	_		
ES8: The hotel encourages guests to be eco-friendly.	0.802 ***	4.11 (1.158)	-		
Green Satisfaction (GS) $M = 4.34$, S.D. = 0.687			-		
<i>GS1</i> : You are pleased about the commitment to choose this hotel owing to its environmental reputation/image.	0.773 ***	4.37 (0.737)			
<i>GS2</i> : In your view, it is the correct decision regarding the purchase of the hotel's products/services due to its environmental performance.	0.905 ***	4.25 (0.762)	0.930	0.922	0,750
GS3: Generally, you are happy to purchase the hotel's services/products because they are eco-friendly.	0.993 ***	4.32 (0.769)		0.522	000
GS4: Generally, you are satisfied with the hotel's environmental performance.	0.773 ***	4.43 (0.753)	_		
Customer Citizenship Behavior (CCB) M= 4.38, S.D. = 0.	775		_		
<i>CCB1</i> : In case other customers require your assistance or seem to have a problem, you should help them.	0.734 ***	4.31 (0.856)			
CCB2: In the event that hotel services aren't provided as expected, you'll put up with it.	0.867 ***	4.38 (0.889)	_		
<i>CCB3</i> : You have to recommend this hotel to your friends and/or relatives and say positive things about it and/or its staff.	0.945 ***	4.40 (0.841)	0.928	0.933	0.779
<i>CCB4</i> : Whenever you have a useful idea on how to improve the hotel's service, you share it with the staff.	0.965 ***	4.44 (0.829)	_		

M = mean, S.D. = Standard deviation, Std. Loading, (CFA) 1 = Standardized Factor Loading, CR 2 = Composite Reliability, AVE 3 = Average Variance Extracted. Model fit; x^2/df = 4.115 p < 0.001, CFI = 0.962, NFI = 0.950, GFI = 0.905, IFI = 0.962, RFI = 0.938, RMR = 0.040, RMSEA = 0.08, *** p < 0.001.

4.2. Measurement Model

As previously mentioned, data for the current study has been collected via a self-administrated questionnaire. Subsequently, a common method bias/variance (CMV) was determined by utilizing Harman's single-factor test. Accordingly, one component represented only 45.22% (less than 50%) of the variance, revealing that CMV does not present an issue [99].

Before the structural equation model analysis, a first-order confirmatory factor analysis with the help of the maximum likelihood approach was performed to make sure that each latent variable comprised the exact perceived variables. It is evident from Table 2 that all study items had factor loadings ranging from 0.67 to 0.99, which exceeded the benchmark of 0.50 [100]. In order to determine whether measurement items are internally consistent, in addition to measuring the study constructs' reliability, calculations of composite reliability and Cronbach's alpha were performed. Table 2 shows that Cronbach's alpha and CR scores ranged from 0.928 to 0.956 and from 0.922 to 0.955, respectively. Based on these results, it

Sustainability **2022**, 14, 12791 12 of 20

appears that the study constructs are reliable as they exceed the recommended threshold of 0.80 [101].

Discriminant and convergent validities were employed for ascertaining the construct validity [102]. For convergent validity, Duckworth and Kern [100] recommend factor loadings of at least 0.50 and AVEs above 0.50. Table 2 shows that the AVE and factor loading values for all items were above 0.50, indicating that the measurement model has satisfactory convergent validity. In order to examine the study model's discriminant validity, two approaches were used: Heterotrait–Monotrait Ratio (HTMT) and the Fornell–Larcker criterion. According to the Fornell–Larcker criterion, for constructs to be discriminately valid, their AVE's square root must be greater than their correlation with other constructs. Table 3 indicates that all constructs' AVE square root is greater than their correlations with other constructs, which suggests discriminant validity [101]. Henseler et al. [103] developed a more dependable method (HTMT). They assured that once the HTMT value reaches 0.85 or more, discriminant validity is compromised [104]. HTMT values in Table 4 are all less than 0.85, suggesting discriminant validity in all pairs of latent constructs.

Table 3. Discriminant Validity Based on the Fornell-Larcker Criterion.

Construct	1	2	3	
1-ESPs	0.854			
2-GS	0.232	0.866		
3-CCB	0.426	0.474	0.883	

Note: Bold diagonal numbers represent the square root of AVE's study constructs.

Table 4. Discriminant Validity via HTMT.

Construct	1	2	3
1-ESPs			
2-GS	0.254		
3-CCB	0.428	0.509	

Note: HTMT should be lower than 0.85.

Goodness-of-fit indices, for instance, "Comparative Fit Index (CFI)", "Goodness of Fit Index (GFI)", "normed chi-square" (x²/df), "Normed Fit Index (NFI)", "Relative Fit Index (RFI)", "Incremental Fit Index (IFI)", "Root-Mean Square Error of Approximation (RMSEA)", "Root Mean Square Residual (RMR)", and "Incremental fit index (IFI)", were evaluated. According to Hair et al. [101], goodness-of-fit analysis concluded that the model's fit is good as shown in Table 2.

4.3. Structural Equation Modeling (SEM)

For ascertaining the interrelationships and direction between the constructs of the study, SEM was utilized. The data in Table 5 show that the model fitted well as suggested by Hair et al. [97]. $x^2/df = 4.115$, p < 0.001, CFI = 0.962, NFI= 0.950, GFI = 0.905, IFI = 0.967, RFI = 0.962, RMR = 0.040, and RMSEA = 0.08.

Table 5. Structural Parameter Estimates.

Hypothesized Path				Standardized Path Coefficients	t-Value	Results		
H1: ESPs		→	ССВ			0.334 ***	7.400	Accepted
H2: ESPs		→	GS			0.232 ***	4.817	Accepted
H3: GS		→	CCB			0.396 ***	8.412	Accepted
H3: ESPs		→	GS		ССВ	0.092 **	3.828	Accepted

Note: Model fit; $x^2/df = 4.115 p < 0.001$, CFI = 0.962, NFI = 0.950, GFI = 0.905, IFI = 0.967, RFI = 0.962, RMR = 0.040, RMSEA = 0.08, *** p < 0.001, ** p < 0.01.

