
ONLINE COMMUNICATION OF CORPORATE SOCIAL RESPONSIBILITY BY HOTELS AND GUEST SATISFACTION: THE CASE OF THE BALEARIC AND CANARY ISLANDS

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Abstract: This study analyses the online communication of corporate social responsibility practices by hotels from a new approach, related to guest satisfaction. The main aim of the present work is to determine whether the online communication of social responsibility practices, involving a different degree of organisational effort, have an influence on the positioning of hotels in generating guest satisfaction. The empirical analysis is carried out taking a representative sample, consisting of 407 hotels in the Balearic and Canary Islands, and employing the Rasch Measurement Theory (Rasch 1980). Its main contribution is that it allows specifying the most effective social responsibility communicated practices in terms of customer satisfaction, as well as those that, in their case, are still needed. All this as a previous step to determining, in future developments, the specific actions that enable to facilitate the organisational change required as well as a support for integral sustainability.

Keywords: *Corporate Social Responsibility, Online Communication, Guest Satisfaction, Rasch Measurement Theory, Hotels, Balearic Islands, Canary Islands.*

1. INTRODUCTION

Corporate social responsibility represents an organisational tool that, when properly managed, can contribute to the reinforcement of sustainability in general, and tourism in particular (UNEP/UNWTO, 2005). To achieve this, the economic, social and environmental objectives need to be ingrained in the business strategy (Espadas, 2013; Lynn, 2009), and some business values that support the maximisation of the integral value formation (Linnenluecke & Griffiths, 2010; Wheeler et al., 2003).

Among the characteristic activities of tourism, hotel accommodation is significantly relevant because of its direct contribution to production and employment, the tractor effect exerted on the rest of productive sectors, and the environmental and social incidence (Cheng & Parker, 2010; De Grosbois, 2012). Higher rank hotels provide a greater number of additional services, and generally obtain higher profitability indexes. Guaranteeing the support of the sustainability of these organisations' management and operating practices through a corporate social responsibility ingrained in the business strategy is of vital importance for the community (Gürlek et al., 2017).

Hotel establishments apply different types of social responsibility actions that involve a different commitment and degree of managerial effort and are aimed at various groups of interest (Ayuso, 2003). Hotels inform voluntarily about these actions in order to legitimise their activity, reduce costs, improve their image and reputation, or increase the satisfaction of their guests (Ayuso, 2006; Garay & Font, 2012). Advances in information and communication technologies also make it possible for these entities to include certain dimensions related to their social responsibility actions in their websites, thus influencing their virtual corporate image (Da Silva & Alwi, 2008).

The online divulgation of this type of practices would have an impact, not only on the customers' expectations, but also on their perceptions when the communicated actions require a considerable managerial effort (Alvarado, 2008; Ayuso, 2003; Bigné et al., 2005; Bigné & Currás, 2008). Through this, guest satisfaction could be affected, as variables of

cognitive and affective nature take part in its formation (Bigné & Andreu, 2004).

Such tourist satisfaction in general, and guest satisfaction in particular, is regarded as a specially relevant element, due to its influence on business competition (Kozak & Rimmington, 2000) and, via electronic word of mouth (EWOM), on those assessing where to stay (Leung et al., 2013; Salvi, 2015). Moreover, it is considered essential to partially achieve tourism sustainability, as travellers are one of the participants in this activity (Poudel et al., 2016).

Works about the divulgation of non-financial information from hotel entities has mainly focused on analysing the typology of communicated activities, the degree of commitment linked to them (Assaf et al., 2012; De Grosbois, 2012; Holcomb et al., 2007; Larrinaga et al., 2006), or their relation to the financial performance (Déniz et al., 2007). They basically try to explain, from different perspectives, whether hotels inform about such actions to improve their image and obtain greater profits in the short run, or whether they are implementing second-order organisational changes (Laughlin, 1991) that support sustainability (Espadas, 2013; Larrinaga et al., 2006; Linnenluecke & Griffiths, 2010; Wheeler et al., 2003). The study of the communication of such actions has not been addressed from the perspective of their influence on guest satisfaction. This study makes up for such lack, trying to shed some light on the matter.

The main objective of the current work is to determine whether the hotels' online communication of corporate social responsibility actions that involve a different degree of commitment and organisational effort is reflected in differences in the satisfaction of their guests.

The main contribution of this work is that it would allow specifying the communication effectiveness of the different types of social responsibility activities in terms of customer satisfaction, as a previous step to determining, in future developments, specific actions that permit to facilitate the organisational change required. Moreover, it would show evidence of the degree at which hotels are integrating practices into their systems that support the achievement of the environmental, social and economic dimensions of sustainability.

To achieve the main objective an empirical study has been performed in the Balearic and the Canary Islands, two of the main tourist destinations in Spain. Ratings from the online travel agency Booking have been used to measure customer satisfaction, thus obtaining a sample size of 407

hotels. The information needed to complete the analysis has been obtained from the websites of each of these hotels. The research methodology employed is the Rasch Measurement Theory (Rasch, 1980), used to measure the destination satisfaction (Santos-Arrebola, 2006) and the hotel sector's environmental practices (Oreja-Rodríguez & Armas-Cruz, 2012).

The rest of this paper is organised as follows. In the following section a literature review of corporate social responsibility, guest satisfaction and management form in hospitality sector is presented, and objectives are pursued. The empirical research process is explained in Section 3, including a description of the hotel sector in the Balearic and the Canary Islands, the sample collecting process, the methodology employed and the diagnosis of the adjustment of the sample data to the Rasch model (Rasch 1980). The results are shown in Section 4, and the conclusions, implications and future lines of research in a final section.

2. THEORETICAL FRAMEWORK AND RESEARCH OBJECTIVES

2.1. SUSTAINABILITY OF TOURISM AND CORPORATE SOCIAL RESPONSIBILITY

Nowadays, the sustainability of any activity, and tourism in particular, is understood and assessed from an integral perspective, considering environmental, economic and social aspects, that allows to satisfy the needs of all the participants (UNEP/UNWTO, 2005:12). To measure the degree of sustainability of tourism activities, indexes to compute the effects generated by them in those three aspects are required, bearing in mind the perceptions of its different stakeholders (Hawkings & Cunningham, 1996).

Corporate social responsibility, or “situations where the firm goes beyond compliance and engages in actions that appear to further some social good, beyond the interests of the firm and that which is required by law” (McWilliams et al., 2006:1), is an instrument that, conveniently managed, could contribute to reinforce the sustainability of tourism (UNEP/UNWTO, 2015). These actions are usually classified into economic, legal, ethic and philanthropic (Carroll, 1979), environmental,

social and economic (Elckington, 1997), or else considering the stakeholder they take care of (Carroll, 1991).

