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DOTTORATO DI RICERCA IN ECONOMIA E MANAGEMENT

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**Better late than never:
Leading hospitality toward a more
sustainable path**

S.S.D. SECS-P/08

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Summary of the thesis

This doctoral thesis starts with the idea that tourism and hospitality are nature-based industries, since the natural environment plays an extremely relevant role in the attractiveness of tourist destinations and the competitiveness of hospitality businesses. At the same time, however, hospitality companies are responsible for the production of a significant amount of waste and the consumption of a large quantity of natural resources. Hotels and lodgings in general are “both victims and contributors” of environmental degradation, a situation that has led to the so-called “resource-paradox”: the production of tourism experience, in fact, requires the simultaneous consumption and protection of natural resources. This issue was worsened by the exponential growth of this industry in recent decades, and sustainability has become a necessary response to the size and growth of tourism.

Despite the increasing need for hospitality to limit its environmental impacts, and despite the large number of research papers dealing with sustainable tourism, sustainability still remains an ongoing debate and several tourist businesses are far from being sustainable in practice. The overall aim of this doctoral dissertation is therefore to make a contribution to reducing the gap between theory and practice in order to help the further dissemination of environmentally sustainable behaviors in hospitality businesses. More specifically, the purpose of the research is to investigate the modalities in which sustainable practices can be implemented, the main drivers for their implementation and the barriers that may constrain their implementation, both from the perspective of hospitality managers and tourists.

The thesis comprises 3 research papers. Although each paper deals with different aspects of the same issue, i.e. environmental sustainability in the hospitality industry, they are to be considered as 3 separate papers. The thesis starts with a review of the literature on environmental sustainability in the hospitality industry, and this is followed by two empirical investigations. The literature review helped systematize concepts related to modalities, motivations and barriers for environmentally sustainable practices in hospitality, and provided a starting point for exploratory research. The first empirical investigation adopts a qualitative methodology and addresses hospitality managers’ perspectives in order to explore the validity in a real context of the concepts that emerged from the literature review. The second empirical investigation is quantitative and takes into account the tourist perspectives. Considering the perspectives of both the “producers” and the “consumers” of tourism experiences was deemed important to triangulate concepts and increase the overall validity of the research. The three chapters are briefly described below.

The first paper is titled “Environmental sustainability and hospitality. A literature review on modalities, motivations and barriers”, and aims to critically review and systematize the following issues: (a) modalities for the implementation of environmentally sustainable behaviors in the hospitality industry; (b) motivations that drive hospitality managers to the implementation of environmentally sustainable behavior; and (c) barriers that may constrain the implementation of environmentally sustainable behavior. After conducting a content analysis of 44 research papers, I was able to classify concepts and create two theoretical frameworks: the HOW framework encompasses 5 areas for the implementation of environmentally sustainable behavior, i.e. waste management, water conservation, energy conservation, sustainable purchasing and people involvement; the WHY/WHY NOT framework involves 4 types of motivations and barriers that drive/prevent hospitality managers from implementing environmentally sustainable behavior, i.e. direct monetary motivations/barriers; indirect monetary motivations/barriers; non-monetary motivations/barriers; and personal motivations/barriers. These frameworks, in addition to adding to the existing literature on sustainability and hospitality, are a useful starting point for further exploratory research.

The second paper is titled “Environmental sustainability and hospitality. An exploratory research on modalities, motivations and barriers” and builds on the findings of the previous paper in order to explore the validity and applicability of both theoretical frameworks in a real context. I conducted qualitative research based on primary data, through on-site visits and interviews with 18 managers of different lodging facilities, 8 located in the mature destination of Verona (Italy) and 8 located in the emerging context of Huelva (Spain), investigating modalities, motivations and barriers to the implementation of environmentally sustainable behavior. A middle ground approach to textual analysis was selected, starting from the theoretical underpinnings of the research, i.e. the two theoretical frameworks, but also taking into account recurrent and emerging themes. I was therefore able to incorporate emerging issues and provide adjusted versions of both frameworks: in the adjusted HOW framework the 5 areas for the implementation of environmentally sustainable behaviors are further divided into two sub-areas, increasing the specificity of the framework. In the adjusted WHY/WHY NOT framework, non-monetary facilitators together with motivations are included. Moreover, organizational facilitators and organizational barriers are added as a sub-category of non-monetary facilitators and barriers, respectively. Besides supporting the validity of both frameworks in a real context, the study has useful managerial implications about the advantages and disadvantages of environmental sustainability in the hospitality industry and about the potential sources of support for the successful implementation of

environmentally sustainable behavior. However, only managerial perspectives are addressed in this work, while the perspective of other relevant stakeholders are lacking.

The third paper, “Environmental sustainability and hospitality. How sustainability influences customers’ behavioral intentions”, takes into account the perspectives of a relevant stakeholder in the hospitality industry, i.e. tourists. The aim of the research is to investigate whether and to what extent different environmentally sustainable practices affect customers’ intentions when choosing a hotel, their expected satisfaction during the stay and willingness to pay a higher price in order to stay in “green” accommodation. I conducted quantitative research through online questionnaires to 237 respondents, asking the extent to which 10 different sustainable practices influence hotel choice, expected satisfaction and willingness to pay a 5% higher price. Sustainable practices were derived from the two previous papers and are of three different types: “health related”, “indirect involvement” and “low comfort” environmentally sustainable practices. Results support the idea that different sustainable practices have a different influence on customers’ behavioral intentions and while all types of practices positively affect hotel choice and expected satisfaction, some practices display a neutral or even negative influence on customers’ willingness to pay a higher price. The research adds to previous literature, supporting the idea that environmental sustainability is not a unique concept but involves different dimensions, that in turn display a different influence on customers’ behavioral intentions. In addition, practical implications for hospitality managers can be derived, and in particular I was able to create a ranking of priorities for the implementation of sustainable practices, considering both the influence on customers’ behavioral intentions and the economic effect on the hospitality organization of each sustainable practice. The limit of the study is that only behavioral intentions are considered, while often there is a gap between intentions and actual behavior.

To sum up, this doctoral thesis provides important theoretical contributions that add to the previous literature on environmental sustainability in the hospitality industry: the two adjusted theoretical frameworks encompass modalities, motivations and barriers to the implementation of environmentally sustainable practices and help to systematize concepts; moreover, the distinction of three types of environmentally sustainable behaviors contributes to clarifying the fact that environmental sustainability has numerous aspects and dimensions. From these theoretical contributions, relevant practical implications for hospitality managers can be derived, as outlined at the end of each paper. These may help to facilitate the further dissemination of sustainable practices and behaviors in hospitality companies.

The overall limitation of this study is that it addresses only the environmental dimension of sustainability and only hospitality companies, among the many types of organization in the tourism value chain. The reason for this choice is that tourism, and hospitality in particular, are probably more concerned with the environmental dimension of sustainability, due to the “resource-paradox” and the dependence on the natural environment of tourist businesses. An attractive environment is a core product, in addition to service quality; hospitality can and should play a significant role in the achievement of environmental sustainability.

However, sustainability is a holistic concept with economic and sociocultural dimensions that often overlap. In addition, hospitality is only a part of the tourism value chain, and other tourist businesses may also have relevant impacts. Therefore, the study opens possibilities for further research that should broaden the focus of the analysis to include the economic and sociocultural dimensions of sustainability and other kinds of tourist organizations, enhance and promote the dissemination of triple bottom line sustainability, which should be the ultimate goal not just of tourism but of society at large.

Environmental sustainability and hospitality.

A literature review on modalities, motivations and barriers

Abstract

Purpose: Due to the increasing relevance of environmental sustainability in the hospitality industry, the purpose of this literature review is to critically address and systematize (a) environmentally sustainable practices adopted in hospitality, (b) the motivations that lead hospitality managers to their implementation and (c) the barriers that constrain their implementation.

Methodology: The research was conducted on the Scopus database, with the keyword “Environmental sustainability” and “Hospitality” providing a final list of 44 articles. A content analysis was then performed and key issues addressing modalities, motivations and barriers to sustainability were derived from the literature.

Findings: Concepts were systematized in order to create two separate theoretical frameworks: the first framework involves 5 areas for sustainability implementation, i.e. waste management, water conservation, energy conservation, sustainable purchasing and people involvement. The second framework categorizes motivations and barriers to environmental sustainability as direct monetary, indirect monetary, non-monetary or personal.

Limitations: The current review considers only the environmental dimension of sustainability and only the hospitality industry. Further research should extend the analysis to other dimensions of sustainability and/or to other tourist businesses.

Value: The value of the study consists in providing two original frameworks that add to previous literature on environmental sustainability in the hospitality industry, and it may represent a starting point for further exploratory research. In addition, both frameworks allow to derive important managerial implications about the modalities in which environmental behaviors can be implemented, and about possible advantages and disadvantages that may derive from for environmental sustainability.

Keywords

Environmental sustainability; hospitality; literature review; theoretical frameworks.

1. Introduction

Tourism has been involved in the debate on sustainability since the 1995 first World Conference on Sustainable Tourism, and the concept of sustainable tourism is in turn embedded in the wider debate about sustainable development, which started with the 1987 Brundtland Report (WCED, 1987). Sustainable tourism may be defined as “tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of the visitors, the industries, the environment and host communities” (UNWTO, 2005).

The benefits of practicing a Triple Bottom Line sustainability, i.e. economic, social and environmental, are obviously not called into question (Boley & Uysal, 2013); however, it may be argued that because of its particular nature tourism is mostly involved in environmental sustainability issues. The natural environment is a key factor of attractiveness and profitability for tourist destinations (Martini, Buffa, Notaro, 2017; Puig et al., 2017; Stabler & Goodall, 1997), but at the same time the industry is causing irreversible damage to natural resources (O’Neill & Alonso, 2009), being responsible for 5% of overall Co2 emissions (UNWTO, 2010), water consumption (Styles, Schoenberger, & Galvez-Martos, 2015), energy consumption and waste generation (Zhang, Joglekar, & Verma, 2012). The production of tourist experiences requires the simultaneous consumption and protection of natural resources, leading to the so-called “resource-paradox” (Williams & Ponsford, 2009), a situation that was worsened by the exponential growth of tourism in recent decades: international arrivals have grown from 25 million in 1950 to 806 million in 2005 and are expected to reach 1.6 billion in 2020 (Aragon-Correa, Martin-Tapia, & Torre-Ruiz, 2015). Environmental sustainability becomes a necessary response to the size and growth of the tourism industry (Puig et al., 2017).