Sustainability **2022**, 14, 12791 13 of 20

In the context of the direct as well as indirect nexus between the study constructs, the results of Table 5 and Figure 2 indicate a positive significant nexus between ESPs and CCB ($\beta=0.334$, t-value = 7.400, p<0.001), as well as GS ($\beta=0.232$, t-value = 4.817, p<0.001), respectively. Consequently, hypothesis H_1 predicts a positive and significant impact of ESPs on CCB, as well as hypothesis H_2 predicts a positive and significant impact of ESPs on GS, are both accepted. Furthermore, hypothesis H_3 predicting a positive and significant impact of GS on CCB is also supported ($\beta=0.396$, t-value = 8.412, p<0.001).

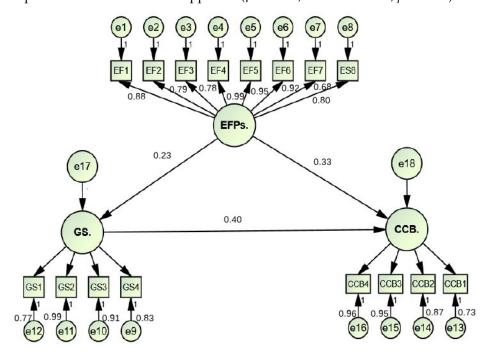


Figure 2. The structural model.

For validating the indirect relationship between ESPs and CCB as well as evaluating GS's possible role, a bootstrapping approach was utilized. Table 5 emphasizes the significant positive impacts of ESPs on CCB through GS (β = 0.092, t-value = 3.818, p < 0.01). As a result, **H4** is accepted. To examine the role played by GS in mediating the relationship between perceived ESPs and CCB, both partial and full mediation approaches from Kelloway [105] and Zhao et al. [106] were used. They demonstrate that full mediation can only be determined if the direct effects are not significant, and the indirect effects are significant. However, partial mediation could only be identified when both paths (direct and indirect) are significant. Based on the findings of the SEM in Table 5, we can suggest that GS partially mediates the nexus between perceived environmentally sustainable practices and customer citizenship behavior.

5. Discussion and Implications

5.1. Discussion

The primary aim of the present study is to investigate the impact of ESPs on GS and CCB in a sample of five-star eco-friendly hotels in Egypt, as well as exploring the potential mediation role of GS in the relationship between CCB and ESPs and empirically determining to what extent GS directly impacts CCB. The SEM-with-bootstrapping approach was employed for analyzing the direct and indirect nexus between ESPs, CCB, and GS. Based on the literature review, the findings of the study are discussed as follows.

The study findings indicated that participants highly appreciated the ESPs implemented by the investigated green/eco-friendly hotels. They illustrated the fact that the ESPs related to energy conservation (for example, utilizing energy-saving appliances and light bulbs in the guestrooms and public areas) were more likely to be adopted by eco-friendly hotels. Similarly, water-consumption reduction measures (i.e., using infrared-

Sustainability **2022**, 14, 12791 14 of 20

activated faucets, low-flow toilets, and water-saving showerheads), waste management, and waste-reduction practices such as sorting hotel waste via visibly labeled colored bins and containers were also highly perceived. These findings are consistent with the results of previous studies which showed that the most-used eco-technologies in the hotel industry were energy-saving light bulbs (LED), automated motion sensors, and key cards [67,107,108]. In addition to installing efficient devices, such as low-flow toilets and showerheads, implementing linen-reuse programs and using infrared-activated faucets are the most widely used methods intended to reduce hotel water consumption as mentioned by Han et al. [55] and Bohdanowicz [6]. Furthermore, Han et al. [55] agreed with Singh et al. [56] and demonstrated that waste-segregation practices and waste management are among the most effective ways to encourage recycling. By contrast, the study found that the usage of solar and wind power as renewable energy sources was the least-perceived practice. These findings are similar to those of Abdou et al. [67], who demonstrated that wind and solar power were the least-utilized renewable energy sources in certified five-and four-star hotels in Egypt.

Participants reported a very high level of green satisfaction with all surveyed items. They indicated that "overall, they were highly satisfied with eco-friendly hotels because of their environmental performance, and they were glad about the decision of selecting them because of their environmental reputation." These findings are in line with higher perceived green satisfaction toward green products and services as concluded by Chen and Chang [94], Chen [77], and Chang and Fong [21]. Similarly, concerning CCB, the investigated participants were highly perceptive of CCBs, particularly feedback (sharing the useful idea on how to improve the hotel's service with the staff) and advocacy (recommending the hotel and/or staff to friends and relatives and giving positive reviews). These findings support the results of Hwang and Lee [27] as well as Thai and Nguyen [28].

Based on the results of SEM that identify the interrelationship between the constructs of the study (CCB, GS, and ESPs), we firstly conclude that ESPs significantly and positively affect CCB. This finding is consistent with those concluded by Hwang and Lyu [37] who suggested that CCB (feedback and advocacy behaviors) is positively affected by ESPs in the airline context. Further, van Tonder et al. [83] suggest that favorable green attitudes significantly and positively impact green advocacy and feedback behaviors (for participants from the USA) in the non-hospitality industry context. Similarly, this finding supports the findings of Abdou et al. [34] who confirmed that CCB is positively and significantly affected by ESPs adopted by Egyptian eco-friendly hotels. However, in the Cypriot hospitality context, this finding is, to some extent, unaligned with Aljarah and Alrawashdeh [35] who explored the role of corporate social responsibility (CSR) in fostering CCBs. According to their findings, CSR relating to the environment significantly and positively contributed to enhancing customer tolerance, feedback, and help devoid of any significant impact on customer advocacy. Accordingly, it could be suggested that the greater the perception of ESPs, the higher the CCB.