Despite the effort those practices involve, organisations implement them due to the need of attending to the demands of their groups of interest (Freeman, 1984; Donaldson & Preston, 1995), legitimating to society (Jennings & Zandbergen, 1995) or obtaining a competitive advantage (Hart, 1995), and at last, having an impact on their financial performance (McWilliams & Siegel, 2001), or by sheer altruism (Ayuso, 2006). They voluntarily communicate those social responsibility practices to draw the attention of their stakeholders (Ashforth & Gibbs, 1990), legitimise their activity (Patten, 1991), or influence on their reputation (Hooghiemstra, 2000). However, this non-financial declaration can be perceived by the groups of interest as an attempt to hide illegal or dishonest practices by the entity (Brown & Dacin, 1997).

Hotels carry out social responsibility actions for the same reasons mentioned above, and for differences in the perception of those making decisions (Garay & Font, 2012; Ayuso, 2006). The actions they can undertake are diverse (Bohdanowicz, 2006; Carlsen et al., 2001; Carmo-na-Moreno et al., 2004; Déniz et al., 2017; Erdogan & Baris, 2007; Kasim 2007; Scanlon 2007). Table 1 shows a brief summary and description of the most common ones. It is observed that they emphasise the environmental dimension (environmental management systems, eco-friendly practices), the economic dimension (quality and environmental management systems), and the social dimension (codes of behaviour, working conditions or ethical management). They are mainly aimed at external groups of interest (customers, community), despite the importance of those aimed at workers (Singhapakdi et al., 2015), especially in the hotel sector (Kim et al., 2017).

Such practices involve a different degree of commitment and will from managers, and a diverse implication from human resources (Ayuso, 2003, 2006), depending on the organisational change required for their implementation (Laughlin, 1991). Generally, quality and environmental management systems involve second-order deep changes, as their implementation requires variations in the design archetypes –organisational structure, decision-making processes, information systems– and interpretative frameworks –organisational values. On the other hand, actions such as the adherence to codes of behaviour and, to a lesser extent, of good practices, mean first-order changes, as they affect mainly the tangible elements of the organisation without any substantial organisational change

Table 1. Corporate social responsibility practices

Category	Action / Organism(*)
Ethical Codes	- World Tourism Ethical Code / WTO
	- The Code / EPCAT
	- World Pact / UN
Certification of eco-friendly practices	- Travelife / ABTA
	- Ecolíderes / TrypAdvisor
Quality management systems	- ISO 9001 / ISO
	- Q / ICTE
Environmental management systems	- ISO 14001 / ISO
	- EMAS / SCGAM
Certification of working conditions	- SA 8000 / SAI
Certification of ethical management	- Norma SGE 21 / Forética

(*) WTO: World Tourism Organization; EPCAT: End Child Prostitution, Child Pornography de Calidad Turística Española; ISO: International Organization for Standardization; Travel Agents; SAI: Social Accountability International.
Source: Own elaboration.

in hotels

Description	Requirements for the organisation's managerial team and their human resources
<ul style="list-style-type: none"> - Ten principles that cover the economic, social, cultural and environmental components of travels and tourism. 	<ul style="list-style-type: none"> - Commitment of respecting, encouraging and assuming the values expressed by the Code, and informing the World Committee of Ethics of UNWTO about the compliance of the Code's principles.
<ul style="list-style-type: none"> - Specific actions to protect children in tourism and travels. 	<ul style="list-style-type: none"> - Commitment of preventing the sexual exploitation of children and adolescents in tourism and travels.
<ul style="list-style-type: none"> - Ten principles based on world statements and conventions about human rights, labour regulations, environment, fight against corruption. 	<ul style="list-style-type: none"> - Commitment of an annual elaboration of a Progress Report that informs about the advances achieved by the entity in the Pact's principles.
<ul style="list-style-type: none"> - Encourages sustainable practices of environmental and social nature in the tourist sector. 	<ul style="list-style-type: none"> - Guaranteeing the compliance of the sustainability criteria specified in the programs.
<ul style="list-style-type: none"> - Recognition given to lodgings that carry out eco-friendly practices. 	<ul style="list-style-type: none"> - Guaranteeing the compliance of the practices specified in the program.
<ul style="list-style-type: none"> - Addressed to any kind of company. It is based on the compliance of eight principles of quality management based on the continuous improvement cycle, Plan-Do-Check-Act (PDCA). 	<ul style="list-style-type: none"> - Verification process of the compliance of requirements stipulated in ISO 9001, and management of processes that circumscribe the product in order to guarantee its confidence.
<ul style="list-style-type: none"> - Characteristic of the tourist sector. In it, Norm UNE 182001 is specific to the field of accommodation. 	<ul style="list-style-type: none"> - Verification process of the compliance of requirements established in the Norms.
<ul style="list-style-type: none"> - Systematises the environmental aspects of the activities performed by the organisation, encourages environmental protection and pollution prevention keeping in mind its balance with socioeconomic aspects. 	<ul style="list-style-type: none"> - Verification process of the compliance of requirements stipulated in ISO 14001.
<ul style="list-style-type: none"> - Aspects of ISO 14001, and also the periodical supply of environmental information. Requires more participation of workers and includes certain social aspects. 	<ul style="list-style-type: none"> - Verification process of the compliance of requirements stipulated in EMAS.
<ul style="list-style-type: none"> - Establishment of specific criteria about the company's social aspects (working conditions in supply chains). 	<ul style="list-style-type: none"> - Verification process of the compliance of requirements stipulated in the norm.
<ul style="list-style-type: none"> - Establishment of specific requirements in nine management areas (senior management, customers, suppliers, workers, social environment, environment, investors, public administrations). 	<ul style="list-style-type: none"> - Commitment that shows the implementation of the norm in the strategy and the encouragement of dialogue and transparency.

and Trafficking of Children for sexual purposes; UN: United Nations Organization; ICTE: Instituto EC EMAS: EC Environmental Management and Auditing System; ABTA: Associations of British

(Ayuso, 2003, 2006; Laughlin, 1991). In any case, Linnenluecke & Griffiths (2010) suggest that the internal communication of first-order changes can lead to an organisational cultural change oriented towards the principles and values of sustainability.

In recent years, stakeholders have exerted more pressure on organisations, claiming information about their social responsibility practices (Morsing & Schultz, 2006). By disclosing such practices, hotels try to improve their image and reputation, attract talent, or increase the satisfaction of their guests (Garay & Font, 2012), although they may be obliged to do so.¹

Many works have analysed the social responsibility actions communicated by hotels in interviews (Larrinaga et al., 2006), non-financial reports² (Assaf et al., 2012; De Grosbois, 2012; Holcomb et al., 2007), or websites (Hsieh, 2012; Déniz et al., 2017). These studies explore the organisational and property structures of such entities, the type of social practices they disclose, the commitment of managers and human resources that the declared actions involve, the organisational change these require, or their relation to the financial performance. Basically, this set of empirical studies tries to clarify, from different perspectives, if hotels communicate social responsibility actions mainly to improve their image and obtain a greater profitability in the short-term, or if they are implementing second-order organisational changes (Laughlin, 1991) that support sustainability (Larrinaga et al., 2006; Linnenluecke & Griffiths, 2010; Wheeler et al., 2003).

