

The influence of green practices and green image on customer satisfaction and word-of-mouth in the hospitality industry

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Abstract

Frame of the research: As sustainability aware consumers represent a substantial market segment, green practices and green positioning are becoming strategic to enhance competitive advantage.

Purpose of the paper: This study investigates whether the presence of green practices or a green image in the accommodation sector influences customer satisfaction and eWOM and whether this differs between different accommodation categories.

Methodology: The TripAdvisor reviews of 1701 Italian hospitality business were analysed using descriptive and inferential statistics.

Results: Accommodation facilities with green practices present high scores in guest satisfaction and eWOM, particularly those with a green image. The differences in customer satisfaction between accommodation types is smaller for businesses with a green image. B&Bs, agritourism facilities, and other accommodation facilities, even those without a green image, can rely on green practices to increase customer satisfaction and eWOM.

Research limitations: We considered the use of green features in the name of the accommodation facility as a proxy for sustainability alignment. Customer satisfaction could be affected by other variables. The sub-sample of “green name” companies is limited. The size and age of the accommodation facility could impact the number of reviews.

Practical implications: Our results provide valuable insights into the determinants of customer satisfaction and intention to review a green practice and suggest the need to communicate a green orientation.

Originality of the study: Our study extends the investigation to different accommodation types; considers the green image of the accommodation facilities rather than green certification; compares customer satisfaction and eWOM with or without a green image by accommodation type.

Key words: Hospitality industry; sustainable tourism; customer satisfaction; green practices; online reviews; eWOM

1. Introduction

Over time, growing environmental concern has led many consumers to consider the environmental impact of their purchases. According to the Eurobarometer surveys on climate change, consumers who pay attention

to sustainability issues represent a substantial market segment (Egea and Frutos, 2020).

In the tourism industry, destinations, transport operators, attractions, accommodation facilities, and intermediary companies are implementing green practices increasingly often (Blanco *et al.*, 2009) in order to respond to a growing segment of tourists who pay attention to environmental protection. In this way, tourism companies aim to maintain or even enhance their competitive position (Goffi *et al.*, 2018).

However, consumers' growing sensitivity towards ecological issues does not automatically translate into sustainable consumer behaviour for several reasons, such as force of habit, product performance, availability, affordability, conflicting priorities, and scepticism towards corporate greenwashing (Goh and Balaji, 2016; Miniero *et al.*, 2014). Therefore, despite the commitment to developing eco-friendly products, tourism companies sometimes face challenges in changing consumer preferences, suspicion regarding ecological advertising claims, and an unfavourable consumer perception towards these eco-friendly products (Rahman *et al.*, 2015).

It is therefore crucial to explore whether consumers pay attention to environmentally friendly practices related to tourism. Recent literature has investigated whether the adoption of green practices, eco-certification, and the communication of these environmental protection efforts in the hotel industry correlate with customer satisfaction, customer loyalty, or willingness to pay more and recommend the hotel to others (e.g., Abrate *et al.*, 2020; Baratta and Simeoni, 2021). However, previous studies have been carried out in the context of hotels, particularly green-certified hotels (e.g., Tang and Lam, 2017; Trang *et al.*, 2019; Wu *et al.*, 2016), without considering other kinds of accommodation types, and presented mixed results. Small and medium enterprises, which are prevalent in the tourism industry and include other types of accommodation facilities, seem to be reluctant to communicate their sustainability messages and to use their sustainability actions to attract customers (Font *et al.*, 2016). However, it is essential to convey sustainability messages to attract sustainable tourists (Hedlund *et al.*, 2012).

Using the data from TripAdvisor reviews, we studied Italian hospitality businesses to empirically investigate whether the presence of green practices pays in terms of customer satisfaction and activate eWOM on the green practices adopted; whether strongly green-focused accommodation facilities stand out both in terms of customer satisfaction and in terms of customer willingness to spread eWOM on the accommodation facilities' green practices; whether there are any differences both in terms of customer satisfaction and in terms of customer willingness to spread eWOM on accommodation facilities' green practices between strongly green-focused and not strongly green-focused accommodation facilities by accommodation types.