Secondly, the study findings revealed that GS is significantly and positively affected by ESPs. Despite the significant positive impact of ESPs on GS, a weak correlation between them has been mentioned ($\beta = 0.232$, p < 0.001). This finding is harmonized with the results of the empirical study conducted by Berezan et al. [29] on a convenience sampling of 329 tourists from various nationalities. They suggested that overall tourist satisfaction is positively and significantly affected by GHPs. According to the regression results, GHPs explained 27.6% of overall guest satisfaction. Further, this finding is somewhat in agreement with the study results of Moise et al. [109] who found that GHPs have a strong significant positive relationship with guest satisfaction ($\beta = 0.764$, p < 0.001). Similarly, this finding partially aligned with the findings of Thai and Nguyen [28] who indicated that GHPs have a significant positive impact on tourist satisfaction ($\beta = 0.501$, p < 0.001). On the other hand, the findings of the study are different than the findings of Robinot and Giannelloni [65] who concluded that environment-related practices do not have a significant positive impact on customer satisfaction if they are assessed favorably. Similarly, in the Ghanaian hotel

Sustainability **2022**, 14, 12791 15 of 20

context, this finding is inconsistent with what was concluded by Mallen-Ntiador [110] who mentioned that water conservation, as well as waste-management practices, did not have a significant positive impact on customer satisfaction. Taking into account the previous results, it is evident that the greater the perceived ESPs, the slightly higher the perceived GS.

Thirdly, as regards the effect of GS on CCB, the study found that GS was a significant determinant of CCB toward green/eco-friendly hotels (β = 0.396, p < 0.001). This result is similar to those found by Hwang and Lee [27] in their empirical study on a sample of 341 regular customers of green restaurants, which concluded that CCB is positively impacted by affective satisfaction. Additionally, these findings also support the results of Thai and Nguyen [28] who found that GS made a significant contribution to improving CCB in Vietnamese green hotels. Furthermore, this finding is consistent with findings of previous studies in different contexts such as the banking industry [40], cultural and creative industries [17], and internet service providers [20], which indicates that customer satisfaction is the key predictor of CCB. Hence, based on our analysis, we can conclude that the higher the perceived GS, the higher the CCB. Lastly, regarding GS's mediation role in the relationship between CCB and ESPs, the study findings indicate that GS has a partial mediation role. Consequently, in addition to the direct relationship concluded previously between ESPs and CCB, this finding evidences the fact that CCB indirectly (via GS) has a positive significant relationship with ESPs.

5.2. Theoretical Implications

Bearing in mind the findings of this study, several theoretical implications can be drawn. Firstly, this research significantly contributes to the literature on environmental sustainability and sustainable development in the hotel business context by providing insights into the nexus between ESPs, GS, and CCB. The study findings illustrate the significant positive direct and indirect interrelationships among ESPs, GS, and CCB. Furthermore, GS is represented as the key predictor of CCB. Secondly, most of the previous research has mainly focused on the effects of ESPs on overall customer satisfaction. Meanwhile, this study mainly focused on green satisfaction and its related items as mentioned by Chen and Chang [94]. Thirdly, according to the best of our knowledge, this study is the first one to investigate the concept of GS as a potential mediator between CCB and ESPs within the eco-friendly hotel industry context, particularly in developing countries such as Egypt. The study findings reveal that GS plays a significant partial mediating role in the relationship between CCB and ESPs. Fourth, the current study contributes to the literature on value co-creation behavior and hospitality green marketing by introducing a unique validated model denoting ESPs that significantly predict green satisfaction and customer citizenship feedback, advocacy, helping, and tolerance behavior. Fifth, in addition to contributing to narrowing the gap between CCB, GS, and ESPs, the model developed here could act as a framework for future research focusing on enhancing GS and improving CCB in the green/eco-friendly hotel business context. Finally, the study contributes to expanding the extent of the application of social exchange theory by showing how it relates to the study's constructs. In accordance with the theory of social exchange, study findings show that hotels that care for their environment gain a reasonable level of green satisfaction, leading their customers to possibly engage in voluntary behaviors (i.e., CCBs) that exhibit their good intention toward the hotel. They may accept service delays and failures, offer feedback in case they have optimistic ideas for boosting service, speak well about the hotel, and help fellow guests when needed.

5.3. Practical Implications

Some practical implications for eco-friendly hotel operators can be pointed out based on the findings of the study. First, the study findings revealed that customers are more likely to offer voluntary assistance, provide feedback, speak positively about, and be more tolerant toward environmentally responsible hotels. Such a finding can be beneficial for hotel executives and marketers wishing to amplify optimistic customer attitudes

Sustainability **2022**, 14, 12791 16 of 20

via the implementation of environmental sustainability initiatives that are centered on customers. Contributing to increasing environmental awareness for hotel guests and employees (i.e., informing the guests of ESPs implemented, engaging the guests to take part in minimizing the hotel's ecological impacts, promoting green products and services, and enhancing hotel staff's environmental awareness through continuous training) is essential. Further, the study results showed that ESPs positively impact GS, which in turn significantly affects CCB. As a result, if hotel operators want to increase citizen behaviors among their customers, they should incorporate ESPs into their operational plans proactively. In addition to increasing green satisfaction, these practices effectually facilitate the customers in recommending eco-hotels to others in addition to providing feedback regarding the improvement of environmentally friendly services and products. The study findings also illustrate that green satisfaction plays a vital role in predicting CCB. Therefore, hotel operators should improve green satisfaction among their customers by understanding and satisfying customer environmental needs and desires, making GS a part of hotel culture, and measuring customers' green satisfaction periodically. Incentives (i.e., loyal program points, special discounts, etc.) should be provided by hotel management to encourage customers to participate in eco-friendly initiatives. Finally, using renewable energy sources was the least-perceived practice among the investigated participants. Consequently, to reduce greenhouse gas emissions, hotels should replace their energy sources, where possible, with renewable energy ones.