Recent developments in communication and information technologies have enabled hotel establishments to add certain dimensions in their websites related to their corporate social responsibility, thus influencing their virtual corporate image (Da Silva & Alwi, 2008) and the expectations of customers (Alvarado, 2008; Bigné et al., 2005; Bigné & Currás, 2008).

¹ The European Union obliges organisations to observe the criteria included in Directive 2014/95/UE of 22 October 2014 regarding the divulgation of non-financial information.

² In view of the absence a common methodological framework for the elaboration of the social responsibility reports, different organisations have developed guidelines to that effect, such as the Global Reporting Initiative (GRI), AccountAbility Institute (AA1000) or Business in the Community (Corporate Impact Reporting Initiative).

2.2. GUEST SATISFACTION

Tourist satisfaction is regarded as one of the main variables for maintaining the business competition in the tourism industry, as it affects the choice of destination and the consumption of products and services (Kozak & Rimmington, 2000).

Generally, studies about tourist satisfaction have applied the theories on consumer behaviour to the tourism sector, regarding tourist destinations as products, and tourist satisfaction as the result of the experience assessment by tourists after they visit the destination.

The perspectives from which consumer satisfaction has been addressed have been diverse, thus favouring the development of a great variety of models. Many of those initially outlined assume a cognitive approach, considering satisfaction as the result of the comparison between consumer expectations and the perceived product (Oliver, 1980). Later, Hunt (1977), Oliver (1989) and Yi (1990) suggest that, in the explanation of satisfaction, two sequences should be considered, one cognitive and the other affective, both having an influence on it.

The inclusion of emotions in the conception of satisfaction in services is particularly relevant, as their intangible nature stresses the importance of the experience of those who consume them (Benkenstein et al., 2003; Grönroos, 2000; Liljander & Strandvik, 1997; Szymanski & Henard, 2001). Bigné & Andreu (2004) model consumer satisfaction for leisure and tourism services by employing variables of cognitive and affective nature and conclude that both take part in its formation.

According to the expectations model, the attributes that create expectation should be analysed, as the emergence of tourist satisfaction is based on them (Santos-Arrebola, 1999). From this premise, in contrast to research studies focusing on overall satisfaction, or satisfaction referred to the tourist experience (Oliver, 1980; Yoon & Uysal, 2005), later works make a breakdown of customer satisfaction taking as a reference destination components such as accommodation, food, commercial, cultural or leisure offer (Oliver, 1993; Chi & Qu, 2008). Castro et al. (2007) suggest a model to evaluate the destination's impact on tourist satisfaction, considering its most representative attributes separately, accommodation being one of them.

The hotel sector empirical literature has been interested in determining which characteristics of hotels are appreciated by customers and the influence they exert on guest satisfaction, by adopting different methodological approaches (Zhou et al., 2014). Although it is true that there is a wide

variety of establishment categories and market segments, revisions of this studies approach suggest that cleanliness, location, price, value for money, human resource kindness, quality of the service and reputation are the accommodation attributes primarily valued by guests (Choi & Chu, 2001; Dolnicar & Otler, 2003). In this regard, the implementation of environmental management practices by hotel entities has also been highlighted (Berezan et al., 2003; Millar & Baloglu, 2011).

Complaint attitude, word-of-mouth communication and change or repurchase intention are highlighted as the main consequences of satisfaction and dissatisfaction (Athanasopoulos et al., 2001; Opperman, 2000; Szymanski & Henard, 2001). Even though satisfied tourists did not have the intention of revisiting the destination, they would provide positive references of it (Castro et al., 2007; Chi and Qu, 2008).

2.3. ELECTRONIC WORD-OF-MOUTH COMMUNICATION

Advances in the information and communication technologies have enabled the appearance and development of the *electronic Word-of-Mouth* (EWOM), or informal communications between consumers and producers as well as those between consumers themselves, related to the usage or characteristics of particular goods and services, through the technologies of the Internet network (Sparks & Browning; 2011, Goldsmith, 2006; Litvin et al., 2008).

Satisfaction/dissatisfaction with the purchase (Sánchez-García & Currás-Pérez, 2011; Swanson & Hsu, 2009; Ward & Ostrom, 2006), and the desire of helping others in their consumption decisions (Bronner & Hoog, 2011) could be highlighted among the reasons why individuals provide their opinions on electronic media (Cantalops & Salvi, 2014; King et al., 2014). In turn, potential consumers consult such reviews in order to reduce the search effort (Dabhollkar, 2009; Goldsmith & Howovitz 2006), or to obtain social guarantees of the acquisition (Bayley, 2005), incorporating them into their purchase decision processes (Hennig-Thurau & Walsh, 2004; Ratchford et al., 2001).

The intangible nature of services in general, and of tourism products in particular, means that they cannot be evaluated before their consumption. Therefore, in order to reduce the uncertainty inherent in the purchase, tourists take an interest in knowing the opinions of those who have already consumed the service (Litvin et al., 2008). These reviews are

considered one of the most reliable sources of information by those who have the intention of travelling (Gartner, 1993; Vázquez et al., 2002).

The reviews are mainly consulted by future travellers when they evaluate the establishment in which they will lodge. (Vermeulen & Seegers, 2009). Not only do they consider its *location, facilities or price* but also *consumer's previous experience or recommendations* from other users (Verna, 2010). Regarding this last factor, empirical studies highlight that the effect these online opinions exert on those who consult them is modulated by the veracity and trust that the source of information inspires them (Lee et al., 2011; Vermeulen & Seegers, 2009).

Among the alternatives offered by the Internet to state opinions about accommodation establishments, travel platforms like TripAdvisor stand out. Its contents are provided to its users free of charge (Law, 2006; Miguéns et al., 2008). Online travel agencies like Booking.com, Expedia or Agoda are another option to give out opinions about hotels (Law & Chen, 2008). The reviews in these agencies come from guests who have confirmed their bookings through them (Mayzlin et al., 2014).

In turn, these tourism intermediaries use the opinions from customers to obtain a score of the lodging that allows a comparison between entities (Jeacle & Carler, 2011). Online travel agencies generally offer an overall score of the hotel as a whole, and specific scores for those attributes of the hotel that guests most appreciate –cleanliness, comfort, location, human resource kindness, facilities and services, Wi-Fi connection or value for money.

The free availability of this information and its easy obtainment and collection (Gerdes & Stringam, 2008), has brought about the emergence of a current of research in the hotel sector empirical literature that uses the reviews freely provided by tourists (Pokryshevskaya & Antipov, 2017; Serenko & Stach, 2009; Zhou et al., 2014), or the scores offered by online travel agencies (Wang et al., 2015) to measure guest satisfaction.

2.4. HOTEL CHAINS AND INDEPENDENT HOTELS

The owners/managers in the hotel sector can opt for an independent management or join a chain and operate under a known brand³ (Martorell,

³ The affiliation of the hotel to a chain can be carried through the property of the building, or through contractual links of collaboration between the parties, such as the

2002). Generally, the decision of which alternative to choose implies the evaluation of the pros and cons of both options.