Our findings show that Italian hospitality businesses with green practices that activate guests' eWOM on these practices seem to show high overall scores in terms of guest satisfaction, and that strongly green-focused accommodation facilities (e.g., with green attributes in the name)

outperform others both in terms of customer satisfaction and eWOM on the green practices adopted. Furthermore, the analysis by accommodation type suggests that, beyond accommodation facilities with a solid green image, B&Bs, agritourism facilities, and other accommodation facilities, even those a green image, can rely on green practices to increase customer satisfaction and improve customer behaviour.

By comparing accommodation facilities with or without a green image in terms of customer satisfaction and eWOM on green practices, we provided a broader picture on sustainable tourism from a consumer perspective, and we provided insight into the conditions under which the presence of green practices in the tourist accommodation sector is perceived and stimulates a reaction from guests. The differences identified could help to explain the contrasting results of previous research on green consumer behaviour and sustainable tourism. The following section provides an overview of the literature regarding green practices in the hospitality industry, green image, and their effect on customer satisfaction and behavioural intentions. Next, the authors describe the methodology, including data and measures, followed by the results. Subsequently, the theoretical and managerial implications are presented, together with research limitations and suggested future lines of research.

2. Literature review

2.1 *The influence of green practices on customer satisfaction and behaviour*

Research on consumer attention to green practices in the accommodation sector is gaining importance (D'Acunto *et al.*, 2020). The recent literature has investigated whether the adoption of green practices, eco-certification and the communication of these environmental protection efforts in the hotel industry correlate with customer satisfaction, customer loyalty, or willingness to pay more and to recommend the hotel to others (Olya *et al.*, 2021). However, the results are discordant: on the one hand, some scholars showed that customer satisfaction is not reduced if green practices are not implemented (Bruns-Smith *et al.*, 2015), on the other hand, several studies revealed that there is a significant relationship between green practices and customer satisfaction (Prud'homme and Raymond, 2013). Some authors found that the communication of green practices can create suspicion and scepticism among consumers (Rahman *et al.*, 2015).

Ettinger and colleagues (2018) showed that among guests' comments on hotels' corporate social responsibility (CSR) engagement, green practices are most commented upon in online customer reviews together with supplier relations. D'Acunto *et al.* (2020) documented that green practices in the hotel industry lead to more positive emotions and higher ratings in consumers' reviews, though only a limited number of reviews pay attention to green practices. Likewise, Lee *et al.* (2016) showed that the majority of guests respond positively towards green practices when they are able to recognize them, whereas a lack of awareness about hotels' green practices can cause guests to feel inconvenienced during their stays.

As far as we know, previous studies have been carried out in the context of hotels, particularly green-certified hotels (e.g., Wang *et al.*, 2018), and presented mixed results. It should be noted, however, that not all green hotels are certified. Indeed, since committing to a certification procedure is time-consuming and expensive, many hotels choose not to get an official certification. Therefore, previous literature has neglected the hotels that, even without an official certification, might be adopting green practices and communicating a green message to their customers (Yusof *et al.*, 2017).

Hence, and in light of the aforementioned restricted focus, a further empirical examination is necessary to more fully understand whether adopting a green practice pays in terms of customer satisfaction and behaviour, for instance, online reviews (i.e., eWOM) of accommodation facilities green practices, regardless of whether or not the facility has a green certification.

Thus, this study aims to address the following research question:

Research question 1 (RQ1): Does adopting a green practice in the accommodation industry pay in terms of customer satisfaction and activate eWOM on the green practices adopted?

2.2 The influence of green image on customer satisfaction and behaviour

Some scholars have also tried to study the relationship between green image in the hospitality industry and customer satisfaction and behaviour. For example, the adoption of eco-certification and the communication of these environmental protection objectives in the hotel sector are related to customer satisfaction by some authors (Gerdt *et al.*, 2019; Merli *et al.*, 2019). Previous articles argued that a green image could improve perceived quality level among customers (Robinot and Giannelloni, 2010), though few empirical research papers have studied this phenomenon. In the study by Lee *et al.* (2018), a positive correlation between green image and perceived quality was explained by customers considering the hotel's green practices as a value. Therefore, when the customer notices the hotel's efforts towards environmental protection, the perceived quality level increases or at least does not decrease in the event of lower service performance.