6. Limitations and Further Research

The current study has the following limitations. Firstly, only five-star green/ecofriendly hotels in Egypt were investigated in terms of ESPs, GS, and CCB. The findings might not have generalizability to other areas and populations. Further research using a larger and broader sample size would help gain further insights. Secondly, the study examined the potential mediation role of green satisfaction in the relationship between CCB and ESPs; further research might explore other research variables, such as green quality, green image, or green trust as potential mediators of the relationship between ESPs and CCB. Thirdly, other variables such as tourists' pro-environmental awareness, environmental values, and environmental concerns may be addressed as vital moderator variables in these relationships. Fourth, while the research was carried out on eco-friendly hotels, future research might involve other hospitality-related sectors (e.g., green cruises, green resorts, green restaurants, etc.). Fifth, the study examined the impact of ESPs on CCB as a one-dimensional construct. Further research on CCB could be conducted in multiple dimensions (i.e., customer-to-organization and customer-to-customer citizenship behaviors). Finally, demographic variables (i.e., gender, age, level of education, nationality, etc) may be considered for showing the difference in the investigated participants' perceptions towards ESPs, GS, and CCB using a post hoc analysis of multiple-group tests in forthcoming research.

Author Contributions: Conceptualization, A.H.A.; methodology, A.H.A., W.S. and T.H.H.; software, A.H.A., W.S. and A.E.S.; validation, A.H.A. and T.H.H.; formal analysis, A.H.A., A.E.S. and A.I.A.; data curation, A.H.A., T.H.H., M.Y.A. and A.E.S.; writing—original draft preparation, A.H.A., W.S. and T.H.H.; writing—review and editing, A.E.S., M.Y.A. and A.I.A.; funding acquisition, A.H.A. and W.S.; supervision, A.H.A. and T.H.H.; visualization, A.H.A. and W.S. All authors have read and agreed to the published version of the manuscript.

Funding: This work was supported by the Deanship of Scientific Research, Vice Presidency for Graduate Studies and Scientific Research, King Faisal University, Saudi Arabia (Grant No. 882).

Institutional Review Board Statement: The study was conducted according to the guidelines of the Declaration of Helsinki and approved by the deanship of the scientific research ethical committee, King Faisal University (Project number: Grant 882, date of approval: 1 June 2022).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Sustainability **2022**, 14, 12791 17 of 20

Data Availability Statement: The data presented in this study are available on request from the corresponding authors.

Acknowledgments: This work was supported by the Deanship of Scientific Research, Vice Presidency for Graduate Studies and Scientific Research, King Faisal University, Saudi Arabia (Grant No. 882). Moreover, the authors express their sincere gratitude to all respondents who participated in this study.

Conflicts of Interest: The authors declare no conflict of interest.