In this regard, independent management means less agency costs (Jensen, 1983; Jensen & Meckling, 1976), greater autonomy and the possibility of differentiation based on the identity and unique character of the entity (O'Neill & Carlbäck, 2011). However, its ownership structure limits the personnel selection and decision-making processes, among others (Schulze et al., 2001).

Integration in a hotel chain, in turn, gives hotels access to a number of operational tools –central reservation systems, income management programs– and commercial instruments –global distribution systems, marketing and sales practices, brand reputation– which provide advantages for its management⁴ (Bailey & Ball, 2006; Lafontaine, 1992; O'Neill & Carlbäck, 2011; O'Neill et al., 2006). The economic costs linked to the affiliation (Rushmore, 2001a,b), the agency costs (Combs & Ketchen, 1999) or the difficulties for the internal transmission of knowledge (García-Almeida et al., 2011; Quer et al., 2007) could nevertheless adversely affect the operation of these establishments.

Regarding the link between the management form and the performance and disclosure of corporate social responsibility practices, empirical studies show that those are carried out more usually by entities affiliated to hotel chains (Álvarez et al., 2001; Carmona et al., 2004, Déniz et al., 2017). This kind of organizational form facilitate social and environmental practices because it provides strategic financial and operational support and it receives a greater pressure by their external stakeholders (Rodríguez-Antón et al., 2013).

2.5. RESEARCH OBJECTIVES

The previous synthesis of the literature review allows to identify the following main research question in this study: Have hotels that com-

franchise contract, the management contract or the rental contract (Chathoth & Olsen, 2003; Conti & Micera, 2006; Contractor & Kundu, 1998).

⁴ It is important to highlight that independent establishments can join in consortiums to carry out marketing and promotion actions together. This allows them to obtain the advantages linked to the scale economies of these activities, and keep their operational autonomy (Martorell, 2002).

municate different social responsibility practices a different positioning in the generation of overall satisfaction by their guests? Answering this question is the main objective pursued. This work joins the recent line of empirical research that measures customer satisfaction by using the guests' online reviews (Zhou et al., 2014) and the accommodation scores obtained by online travel agencies (Wang et al., 2015).

In addition, the literature reviewed permits to establish the following specific research objectives:

- 1) To determine the kind of non-financial information that, to a greater extent, is disclosed by hotel entities, and the degree to which it is supporting the sustainability culture (Gürlek et al., 2017; Lynn, 2009).
- 2) To identify whether there are differences regarding the organisational size, category and management form in hotels that communicate corporate social responsibility practices involving a different degree of organisational commitment.
- 3) To determine whether the disclosure of social responsibility practices that involve a greater organisational effort means an improvement in the positioning of the hotel, when generating satisfaction in certain dimensions of the service which are positively valued by customers.

3. CONTEXT AND RESEARCH METHODOLOGY

3.1. THE HOTEL SECTOR IN THE BALEARIC AND CANARY ISLANDS

Spain is an important international tourist destination, both in terms of number of visitors and of income from tourism (UNWTO, 2018). Within its territory, the regions of the Balearic and the Canary Islands stand out. They are two archipelagos whose ecological, scenic and climatological richness attracts numerous tourists: over 28 million in 2017, 34% of those who visited Spain in whole (Instituto Nacional de Estadística, 2018). The insularity that characterises both areas, and their small size, increases their environmental vulnerability (UNWTO, 2012), so the promotion of sustainable economic/productive activities in those territories has a special relevance.

The hotel sector in these geographical areas has a substantial weight in the whole of Spain, as in 2016 it offered more than 30% of the total beds –1,463,893 according to data from the INE. Most of them were in 4-star and 5-star hotels⁵ –307,601 beds–, providing 1-star to 3-star hotels 43% of the regional beds.

The territorial distribution of these establishments is not homogeneous. Most of the accommodations are concentrated in a few touristic sites. In particular, in the Balearic Islands, four sites in Majorca⁶ gather 44% of the total hotels –52% of 4-star and 5-star hotels (Instituto de Estadística de Illes Balears). Also, eleven sites in the Canaries, located in the islands of Tenerife, Gran Canaria, Lanzarote and Fuerteventura⁷ gather 71% of the hotels –80% of 4-star and 5-star hotels (Instituto Canario de Estadística). The population in this study comprises the 4-star and 5-star category hotels located in these fifteen tourist sites on the Balearic and the Canary Islands.

3.2. EMPIRICAL STUDY

In this work, the hotels scores provided by Booking.com are used to measure guest satisfaction. Booking.com has been chosen because it has three features that are considered particularly advantageous for this study. Firstly, it is one of the best-positioned travel booking agents in the sector, both in terms of turnover and forecast of future growth in Europe (El País, 2018). This characteristic could show its popularity among travellers that search for and buy an accommodation through this channel. Secondly, the reviews are posted by guests who have confirmed their reser-

⁵ Although in Spain there is not just one system of classification for accommodation establishments, the regions of the Balearic and the Canary Islands use the number of stars to distinguish the categories of the hotels. Specifically, in this study, four-star and four-star superior hotels, city hotels and apartment hotels in the Balearic Islands, and four-star hotels and city hotels in the Canaries are considered four-star category. Five-star and five-star luxury hotels, city hotels and apartment hotels in the Balearic archipelago, and five-star and five-star luxury hotels and city hotels in the Canaries are considered five-star category. All the rest, from 1 to 3 stars, are in the lower categories.

⁶ Calviá, Capdepera, Palma and Sant Llorenç des Cardassar.

⁷ Adeje, Arona, Puerto de la Cruz and Santa Cruz de Tenerife, in the island of Tenerife; Teguiše, Tías and Yaiza, in Lanzarote; Pájara, in Fuerteventura; and Mogán, San Bartolomé de Tirajana and Las Palmas de Gran Canaria, in Gran Canaria.

vations through this agent. This fact could give more veracity to those reviews and the resulting scores. Lastly, in its accommodation offer, it includes a high percentage of the existing hotels in Spain (Cinco Días, 2017).

The hotels included in the sample are those that, being in the tourist sites considered, allow booking through Booking.com and show scores at the time of data collection.⁸ The size of the sample is 407 hotels, 81% of the population.

Each of the sample entities is identified, also classified, by taking data from its website and from Booking.com. The data collected are referred to: (1) the category of the hotel, 4 or 5 stars; (2) the number of rooms, as a measure of hotel size⁹ –small, from 1 to 100 rooms, medium, from 101 to 200; large from 201 to 300; and very large,¹⁰ 301 or more; (3) the management form, independent or affiliated to a hotel chain;¹¹ and (4) the declarations of corporate social responsibility practices.

Regarding these social responsibility actions, an analysis of the contents of text and logos in the hotels' websites has been carried out (Weare & Lin, 2000). Based on the literature reviewed, the collected information is classified into the following groups, according to the organisational effort involved by the actions disclosed:

- Firstly, messages that are mere declarations about the ethical behaviour of the hotel toward its employees,¹² the local community or the environment.
- Secondly, messages showing that the hotel has the Travelife and/or Greenleaders award for its green practices.
- Thirdly, messages showing that it has the ISO 9001 or norm Q quality management system.