Regarding the relationship between a green image and customer behaviour, Lee *et al.* (2010) showed that a green hotel's overall image positively influences customer behavioural intentions to revisit and to spread word-of-mouth, as well as willingness to pay a premium. On the contrary, Leaniz *et al.* (2018) did not find any significant effect of green image on the intention to spread positive word-of-mouth about environmentally certified hotels.

In particular, as far as we know, no studies are investigating the effects of a clearly communicated green image, such as where the accommodation facility uses a green reference in the name in order to obtain a green positioning, nor are there studies comparing the difference between implementing of green practices and adopting solid green positioning.

Therefore, we aim to answer the following research questions:

Research question 2 (RQ2). Do strongly green-focused accommodation facilities stand out in terms of customer satisfaction?

Research question 3 (RQ3). Do strongly green-focused accommodation facilities stand out in terms of customer willingness to disseminate eWOM on the facility's green practices?

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In addition, as already highlighted, previous studies have been carried out in the context of hotels, particularly green-certified hotels, which do not cover all accommodation categories although they are gaining importance in many tourist destinations (Candela and Figini, 2010). In this study, several types of accommodation facilities (i.e., businesses that offer a place to sleep and related services to tourists) are considered as different categories of offer corresponding to diverse demand segments. Generally, consumer sensitivity towards sustainability differs between segments. In particular, consumers' reactions to green practices change across specific hotel segments (Barber, 2014), and therefore we can also expect them to change across accommodation segments. Therefore, other types of accommodation facilities such as agritourism facilities, bed and breakfasts, and hostels should be considered. The agritourism concept refers explicitly to a joint practice of agricultural and tourism activities that offers guests an experience of countryside living and culture, an active or passive involvement in farming, and authentic food (Phillip *et al.*, 2010). Bed and breakfasts are mostly family-run; they are cheaper than most hotels and they suit travellers who want to meet and engage with local people (Chiu, 2018). Hostels typically have shared rooms with bunk beds, and therefore, they are one of the cheapest forms of accommodation (Veríssimo and Costa, 2019).

Subsequently, we intend to answer the following research questions in the context of different types of tourism accommodation facilities:

Research question 4 (RQ4). Are there any differences in customer satisfaction between strongly green-focused and not strongly green-focused accommodation facilities by type of facility?

Research question 5 (RQ5). Are there any differences in customer willingness to spread eWOM on accommodations' green practices between strongly green-focused and not strongly green-focused accommodation facilities by type of facility?

3. Methodology

3.1 Data and measures

In order to collect data on Italian hospitality businesses with green practices that activate eWOM on the facility's green practices, we used the TripAdvisor database. TripAdvisor is the world's largest travel platform. It has collected more than 859 million reviews and opinions in 28 languages on 8.6 million accommodation facilities, restaurants, experiences, airlines, and cruises across 49 countries, and it is browsed by 463 million travelers each month¹. Several scholars have used online reviews to evaluate consumers' awareness of environmental and social issues (e.g., Brazyté

¹ <https://tripadvisor.mediaroom.com/us-about-us> [22/07/2020]

et al., 2017), as the opinions are posted spontaneously by tourists, unlike traditional surveys and interviews. Online reviews are considered more objective, without sample and results bias (Schuckert *et al.*, 2015). We collected the online reviews through Import.io, a web data extractor. We extracted the data from TripAdvisor webpages on accommodation facilities located in Italy. We looked for reviews containing the following keywords: sustainable, ecological, renewable, photovoltaic and bio-architecture. The crawler was run on 25 January 2020. We collected 2724 mentions of the keywords related to 1701 Italian accommodation facilities. For each review containing one or more keywords, we extracted the following data regarding the corresponding accommodation facility: the name of the accommodation facility, the total number of reviews, its address, and the number of times each keyword was mentioned in the reviews.

The initial database exported from Import.io was completed with the following variables: the total TripAdvisor score assigned by the guests (from 1= Very poor to 5=Excellent) (SCORE); the accommodation type (B&Bs, Agritourism facilities, Hotels, Other accommodation facilities) (TYPE); the total number of keywords mentions (GREEN eWOM). Finally, we added a dummy variable to indicate the absence or presence of a green attribute in the accommodation name (e.g., green, eco, bio, vegan) called GREEN NAME.

3.2 Method

The data were analysed using descriptive and inferential statistics. The statistical software SPSS was used for this purpose. The statistical analysis aimed to investigate whether green practices and the use of green attributes in the name of the accommodation facility have an effect firstly on consumer satisfaction and secondly on guests' eWOM on the facility's green practices and whether this differs by accommodation type.