The literature on sustainability has only recently started to focus on hospitality (Boley & Uysal, 2013), but the hotel industry is one of the major contributors to environmental problems consuming energy, water and natural resources, and generating waste in great quantities (Xu & Gursoy, 2015b; Verma & Chandra, 2017). Hospitality contributes to 18% of overall tourism impacts (Puig et al., 2017), and according to the Green Seal a hotel on average purchases more products in 7 days than a hundred households in one year (Martínez, 2015). Hotels and lodging facilities are both “contributors and victims” of environmental impacts (Reid, Johnston, & Patiar, 2017) and therefore can and should play a significant role in the achievement of environmental sustainability.

Nevertheless, sustainability is still an ongoing debate: theories have not been translated into practice yet (Ruhanen, 2008) and many areas of enquiry remain (Melissen, 2013; Stylos & Vassiliadis, 2015).

Research has made only little progress in the area of hospitality, hence providing limited help to practitioners (Melissen, 2013). Three broad research questions remain unanswered:

- How is ES implemented in the hospitality industry?
- Why is ES implemented in the hospitality industry?
- Why is ES not implemented in the hospitality industry?

Therefore, the aim of this literature review is to critically categorize ES behaviors that are currently implemented in the hospitality industry; the motivations that drive hospitality managers to implement ES behaviors; and the barriers that can constrain their implementation. Several articles have dealt with these issues before, but only in a fragmented way and not taking into account the three research questions together. The value of the present study consists in: a) providing an original systematization of ES behaviors, by grouping all possible behaviors in just 5 areas of action; b) providing an original systematization of all possible motivations and barriers for ES behaviors, based on a new criterion of classification and placing the focus on managerial perceptions. In particular, the review of the literature leads to two theoretical frameworks: the first framework displays 5 areas for the implementation of ES behaviors, i.e. waste management, water conservation, energy conservation, sustainable purchasing and people involvement. A second framework is then created systematizing motivations and barriers to ES behaviors in 4 broad categories: direct monetary, indirect monetary, non-monetary or personal.

In addition to adding to previous literature on hospitality and sustainability providing important theoretical contributions, the two frameworks allow relevant managerial implications to be derived.

Further research is however needed to explore the validity and applicability of both frameworks in a real context, and this will be the aim of further research by the same author.

The rest of the paper is organized as follows: the selected methodology is explained in section 2, descriptive findings of the review are reported in section 3, the first theoretical framework is presented in section 4, while section 5 and 6 deal with the second framework, related to motivations and barriers. Finally, conclusions and implications for further research are listed in section 7.

2. Method

The purpose of a literature review does not consist in providing a summary of everything that has been written on the topic, but rather in critically reviewing the most significant research. In other words, a literature review is useful to generate and refine research ideas; to highlight research possibilities that

have been overlooked; and ultimately to avoid repeating research (Sharp, Peters & Howard, 2002; Saunders, Lewis, & Thornhill, 2009).

The quality of a literature review depends largely on how the review is conducted. First and foremost, attention should be paid to the generation of research questions and keywords. In order to avoid the repetition of research and information overload, clear, well-defined research questions and keywords are recommended, and keywords should be the basic terms that describe research questions (Bell, 2005; Saunders et al., 2009). Since the already mentioned research questions of this study aim to explore modalities, motivations and barriers for the implementation of environmentally sustainable practices in the hospitality industry, the keywords “Environmental sustainability” and “Hospitality” were selected. Additional keywords, such as “Modalities”, “Motivations” or “Barriers” were eliminated since they would have overly narrowed the research findings.

In addition to keywords, other issues should be defined prior to starting the review: databases, literature sources, and criteria to select relevant literature (Saunders, et al., 2009).

Therefore, the Scopus database was chosen, the largest database of peer-reviewed literature in terms of the number of abstracts (Jacsó, 2011) and one of the most authoritative and comprehensive databases in scientific research (Merli, Preziosi & Acampora, 2018). Only papers published in refereed academic journals were used as sources of literature, since they are recommended for a number of reasons: they are easily accessible, their quality is carefully assessed by academic peers, and they are generally up to date (Saunders et al., 2009). Assessing the relevance of the literature obviously depends on the research questions, and criteria for inclusion and exclusion of articles should be established in advance. Some literature was not included in the final review because it did not deal with environmental sustainability but other dimensions of sustainability or did not focus on the hospitality industry but other industries in the tourism value chain; some articles were excluded because they were only a small part of a broader study. The aim of the review is to assess hospitality managers’ perspectives regarding environmental sustainability issues alone.

According to these criteria, several papers were eliminated from the review; of the initial 119 results provided by the Scopus database, only 44 peer-reviewed articles remained (see Appendix 1).

Recording the literature is another relevant point. A database was constructed, including bibliographic details, with a brief summary of the article and any relevant supplementary information, as recommended by Sharp et al. (2002). The Excel database is available on request but not included in Appendix. The database contains bibliographic details, summary, main research question, methodology, major findings, implications and possible calls for further research for each article.

The 44 articles were then critically analyzed in order to gain insights into the following topics:

- a) ES behaviors adopted in the hospitality industry;
- b) Motivations that lead to the implementation of ES behaviors in the hospitality industry;
- c) Barriers that constrain the implementation of ES behaviors in the hospitality industry.

In particular, a thematic content analysis of each paper was undertaken (Saldana, 2009). This method is widely used in literature reviews because it increases the quality and thoroughness of the information (Qian, Shen, & Law, 2018). The topics were broken down into three categories: a) ES behaviors, b) motivations for ES behaviors, and c) barriers to ES behaviors.

An inductive approach was selected, consisting in research questions and an exploration of data in order to develop theoretical frameworks. In other words, the outcome of an inductive approach consists in the formulation of a theory. A deductive approach, on the contrary, consists in starting with a theory to be tested by data (Saunders et al., 2009).

Accordingly, it was possible to create two separate theoretical frameworks. In the first framework, all ES behaviors found in the literature were grouped into 5 categories, or areas of action: waste management, water conservation, energy conservation, sustainable purchasing and people involvement. In the second framework, all motivations and barriers to environmental sustainability in the literature were categorized according to their monetary or non-monetary nature. This approach was selected since it emphasizes managerial perceptions, the focus of the current review. Four broad categories of motivations and barriers were identified: direct monetary motivations/barriers, indirect monetary motivations/barriers, non-monetary motivations/barriers and, from the managerial point of view, personal motivations/barriers.

Bibliographic details of the 44 papers are given below. The results of the content analysis are presented and categorized according to the chosen criteria in order to derive the two theoretical frameworks, the former dealing with modalities of environmental sustainability and the latter with motivations and barriers for ES practices and behaviors.

3. Descriptive findings

This section deals with the main bibliographic details of the 44 papers in the unit of analysis, i.e. year of publication, name of the journal, type of article (i.e. conceptual, empirical or review) and chosen methodology (i.e. qualitative, quantitative or mixed methodology).

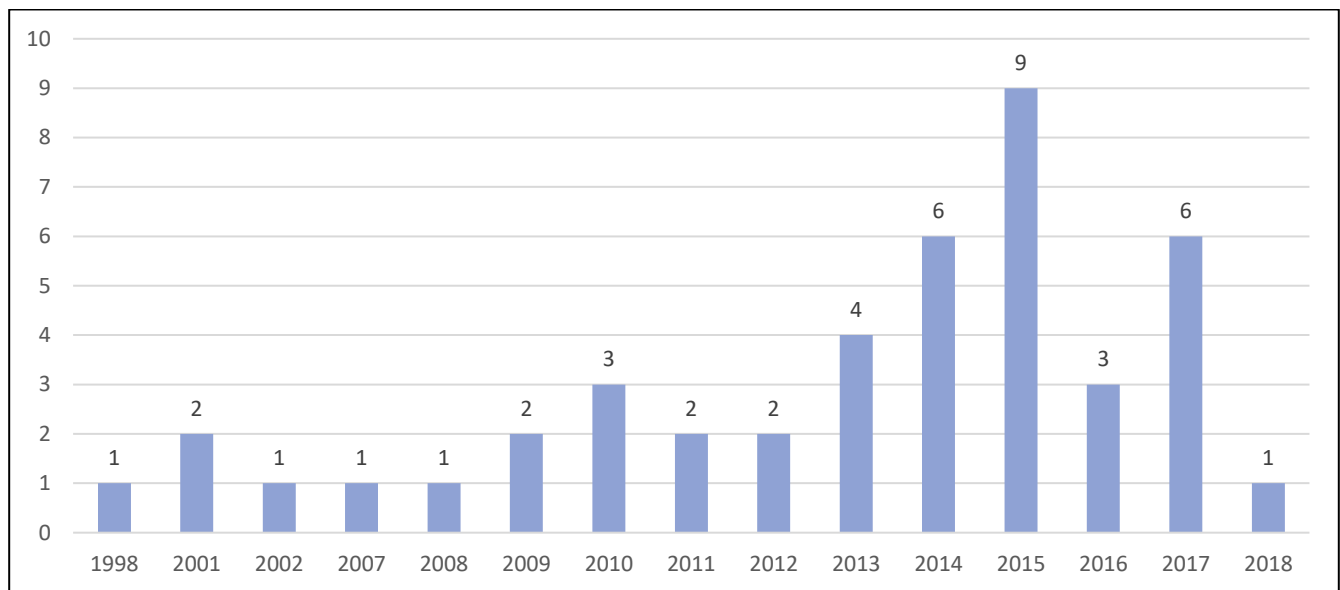
Articles range from 1998 to 2018 (see Figure 1), with a significant increase in publications in year 2014 (17% of all articles), 2015 (20%), which is the most productive year, and 2018 (17%).

24 different journals were identified (see Figure 2). The journals with the highest number of published articles were in the “Business, Management and Accounting” and “Tourism, Leisure and Hospitality” subject areas and were: *Journal of Sustainable Tourism* (20% of all articles), *International Journal of Contemporary Hospitality Management* (11%) and *Cornell Hospitality Quarterly* (9%).

Most articles were empirical (84%), with only few reviews (11%) or conceptual papers (5%), as shown in Figure 3.