References

- 1. Ibragimov, K.; Perles-Ribes, J.F.; Ramón-Rodríguez, A.B. The impact of climate change on tourism demand: Evidence from Kazakhstan. *Anatolia* **2022**, *33*, 293–297. [CrossRef]
- 2. Khatter, A.; McGrath, M.; Pyke, J.; White, L.; Lockstone-Binney, L. Analysis of hotels' environmentally sustainable policies and practices. *Int. J. Contemp. Hosp. Manag.* **2019**, *31*, 2394–2410. [CrossRef]
- 3. Gryshchenko, O.; Babenko, V.; Bilovodska, O.; Voronkova, T.; Ponomarenko, I.; Shatska, Z. Green tourism business as marketing perspective in environmental management. *Glob. J. Environ. Sci. Manag.* **2022**, *8*, 117–132. [CrossRef]
- 4. Kaur, B. A study of barriers to environmentally sustainable practices in hotel businesses in Punjab, India: Preliminary Findings. *Acad. Tur.* **2021**, *14*, 71–86. [CrossRef]
- 5. Kasim, A. Towards a wider adoption of environmental responsibility in the hotel sector. *Int. J. Hosp. Tour. Adm.* **2007**, *8*, 25–49. [CrossRef]
- 6. Bohdanowicz, P. Environmental awareness, and initiatives in the Swedish and Polish hotel industries—survey results. *Int. J. Hosp. Manag.* **2006**, *25*, 662–682. [CrossRef]
- 7. Kirk, D. Attitudes to environmental management held by a group of hotel managers in Edinburgh. *Int. J. Hosp. Manag.* **1998**, 17, 33–47. [CrossRef]
- 8. Salama, W.; Abdelsalam, E. Impact of Hotel Guests' Trends to Recycle Food Waste to Obtain Bioenergy. *Sustainability* **2021**, *13*, 3094. [CrossRef]
- 9. Kim, Y.J.; Palakurthi, R.; Hancer, M. The environmentally friendly programs in hotels and customers' intention to stay: An online survey approach. *Int. J. Hosp. Tour. Adm.* **2012**, *13*, 195–214. [CrossRef]
- 10. Moise, M.S.; Gil-Saura, I.; Ruiz Molina, M.E. The importance of green practices for hotel guests: Does gender matter? *Ekon. Istraživanja* **2021**, *34*, 3508–3529. [CrossRef]
- 11. Lee, K.; Lee, M.; Gunarathne, N. Do green awards, and certifications matter? Consumers' perceptions, green behavioral intentions, and economic implications for the hotel industry: A Sri Lankan perspective. *Tour. Econ.* **2019**, 25, 593–612. [CrossRef]
- 12. Horng, J.; Liu, C.; Chou, S.; Tsai, C.; Chung, Y. From innovation to sustainability: Sustainability innovations of eco-friendly hotels in Taiwan. *Int. J. Hosp. Manag.* **2017**, *63*, 44–52. [CrossRef]
- 13. Nilashi, M.; Ahani, A.; Esfahani, M.D.; Yadegaridehkordi, E.; Samad, S.; Ibrahim, O.; Sharef, N.M.; Akbari, E. Preference learning for eco-friendly hotels recommendation: A multi-criteria collaborative filtering approach. *J. Clean Prod.* **2019**, 215, 767–783. [CrossRef]
- 14. Green Hotel Association. What Are Green Hotels? Available online: http://greenhotels.com/index.php (accessed on 25 April 2022).
- 15. Gong, T.; Yi, Y. A review of customer citizenship behaviors in the service context. Serv. Ind. J. 2021, 41, 169–199. [CrossRef]
- 16. Jamal, A. Retail banking and customer behaviour: A study of self-concept, satisfaction, and technology usage. *Int. Rev. Retail Distrib. Consum. Res.* **2004**, *14*, 357–379. [CrossRef]
- 17. Al Halbusi, H.; Jimenez Estevez, P.; Eleen, T.; Ramayah, T.; Hossain Uzir, M.U. The Roles of The Physical Environment, Social Servicescape, Co-Created Value, and Customer Satisfaction in Determining Tourists' Citizenship Behavior: Malaysian Cultural and Creative Industries. *Sustainability* 2020, 12, 3229. [CrossRef]
- 18. Yusof, Y.; Awang, Z.; Jusoff, K.; Ibrahim, Y. The influence of green practices by non-green hotels on customer satisfaction and loyalty in hotel and tourism industry. *Int. J. Green Econ.* **2017**, *11*, 1–14. [CrossRef]
- 19. Amirreza, F.; Mohammad, S.Z.; Gilani, M.H.N. Customer satisfaction in hospitality industry: Middle East tourists at 3star hotels in Malaysia. *Res. J. Appl. Sci. Eng. Technol.* **2013**, *5*, 4329–4335.
- 20. Groth, M. Customers as Good Soldiers: Examining Citizenship Behaviors in Internet Service Deliveries. *J. Manag.* **2005**, *31*, 7–27. [CrossRef]
- 21. Chang, N.; Fong, C. Green product quality, green corporate image, green customer satisfaction, and green customer loyalty. *Afr. J. Bus. Manag.* **2010**, *4*, 2836–2844.
- 22. Chen, Y. The Drivers of Green Brand Equity: Green Brand Image, Green Satisfaction, and Green Trust. *J. Bus. Ethics* **2010**, *93*, 307–319. [CrossRef]
- 23. Gong, T.; Choi, J.N.; Murdy, S. Does Customer Value Creation Behavior Drive Customer Well-being? *Soc. Behav. Personal.* **2016**, 44, 59–75. [CrossRef]
- 24. Ford, W.S.Z. Evaluation of the Indirect Influence of Courteous Service on Customer Discretionary Behavior. *Hum. Commun. Res.* **1995**, 22, 65–89. [CrossRef]
- 25. Shafiee, M.M.; Tabaeeian, R.A.; Khoshfetrat, A. Tourist engagement, and citizenship behavior: The mediating role of relationship quality in the hotel industry. *Tour. Hosp. Res.* **2020**, *20*, 481–492. [CrossRef]

Sustainability **2022**, 14, 12791 18 of 20

26. Bove, L.L.; Pervan, S.J.; Beatty, S.E.; Shiu, E. Service worker role in encouraging customer organizational citizenship behaviors. *J. Bus. Res.* **2009**, *62*, 698–705. [CrossRef]