The statistical comparison of consumer satisfaction and guests' reactions to green initiatives in terms of reviews across the different groups of Italian hospitality businesses with green practices that had captured guests' attention was performed using a t-test and one-way ANOVA, depending on whether the comparison was between two or more groups.

Specifically, the t-test was used to compare SCORES and GREEN eWOM in terms of GREEN NAME (i.e., with or without). The one-way ANOVA was used to compare SCORES and GREEN eWOM across TYPE. The sample used for the ANOVA analysis was subdivided into two sub-samples, one containing the cases with a GREEN NAME and a second containing the cases without a GREEN NAME, because of the considerably different number of cases between the two. Therefore, the results show whether the mean SCORES are different between the different accommodation types, whether or not they have a green name. The F-statistic for the one-way ANOVA tests the null hypothesis that all the sample groups have the same population mean. Therefore, in the case of statistical significance (i.e., $\text{prob.} < 5\%$), the null hypothesis is rejected, meaning that at least two means are different. In order to identify the

groups as statistically different from each other, we performed HDS Tukey's post-hoc test.

Furthermore, three basic assumptions were checked and verified: independence, normality, and homogeneity of the variance of the residuals through Levene's test. The assumption regarding the normally distributed dependent variable in the population is not respected in our sample. However, we used a large sample, which renders most tests robust to violations of normality due to the central limit theorem.

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4. Results

Table 1 provides an overview of the cases included in the analysis by TYPE and GREEN NAME. There are 96 cases with a GREEN NAME, representing 5.6% of the sample. Most companies did not have a green name (94.4%). Hotels represent 38% of the total sample; B&Bs represent 25.3%; Agritourism facilities 13.8%; and Other accommodation facilities 22.8%. Therefore, the sub-sample of cases with a GREEN NAME has the following composition: Hotels (22.9%), B&Bs (37.5%), Agritourism facilities (18.8%), and Other accommodation facilities (20.8%).

Tab. 1: Frequencies of cases per TYPE and GREEN NAME

			GREEN NAME		Total
			NO	YES	
TYPE	AGRITOURISM FACILITIES	Count	217	18	235
		% in TYPE	92.3%	7.7%	100.0%
		% in GREEN NAME	13.5%	18.8%	13.8%
	B&BS	Count	395	36	431
		% in TYPE	91.6%	8.4%	100.0%
		% in GREEN NAME	24.6%	37.5%	25.3%
	HOTELS	Count	625	22	647
		% in TYPE	96.6%	3.4%	100.0%
		% in GREEN NAME	38.9%	22.9%	38.0%
	OTHER ACCOMMODATION FACILITIES	Count	368	20	388
		% in TYPE	94.8%	5.2%	100.0%
		% in GREEN NAME	22.9%	20.8%	22.8%
Total		Count	1605	96	1701
		% in TYPE	94.4%	5.6%	100.0%
		% in GREEN NAME	100.0%	100.0%	100.0%

Source: own elaboration

The SCORE frequencies are listed in Table 2. The majority of the scores lie between 4 and 5 (from good to excellence), equal to a cumulative percentage of 86%, while the remaining scores from 1.5 to 3.5 account only for 14% of the sample. Only one case has a score of 1.5, and 3 cases have a score of 2. Therefore, the Italian hospitality businesses with green practices

that activate the eWOM on the accommodation facility's green practices seem to show high overall scores in terms of guests' satisfaction (RQ1).

Tab. 2: Frequencies of cases per SCORE

		Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	1.5	1	.1	.1	.1
	2.0	3	.2	.2	.2
	2.5	16	.9	.9	1.2
	3.0	49	2.9	2.9	4.1
	3.5	169	9.9	9.9	14.0
	4.0	390	22.9	22.9	36.9
	4.5	685	40.3	40.3	77.2
	5.0	388	22.8	22.8	100.0
	Total	1701	100.0	100.0	

Source: own elaboration

The number of GREEN eWOM detected ranges from 1 to 53, as shown in Table 3. Most cases have only 1 green mention (77.4%). The cases with 1 to 3 green eWOM account for 94.2% of the sample.