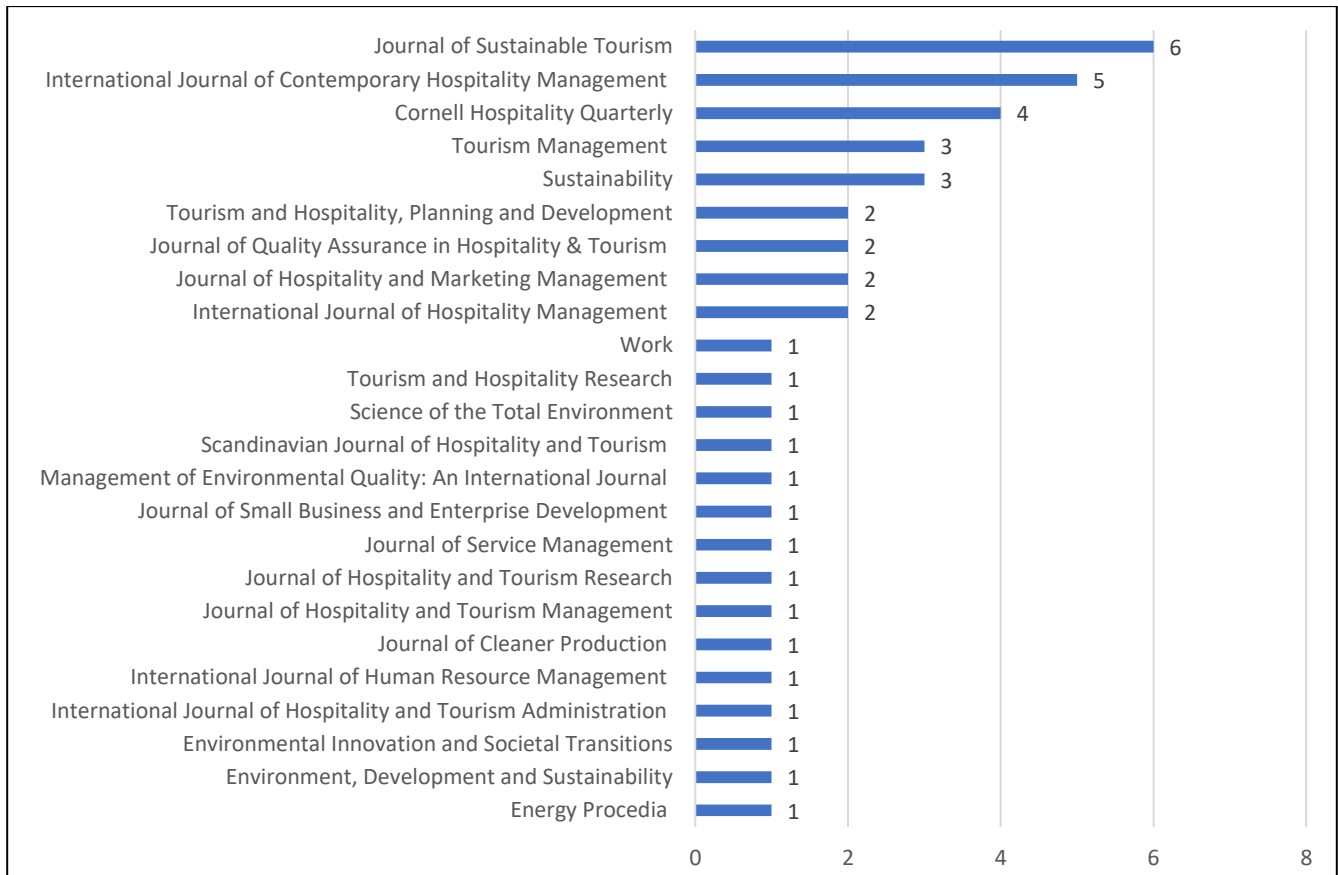
Lastly, of the empirical papers, 51% adopted a quantitative and 35% a qualitative methodology; the remaining 14% had a mixed methodology, as shown in Figure 4.

Figure 1. Breakdown of publications dealing with environmental sustainability in the hospitality industry over time



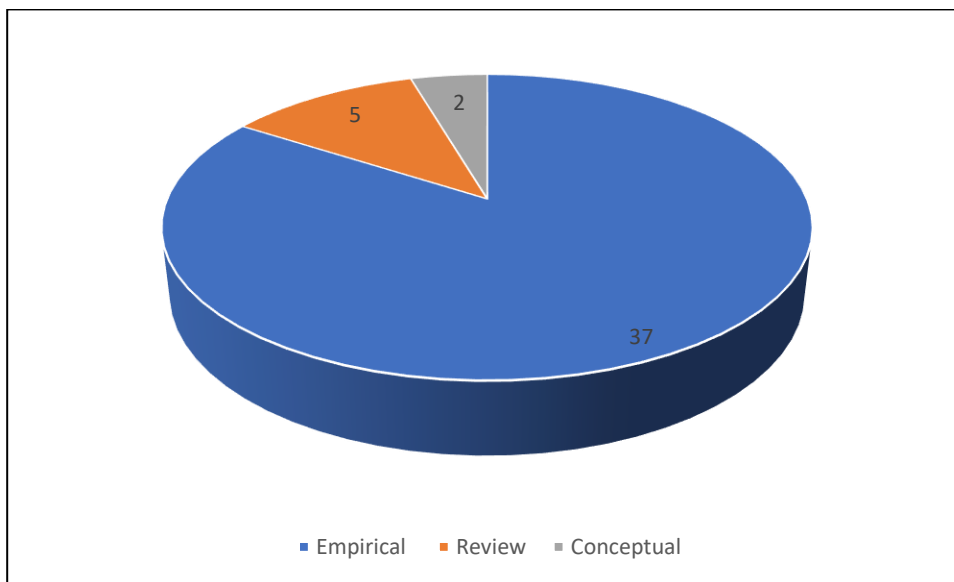
Source: based on our analysis

Figure 2. Breakdown of publications dealing with environmental sustainability in the hospitality industry



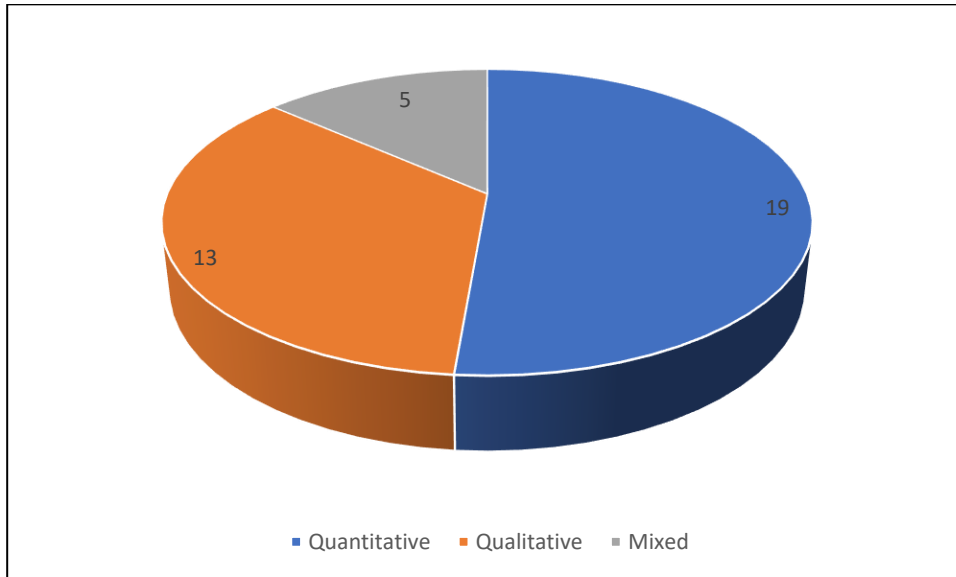
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Figure 3. Types of articles dealing with environmental sustainability in the hospitality industry



Source: based on our analysis

Figure 4. Selected methodology in articles dealing with environmental sustainability in the hospitality industry



Source: based on our analysis

4. How is environmental sustainability implemented in the hospitality industry?

Agenda 21 (WTO, 1992) sets out 10 priority actions for Travel & Tourism companies: waste minimization, reuse and recycling; energy efficiency, conservation and management; management of fresh water resources; waste water management; hazardous substances; transport; land-use planning and management; involving staff, customers and communities in environmental issues; design for sustainability; and partnership for sustainable development. Following this list, Carlsen, Getz and Ali-Knight (2001) identified the most common environmental behaviors adopted by small tourism firms involving water conservation procedures, recycling programs, waste reduction, educating guests on conservation issues, eliminating non-organic chemicals, energy conservation and alternative, non-polluting energy sources. In their well-known analysis of ten top hotel chains, Holcomb, Upchurch and Okumus (2007) highlighted 5 areas of CSR reporting, with the environment-related area including cultural heritage, energy management, pollution control, recycling, waste management and water conservation issues. Moreover, according to the Green Hotels Association, “Green Hotels are environmentally-friendly properties whose managers are eager to institute programs that save water, save energy and reduce solid waste – while saving money – to help protect our one and only heart” (Green

Hotels Associations, 2017). A green hotel is also defined as “an environmentally sensible operation that provides hotel guests with an eco-friendly, hygienic and healthy product and practices energy conservation and recycling at the same time” (Verma & Chandra, 2017). Obviously, accurate inventory data collection is another necessary step to reduce environmental impacts (Puig et al., 2017); waste production, water and energy consumption should be carefully measured.

Based on the above definitions and on the systematic review of the literature, 5 distinct areas for ES behaviors are proposed below: waste management, water conservation, energy conservation, sustainable purchasing and people involvement. A framework for ES behaviors in hospitality is put forward, as shown in Figure 3. For a complete list of all ES practices identified in the literature review, see Appendix 2.

Figure 5. The HOW framework



Source: based on our analysis

Waste generation is the most visible effect of hospitality on the natural environment (Ruiz-Molina, Gil-Saura, & Moliner-Velázquez, 2010), therefore hotels and lodging facilities are usually committed to waste minimization or recycling programs (Bohdanowicz & Zientara, 2008; Martínez, 2015). As an example, ICTs may help to reduce the production of paper waste (Ruiz-Molina et al., 2010); the use of single packaging can be minimized through the adoption of refillable soap and shampoo dispensers and bulk products (Mahachi, Mokgalo, & Pansiri, 2015; Min, 2011). Recycle bins can be placed both in common areas and in rooms (Verma & Chandra, 2017), and food and organic waste can be recycled to

make compost (Sirakaya-Turk, Baloglu, & Mercado, 2014). Finally, a waste recording system is a useful tool in order to control the production of waste (Pérez-Pineda, Alcaraz, & Colón, 2017).

Regarding water conservation issues, towel and linen reuse programs are among the most common behaviors in the hospitality industry (Geerts, 2014), together with water conserving fixtures in rooms, such as low-flow shower heads, low-flush or dual-flush toilets, and aerated faucets (Han & Hyun, 2018). Finally, a graywater recycling system is also quite often fitted and rainwater can be used for irrigation or laundry facilities (Jones, Hillier, & Comfort, 2014).

Energy-related issues involve both energy conservation and the adoption of renewable sources of energy. Concerning the former, energy efficient equipment, led light bulbs, occupancy sensors, keycards in hotel rooms for lighting control, double glazing and low energy refrigeration equipment are among the most common tools (Verma & Chandra, 2017). Renewable energy, such as solar, biomass or geothermal energy are also increasingly popular, especially for heating and cooling systems (Boley & Uysal, 2013; Mahachi et al., 2015; Verma & Chandra, 2017).