⁸ In some cases, the number of reviews by guests is not enough to obtain the establishment's overall score.

⁹ The number of rooms is a usual variable to measure the size of the hotel (Briggs et al., 2007; Carvell et al., 2016; Pine & Phillips, 2005).

¹⁰ The different groups of hotels according to size are established taking as a reference the mean and median of rooms of the sample subjects, 209 y 186, respectively.

¹¹ Hotels that are part of consortiums or commercialisation networks have been considered independent.

¹² Statements on ethical labour practices are not considered a reflection of the actual practices of hotels with respect to their human resources.

- Lastly, information about the ISO-14001 environmental certification or EMAS.

It can be observed that the messages of the first group mean a modification of the organisation's visible elements, entailing first-order changes (Laughlin 1991). However, the declarations included in any of the last three groups involve a greater manager and human resources effort (Ayuso 2006).

Table 2 presents the sample's structure according to size, category, management form and type of disclosed corporate social responsibility action.

Table 2. Description of the sample

	Sample	407
Category	4 Stars	334
	5 Stars	73
Size	Small: 1 to 100 rooms	105
	Medium: 101 to 200 rooms	117
	Large: 201 to 300 rooms	91
	Very large: 301 or more rooms	94
Management	Independent	105
	Hotel chain	302
Disclosed CSR actions	Ethical behaviour	179
	Green practices	
	Travelife	62
	Greenleaders	54
	Quality management systems	
	ISO 9001	48
	Q	28
	Environmental management systems	
	ISO 14001	63
	EMAS	29

Source: Own elaboration.

3.3. RASCH MEASUREMENT THEORY

The Rasch Measurement Theory (Rasch, 1980) is composed by a set of latent-variable probabilistic models. It is usually included in the one-parameter Item Response Theory (Birnbaum, 1968; Thissen & Orlando, 2001), although it presents certain particularities regarding its formulation (Linacre, 2003, 2005).

The Rasch models (Rasch, 1980) have been mainly used in psychology or education. Their later use in management (Fischer et al., 2006; García-Pérez et al., 2014; Martin et al., 2016; Salzberger et al., 2014; Yanes-Estévez et al., 2018), offers a wide range of possibilities, mainly because of the qualities that their mathematical features (Andersen, 1973; Fischer, 1973; Wright, 1977a) give them for specific objective measurement (García-Pérez et al., 2010; Oreja-Rodríguez, 2015; Wright & Mok, 2004).

In the tourist sector, the Rasch's theory has been applied to the business environment analysis (Oreja-Rodríguez & Yanes Estévez, 2007, 2010), or to the evaluation of the competitiveness of tourist destinations (Parra-López & Oreja-Rodríguez, 2014). Santos-Arrebola (2006) uses this methodology to assess tourist satisfaction with a destination, Peng et al. (2013) to measure the hotel sub-sector's performance, and Oreja-Rodríguez & Armas-Cruz (2012) to specify the environmental dimension factors of the corporate social responsibility that influence the hotels' performance.

Rasch (1980) develops his measurement instrument from a theoretical model approach whose statistical properties¹³ (Bond & Fox, 2001; Oreja-Rodríguez, 2015; Salzberger, 2009; Wang, 2010; Wright & Mok, 2004) allow the comparability of the measurements resulting from its application to the sample data (Oreja-Rodríguez & Parra, 2014; Oreja-Rodríguez & Yanes-Estévez, 2007). The use of this theory requires confirmation of the operational hypotheses of unidimensionality and local independence of the data (Andrich & Marais, 2005, Smith, 1999;

¹³ Rasch models (1980) are characterised by *unidimensionality* (the measurement instrument's items show only one underlying latent variable), *invariance* (the relative location of subjects and items in the construct's linear continuum are independent of their samples), *local independence* (the responses to any pair of items are independent among them) and the *statistical sufficiency* (the overall score has all the statistic information needed to determine the subject's parameter).

Wright & Stone, 1999). The measurements obtained will have the qualities of the ideal model formulated when they globally fit to it (Rasch, 1980). In addition, an individualised analysis of the misfits could clarify the causes of its absence (Oreja-Rodríguez, 2015).

One of the distinctive elements of the Rasch Measurement Theory (Rasch, 1980) is the use of the same logit measurement scale for the estimation of two parameters –ability and difficulty, linked respectively to the pair of entities –subjects and items– that interact in the latent variable specification¹⁴ (Oreja-Rodríguez, 2015). This particularity makes the joint measurement of both entities (Perline et al., 1979) and their location in the same unidirectional linear continuum representative of the latent variable (Bond & Fox, 2001; Smith, 1999), from least to most, possible.

Although Rasch (1980) originally formulates a model for dichotomous elements, later developments by Andrich (1978, 1988), specified in the Rasch Rating Scale Model (RRSM), allow the definition of the latent variable through polytomous items in ordered categories (Wright & Mok, 2004). This model's natural logarithm is:

$$Ln = \left(\frac{P_{nij}}{P_{ni(j-1)}} \right) \beta_n - (\delta_i + \tau_j) \quad Ln \left(\frac{P_{nij}}{P_{ni(j-1)}} \right) = \beta_n - (\delta_i + \tau_j)$$

where P_{nij} and $P_{ni(j-1)}$ indicate the probability of the observed categories j and $j-1$, respectively, the subject's response n in item i ; β_n , the measurement of the ability or capacity of the subject n ; δ_i , the measurement of the difficulty of item i ; and τ_j the differential of the difficulty of the observed category j in relation to the previous $j-1$, or Andrich threshold.¹⁵

The invariance inherent to the structure of Rasch's models (Andrich & Marais, 2005) allows to determine whether any item or factor performs a different function in the measurement of the construct (Oreja-Rodríguez & Yanes-Estévez, 2007; Salzberger et al., 2014). To achieve this, it is necessary to perform a differential item functioning analysis, noticing the

¹⁴ The measurement of the subject's *ability* is of a direct nature, being obtained by the probability of surpassing a set of items, and that of the difficulty of the item is inverse, being determined by the probability of being surpassed by the subjects. The method of maximum likelihood is used for the estimation of both parameters, *ability* and *difficulty*.

¹⁵ Andrich threshold τ_j is the point in which the probability of response to item i of category j and the adjacent $j-1$ are coincident.

presence of bias or differential item functioning when a group of subjects, with some common feature, obtains a significantly different calibration from another group in the difficulty of an item (Bond & Fox, 2001; Oreja-Rodríguez, 2015).

RRSM (Wright & Mok, 2004) is particularly suitable for measuring the latent variable *Guest Satisfaction* (Santos-Arrebola, 2006), as it is the result of guest assessment of a number of satisfaction factors or items which, at the same time, are the ones that determine such construct.¹⁶ Hotels and satisfaction items remain positioned jointly in the horizontal linear continuum representative of the latent trait *guest satisfaction* according to its capacity and difficulty estimation, respectively, from left (less) to right (more).