Tab. 3: Frequencies of cases per GREEN eWOM

		Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	1	1316	77.4	77.4	77.4
	2	209	12.3	12.3	89.7
	3	78	4.6	4.6	94.2
	4	28	1.6	1.6	95.9
	5	22	1.3	1.3	97.2
	6	19	1.1	1.1	98.3
	7	6	.4	.1	98.6
	8	5	.3	.3	98.9
	9	2	.1	.1	99.1
	10	2	.1	.1	99.2
	12	2	.1	.1	99.3
	14	1	.1	.1	99.4
	15	1	.1	.1	99.4
	16	2	.1	.1	99.5
	17	1	.1	.1	99.6
	18	1	.1	.1	99.6
	20	1	.1	.1	99.7
	26	2	.1	.1	99.8
	27	1	.1	.1	99.9
	28	1	.1	.1	99.9
53	1	.1	.1	100	
Total	1701	100.0	100.0		

Source: own elaboration

4.1 Customer Satisfaction, Green Name and Accommodation Type

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The mean score of cases without a GREEN NAME equals to 4.321, lower than the mean score of cases with a GREEN NAME, equal to 4.521. B&Bs in both sub-samples achieve the highest mean score, while hotels without a GREEN NAME achieved the lowest.

The t-test statistic (t) shows that the mean score of cases without a GREEN NAME and cases with a GREEN NAME are significantly different. Therefore, we can answer our second research question in the affirmative, as the analysis showed that strongly green-focused accommodation facilities (e.g., with green attributes in the name) outperform others in terms of customer satisfaction (RQ2).

One-way ANOVA was conducted to assess whether the means of SCORE differs among different of accommodation types. The ANOVA test results showed that SCORE means are significantly different between TYPES at a 0.05 significance level ($F = 92.289$; $p = 0.000$) for the sub-sample of cases without a GREEN NAME. However, SCORE means are not significantly different between TYPES at a 0.05 significance level ($F = 2.524$; $p = 0.062$) for the sub-sample of cases with a GREEN NAME (Table 4).

Tab. 4: ANOVA Tests between subject effects of SCORE per TYPE and GREEN NAME

Dependent Variable: TRIPADVISOR SCORE							
GREEN NAME	Source	Type III Sum of squared	df	Mean Square	F	Sig.	Partial Eta Squared
WITHOUT	Corrected Model	72.660 ^a	3	24.220	92.289	.000	.147
	Intercept	26662.472	1	26662.472	101595.794	.000	.984
	TYPE	72.660	3	24.220	92.289	.000	.147
	Error	420.161	1601	.262			
	Total	30453.750	1605				
	Corrected Total	492.821	1604				
WITH	Corrected Model	1.594 ^b	3	.531	2.524	.062	.076
	Intercept	1801.845	1	1801.845	8560.545	.000	.989
	TYPE	1.594	3	.531	2.524	.062	.076
	Error	19.364	92	.210			
	Total	1983.000	96				
	Corrected Total	20.958	95				
a. R Squared = .147 (Adjusted R Squared = .146)							
b. R Squared = .076 (Adjusted R Squared = .046)							

Source: own elaboration

In order to test the Homogeneity of Variances, we carried out Levene's test. It assesses whether the population variances of our dependent variable are equal over the levels of our factor. Levene's test shows different results for the two sub-samples. Indeed, for the sub-sample of cases with a GREEN NAME, Levene's test does not reject the assumption of equal variances that

is needed for ANOVA ($p > .05$), while Levene's test for the sub-sample of cases without a GREEN NAME rejects the assumption of equal variances ($p < .05$).

For this sub-sample, we then carried out the robust Welch and Brown-Forsythe F-tests. Both tests confirm that SCORE means for the sub-sample of cases without a GREEN NAME are different.

The post hoc comparisons using Tukey's HSD test show that for the sub-sample of cases without a GREEN NAME, the SCORE means are significantly different between TYPES (p -value = 0.000), except for the SCORE means between Agritourism facilities and B&Bs (p -value = 0.281) and between Hotels and Other accommodation facilities (p -value = 0.498). Conversely, as anticipated by the ANOVA, there are no statistically significant differences in the mean SCORE of types for the sub-sample of cases with a GREEN NAME.