All the practices related to the purchasing of products that are less harmful to the environment are categorized in the fourth area, i.e. green purchasing. They include using eco-friendly or biodegradable detergents (Min, 2011; Puig et al., 2017); organic or ecological food (Aragon-Correa et al., 2015), or local products and materials (Ruiz-Molina et al., 2010; Aragon-Correa et al., 2015).

Finally, the last area of the framework involves all practices and behaviors that are related to raising awareness of and sensitivity to environmental sustainability. Both customers and employees can be involved in these practices. Guests and staff can be informed of the current environmental policy (Ruiz-Molina et al., 2010) and involved in environmental activities (Carlsen et al., 2001); the staff can be trained on how to actively contribute to the minimization of environmental impacts (Iraldo, Testa, Lanzini, & Battaglia, 2017; Sánchez-Ollero, García-Pozo, & Marchante-Mera, 2014).

To sum up, 5 areas for the implementation of ES behaviors can be identified in the literature, i.e. waste management, water conservation, energy conservation, sustainable purchasing and people involvement. However, addressing drivers of environmental sustainability, rather than just its modalities, may afford better insights into the mechanisms fostering the implementation of ES practices, and this in turn could facilitate environmental sustainability (Bansal & Roth, 2000; Tencati & Pogutz, 2015). Hence, the following two sections deal respectively with the motivations and barriers to environmental sustainability in the hospitality industry.

5. Why is environmental sustainability implemented in the hospitality industry?

The literature review provides a quite extensive list of forerunners of ES in the hospitality industry, classified according to several, often overlapping, criteria. According to the “Mair & Jago framework” (Mair & Jago, 2010), organizational characteristics and external factors provide internal and external drivers for environmental sustainability. Building both on Institutional Theory and the Resource Based View, López-Gamero et al. (2011) identified external and internal factors accordingly, sometimes referred to by other authors (e.g. Negrușă, Toader, Sofică, Tutunea, & Rus, 2015) as exogenous or endogenous factors. A somehow different categorization highlights company-driven and customer-driven factors, the former mainly related to cost minimization and the latter to compliance with customer pressure (Xu & Gursoy, 2015a).

This study suggests an alternative categorization of motivations for environmental sustainability by focusing the attention on hospitality managers’ decision-making and representing a further development of the previously mentioned approaches: internal factors generally relate to organizational efficiency and profitability, while external factors include environmental and stakeholder pressure. Among the various stakeholders, customers can be considered in the middle of internal and external forces, since they play a key role in organizational profitability. Hence, the following categories can be derived: direct monetary, indirect monetary, non-monetary and personal motivations. The last category was added because the focus of the research is on managerial perspectives.

In other words, while implementing environmental sustainability, hospitality managers may be motivated by direct monetary, indirect monetary or non-monetary benefits, and their own personal commitment to the preservation of the natural environment.

In addition, some firm characteristics may exert a positive influence on the level of adoption of ES practices. Although beyond the scope of this review, they are reported for the sake of completeness.

Direct monetary motivations are here defined as cost savings or revenue increases from the implementation of any of the above ES behaviors in the 5 areas of action in the first theoretical framework. Several studies highlight a positive relation between sustainability and profitability, mainly because ES practices provide an opportunity to reduce operating costs (Boley & Uysal, 2013; Carlsen et al., 2001; Rodríguez-Antón, Del Mar Alonso-Almeida, Celemín, & Rubio, 2012). Improved environmental performance can lead to greater overall efficiency (Cvelbar & Dwyer, 2013), since the reduction of resource consumption or resource optimization also produce cost savings (Rodríguez-Antón et al., 2012; Jones et al., 2014; Aragon-Correa et al., 2015) and sustainability-related organizational and

technological innovations may contribute to higher competitiveness (Horng, Wang, Liu, Chou, & Tsai, 2016; Ruiz-Molina et al., 2010).

Indirect monetary motivations connected to sustainability are related to the improvement of the organizational image and fulfillment of the most sensitive customer expectations. Previous studies highlight the role of environmental sustainability in creating and maintaining a good organizational image and reputation (Bohdanowicz & Zientara, 2008), and green marketing can be a useful instrument to position the firm and achieve a competitive advantage through differentiation (Jones et al., 2014; Martínez, 2015; Stylos & Vassiliadis, 2015). Customers are increasingly aware of environmental sustainability (Cvelbar & Dwyer, 2013; Mahachi et al., 2015); according to TripAdvisor, tourists are now willing to make more eco-friendly choices (Rahman, Park, & Chi, 2015). ES practices can influence customer decision-making, and Verma and Chandra (2017) even claim that ES practices may be one of the most important factors when choosing a hotel. The literature also highlights the link between sustainability and customer intention to revisit or return (Xu & Gursoy, 2015b) and with the generation of positive attitudes towards a green hotel, such as satisfaction and loyalty (Aznar, Sayeras, Galiana, & Rocafort, 2016; Singal, 2014; Stylos & Vassiliadis, 2015). In light of this, several lodging facilities are developing marketing strategies in order to meet the growing demand of environmentally conscious tourists (Martínez, 2015). Although the relationship between environmental sustainability and the willingness of customers to pay a higher price for a green hotel remains unclear, the number of customers willing to stay in a green hotel has increased (Deloitte, 2014 in Martínez, 2015). Accordingly, this research considers these customer-oriented motivations as of an indirect monetary kind.

Apart from customer pressure, hospitality firms usually face other kinds of pressure related to environmental sustainability (Xu & Gursoy 2015a). Non-monetary motivations are therefore related to a firm's response to stakeholder expectations. Stakeholder theory has been adopted broadly to address environmental sustainability (Jones et al., 2014). In previous studies, growing environmental regulation, the need to comply with the law (Carlsen et al., 2001; López-Gamero et al., 2011), improved public (Mahachi et al., 2015) and employee relations (Stylos & Vassiliadis, 2015) were found to influence the adoption of ES behaviors in the hospitality industry.

Since this research focuses on the managerial perspective, managers' personal commitment to the environment has obvious implications in the implementation of ES practices and behaviors. The personal values of managers (Mahachi et al., 2015), their ethics (Xu & Gursoy, 2015a) and wish to preserve the natural environment (Min, 2011) have been reported in previous studies as strong forerunners of sustainability.

Of course, some company characteristics may also foster the adoption of ES behaviors. Although these cannot be considered as motivations *per se*, they are usually connected with the above monetary, non-monetary or personal motivations. For example, organizational size is usually positively related with the implementation of sustainable behaviors, because of the larger financial resources available to bigger businesses (Mahachi et al., 2015); furthermore, rural tourism is highly dependent on natural resources, therefore rural hospitality operators are more likely to adopt sustainable practices (Carlsen et al., 2001; Line & Hanks, 2016), even more in the case of family businesses, because of their local orientation and greater sensitivity to social responsibility (Carlsen et al., 2001).

A complete list of motivations for environmental sustainability in the hospitality industry is given in Appendix 3.

6. Why is environmental sustainability not implemented in the hospitality industry?

In order to categorize barriers to sustainability, the same approach as for forerunners of sustainability was adopted, and 4 broad categories of barriers were identified in the literature. Again, when implementing ES practices, hospitality managers can face direct monetary, indirect monetary or non-monetary barriers, or may display a low personal commitment to the natural environment. Moreover, as with motivations, some firm characteristics may constrain the implementation of ES behaviors, because they are related to monetary, non-monetary or personal barriers.

Several green initiatives require upfront investments (Singal, 2014) and financial resources (Aznar et al., 2016) that represent direct monetary barriers, and most hotel studies have not reached a definitive conclusion about the relationship between sustainability and profitability (Aragon-Correa et al., 2015).

In addition, previous studies often mention the lack of customer awareness and willingness to pay a premium for sustainability as indirect monetary barriers. The literature reveals a lack of customer education concerning the importance of environmental preservation (Jarvis et al., 2010); not all tourists value sustainable practices and behaviors (Xu & Gursoy, 2015b). Several studies have also highlighted a gap between customer attitudes to the environment and their actual purchasing behaviors (Martínez, 2015; Aznar et al., 2016), meaning that service quality is usually more relevant in influencing the choice of a hotel; often hospitality managers have to find a balance between environmental preservation and customers' personal comfort (Min, 2011; Rahman et al., 2015; Verma & Chandra, 2017).

Non-monetary barriers include the lack of stakeholder pressure toward environmental sustainability: low public environmental awareness (Pérez-Pineda et al., 2017), the lack of environmental regulations (Mahachi et al., 2015), the lack of guidance and support from local municipal authorities (O’Neill & Alonso, 2009; Jarvis et al., 2010), as well as long, problematic and obsolete bureaucratic processes (Mahachi et al., 2015) have been found to constrain the implementation of ES behaviors.

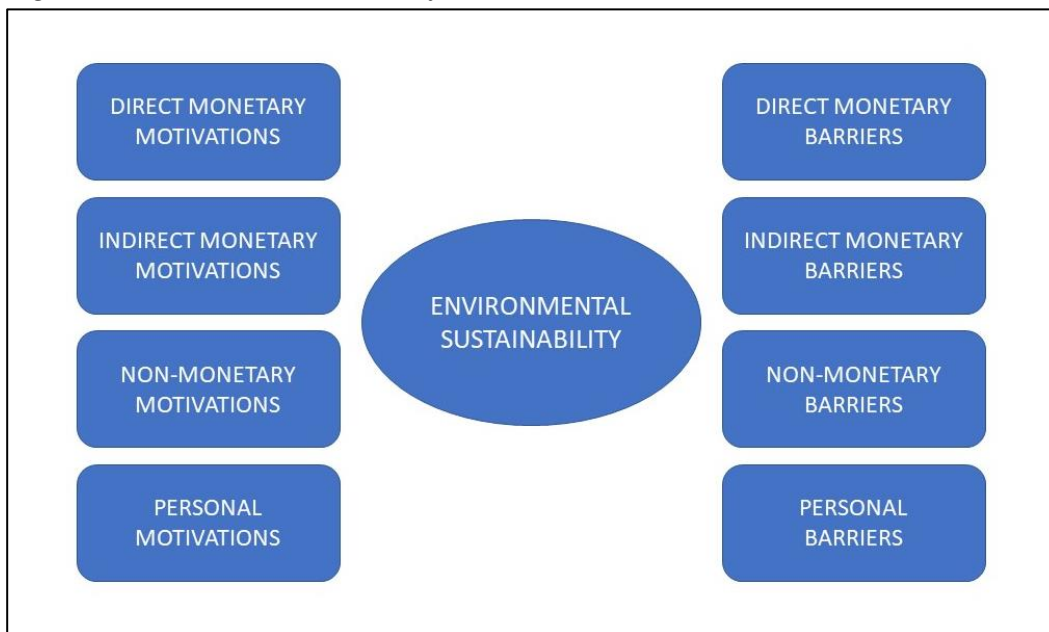
Personal barriers consist in no or low managerial commitment to environmental preservation, mainly due to a lack of knowledge, skills and awareness (Haastert & Grosbois, 2010; Aragon-Correa et al., 2015).