- 27. Hwang, K.; Lee, B. Pride, mindfulness, public self-awareness, affective satisfaction, and customer citizenship behaviour among green restaurant customers. *Int. J. Hosp. Manag.* **2019**, *83*, 169–179. [CrossRef]
- 28. Thai, K.P.; Nguyen, Q.H. How green hotel practices stimulates customer citizenship behavior? examining the role of green hotel image and customer satisfaction in Vietnam. *Geo J. Tour. Geosites* **2022**, *40*, 274–282. [CrossRef]
- 29. Berezan, O.; Raab, C.; Yoo, M.; Love, C. Sustainable hotel practices and nationality: The impact on guest satisfaction and guest intention to return. *Int. J. Hosp. Manag.* **2013**, *34*, 227–233. [CrossRef]
- 30. Hendarto, R.; Djazuli, A.; Puspaningrum, A. The Influence of Green Hotel Attributes and Green Hotel Image on Visitor Loyalty with Perceived Value and Customer Satisfaction as Mediation Variables. *The Int. J. Soc. Sci. World (TIJOSSW)* **2021**, *3*, 280–293.
- 31. Chaturvedi, P.; Kulshreshtha, K.; Tripathi, V.; Agnihotri, D. Investigating the impact of restaurants' sustainable practices on consumers' satisfaction and revisit intentions: A study on leading green restaurants. *Asia-Pac. J. Bus. Adm.* **2022**, *ahead-of-print*. [CrossRef]
- 32. Park, E.; Chae, B.; Kwon, J.; Kim, W. The Effects of Green Restaurant Attributes on Customer Satisfaction Using the Structural Topic Model on Online Customer Reviews. *Sustainability* **2020**, *12*, 2843. Available online: https://search.proquest.com/docview/2396661121 (accessed on 25 April 2022). [CrossRef]
- 33. Jeong, E.; Jang, S.; Day, J.; Ha, S. The impact of eco-friendly practices on green image and customer attitudes: An investigation in a café setting. *Int. J. Hosp. Manag.* **2014**, *41*, 10–20. [CrossRef]
- 34. Abdou, A.H.; Shehata, H.S.; Mahmoud, H.M.E.; Albakhit, A.I.; Almakhayitah, M.Y. The Effect of Environmentally Sustainable Practices on Customer Citizenship Behavior in Eco-Friendly Hotels: Does the Green Perceived Value Matter? *Sustainability* **2022**, 14, 7167. Available online: https://search.proquest.com/docview/2679852274 (accessed on 25 April 2022). [CrossRef]
- 35. Aljarah, A.; Alrawashdeh, M. Boosting customer citizenship behavior through corporate social responsibility: Does perceived service quality matter? *Soc. Responsib. J.* **2021**, *17*, 631–647. [CrossRef]
- 36. Fatma, M.; Khan, I.; Kumar, V.; Shrivastava, A.K. Corporate social responsibility and customer-citizenship behaviors: The role of customer–company identification. *Eur. Bus. Rev.* **2022**, *34*, 858–875. [CrossRef]
- 37. Hwang, J.; Lyu, S.O. Relationships among green image, consumer attitudes, desire, and customer citizenship behavior in the airline industry. *Int. J. Sustain. Transp.* **2020**, *14*, 437–447. [CrossRef]
- 38. Mitrega, M.; Klézl, V.; Spáčil, V. Systematic review on customer citizenship behavior: Clarifying the domain and future research agenda. *J. Bus. Res.* **2022**, *140*, 25–39. [CrossRef]
- 39. Chiu, W.; Kwag, M.S.; Bae, J.S. Customers as partial employees: The influences of satisfaction and commitment on customer citizenship behavior in fitness centers. *J. Phys. Educ. Sport* **2015**, *15*, 627.
- 40. Van Tonder, E.; De Beer, L.T. New perspectives on the role of customer satisfaction and commitment in promoting customer citizenship behaviours. *South Afr. J. Econ. Manag. Sci.* **2018**, *21*, 1–11. [CrossRef]
- 41. Myung, E.; McClaren, A.; Li, L. Environmentally related research in scholarly hospitality journals: Current status and future opportunities. *Int. J. Hosp. Manag.* **2012**, *31*, 1264–1275. [CrossRef]
- 42. Yadegaridehkordi, E.; Nilashi, M.; Nizam Bin Md Nasir, M.H.; Momtazi, S.; Samad, S.; Supriyanto, E.; Ghabban, F. Customers segmentation in eco-friendly hotels using multi-criteria and machine learning techniques. *Technol. Soc.* **2021**, *65*, 101528. [CrossRef]
- 43. Hu, R.; Luo, J.M.; Li, Y.; Wang, L.; Ma, J.; Henriques, D. Qualitative study of green resort attributes—A case of the Crosswater resort in China. *Cogent Soc. Sci.* **2020**, *6*, 1742525. [CrossRef]
- 44. Hu, H.; Parsa, H.G.; Self, J. The dynamics of green restaurant patronage. Cornell Hosp. Q. 2010, 51, 344–362. [CrossRef]
- 45. Han, H.; Eom, T.; Chung, H.; Lee, S.; Ryu, H.; Kim, W. Passenger Repurchase Behaviours in the Green Cruise Line Context: Exploring the Role of Quality, Image, and Physical Environment. *Sustainability* **2019**, *11*, 1985. [CrossRef]
- 46. Hwang, J.; Choi, J. An Investigation of Passengers' Psychological Benefits from Green Brands in an Environmentally Friendly Airline Context: The Moderating Role of Gender. *Sustainability* **2017**, *10*, 80. [CrossRef]
- 47. Merli, R.; Preziosi, M.; Acampora, A.; Ali, F. Why should hotels go green? Insights from guests experience in green hotels. *Int. J. Hosp. Manag.* **2019**, *81*, 169–179. [CrossRef]
- 48. Acuti, D.; Vannucci, V.; Pizzi, G. The sensory dimension of sustainable retailing: Analysing in-store green atmospherics. In *Emotional, Sensory, and Social Dimensions of Consumer Buying Behavior*; IGI Global: Hershey, PA, USA, 2020; pp. 50–83.
- 49. Giordino, D.; Crocco, E. Sustainable Development: A New Frontier for SMEs. In *Management Strategies for Sustainability, New Knowledge Innovation, and Personalized Products and Services*; IGI Global: Hershey, PA, USA, 2022; pp. 68–93.
- 50. Rahman, I.; Reynolds, D.; Svaren, S. How "green" are North American hotels? An exploration of low-cost adoption practices. *Int. J. Hosp. Manag.* **2012**, *31*, 720–727. [CrossRef]
- 51. Manaktola, K.; Jauhari, V. Exploring consumer attitude and behaviour towards green practices in the lodging industry in India. *Int. J. Contemp. Hosp. Manag.* **2007**, *19*, 364–377. [CrossRef]
- 52. Verma, V.K.; Chandra, B. Hotel guest's perception and choice dynamics for green hotel attribute: A mix method approach. *Indian J. Sci. Technol.* **2016**, *9*, 1–9. [CrossRef]
- 53. Kasim, A.; Gursoy, D.; Okumus, F.; Wong, A. The importance of water management in hotels: A framework for sustainability through innovation. *J. Sustain. Tour.* **2014**, 22, 1090–1107. [CrossRef]

Sustainability **2022**, 14, 12791 19 of 20

54. Kuuder, C.W.; Bagson, E.; Prempeh, V.M.; Mumuni, A.; Adongo, R.; Amoako, E.E. Energy, water, and waste management in the accommodation sector of Tamale Metropolis, Ghana. *Am. J. Tour. Manag.* **2013**, *2*, 1–9.