The Tukey HSD analysis allows us to identify two homogeneous subsets with similar SCORE means among cases without a GREEN NAME: Hotels and Other Accommodation facilities with a Sig. equal to 61.7% (sig. = .616) with the lowest SCORE means, and Agritourism facilities and B&Bs with a Sig. equal to 19.1% (sig. = .191) with the highest SCORE means.

These results allowed us to answer our fourth research question (RQ4). There are differences in customer satisfaction by type of accommodation facility within the sub-sample of not strongly green-focused accommodation facilities (without a green name). However, there are no significant differences within the sub-sample of strongly green-focused accommodation facilities (with a green name).

4.2 Green eWOM, Green Name and Accommodation Type

The mean of green eWOM of cases without a GREEN NAME equals to 1.5, lower than that of cases with a GREEN NAME, equal to 3.22. The highest mean of green eWOM is achieved by HOTELS in the sub-sample of cases with a GREEN NAME (7.59), and the lowest by Other accommodation facilities with a GREEN NAME (1.3). The t-test statistic (t) shows that the GREEN eWOM means of cases with or without a GREEN NAME are significantly different.

This result allows us to confirm that strongly green-focused accommodation facilities (e.g., with green attributes in the name) stand out in terms of customer eWOM on the facility's green practices (RQ3). Interestingly, not all the cases with more than 6 GREEN eWOM have a green name: this means that there are accommodation facilities that are implementing green practices that capture the attention of their guests without a clear positioning through the green name. In such a case, it might be that these accommodation facilities are relying on other communication tools beyond the name.

One-way ANOVA was conducted to assess whether the means of GREEN MENTION is different among the different accommodation types. The ANOVA test results showed that: GREEN eWOM means are significantly different between TYPES at a 0.05 significance level ($F = 4.342$; $p = 0.005$) for the sub-sample of cases without a GREEN NAME;

GREEN eWOM means are also significantly different between TYPES at a 0.05 significance level ($F = 5.490$; $p = 0.002$) for the sub-sample of cases with a GREEN NAME (Table 5).

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Tab. 5: ANOVA Tests between subject effects of GREEN eWOM per TYPE and GREEN NAME

Dependent Variable: GREEN eWOM							
GREEN NAME	Source	Type III Sum of squared	df	Mean Square	F	Sig.	Partial Eta Squared
WITHOUT	Corrected Model	41.319 ^a	3	13.773	4.342	.005	.008
	Intercept	3205.567	1	3205.567	1010.677	.000	.387
	TYPE	41.319	3	13.773	4.342	.005	.008
	Error	5077.896	1601	3.172			
	Total	8753.000	1605				
	Corrected Total	5119.215	1604				
WITH	Corrected Model	557.638 ^b	3	185.879	5.490	.002	.152
	Intercept	990.512	1	990.512	29.256	.000	.241
	TYPE	557.638	3	185.879	5.490	.002	.152
	Error	3114.768	92	33.856			
	Total	4667.000	96				
	Corrected Total	3672.406	95				
a. R Squared = .008 (Adjusted R Squared = .006)							
b. R Squared = .152 (Adjusted R Squared = .124)							

Source: own elaboration

Levene's test rejects the assumption of equal variances for both sub-samples of cases, whether or not they have a GREEN NAME or otherwise ($p < .05$). Therefore, we carried out the robust Welch and Brown-Forsythe F-tests. Both tests confirm that GREEN eWOM means for both sub-samples are different.

The post hoc comparisons using Tukey's HSD test show that in the sub-sample of cases without a GREEN NAME, the GREEN eWOM means in TYPE are significantly different between B&Bs and Other accommodation facilities (p -value = 0.005) and between Hotels and Other accommodation facilities (p -value = 0.015). In this sub-sample, the Tukey HDS analysis allows us to identify two homogeneous subsets with similar GREEN eWOM means: Hotels, B&Bs and Agritourism facilities with the lowest means for green mentions, with a Sig. equal to 84.5% (sig. = .845), and Other Accommodation facilities and Agritourism facilities with the highest means for green mentions with a Sig. equal to 8.1% (sig. = .081). In the sub-sample of cases with a GREEN NAME, the GREEN eWOM means in TYPE are significantly different between Hotels and all the other three groups (p -value < .05). In this sub-sample, the Tukey HDS analysis allows us to identify two homogeneous subsets with similar GREEN eWOM means: Other accommodation facilities, B&Bs and Agritourism facilities with the lowest means for green mentions, with a Sig. equal to 92.3% (sig.