Moreover, the analysis of differential item functioning allows to identify the presence of different levels of difficulty, statistically significant, in the same satisfaction item for the groups of hotels, distinguished according to the social responsibility actions communicated online (Bond & Fox, 2001).

3.4. MEASUREMENT SCALE AND ADJUSTMENT DIAGNOSIS

The items that define the construct *Guest Satisfaction* in this study are the scores in Booking.com referred to the attributes of those hotels, as valued by guests (Choi & Chu, 2001; Dolnicar & Otlar, 2003), on which, according to the literature reviewed, the social responsibility actions carried out by hotel entities are considered to have a special incidence (Ayuso, 2006; Berezan et al., 2003; Garay & Font, 2006; Millar & Baloglu, 2011).

In particular, among the scores offered by Booking.com from each hotel entity –*overall, facilities and services, cleanliness, comfort, value for money, human resources, free Wi-Fi and location*– *overall, facilities and services, human resources and value for money* have been taken as factors of the latent variable *Guest Satisfaction*. The hotel sector em-

¹⁶ The *ability* or capacity of a hotel to be better rated by its guests is determined by the probability of surpassing the items considered in the analysis, while the *difficulty* of each of these factors is determined by the probability of being surpassed by the hotels.

Table 3. Technical specifications of the empirical study

Universe	4- and 5-star hotels
Geographical scope	Touristic sites in Balearic and Canary Islands
Population	446
Type of information	Secondary
Data collection method	Content analysis of websites: Booking.com, hotels
Temporal scope	January to June 2018
Sample size	407 hotels
Items of construct <i>Guest Satisfaction</i>	<ul style="list-style-type: none"> - Overall score - Cleanliness - Facilities and services - Human resources
Data handling	Winsteps, version 3.75.1

Source: Own elaboration.

irical studies would support the content validity of the measurement scale of the analysis.

The initial measurement scale, with scores from 0 to 10 points, has been translated to a category scale ordered from 0 to 99 points. The software Winsteps, version 3.75.1, has been used for the data handling (Linacre, 2012).¹⁷ Table 3 shows the essential methodological aspects of the empirical study.

In the diagnosis of the sample data adjustment to the Rasch Measurement Theory, the need is observed of re-categorising the measurement scale. Following Linacre (2002b) recommendations, it is decided to establish a structure with 13 categories,¹⁸ the estimations of the Andrich threshold parameters being $\pi_j, j = 1, \dots, 12$: -5.00, -4.32, -3.80, -2.37, -1.98, -0.83, 0.11, 1.29, 2.50, 3.65, 4.75, and 6.00. This set of parameters ensures, in the RRSM, the absence of disorders in the items' diffi-

¹⁷ The estimation of the parameters in Winsteps is carried out through the JMLE (Joint Maximum Likelihood Estimation) and PROX (Normal Approximation Algorithm) algorithms.

¹⁸ A structure with 13 categories guarantees that MNSQ values (Infit/Outfit) are lower than 2. This recommendation, essential to guarantee the accuracy of the fit (Linacre 2002b), was not guaranteed with a lower number of categories.

Table 4. Calibration of guest satisfaction items

Items	Measure	Std. error of model	INFIT		OUTFIT		PT-M
			MNSQ	ZSTD	MNSQ	ZSTD	
Facilities and Services	0.72	0.03	1.02	0.4	1.00	0.0	0.95
Overall Score	0.27	0.03	0.29	-9.9	0.31	-9.9	0.98
Cleanliness	-0.39	0.03	0.87	-1.8	0.80	-2.7	0.93
Human resources	-0.61	0.03	1.65	7.2	1.62	6.2	0.89

Source: Own elaboration.

culty levels, thus confirming the effectiveness of the category structure suggested (Linacre, 2002b).

The latent trait *Guest Satisfaction* has only one dimension, and the items considered for its definition reflect only one reality. This operational requirement of the RRSM has been tested with three types of analysis. Firstly, the principal components analysis of Rasch residuals (PCAR),¹⁹ in which the values of the indexes obtained –variance explained of the Rasch dimension, 91.5%; variance explained by items, 33.8%; eigenvalue of first contrast, 1.7; and unexplained variance of the first contrast, 3.6%– allow to discard the presence of multidimensionality tensions (Linacre, 2009).

Secondly, the point-measure correlation (PTMEASURE)²⁰ of subjects (0.98), whose positive sign confirms the adequacy of the measurements (Table 4). Lastly, the Rasch estimators of measurement separation for subjects and items (Rasch, 1980)²¹ reach levels –hotels: 0.97; items: 1.00– that allow to deduce a high reliability (Nunnally, 1987). Regarding

¹⁹ Rasch residual based principal components analysis (PCAR) shows the contrasts between opposed factors, not the load on one factor. It looks for patterns in the data that do not accord with the Rasch measurements, that is, for the unexpected part of the data (Linacre, 2018).

²⁰ The correlation Point-Measure is the correlation between the observations of subjects and items and their measurements (Linacre, 2012).

²¹ The Rasch Measurement Theory (Rasch 1980) offers a reliability index of separation of subjects and another one of reliability of items, both being interpreted analogously to the Cronbach coefficient *alpha*.

global validity, the INFIT/OUTFIT adjustment statistics,²² in terms of mean of residuals squared (MNSQ), takes acceptable values –hotels: 0.89/0.91; items: 0.96/0.93.

Regarding the individual validity analysis, the calibrations of the guest satisfaction factors do not present misfits. Although the values of the MNSQ indexes of INFIT and OUTFIT for the item *overall score* show that it is unproductive or less productive for the definition of *Guest Satisfaction* (Table 4), it is taken because it does not distort the analysis (Linacre, 2002b).

The diagnosis performed enables us to confirm the adjustment of the data to the Rasch Measurement Theory. Therefore, the measurements obtained acquire the properties of the model.

4. RESULTS

To answer the main research question in this study, hotels have been classified in the following groups (Table 5) according to the overall corporate social responsibility practices disclosed in their websites:

- Group 0: hotels that do not communicate social actions. It is composed of 207 subjects.
- Group 1: hotels that only communicate an ethical behaviour towards their stakeholders –workers, local community and environment–. This group consist of 112 hotels.
- Group 2: those that communicate the certifications of quality management systems ISO 9001 and/or norm Q. It is composed of 5 hotels.

²² To show the existing deviations between the actual measurements and the ones expected by the model, Rasch (1980) provides fit statistics under two different approaches, INFIT and OUTFIT. The INFIT index is sensitive to the unexpected behaviour affecting items whose difficulty is near the subject's ability level. On the other hand, the OUTFIT statistic shows the unexpected behaviour affecting items whose difficulty is far from the subject's ability level. In both cases, they are expressed in terms of the mean square (MNSQ) of the residuals' difference between the observed measurements and the estimated ones, and standardised (ZSTD). The mean square MNSQ has an expected value 1, and standardised statistics values between -2 and +2 are accepted (Linacre, 2002a). This statistic is standardised as ZSTD with zero mean and unitary standard deviation (Linacre, 2002a).