Finally, the lack of characteristics found to facilitate the implementation of sustainability may comprise an obstacle. For example, small firms may lack human and financial resources (Geerts, 2014; Aznar et al., 2016).

A complete list of barriers to environmental sustainability is set out in Appendix 4.

To sum up, this categorization of the existing literature can be used to propose an original framework encompassing motivations for, and barriers to, environmental sustainability in the hospitality industry. As shown in Figure 4, motivations and barriers can equally be classified as of a direct monetary, indirect monetary, non-monetary and personal nature.

Figure 6. The WHY – WHY NOT framework



Source: based on our analysis

7. Conclusions and further research

The aim of this literature review was to critically categorize (a) modalities, (b) motivations and (c) barriers to the implementation of ES behaviors in the hospitality industry. Regarding the first, a theoretical framework consisting of 5 separate areas of action was constructed. All ES practices and behaviors identified in the literature belong to one of the following areas: waste management, water conservation, energy conservation, sustainable purchasing and people involvement.

In the second part of the study, all the forerunners of environmental sustainability found in the literature were grouped into 4 broad categories: direct monetary, indirect monetary, non-monetary and personal motivations. As explained above, in this study company characteristics cannot be considered a motivation *per se*, since they are always related to another motivation. Similarly, barriers to sustainability have been classified as direct monetary, indirect monetary, non-monetary and personal barriers; again, some firm characteristics representing an obstacle to sustainability have been given. A second theoretical framework, encompassing motivations and barriers to ES behaviors was put forward.

The value of the study consists in providing a new and original way to categorize modalities, motivations and barriers to environmental sustainability in the hospitality industry. Moreover, the three issues are simultaneously taken into account in one piece of research. In addition to increasing the literature on sustainability and hospitality, the HOW framework may be usefully adopted to assess the level of implementation of ES behaviors by hospitality organizations and to highlight areas of action that may require further intervention, with relevant managerial implications. On the other hand, the WHY/WHY NOT framework reveals that motivations and barriers to sustainability are somehow conflicting, and the relationship between environmental sustainability and organizational performance remains unclear, especially regarding customer attitudes and real purchasing behaviors. In this respect, the practical implications of the importance of raising tourists' awareness and implementing green marketing strategies may come to light. Although beyond the scope of the present research, the need to simplify administrative and legal procedures emerges as a practical implication for policy-makers.

The study is not without limitations: first and foremost, only the environmental dimension of sustainability has been taken into account; this choice was made because tourism and hospitality may be more concerned with this dimension of sustainability than with others, as explained in the introductory section. Secondly, of the several organizations in the tourism value chain, only the hospitality industry has been investigated. Further research could extend the analysis to other polluting industries, such as airlines and other transport organizations. Finally, only managerial perceptions have been considered in

this review; further research should triangulate findings with other relevant stakeholders' perspectives, such as the local public administration or tourists themselves. Both frameworks derived from the literature review are at the theoretical level of analysis. Further research is needed in order to explore the validity and applicability of the suggested frameworks in a real context. This will be the subject of investigation in another study by the same author.

References

- Alcaraz, J. M., Susaeta, L., Suarez, E., Colón, C., Cunha, R., Leguizamón, F., & Idrovo, S. (2017). The human resources management contribution to social responsibility and environmental sustainability: explorations from Ibero-America. *The International Journal of Human Resource Management*.
- Aragon-Correa, J. A., Martin-Tapia, I., & Torre-Ruiz, J. D. (2015). Sustainability issues and hospitality and tourism firms' strategies. Analytical review and future directions. *International Journal of Contemporary Hospitality Management*, 27(3), 498-522.
- Aznar, J. P., Sayeras, J. M., Galiana, J., & Rocafort, A. (2016). Sustainability commitment, new competitors' presence, and hotel performance: The hotel industry in Barcelona. *Sustainability (Switzerland)*, 8(8).
- Bansal, P., & Roth, K. (2000). Why Companies Go Green: A Model of Ecological Responsiveness. *The Academy of Management Review*, 43(4), 717-736.
- Barron, P., & Prideaux, B. (1998). Hospitality education in tanzania: Is there a need to develop environmental awareness? *Journal of Sustainable Tourism*, 6(3), 224-237.
- Bell, J. (2005). *Doing your Research Project* (4th ed). Maidenhead: Open University Press.
- Bohdanowicz, P., & Zientara, P. (2008). Corporate social responsibility in hospitality: Issues and implications. A case study of Scandic. *Scandinavian Journal of Hospitality and Tourism*, 8(4), 271-293.
- Boley, B. B., & Uysal, M. (2013). Competitive synergy through practicing triple bottom line sustainability: Evidence from three hospitality case studies. *Tourism and Hospitality Research*, 13(4), 226-238.
- Carlsen, J., Getz, D., & Ali-Knight, J. (2001). The environmental attitudes and practices of family businesses in the rural tourism and hospitality sectors. *Journal of Sustainable Tourism*, 9(4), 281-297.
- Cvelbar, L. K., & Dwyer, L. (2013). An importance-performance analysis of sustainability factors for long-term strategy planning in Slovenian hotels. *Journal of Sustainable Tourism*, 21(3), 487-504.
- Deloitte (2014). *Hospitality 2015: game changers or expectators*, available at: www.deloitte.com/assets/DcomMalta/Local%20Assets/Documents/Industries/dt_Hospitality_2015.pdf Accessed on: July 2014.
- Dias-Angelo, F., Jabbour, C. J. C., & Calderaro, J. A. (2014). Greening the work force in Brazilian hotels: The role of environmental training. *Work*, 49(3), 347-356.
- Font, X. (2002). Environmental certification in tourism and hospitality: Progress, process and prospects. *Tourism Management*, 23(3), 197-205.
- Geerts, W. (2014). Environmental certification schemes: hotel managers' views and perceptions. *International Journal of Hospitality Management*, 39, 87-96.
- Green Hotel Association (2017). Available at: www.greenhotels.com/whatare.htm Accessed on: July 2018.

- Haastert, M. V., & Grosbois, D. D. (2010). Environmental Initiatives in Bed and Breakfast Establishments in Canada: Scope and Major Challenges with Implementation Environmental Initiatives in Bed and Breakfast Establishments in Canada. *Tourism and Hospitality Planning & Development*, 7(2), 179-193.
- Han, H., & Hyun, S. S. (2018). What influences water conservation and towel reuse practices of hotel guests? *Tourism Management*, 64, 87-97.
- Holcomb, J. L., Upchurch, R. S., & Okumus, F. (2012). Corporate social responsibility: what are top hotel companies reporting? *International Journal of Contemporary Hospitality Management*, 19(6), 461-475.
- Horng, J. S., Wang, C. J., Liu, C. H., Chou, S. F., & Tsai, C. Y. (2016). The role of sustainable service innovation in crafting the vision of the hospitality industry. *Sustainability (Switzerland)*, 8(3), 17-20.
- Iraldo, F., Testa, F., Lanzini, P., & Battaglia, M. (2017). Greening competitiveness for hotels and restaurants. *Journal of Small Business and Enterprise Development*, 24(3), 607-628.
- Jacsó, P. (2011). The h-index, h-core citation rate and the bibliometric profile of the Scopus database. *Online Information Review*, 35(3), 492-501.
- Jarvis, N., Weeden, C., & Simcock, N. (2010). The Benefits and Challenges of Sustainable Tourism Certification: A Case Study of the Green Tourism Business Scheme in the West of England. *Journal of Hospitality and Tourism Management*, 17(1), 83-93.
- Jones, P., Hillier, D., & Comfort, D. (2014). Sustainability in the global hotel industry. *International Journal of Contemporary Hospitality Management*, 26(1), 5-17.
- Leslie, D. (2001). Serviced Accommodation, Environmental Performance and Benchmarks. *Journal of Quality Assurance in Hospitality & Tourism*, 2(3-4), 127-147.
- Line, N. D., & Hanks, L. (2016). The effects of environmental and luxury beliefs on intention to patronize green hotels: the moderating effect of destination image. *Journal of Sustainable Tourism*, 24(6), 904-925.
- López-Gamero, M. D., Claver-Cortés, E., & Molina-Azorín, J. F. (2011). Environmental perception, management, and competitive opportunity in Spanish hotels. *Cornell Hospitality Quarterly*, 52(4), 480-500.
- Mahachi, D., Mokgalo, L. L., & Pansiri, J. (2015). Exploitation of Renewable Energy in the Hospitality Sector: Case Studies of Gaborone Sun and the Cumberland Hotel in Botswana. *International Journal of Hospitality and Tourism Administration*, 16(4), 331-354.
- Mair, J., & Jago, L. (2010). The development of a conceptual model of greening in the business events tourism sector. *Journal of Sustainable Tourism*, 18(1), 77-94.
- Martínez, P. (2015). Customer loyalty: exploring its antecedents from a green marketing perspective. *International Journal of Contemporary Hospitality Management*, 27(5), 896-917.
- Martini, U., Buffa, F., & Notaro, S. (2017). Community participation, natural resource management and the creation of innovative tourism products: Evidence from Italian Networks of Reserves in the Alps. *Sustainability*, 9, 2314.