- 55. Han, H.; Lee, J.; Trang, H.L.T.; Kim, W. Water conservation and waste reduction management for increasing guest loyalty and green hotel practices. *Int. J. Hosp. Manag.* **2018**, *75*, 58–66. [CrossRef]
- 56. Singh, N.; Cranage, D.; Lee, S. Green strategies for hotels: Estimation of recycling benefits. *Int. J. Hosp. Manag.* **2014**, *43*, 13–22. [CrossRef]
- 57. Van Tonder, E.; Heymans, A. The role of trust in influencing customer willingness to help fellow customers with online-only retailers' self-services: A mediated model. *J. Contemp. Manag.* **2020**, *17*, 22–50. [CrossRef]
- 58. Hilton. Travel with Purpose. Available online: https://esg.hilton.com/wp-content/uploads/sites/3/2022/05/2021-ESG-Report-Updated.pdf (accessed on 25 April 2022).
- 59. Marriot International. 2025 Sustainability & Social Impact Goals. Available online: http://serve360.marriott.com/wp-content/uploads/2019/10/Serve-360-goals-page-tabloid_2-updated-20180916-English.pdf (accessed on 25 April 2022).
- 60. Intercontinental Hotel Group (IHG). Planet. Available online: https://www.ihgplc.com/en/responsible-business/our-planet (accessed on 25 April 2022).
- 61. Zaiton, S.; Herman, S.; Kasimu, A.B.; Hassan, H. Sustainable tourism practices among hotels in Malaysia: Financial and non-financial benefits. *J. Sustain. Sci. Manag.* **2016**, *11*, 73–81.
- 62. Bohdanowicz, P. European hoteliers' environmental attitudes: Greening the business. *Cornell Hotel Restaur. Adm. Q* **2005**, 46, 188–204. [CrossRef]
- 63. Meade, B.; Pringle, J. Environmental management systems for Caribbean hotels and resorts: A case study of five properties in Jamaica. *J. Qual. Assur. Hosp. Tour.* **2001**, 2, 149–159. [CrossRef]
- 64. Mensah, I. Environmental management practices among hotels in the Greater Accra Region. *Int. J. Hosp. Manag.* **2006**, *25*, 414–431. [CrossRef]
- 65. Robinot, E.; Giannelloni, J.-L. Do hotels' "green" attributes contribute to customer satisfaction? *J. Serv. Mark.* **2010**, *24*, 157–169. [CrossRef]
- 66. Chen, Y.; Lin, C.; Weng, C. The Influence of Environmental Friendliness on Green Trust: The Mediation Effects of Green Satisfaction and Green Perceived Quality. *Sustainability* **2015**, *7*, 10135–10152. [CrossRef]
- 67. Abdou, A.H.; Hassan, T.H.; Dief, E.; Moustafa, M. A description of green hotel practices and their role in achieving sustainable development. *Sustainability* **2020**, *12*, 9624. [CrossRef]
- 68. Bettencourt, L.A. Customer voluntary performance: Customers as partners in service delivery. *J. Retail.* **1997**, 73, 383–406. [CrossRef]
- 69. Yi, Y.; Gong, T. Customer value co-creation behavior: Scale development and validation. *J. Bus. Res.* **2013**, *66*, 1279–1284. [CrossRef]
- 70. Curth, S.; Uhrich, S.; Benkenstein, M. How a commitment to fellow customers affects the customer-firm relationship and customer citizenship behavior. *J. Serv. Mark.* **2014**, *28*, 147–158. [CrossRef]
- 71. Gong, T. Customer brand engagement behavior in online brand communities. J. Serv. Mark. 2018, 32, 286–299. [CrossRef]
- 72. Chi, C.G.; Qu, H. Examining the structural relationships of destination image, tourist satisfaction and destination loyalty: An integrated approach. *Tour. Manag.* **2008**, *29*, 624–636. [CrossRef]
- 73. Ardani, W.; Rahyuda, K.; Giantari, I.G.A.K.; Sukaatmadja, I.P.G. Customer Satisfaction and Behavioral Intentions in Tourism: A Literature Review. *Int. J. Appl. Bus. Int. Manag.* **2019**, *4*, 84–93. [CrossRef]
- 74. Kopalle, P.K.; Lehmann, D.R. Setting quality expectations when entering a market: What should the promise be? *Mark. Sci.* **2006**, 25, 8–24. [CrossRef]
- 75. Gundersen, M.G.; Heide, M.; Olsson, U.H. Hotel guest satisfaction among business travelers: What are the important factors? *Cornell Hotel Restaur. Adm. Q* **1996**, *37*, 72–81. [CrossRef]
- 76. Giese, J.L.; Cote, J.A. Defining consumer satisfaction. Acad. Mark. Sci. Rev. 2000, 1, 1–22.
- 77. Chen, Y. Towards green loyalty: Driving from green perceived value, green satisfaction, and green trust. *Sustain. Dev.* **2013**, 21, 294–308. [CrossRef]
- 78. Chen, Y.; Lin, C.; Chang, C. The influence of greenwash on green word-of-mouth (green WOM): The mediation effects of green perceived quality and green satisfaction. *Qual. Quant.* **2013**, *48*, 2411–2425. [CrossRef]
- 79. Zubair Tariq, M. Impact of Green Advertisement and Green Brand Awareness on Green Satisfaction with Mediating Effect of Buying Behavior. *J. Manag. Sci.* **2014**, *8*.
- 80. Gil, M.T.; Jacob, J. The relationship between green perceived quality and green purchase intention: A three-path mediation approach using green satisfaction and green trust. *Int. J. Bus. Innov. Res.* **2018**, *15*, 301–319. [CrossRef]
- 81. Juliana, J.; Djakasaputra, A.; Pramono, R. Green perceived risk, green viral communication, green perceived value against green purchase intention through green satisfaction. *J. Ind. Eng. Manag. Res.* **2020**, *1*, 124–139.
- 82. Aljarah, A. Environmental marketing strategy and customer citizenship behavior: An investigation in a cafe setting. *Int. J. Hosp. Tour. Adm.* **2021**, 23, 1–25. [CrossRef]
- 83. van Tonder, E.; Fullerton, S.; de Beer, L.T. Cognitive and emotional factors contributing to green customer citizenship behaviours: A moderated mediation model. *J. Consum. Mark.* **2020**, *37*, 639–650. [CrossRef]

Sustainability **2022**, 14, 12791 20 of 20

84. Yu, Y.; Li, X.; Jai, T. The impact of green experience on customer satisfaction: Evidence from TripAdvisor. *Int. J. Contemp. Hosp. Manag.* **2017**, 29, 1340–1361. [CrossRef]