Table 5. Communication of overall CSR practices and organisational effort

Group	Disclosed CSR practices	Organisational effort
G0	Do not communicate CSR	-
G1	Ethical behaviour	
G2	Quality management systems	
G3	Environmental management systems	
G4	Ethical behaviour and quality <i>or</i> environmental management systems	
G5	Quality and environmental management systems	
G6	Ethical behaviour, quality <i>and</i> environmental management systems	+

Source: *Own elaboration.*

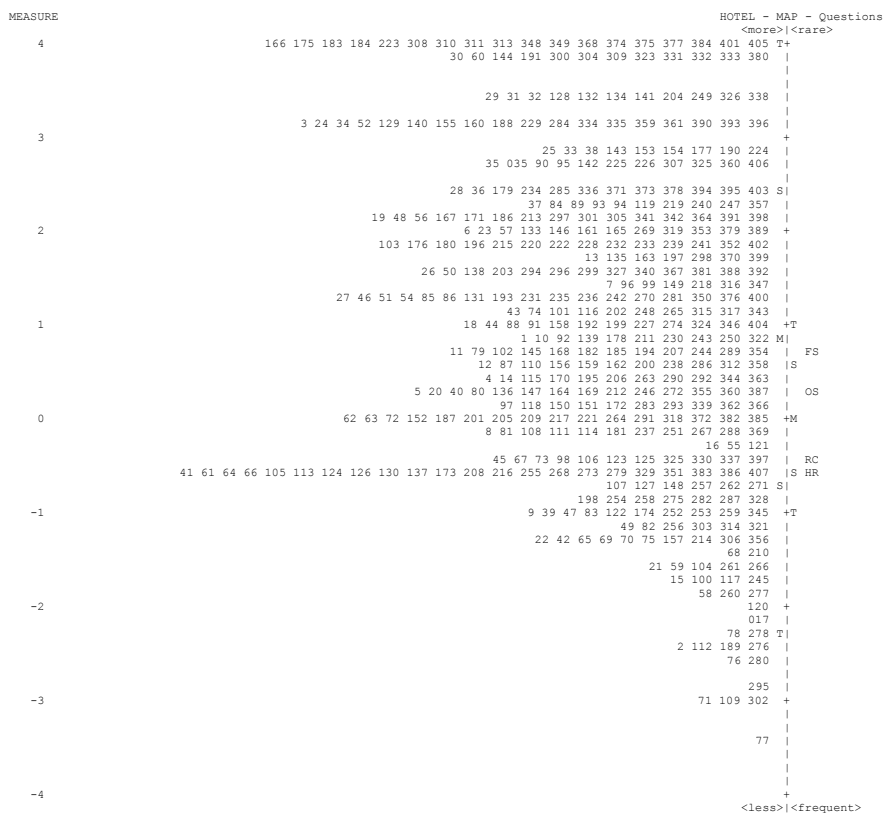
- Group 3: hotels that disclose the certifications of environmental management systems ISO 14001 and/or EMAS. It consists of 9 hotels.
- Group 4: entities that communicate an ethical behaviour towards their stakeholders, and the certification of quality management systems -ISO 9001 and/or norm Q- or certification of environmental management systems -ISO 14001 and/or EMAS. This group consists of 43 hotels.
- Group 5: hotels that disclose certifications of quality management systems -ISO 9001 and/or norm Q- and environmental management systems -ISO 14001 and/or EMAS. It is composed of 7 hotels.
- Group 6: entities that communicate an ethical behaviour towards stakeholders and have certifications of quality and environmental management systems; it is made up of 24 hotels.

Two RRSM (Andrich 1988) applications are used to reach the main and specific objectives of this study, the positioning or Wright map and the differential item functioning analysis.

4.1. POSITIONING MAP

The application of the Rasch-Andrich model of ordered categories to the measurements obtained from the guest satisfaction items and from the hotel entities analysed allows to obtain the Wright map (Figure 1). This map presents the linear continuum of the defined construct, *guest satisfaction*, vertically. On the left, the hotel entities are located according to their measures—expressed in *logits*— and, on the right, the items *facilities and services*, *cleanliness*, *human resources* and *overall score*.

According to the positioning of the hotels in the linear continuum, of the 407 hotels from the empirical study, 208 obtain measures equal to or



Source: Own elaboration

Figure 1. Positioning map.

Table 6. Communication of CSR actions and internal characteristics of hotels

		G0	G1	G2	G3	G4	G5	G6
<i>Hotels above the mean</i>		104	61	4	5	15	6	13
<i>Hotels below the mean</i>		103	51	1	4	28	1	11
TOTAL		207	112	5	9	43	7	24
<i>Size</i>	Small	75	23	1	1	2	1	2
	Medium	65	23	2	5	13	1	8
	Large	40	28	0	2	9	5	7
	Very large	27	38	2	1	19	0	7
<i>Category</i>	4 Stars	181	80	4	9	35	5	20
	5 Stars	26	32	1	0	8	2	4
<i>Management</i>	Independent	84	14	4	0	1	1	1
	Hotel Chain	123	98	1	9	42	6	23

Source: Own elaboration.

higher than the mean (0.83 logits).²³ Of them, 50% communicate the social actions performed (Table 6), the declarations of an ethical behaviour prevailing. A similar pattern of social responsibility practices disclosed is observed among the 199 entities with measures below the mean.

Regarding the characteristics of the hotels, the four-star category and the independent form prevail among the hotels that do not disclose their social responsibility practices or only communicate an ethical behaviour (57%, 82% and 31%).²⁴

Likewise, hotels that inform about the social actions that require a greater commitment from managers and human resources are of a relatively larger size, a higher category, and are linked to hotel chains –59%, 17% and 92%, respectively.²⁵

²³ The standard deviation of the subjects' measurement is 1.58 (Table 9).

²⁴ Data obtained for Groups 0 and 1, considered jointly. Considering the structure of the sample –prevalence of 4-star entities and affiliated to hotel chains–, the relative weight of 4-star and independently managed hotels is observed to be higher among entities that do not disclose non-financial information online and only communicate ethical conduct.

²⁵ Data obtained for Groups 2 to 6, considered jointly.

The part of the linear continuum referred to the items has an inverted polarity: the most difficult factors to be achieved by the hotels are at the top, and those that appear more frequently at the bottom. The mean of the factors' calibration is 0.0 and their standard deviation 0.53. The easiest items to be achieved by the subjects are *cleanliness* (RC) and *human resources* (HR). *Facilities and services* (FS) is the least probable and, therefore, the most difficult for hotels when generating satisfaction in their guests (Figure 1).

The overall subjects have a higher level of the latent variable *Guest Satisfaction* than the mean of the items –the hotels' mean of measures is above that of the items' calibrations (Figure 1). Specifically, 218 hotels are above the ceiling *facilities and services* (FS). Of those, 51% disclose their social actions, and of these 60% are mere declarations of an ethical behaviour. On the other hand, 77 subjects do not reach the floor *human resources* (HR) (Figure 1). Of those, 26 hotels disclose non-financial online information. It is astonishing that 13 of them are certifications of quality or environmental management systems.