- Melissen, F. (2013). Sustainable hospitality: A meaningful notion? *Journal of Sustainable Tourism*, 21(6), 810–824.
- Merli, R., Preziosi, M., & Acampora, A. (2018). How do scholars approach circular the circular economy? A systematic literature review. *Journal of Cleaner Production*, 178, 703-722.
- Miao, L., & Wei, W. (2013). Consumers' Pro-Environmental Behavior and Its Determinants in the Lodging Segment. *Journal of Hospitality and Tourism Research*, 40(3), 319–338.
- Min, W. (2011). An Analysis on Environmental Awareness and Behavior in Chinese Hospitality Industry ü A Case of Xiamen City. *Energy Procedia*, 5, 1126–1137.
- Moreo, A., DeMicco, F. J., & Xiong, L. (2009). Towards a Model to Measure the Quality of Environmental Sustainability: The Hospitality Environmental Scorecard. *Journal of Quality Assurance in Hospitality & Tourism*, 10(1), 44–58.
- Negruşa, A. L., Toader, V., Sofică, A., Tutunea, M. F., & Rus, R. V. (2015). Exploring gamification techniques and applications for sustainable tourism. *Sustainability (Switzerland)*, 7(8), 11160–11189.
- O'Neill, M. A., & Alonso, A. D. (2009). Small hospitality business involvement in environmentally friendly initiatives. *Tourism and Hospitality, Planning and Development*, 6(3), 221–234.
- Palgan, Y. V., Zvolska, L., & Mont, O. (2017). Environmental Innovation and Societal Transitions Sustainability framings of accommodation sharing. *Environmental Innovation and Societal Transitions*, 23, 70–83.
- Pérez-Pineda, F., Alcaraz, J. M., & Colón, C. (2017). Creating sustainable value in the hospitality industry: a (critical) multi-stakeholder study in the Dominican Republic. *Journal of Sustainable Tourism*, 25(11), 1633–1649.
- Puig, R., Kiliç, E., Navarro, A., Albertí, J., Chacón, L., & Fullana-i-Palmer, P. (2017). Inventory analysis and carbon footprint of coastland-hotel services: A Spanish case study. *Science of the Total Environment*, 595, 244–254.
- Qian, J., Shen, H., & Law, R. (2018). Research in Sustainable Tourism: A Longitudinal Study of Articles between 2008 and 2017. *Sustainability*, 10, 1–13.
- Rahman, I., Park, J., & Chi, C. G. (2015). Consequences of “greenwashing”: Consumers' reactions to hotels' green initiatives. *International Journal of Contemporary Hospitality Management*, 27(6), 1054-1081.
- Rodríguez-Antón, J. M., Del Mar Alonso-Almeida, M., Celemín, M. S., & Rubio, L. (2012). Use of different sustainability management systems in the hospitality industry. The case of Spanish hotels. *Journal of Cleaner Production*, 22(1), 76–84.
- Ruhanen, L. (2008). Progressing the Sustainability Debate: A Knowledge Management Approach to Sustainable Tourism Planning. *Current Issues in Tourism*, 11(5), 429–455.
- Ruiz-Molina, M., Gil-Saura, I., & Moliner-Velázquez, B. (2010). Good environmental practices for hospitality and tourism. *Management of Environmental Quality: An International Journal*, 21(4), 464–476.
- Saldana, J. (2009). *The coding manual for qualitative researchers*. Los Angeles: Sage.

- Sánchez-Ollero, J. L., García-Pozo, A., & Marchante-Mera, A. (2014). How Does Respect for the Environment Affect Final Prices in the Hospitality Sector? A Hedonic Pricing Approach. *Cornell Hospitality Quarterly*, 55(1), 31–39.
- Saunders, M. N. K., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (5th ed). New York: Prentice Hall.
- Sharp, J.A., Peters, J. and Howard, K. (2002) *The Management of a Student Research Project*. (3rd ed). Aldershot: Gower.
- Singal, M. (2014). The Link between Firm Financial Performance and Investment in Sustainability Initiatives. *Cornell Hospitality Quarterly*, 55(1), 19–30.
- Sirakaya-Turk, E., Baloglu, S., & Mercado, H. U. (2014). The Efficacy of Sustainability Values in Predicting Travelers' Choices for Sustainable Hospitality Businesses. *Cornell Hospitality Quarterly*, 55(1), 115–126.
- Stabler, M. J., & Goodall, B. (1997). Environmental awareness, action and performance in the Guernsey hospitality sector. *Tourism Management*, 18(1), 19–33.
- Styles, D., Schoenberger, H., & Galvez-Martos, J. L. (2015). Water management in the European hospitality sector: Best practice, performance benchmarks and improvement potential. *Tourism Management*, 46, 187–202.
- Stylos, N., & Vassiliadis, C. (2015). Differences in Sustainable Management Between Four- and Five-Star Hotels Regarding the Perceptions of Three-Pillar Sustainability. *Journal of Hospitality Marketing and Management*, 24(8), 791–825.
- Tencati A., Pogutz S. (2015). Recognizing the limits: sustainable development, corporate sustainability and the need for innovative business paradigms. *Sinergie, Italian Journal of Management*, 96.
- UNWTO (2005). *Making Tourism More Sustainable-A Guide for Policy Makers*. Available online: <http://www.unep.fr/shared/publications/pdf/DTIx0592xPA-TourismPolicyEN.pdf>
- Verma, V. K., & Chandra, B. (2017). Sustainability and customers??? hotel choice behaviour: a choice-based conjoint analysis approach. *Environment, Development and Sustainability*, 1–17.
- World Commission on Environment and Development, (1987). *Our common future*, London: Oxford University Press.
- World Tourism Organization (1992). *Agenda 21 For the Travel and Tourism Industry: Towards Sustainable Development*. Madrid: WTO.
- Williams, P. W., & Ponsford, I. F. (2009). Confronting tourism's environmental paradox: Transitioning for sustainable tourism. *Futures*, 41(6), 396–404.
- Xu, X., & Gursoy, D. (2015a). A Conceptual Framework of Sustainable Hospitality Supply Chain Management. *Journal of Hospitality Marketing & Management*, 24(3), 229–259.

- Xu, X., & Gursoy, D. (2015b). International Journal of Hospitality Management Influence of sustainable hospitality supply chain management on customers' attitudes and behaviors. *International Journal of Hospitality Management*, 49, 105–116.
- Zhang, J. J., Joglekar, N., & Verma, R. (2012). Pushing the frontier of sustainable service operations management: Evidence from US hospitality industry. *Journal of Service Management*, 23(3), 377–399.

Appendix 1. List of selected papers (in chronological order)

| Author(s) | Journal | Title |
|-----------------------------------|--|---|
| Barron & Prideaux, 1998 | <i>Journal of Sustainable Tourism</i> | Hospitality education in Tanzania: is there a need to develop environmental awareness? |
| Carlsen et al., 2001 | <i>Journal of Sustainable Tourism</i> | The environmental attitudes and practices of family businesses in the rural tourism and hospitality sectors |
| Leslie, 2001 | <i>Journal of Quality Assurance in Hospitality & Tourism</i> | Serviced accommodation, environmental performance and benchmarks |
| Font, 2002 | <i>Tourism Management</i> | Environmental certification in tourism and hospitality: Progress, process and prospects |
| Holcomb, Upchurch, & Okumus, 2012 | <i>International Journal of Contemporary Hospitality Management</i> | Corporate social responsibility: What are top hotel companies reporting? |
| Bohdanowicz & Zientara, 2008 | <i>Scandinavian Journal of Hospitality and Tourism</i> | Corporate social responsibility in hospitality: Issues and implications. A case study of Scandic. |
| Moreo, DeMicco, & Xiong, 2009 | <i>Journal of Quality Assurance in Hospitality & Tourism</i> | Towards a model to measure the quality of environmental sustainability: the hospitality environmental scorecard |
| O'Neill & Alonso, 2009 | <i>Tourism and Hospitality, Planning and Development</i> | Small hospitality business involvement in environmentally friendly initiatives |
| Jarvis et al., 2010 | <i>Journal of Hospitality and Tourism Management</i> | The benefits and challenges of sustainable tourism certifications: a case study of the green tourism business scheme in the West of England |
| Ruiz-Molina et al., 2010 | <i>Management of Environmental Quality: An International Journal</i> | Good environmental practices for hospitality and tourism: The role of information and communication technologies |
| Haastert & Grosbois, 2010 | <i>Tourism and Hospitality, Planning and Development</i> | Environmental initiatives in bed and breakfast establishments in Canada: scope and major challenges with implementation |
| López-Gamero et al., 2011 | <i>Cornell Hospitality Quarterly</i> | Environmental perception, management and competitive opportunity in Spanish hotels |
| Min, 2011 | <i>Energy Procedia</i> | An analysis of environmental awareness and behavior in Chinese hospitality industry-A case of Xiamen City |
| Rodríguez-Antón et al., 2012 | <i>Journal of Cleaner Production</i> | Use of different sustainability management systems in the hospitality industry. The case of Spanish hotels |
| Zhang, Joglekar, & Verma, 2012 | <i>Journal of Service Management</i> | Pushing the frontier of sustainable service operations management: evidence from US hospitality industry |
| Boley & Uysal, 2013 | <i>Tourism and Hospitality Research</i> | Competitive synergy through practicing triple bottom line sustainability: Evidence from three hospitality case studies |

| | | |
|---|--|---|
| Cvelbar & Dwyer, 2013 | <i>Journal of Sustainable Tourism</i> | An importance-performance analysis of sustainability factors for long-term strategy planning in Slovenian hotels |
| Melissen, 2013 | <i>Journal of Sustainable Tourism</i> | Sustainable hospitality: A meaningful notion? |
| Miao & Wei, 2013 | <i>Journal of Hospitality and Tourism Research</i> | Consumers' pro-environmental behavior and its determinants in the lodging segment |
| Dias-Angelo, Jabbour, & Calderaro, 2014 | <i>Work</i> | Greening the work force in Brazilian hotels: The role of environmental training |
| Geerts, 2014 | <i>International Journal of Hospitality Management</i> | Environmental certification schemes: hotel managers' views and perceptions |
| Jones et al., 2014 | <i>International Journal of Contemporary Hospitality Management</i> | Sustainability in the global hotel industry |
| Sánchez-Ollero et al., 2014 | <i>Cornell Hospitality Quarterly</i> | How does respect for the environment affect final prices in the hospitality sector? |
| Singal, 2014 | <i>Cornell Hospitality Quarterly</i> | The link between firm financial performance and investments in sustainability initiatives |
| Sirakaya-Turk et al., 2014 | <i>Cornell Hospitality Quarterly</i> | The efficacy of sustainability values in predicting travelers' choices for sustainable hospitality businesses |
| Aragon-Correa, Martin-Tapia, & Torre-Ruiz, 2015 | <i>International Journal of Contemporary Hospitality Management</i> | Sustainability issues in hospitality and tourism firms' strategies: Analytical review and future directions |
| Mahachi et al., 2015 | <i>International Journal of Hospitality and Tourism Administration</i> | Exploitation of renewable energy in the hospitality sector: case studies of Gaborone Sun and the Cumberland Hotel in Botswana |
| Martínez, 2015 | <i>International Journal of Contemporary Hospitality Management</i> | Customer loyalty: exploring its antecedents from a green marketing perspective |
| Negruşa et al., 2015 | <i>Sustainability</i> | Exploring gamification techniques and applications for sustainable tourism |
| Rahman et al., 2015 | <i>International Journal of Contemporary Hospitality Management</i> | Consequences of greenwashing: consumers' reactions to hotels' green initiatives |
| Styles et al., 2015 | <i>Tourism Management</i> | Water management in the European hospitality sector: best practice, performance benchmarks and improvement potential |
| Stylos & Vassiliadis, 2015 | <i>Journal of Hospitality and Marketing Management</i> | Differences in sustainable management between 4 and 5 stars hotels regarding the perceptions of 3 pillar sustainability |
| Xu & Gursoy, 2015a | <i>Journal of Hospitality and Marketing Management</i> | A conceptual framework of sustainable hospitality supply chain management |
| Xu & Gursoy, 2015b | <i>International Journal of Hospitality Management</i> | Influence of sustainable hospitality supply chain management on customers' attitudes and behaviors |
| Aznar et al., 2016 | <i>Sustainability</i> | Sustainability commitment, new competitors' presence, and hotel performance: The hotel industry in Barcelona |

| | | |
|-------------------------------|---|---|
| Hornig et al., 2016 | <i>Sustainability</i> | The role of sustainable service innovation in crafting the vision of the hospitality industry |
| Line & Hanks, 2016 | <i>Journal of Sustainable Tourism</i> | The effects of environmental and luxury beliefs on intention to patronize green hotels: the moderating effect of destination image |
| Alcaraz et al., 2017 | <i>International Journal of Human Resource Management</i> | The human resource management contribution to social responsibility and environmental sustainability: explorations from Ibero-America |
| Iraldo et al., 2017 | <i>Journal of Small Business and Enterprise Development</i> | Greening competitiveness for hotels and restaurants |
| Pérez-Pineda et al., 2017 | <i>Journal of Sustainable Tourism</i> | Creating sustainable value in the hospitality industry: a (critical) multi-stakeholder study in the Dominican Republic |
| Puig et al., 2017 | <i>Science of the Total Environment</i> | Inventory analysis and carbon footprint of coastland-hotel services: A Spanish case study |
| Verma & Chandra, 2017 | <i>Environment, Development and Sustainability</i> | Sustainability and customers' hotel choice behaviour: a choice-based conjoint analysis approach |
| Palgan, Zvolska, & Mont, 2017 | <i>Environmental Innovation and Societal Transitions</i> | Sustainability framings of accommodation sharing |
| Han & Hyun, 2018 | <i>Tourism Management</i> | What influences water conservation and towel reuse practices of hotel guests? |