= .923), and Hotels with the highest means for green mentions, with a Sig. equal to 100% (sig. = 1.000).

These results allowed us to answer our fifth research question (RQ5.) There are differences in customer willingness to spread eWOM on accommodation facilities' green practices between strongly green-focused and not strongly green-focused accommodation facilities by type of accommodation.

5. Discussion and conclusion

The paper investigated whether green practices or a green image in the hospitality sector affect customer satisfaction and behaviour, especially in terms of eWOM, and whether this differs for different types of accommodation.

The study showed that the Italian hospitality businesses with green practices that activate guests' eWOM on the green practices of an accommodation facility seem to show high overall scores in terms of guests' satisfaction (RQ1). It also showed that strongly green-focused accommodation facilities (e.g., with green attributes in the name) outperform others in terms of customer satisfaction and eWOM on the green practices adopted (RQ2 and RQ3).

In general, the difference in the green eWOM means between the cases with or without a green name could be explained by the fact that the majority of guests respond positively to green practices if they recognize them (Lee *et al.* 2016). However, if an accommodation lacks a clear positioning concerning environmental protection, this may mean that guests less sensitive to sustainability would not recognize them. Besides, a lack of awareness about the accommodation facility's green practices can cause inconveniences to the guests (Lee *et al.* 2016), which is also reflected in lower scores in terms of customer satisfaction. Therefore, to overcome the problem of misalignment between an accommodation facility's green practices and guest awareness about their sustainability engagement, the accommodation facilities could leverage on communication channels, tools and messages to strengthen their green image.

The results allowed us to answer our fourth research question (RQ4). There are differences in customer satisfaction by type of accommodations within the sub-sample of not strongly green-focused accommodation facilities, i.e., hotels and other accommodation facilities with the lowest score means, vs agritourism facilities and B&Bs with the highest score means. This difference could be explained by a higher consumer's sensitivity towards sustainability on the part of guests choosing agritourism facilities and B&Bs.

However, there are no significant differences within the sub-sample of strongly green-focused accommodation facilities (with a green name). This could be due to the fact that for accommodation facilities with a green image, the implementation of green practices strongly affects customer satisfaction and perceived quality, regardless of the type of accommodation. This is not surprising as customer satisfaction can be

defined as a cognitive process in the customer who compares a product's perceived performance to his or her expectation (Xu and Gursoy, 2015). Thus, when an accommodation facility with a solid green image implements several green practices, and it does not betray the expectation of its guests, which are expected to be particularly sensitive to environmental issues, they are satisfied. In other words, when the customer has confirmation of the environmental protection efforts promised by the accommodation facility's image during his or her stay, on the one hand, the perceived quality increases, and on the other hand, variables related to the choice of accommodation type become less influential on customer satisfaction.

Conversely, other variables related to the accommodation type may affect customer satisfaction for the accommodation facilities without a green image. These differences could also explain the contrasting results of previous research (Goh and Balaji, 2016; Miniero *et al.*, 2014).

Subsequently, the study also provides interesting insights regarding the differences in customer willingness to spread eWOM on the accommodation facility's green practices between strongly green-focused and not strongly green-focused accommodation facilities by type of accommodations (RQ5). For cases without a green name, two homogeneous subsets with similar green eWOM means were identified: Hotels, B&Bs and Agritourism facilities with the lowest means for green mentions; and other accommodation facilities with the highest means for green mentions. The highest means for green mentions could perhaps be explained by the fact that the guests at other accommodation facilities without a green image do not expect green practices to be implemented. They are more surprised and therefore more inclined to spread eWOM. Consequently, to overcome the problem of misalignment between the green practices and guest awareness about their sustainability engagement, all types of accommodation facilities without a strong focus on sustainability could leverage on more effective communication tools. For cases with a green name, two homogeneous subsets with similar green eWOM means have been identified: other accommodation facilities, B&Bs and agritourism facilities with the lowest means for green mentions; and hotels with the highest mean for green mentions. This difference between the two groups could be because the guests at hotels with a green image have lower expectations in terms of green practices in comparison to the guests at other kinds of accommodation, then they are more surprised at finding these and therefore more inclined to spread eWOM.