4.2. DIFFERENTIAL ITEM FUNCTIONING ANALYSIS

Analysis of the differential functioning (DIF) has been applied to identify whether there are significant differences in the satisfaction of guests among groups of hotels that disclose different social responsibility practices. The Welch t (Rasch, 1980) statistical test is employed and the results are interpreted following T.G. Bond and C. Fox (Oreja-Rodríguez, 2015).²⁶ The analysis has been carried out in two phases, called general approach and specific approach.

4.2.1. General approach

The aim in this first analysis is to identify statistically the possible differences between the guest satisfaction of the hotels that disclose overall social responsibility practices involving a higher or lower organizational effort (Table 5).

²⁶ The hypothesis that there are differences in the differential item functioning is accepted when a value of $|t| \geq 2.0$, with significance lower than 0.05, is obtained in the contrast. It is also considered that these differences are moderate or large when $|DIF| \geq 1,5/2,35$ and significance $\leq 0,05$ (Oreja-Rodríguez 2015).

Table 7. Differences between the guest satisfaction according to the overall disclosed CSR practices

Items	Hotels group (*)	Hotels group (*)	DIF Contrast	Welch t	Prob
<i>Facilities and Services</i>	G0	G4	.20	2.34	.0216
<i>Human resources</i>	G0	G6	.35	2.65	.0114
	G1	G6	.35	2.54	.0147
	G4	G6	.46	3.05	.0037
<i>Cleanliness</i>	G6	G0	.30	2.52	.0155
	G6	G1	.34	2.72	.0090

(*) Description of groups in Table 5. The lower the number, the less organisational effort is required by the overall disclosed CSR practices.

Source: Own elaboration.

The statistical results from the Welch t test obtained do not indicate significant differences in the overall score item. Nevertheless, differences in the rest of the items have been found (Table 7). Specifically, those hotels that do not disclose their social responsibility practices (Group 0) generate greater satisfaction in *facilities and services* than those disclosing an ethical behaviour and certifications of quality or environmental management systems (Group 4).

On the other hand, the disclosure of an ethical behaviour and certifications of quality and environmental management systems (Group 6), generates less guest satisfaction in the item *human resources* than other declarations of overall social practices involving a lesser organizational effort: the non-disclosing (Group 0), the declaration of an ethical behaviour (Group 1), and the non-disclosing of a certification of quality or environmental management system (Group 4).

Finally, the disclosure of overall social responsibility practices involving a deeper organizational effort (Group 6) generates a higher guest satisfaction in *cleanliness* than those overall declarations that imply a lesser effort: Groups 0 and 1.

4.2.2. Specific approach

A differential functioning analysis of guest satisfaction is then performed according to the specifically disclosed social practice. This approach

Table 8. Differences between guest satisfaction according to the specifically disclosed CSR practices

Disclosed CSR actions	Hotel groups		Dif Contrast	Welch t	Prob	Items
Travelife, Greenleaders	None	Greenleaders	.27	2.74	.0080	<i>Facilities and services</i>
	Greenleaders	None	.28	2.92	.0049	<i>Overall Score</i>
ISO 9001, Q	None	One	.20	2.04	.0450	<i>Human resources</i>
	Both	None	.39	2.49	.0234	<i>Cleanliness</i>

Source: Own elaboration.

looks for significant differences among the declarations in each one of the following three groups: green practices, quality management systems and environmental management systems.

The results obtained indicate, firstly, that the disclosure of Greenleaders award generates higher satisfaction in the *overall score* than the absence of any green practice, but a lower one in the *facilities and services* item (Table 8). Secondly, the non-disclosure of ISO 9001 or Q norm generates higher guest satisfaction in *human resources* than the disclosure of one of them. However, the non-disclosure of both quality management systems generates lesser satisfaction in *cleanliness* than the communication of both (Table 8).

5. CONCLUSIONS

Hotels carry out different social responsibility practices (Ayuso, 2003, 2006; Garay & Font, 2012), and communicate them to their stakeholders (Déniz et al., 2017; Larrinaga et al, 2006). From different approaches, external communication of social practices in the hotel sector literature tries to clear up the reasons for disclosing: just improving the hotel image or supporting sustainability (Assaf et al., 2012; Ayuso, 2006; De Grosbois, 2012; Déniz et al., 2007; Holcomb et al., 2007; Larrinaga et al., 2006). Little attention has been paid to its link to the guest satisfaction. This study aims to fill this gap, trying to shed some light on it.

The main objective of this work is to determine whether the disclosure of social practices involving a different degree of organizational effort is reflected in the positioning of hotels regarding the satisfaction of their guests. This study joins to the disclosure of CSR practices empirical literature in the hotel sector from a new approach, related to guest satisfaction.

The results obtained indicate that the disclosed corporate responsibility actions do not overall affect the hotel's ability to satisfy its customers. Nevertheless, the results show the influence of the social practices communicated, on the hotel capability to satisfy in certain service's dimensions to its guests.

Specifically, those hotels that disclose an ethical behaviour and certifications of quality and environmental management systems have a greater ability to satisfy their guests in *cleanliness*. This could indicate that customers perceive the organisational effort that those systems require. However, this group of hotels shows a lower ability to satisfy them in *human resources*, even though this is the easiest item for the subjects. This could indicate that human resources practices of such hotels do not have in mind the greater effort that those quality and environmental management systems mean for employees. In line with the empirical studies emphasizing the importance of the human resources' attitude in quality of service (Bowen & Schneider, 1985; Gronroos, 1983), and its influence on consumer satisfaction (Mohr & Bitner, 1995), the results obtained could indicate the need of including some special recognitions to their human resources.

In addition, it has been confirmed that only half of the hotels do communicate online their corporate social responsibility practices. Ethical behaviour is the kind of declarations that prevails among them. This fact shows the need to consider the disclosure of ethical codes exactly as important as the communication of quality and environmental management systems (Linnenluecke & Griffiths, 2010; UNWTO, 2015).

The results confirm that non-disclosure of social practices prevails among smaller and independent managed hotels, so their usual unavailability of financial resources should be solved. Private or public-private collaboration nets appear as a possible solution at this respect.

In summary, diverse implications are derived from the empirical analysis carried out in the current work. It supports the integration of quality and environmental management systems in those hotels that only disclose an ethical behaviour. It also reinforces the theses that suggest the

need to improve the good work environment when such management systems are adopted. And it shows the need of advancing in the extension of the sustainability culture through private or public-private collaboration nets.

These derivations are important not only because of their incidence in guest satisfaction and in EWOM (Zhou et al., 2014), but also for being aligned with sustainability.

This study does however have certain limitations, which the authors offer as possible lines of research for the future. Researchers should determine the degree in which customer's expectations have been influenced by the contents of the hotel's website. Later studies should also include hotels' internal information referred to as their human resources practices as far as their internal communication of social responsibility practices towards external stakeholders is concerned. Finally, it would be advisable to determine the reasons of a lesser generation of satisfaction in *facilities and services* by those hotels disclosing social practices that involve a greater organisational effort.

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