- 85. Olya, H.; Altinay, L.; Farmaki, A.; Kenebayeva, A.; Gursoy, D. Hotels' sustainability practices, and guests' familiarity, attitudes, and behaviors. *J. Sustain. Tour.* **2021**, *29*, 1063–1081. [CrossRef]
- 86. Soni, G.; Hussain, S.; Kareem, S. Environment-Friendly Practices Adopted in Hotels and their Impact on Customer Satisfaction: A Critical Review of the Literature and Research Implications for the Hospitality Industry. *Atna J. Tour. Stud.* **2022**, *17*, 115–142. [CrossRef]
- 87. Adinegara, J.; Suprapti, N.W.S.; Yasa, N.N.K.; Sukaatmadja, I. Antecedents and consequences of tourist satisfaction: A literature review. *ASEAN Mark. J.* **2021**, *9*, 1.
- 88. Han, H.; Hyun, S.S. Customer retention in the medical tourism industry: Impact of quality, satisfaction, trust, and price reasonableness. *Tour. Manag.* **2015**, *46*, 20–29. [CrossRef]
- 89. Assiouras, I.; Skourtis, G.; Giannopoulos, A.; Buhalis, D.; Koniordos, M. Value co-creation, and customer citizenship behavior. *Ann. Tour. Res.* **2019**, *78*, 102742. [CrossRef]
- 90. Meira, J.V.D.S.; Hancer, M. Using the social exchange theory to explore the employee-organization relationship in the hospitality industry. *Int. J. Contemp. Hosp. Manag.* **2021**, *33*, 670–692. [CrossRef]
- 91. Homans, G.C. Social behavior as exchange. Am. J. Sociol. 1958, 63, 597–606. [CrossRef]
- 92. Patterson, P.G.; Razzaque, M.A.; Terry, C.S.L. Customer Citizenship Behaviourin Service Organisations: A Social Exchange Model. In Proceedings of the Australian and New Zealand Academy Conference, Sydney, Australia, 10–12 December 2003; pp. 2079–2089.
- 93. Bruns-Smith, A.; Choy, V.; Chong, H.; Verma, R. Environmental sustainability in the hospitality industry: Best practices, guest participation, and customer satisfaction. *Cornell Cent. Hosp. Res.* **2015**, *15*, 6–16.
- 94. Chen, Y.; Chang, C. Towards green trust: The influences of green perceived quality, green perceived risk, and green satisfaction. *Manag. Decis.* **2013**, *51*, 63–82. [CrossRef]
- 95. Green Star Hotels (2022). Available online: https://www.greenstarhotel.org/ (accessed on 25 April 2022).
- 96. Lavrakas, P.J. Encyclopedia of Survey Research Methods; SAGE Publications: Thousand Oaks, CA, USA, 2008.
- 97. Hair, J.F.; Black, W.C.; Babin, B.J.; Anderson, R.E. Multivariate Data Analysis, 7th ed.; Prentice-Hall: Hoboken, NJ, USA, 2010.
- 98. Rodriguez Ardura, I.; Meseguer Artola, A. Editorial: How to Prevent, Detect and Control Common Method Variance in Electronic Commerce Research. *J. Theor. Appl. Electron. Commer. Res.* **2020**, *15*, I–V. [CrossRef]
- 99. Podsakoff, P.M.; MacKenzie, S.B.; Lee, J.; Podsakoff, N.P. Common method biases in behavioral research: A critical review of the literature and recommended remedies. *J. Appl. Psychol.* **2003**, *88*, 879. [CrossRef]
- 100. Duckworth, A.L.; Kern, M.L. A meta-analysis of the convergent validity of self-control measures. *J. Res. Personal.* **2011**, 45, 259–268. [CrossRef]
- 101. Hair, J.F.; Ringle, C.M.; Sarstedt, M. Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long Range Plan.* **2013**, *46*, 1–12. [CrossRef]
- 102. Chin, W.W.; Gopal, A.; Salisbury, W.D. Advancing the Theory of Adaptive Structuration: The Development of a Scale to Measure Faithfulness of Appropriation. *Inf. Syst. Res.* **1997**, *8*, 342–367. [CrossRef]
- 103. Henseler, J.; Ringle, C.M.; Sarstedt, M. A new criterion for assessing discriminant validity in variance-based structural equation modeling. *J. Acad. Mark. Sci.* **2015**, *43*, 115–135. [CrossRef]
- 104. Kline, R.B. Principles and Practice of Structural Equation Modeling, 4th ed.; The Guilford Press: New York, NY, USA, 2016.
- 105. Kelloway, E.K. Structural equation modelling in perspective. J. Organ. Behav. 1995, 16, 215–224. [CrossRef]
- 106. Zhao, X.; Lynch, J.G., Jr.; Chen, Q. Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *J. Consum. Res.* **2010**, *37*, 197–206. [CrossRef]
- 107. Chan, E.S.W.; Okumus, F.; Chan, W. The Applications of Environmental Technologies in Hotels. *J. Hosp. Mark. Manag.* **2017**, 26, 23–47. [CrossRef]
- 108. Cheung, M.; Fan, J. Carbon reduction in a high-density city: A case study of Langham Place Hotel Mongkok Hong Kong. *Renew. Energy* **2013**, *50*, 433–440. [CrossRef]
- 109. Moise, M.S.; Gil-Saura, I.; Ruiz Molina, M.E. Effects of green practices on guest satisfaction and loyalty. *Eur. J. Tour. Res.* **2018**, 20, 92–104. [CrossRef]
- 110. Mallen-Ntiador, T.N.E. Green Marketing Practices and Customer Satisfaction In Selected Hotels In Ghana. Ph.D. Thesis, University of Ghana, Accra, Ghana, 2017. Available online: http://ugspace.ug.edu.gh/handle/123456789/23500 (accessed on 25 April 2022).