Appendix 2. List of environmentally sustainable practices implemented in hospitality

| WASTE MANAGEMENT | |
|--|--|
| Recycling | (Alcaraz et al., 2017; Aragon-Correa et al., 2015; Carlsen et al., 2001; Cvelbar & Dwyer, 2013; Dias-Angelo et al., 2014; Haastert & Grosbois, 2010; Holcomb et al. , 2012; Iraldo et al., 2017; Jones et al., 2014; Leslie, 2001; López-Gamero et al., 2011; Mahachi et al., 2015; Martínez, 2015; Miao & Wei, 2013; Min, 2011; Moreo et al., 2009; O’Neill & Alonso, 2009; Pérez-Pineda et al., 2017; Ruiz-Molina et al., 2010; Sánchez-Ollero et al., 2014; Singal, 2014; Sirakaya-Turk et al., 2014; Stylos & Vassiliadis, 2015; Verma & Chandra, 2017; Xu & Gursoy, 2015a, 2015b) |
| “Reduce-reuse-recycle” waste management | (Moreo et al., 2009; O’Neill & Alonso, 2009) |
| Waste reduction programs | (Barron & Prideaux, 1998; Boley & Uysal, 2013; Geerts, 2014; Horng et al., 2016; Iraldo et al., 2017; Martínez, 2015; Pérez-Pineda et al., 2017; Singal, 2014) |
| Biodegradable products | (Miao & Wei, 2013) |
| Prolonging the active life of various items | (Geerts, 2014; Min, 2011) |
| Recycled products or materials | (Dias-Angelo et al., 2014; Haastert & Grosbois, 2010; Iraldo et al., 2017; Jones et al., 2014; Leslie, 2001; López-Gamero et al., 2011; Stylos & Vassiliadis, 2015) |
| Recycled toilet paper | (Jones et al., 2014) |
| Recycling cooking oil | (O’Neill & Alonso, 2009) |
| Reusable products | (Haastert & Grosbois, 2010; López-Gamero et al., 2011; Miao & Wei, 2013; Min, 2011; Sirakaya-Turk et al., 2014; Stylos & Vassiliadis, 2015) |
| Minimizing single packaging | (Dias-Angelo et al., 2014; Haastert & Grosbois, 2010; Min, 2011) |
| Bulk products | (Haastert & Grosbois, 2010; Mahachi et al., 2015; Min, 2011) |
| Installing refillable soap and shampoo dispensers | (Dias-Angelo et al., 2014; Haastert & Grosbois, 2010; Iraldo et al., 2017; Jones et al., 2014; Miao & Wei, 2013; Min, 2011; Sirakaya-Turk et al., 2014; Verma & Chandra, 2017) |
| Installing dispensers for food | (Iraldo et al., 2017) |
| Reducing paper waste through ICT, e.g. avoid printing or print on recycled paper | (Ruiz-Molina et al., 2010; Stylos & Vassiliadis, 2015) |
| Composting | (Dias-Angelo et al., 2014; Haastert & Grosbois, 2010; Mahachi et al., 2015; Pérez-Pineda et al., 2017; Sirakaya-Turk et al., 2014) |
| Monitoring waste management/production through ICT | (Leslie, 2001; Pérez-Pineda et al., 2017; Ruiz-Molina et al., 2010) |
| Benchmarking waste performance across the facilities of the same property | (Boley & Uysal, 2013) |
| | |

| WATER CONSERVATION | |
|--|--|
| Limiting water use | (Alcaraz et al., 2017; Boley & Uysal, 2013; Carlsen et al., 2001; Jones et al., 2014; Leslie, 2001; López-Gamero et al., 2011; Martínez, 2015; Miao & Wei, 2013; Styles et al., 2015; Stylos & Vassiliadis, 2015; Xu & Gursoy, 2015b) |
| Towel reuse program | (Han & Hyun, 2018; Jones et al., 2014; Leslie, 2001) |
| Linen reuse program | (Rahman et al., 2015) |
| Towel and linen reuse program | (Dias-Angelo et al., 2014; Geerts, 2014; Haastert & Grosbois, 2010; Iraldo et al., 2017; Mahachi et al., 2015; Miao & Wei, 2013; Min, 2011; Moreo et al., 2009; Rahman et al., 2015; Stylos & Vassiliadis, 2015; Verma & Chandra, 2017; Zhang et al., 2012) |
| Water efficient fixtures: aerated faucets, low-flow shower heads, low-flush or dual flush toilets | (Boley & Uysal, 2013; Dias-Angelo et al., 2014; Haastert & Grosbois, 2010; Iraldo et al., 2017; Jones et al., 2014; López-Gamero et al., 2011; Martínez, 2015; Min, 2011; Moreo et al., 2009; Sirakaya-Turk et al., 2014; Styles et al., 2015; Verma & Chandra, 2017) |
| Rainwater catchment for laundry, irrigation, etc. | (Boley & Uysal, 2013; Cvelbar & Dwyer, 2013; Dias-Angelo et al., 2014; Haastert & Grosbois, 2010; Han & Hyun, 2018; Iraldo et al., 2017; Jones et al., 2014; Pérez-Pineda et al., 2017; Styles et al., 2015; Verma & Chandra, 2017) |
| Sewage treatment plant | (Dias-Angelo et al., 2014; Jones et al., 2014) |
| Monitoring water consumption through ICT | (Ruiz-Molina et al., 2010) |
| Benchmarking water performance across the facilities of the same property | (Boley & Uysal, 2013) |
| Monitoring and benchmarking water consumption | (Iraldo et al., 2017; Styles et al., 2015) |
| ENERGY CONSERVATION | |
| Energy efficient lighting, led lighting | (Dias-Angelo et al., 2014; Geerts, 2014; Haastert & Grosbois, 2010; Jones et al., 2014; Leslie, 2001; López-Gamero et al., 2011; Mahachi et al., 2015; Min, 2011; Moreo et al., 2009; O'Neill & Alonso, 2009; Ruiz-Molina et al., 2010; Stylos & Vassiliadis, 2015; Verma & Chandra, 2017) |
| Occupancy sensors for lighting control | (Min, 2011; Ruiz-Molina et al., 2010; Sirakaya-Turk et al., 2014; Verma & Chandra, 2017) |
| Timers for lights or heating | (Haastert & Grosbois, 2010) |
| Master power cards | (Dias-Angelo et al., 2014; Min, 2011; Ruiz-Molina et al., 2010; Stylos & Vassiliadis, 2015; Verma & Chandra, 2017) |
| Computerized Building Management Systems | (Min, 2011; Ruiz-Molina et al., 2010) |
| Energy-sparing through modern electrical appliances, roof insulation, double glazing, insulated pipes, time controlled central heating, etc. | (Geerts, 2014; Haastert & Grosbois, 2010; Leslie, 2001; Moreo et al., 2009; Negruşa et al., 2015; Styles et al., 2015; Stylos & Vassiliadis, 2015) |
| Energy-sparing through an architectural design that makes use of natural illumination and well-ventilated environments | (Dias-Angelo et al., 2014) |

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| Using natural light when possible | (Haastert & Grosbois, 2010) |
| Internal design elements introduced to reduce energy consumption | (Leslie, 2001) |
| Low energy refrigeration or heating equipment | (Dias-Angelo et al., 2014; Pérez-Pineda et al., 2017; Verma & Chandra, 2017) |
| Renewable energy, e.g. wind, solar, biomass, geothermal energy | (Boley & Uysal, 2013; Carlsen et al., 2001; Cvelbar & Dwyer, 2013; Dias-Angelo et al., 2014; Haastert & Grosbois, 2010; Jones et al., 2014; López-Gamero et al., 2011; Mahachi et al., 2015; Pérez-Pineda et al., 2017; Ruiz-Molina et al., 2010; Styles et al., 2015; Verma & Chandra, 2017; Xu & Gursoy, 2015b) |
| Energy car charging station | (Boley & Uysal, 2013) |
| Monitoring energy consumption through ICT | (Jones et al., 2014; Leslie, 2001; Ruiz-Molina et al., 2010) |
| Benchmarking energy performance across the facilities of the same property | (Boley & Uysal, 2013) |
| Monitoring and reducing greenhouse gas emissions/carbon footprint | (Boley & Uysal, 2013; Iraldo et al., 2017; Jones et al., 2014; Palgan et al., 2017; Puig et al., 2017; Ruiz-Molina et al., 2010) |
| SUSTAINABLE PURCHASING | |
| Purchasing environmentally responsible products | (Aragon-Correa et al., 2015; Haastert & Grosbois, 2010; Iraldo et al., 2017; Jones et al., 2014; López-Gamero et al., 2011; Miao & Wei, 2013; Min, 2011; Sánchez-Ollero et al., 2014; Xu & Gursoy, 2015b, 2015a) |
| Suppliers' environmental evaluation | (López-Gamero et al., 2011) |
| Environmentally safe detergents | (Leslie, 2001; López-Gamero et al., 2011; Min, 2011; Puig et al., 2017; Styles et al., 2015; Xu & Gursoy, 2015b) |
| Sustainable amenities | (Martínez, 2015; Pérez-Pineda et al., 2017) |
| Ecological, certified or organic food | (Aragon-Correa et al., 2015; Dias-Angelo et al., 2014; Iraldo et al., 2017; Jones et al., 2014; Leslie, 2001; Miao & Wei, 2013; Min, 2011; Pérez-Pineda et al., 2017; Sirakaya-Turk et al., 2014) |
| Natural, organic materials, e.g. organic painting | (Aragon-Correa et al., 2015; Boley & Uysal, 2013; Dias-Angelo et al., 2014; Ruiz-Molina et al., 2010; Verma & Chandra, 2017) |
| Local purchasing | (Boley & Uysal, 2013; Dias-Angelo et al., 2014; Haastert & Grosbois, 2010; Iraldo et al., 2017; Jones et al. 2014; Leslie, 2001; Min, 2011; Negruşa et al., 2015; Pérez-Pineda et al., 2017; Sirakaya-Turk et al., 2014; Verma & Chandra, 2017) |
| Avoiding hazardous materials | (Carlsen et al., 2001; Min, 2011) |
| Chemical reduction practices | (Haastert & Grosbois, 2010; Iraldo et al., 2017) |
| Non-chlorinated pools, avoiding chemical disinfection in pools | (Pérez-Pineda et al., 2017; Styles et al., 2015) |
| PEOPLE INVOLVEMENT | |
| Training programs for hotel personnel | (Aragon-Correa et al., 2015; Barron & Prideaux, 1998; Bohdanowicz & Zientara, 2008; Dias-Angelo et al., 2014; Haastert & Grosbois, 2010; López-Gamero et al., 2011; |