We can conclude that all the different accommodation types, with or without a green image, gain an effective advantage when they implement green practices both in terms of customer satisfaction and behaviour. In particular, the customer satisfaction of all accommodation types with a green image, and that of agritourism facilities and B&Bs without a green image, seems to be particularly relevant in the case of implementation of green practices. In the same way, the eWOM of other accommodation facilities without a green image and that of all accommodation types with a green image, especially of the hotels, seem to be especially high in the case of implementation of green practices.

6. Theoretical implications

This article makes theoretical contributions to the existing literature on sustainable tourism in several ways. First, our findings allow us to confirm that the implementation of green practices (Prud'homme and Raymond, 2013) and the use of a green image (e.g. Gerdt *et al.*, 2019; Merli *et al.*, 2019; Lee *et al.*, 2018) improve perceived quality level among customers. Furthermore, the use of a green image fosters customer eWOM on the accommodation facility's green practices (Lee *et al.*, 2010), and this finding disconfirms studies that did not find any significant effect of green image on the intention to spread positive word-of-mouth (Leaniz *et al.* 2018). Second, by comparing customer satisfaction and eWOM on the green practices between accommodation facilities with or without a green image, we provided a broader picture on sustainable tourism from a consumer perspective, different from the previous studies. Even though the Italian hospitality businesses with green practices that activate guests' eWOM seem to show high overall scores both in terms of customer satisfaction and eWOM, both scores are higher for accommodation facilities with a solid green image. Third, we extended the analysis to several accommodation types (i.e., agritourism facilities, B&Bs, hotels and other accommodation facilities), assuming that they serve to diverse demand segments, both with and without a solid green image, rather than on a single sample of green hotels as proposed in previous studies (e.g. Leaniz *et al.*, 2018; Lee *et al.*, 2010; Merli *et al.*, 2019). This allowed us to identify, beyond accommodation facilities with a strong green image, those that can rely on green practices to increase customer satisfaction (i.e., B&B, agritourism facilities) and improve customer behaviour (i.e., other accommodation facilities) even without a green image. In addition, our results shed light on the alternative forms of accommodation, which can no longer be neglected anymore by the literature on sustainable tourism.

Finally, this analysis allowed us to identify differences that could explain the contrasting results of previous research on green consumer behaviour (Goh and Balaji, 2016; Miniero *et al.*, 2014).

7. Managerial implications

A thorough understanding of guest perceptions of green practices can help tourism and hospitality professionals seize the opportunity to improve tourist satisfaction and to activate eWOM by adopting green practices and allowing the customer to perceive the green positioning of the accommodation facility, considering that customer satisfaction is an essential determinant of economic performance in the hospitality industry.

The accommodation facilities that have a strong sustainability position stand out in terms of customer attention to green initiatives, particularly in the tendency to review these practices encouragingly by activating positive word-of-mouth. Companies with a robust ecological vocation often suffer from myopia in sustainability marketing by neglecting to communicate essential messages and giving incomplete information that

does not affect the decision-making process (Villarino and Font, 2015). Furthermore, the results confirm the need for managers to communicate their green orientation to current and potential customers to differentiate their offer from that of competitors. These results could be extended to other sectors as consumers who pay attention to sustainability issues represent a substantial market segment (Egea and Frutos, 2020). In other words, implementing green practices and powerfully communicating the company's green positioning could result in high customer satisfaction and word-of-mouth.

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8. Limitation of the study

In terms of limitations, the study considered the use of green attributes in the name of the accommodation as a proxy for its sustainability orientation and positioning. This does not take into account other possible communication activities that contribute to the green image of the accommodation facilities. Furthermore, customer satisfaction could be influenced by several other variables that were beyond the scope of our study. Future research will have to better investigate the concept of green positioning and communication activities of sustainable green practices, also ascertaining their specific effectiveness and the interaction of customer satisfaction with other variables.

Since the Italian sub-sample of companies with a green name is limited, further analysis could extend the geographical area of inquiry to increase the number of companies investigated. Furthermore, the study does not consider the size and the age of the accommodation facility, which could affect the number of available reviews.

Finally, as we can expect an increase in customer attention and sensibility to green issues in future years, a longitudinal approach could be adopted to observe changes in guests' perception of different types of hospitality venue.

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