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| | Martínez, 2015; Min, 2011; Pérez-Pineda et al., 2017; Sánchez-Ollero et al., 2014) |
| Awareness and involvement-increasing initiatives for employees | (Aragon-Correa, et al. 2015; Haastert & Grosbois, 2010; Iraldo et al., 2017; López-Gamero et al., 2011; Martínez, 2015; Pérez-Pineda et al., 2017; Rahman et al., 2015; Sánchez-Ollero et al., 2014; Sirakaya-Turk et al., 2014) |
| Communicating and informing customers about sustainable initiatives | (Barron & Prideaux, 1998; Dias-Angelo et al., 2014; Han & Hyun, 2018; Iraldo et al., 2017; López-Gamero et al., 2011; Martínez, 2015; Ruiz-Molina et al., 2010) |
| Highlighting environmental practices in the hotel's internal magazine, in-house television channels... | (Mahachi, et al., 2015; Martínez, 2015) |
| Explaining environmental activities to employees with internal booklets and videos | (Holcomb et al., 2012) |
| Distributing environment-related newsletters | (Xu & Gursoy, 2015b) |
| Encouraging customers to save water or energy | (Min, 2011) |
| Encouraging customers to save water | (Han & Hyun, 2018) |
| Empowering customers to express their suggestions | (Iraldo et al., 2017) |
| Encouraging customers to recycle | (Sirakaya-Turk et al., 2014) |
| Encouraging customers to use public transportation | (Leslie, 2001) |
| Promoting customers engagement with sustainable behaviors | (Carlsen et al., 2001; Haastert & Grosbois, 2010; Iraldo et al., 2017; Leslie, 2001; Negruşa et al., 2015; Pérez-Pineda, et al., 2017; Sirakaya-Turk et al., 2014) |
| Informing guests and other stakeholders about hotel environmental policy, programs and success | (Dias-Angelo et al., 2014; Ruiz-Molina et al., 2010) |
| Sustainability reporting | (Holcomb et al., 2012; López-Gamero et al., 2011; Martínez, 2015; Pérez-Pineda et al., 2017) |
| Involving employees and customers in environmental activities | (Alcaraz et al., 2017; Carlsen et al., 2001; Cvelbar & Dwyer, 2013; Dias-Angelo et al., 2014) |
| Educating guests and employees about environmental issues | (Cvelbar & Dwyer, 2013) |
| Participating in environmental activities involving cleanups and reforestation campaigns, parks, forestry, animal protection programs, etc. | (López-Gamero et al., 2011; Moreo et al., 2009; Pérez-Pineda et al., 2017) |

Appendix 3. List of motivations for the implementation of environmentally sustainable practices in the hospitality industry

| DIRECT MONETARY MOTIVATIONS | |
|--|---|
| Becoming an environmental leader could provide economic as well as environmental rewards | (Moreo et al., 2009) |
| A small energy saving translates to reasonable economic benefits | (Min, 2011) |
| Cost savings can be made on energy saving | (Geerts, 2014; Haastert & Grosbois, 2010; O'Neill & Alonso, 2009) |
| Reduction in operating costs on water and energy saving | (Bohdanowicz & Zientara, 2008; Boley & Uysal, 2013; Jarvis et al., 2010; Moreo et al., 2009; Ruiz-Molina et al., 2010; Styles et al., 2015) |
| Optimize operational efficiency through energy and water saving and solid waste management | (Alcaraz et al., 2017; Aragon-Correa et al., 2015; Jones et al., 2014) |
| Environmental sustainability is associated with higher efficiency | (Cvelbar & Dwyer, 2013; Zhang et al., 2012) |
| Environmental sustainability is associated with cost saving | (Leslie, 2001) |
| Reduction of waste allows cost savings | (Boley & Uysal, 2013; Jarvis et al., 2010; O'Neill & Alonso, 2009) |
| Attain maximum financial returns through the adoption of good housekeeping policies | (Leslie, 2001) |
| Green practices can lead to cost savings because of a reduction in operating costs | (Martínez, 2015; Melissen, 2013) |
| Sustainable actions are likely to generate internal economic benefits in the long run | (Xu & Gursoy, 2015b) |
| Sustainability as innovation cuts costs | (Horng et al., 2016) |
| Financial savings envisaged are among the major internal factors | (Mahachi et al., 2015) |
| Environmental CSR has an impact on credit rating of tourism firms | (Singal, 2014) |
| Each environmental measure implemented increases the price by 5.15% (4.9974 €) | (Sánchez-Ollero et al., 2014) |
| Aid and subsidies from the government | (López-Gamero et al., 2011) |
| Avoid taxes on consumption from the Government | (Leslie, 2001) |
| INDIRECT MONETARY MOTIVATIONS | |
| Large establishments express greater concern, because of the willingness to create and maintain a good corporate image | (Min, 2011) |
| Sustainability contributes to company reputation | (Stylos & Vassiliadis, 2015) |
| Sustainable initiatives enhance corporate image and reputation | (Aragon-Correa et al., 2015; Boley & Uysal, 2013; López-Gamero et al., 2011) |
| Green practices bring a green brand image | (Xu & Gursoy, 2015b) |
| Environmental practices lead to image enhancement | (Mahachi et al., 2015) |

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| Public recognition of implementing EMSs | (Aragon-Correa et al., 2015) |
| Sustainability as innovation improves corporate image | (Horng et al., 2016) |
| Green certifications, independently audited, raise a company's image | (Geerts, 2014) |
| The adoption of certified EMSs provides better image and reputation | (Iraldo et al., 2017) |
| Green certifications improve image and brand recognition | (Jarvis et al., 2010) |
| Sustainability reporting improves a company's image | (Holcomb et al., 2012) |
| An unspoiled environment is an important component of the service quality | (Bohdanowicz & Zientara, 2008a) |
| Sustainability as innovation enhances service and product quality | (Horng et al., 2016) |
| A "green" building design increases quality for customers | (Boley & Uysal, 2013) |
| Sustainability is something extra that can be offered to customers | (Jarvis et al., 2010) |
| Green marketing can help differentiation and the achievement of a competitive advantage | (Martínez, 2015) |
| Environmental sustainability can become a source of competitive advantage | (López-Gamero et al., 2011) |
| Having a certification can help to achieve a competitive advantage based on differentiation | (Jarvis et al., 2010) |
| Increased environmental quality results in a more competitive resort | (Boley & Uysal, 2013) |
| Environmental sustainability creates a positive impression on customers | (Bohdanowicz & Zientara, 2008a) |
| Customer care influences the adoption of environmental practices | (Leslie, 2001) |
| Environmentally friendly technologies have a positive impact on customer satisfaction | (Ruiz-Molina et al., 2010) |
| An environmentally sustainable supply chain has a positive influence on customer satisfaction | (Xu & Gursoy, 2015a; b) |
| An environmentally sustainable supply chain has a positive influence on customer loyalty | (Xu & Gursoy, 2015a; b) |
| Sustainability can provide higher customers satisfaction | (Boley & Uysal, 2013) |
| Sustainability contributes to customers satisfaction | (Stylos & Vassiliadis, 2015) |
| Customers' attitudes, norms and preferences for green practices may encourage their implementation | (Xu & Gursoy, 2015b) |
| Green practices can lead to customer satisfaction and even higher customer demand | (Melissen, 2013) |
| Sustainable initiatives increase bookings | (Boley & Uysal, 2013) |
| Sustainability is becoming an element of influence in the purchase choice | (Boley & Uysal, 2013) |
| Green practices, i.e. greenscaping, are the most important attribute in hotel choice | (Verma & Chandra, 2017) |
| Guests select certain hotels because they are green hotels | (Alcaraz et al., 2017) |

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| Customers are likely to stay in a hotel that adopts policies to protect the environment | (Mahachi et al., 2015) |
| Customers prefer businesses that are moving toward sustainability | (Mahachi et al., 2015) |
| Sustainability as innovation attracts customers | (Horng et al., 2016) |
| Genuine commitment to sustainability influences hotel choice and creates a win-win situation | (Bohdanowicz & Zientara, 2008a) |
| Environmental certifications may be a tool to attract potential customers | (Geerts, 2014; Melissen, 2013) |
| International customers value sustainable business practices | (Boley & Uysal, 2013) |
| The existence of an environmentally conscious market, especially international travelers | (Mahachi et al., 2015) |
| There exists a segment in the market that places high value on environmental behaviors | (Sirakaya-Turk et al., 2014) |
| Environmental concern is rising among customers | (Verma & Chandra, 2017) |
| Ecolabels improve environmental performance because of market pressures | (Font, 2002) |
| Customers expect environmental sustainability | (Boley & Uysal, 2013) |
| Customers care about environmental issues | (Boley & Uysal, 2013) |
| Changing expectations of guests regarding preferences for services that are environmentally friendly | (López-Gamero et al., 2011) |
| Customers are concerned with environmental sustainability | (Boley & Uysal, 2013) |
| Sustainability sustainers are more likely to choose and prefer green hospitality companies | (Sirakaya-Turk et al., 2014) |
| A green overall image improves customers' loyalty, trust and satisfaction | (Martínez, 2015) |
| Customers satisfaction increases with sustainable practices that focus on health-related dimensions, i.e. organic food | (Iraldo et al., 2017) |
| Customers satisfaction increases with sustainable practices aimed at customers' involvement and raising their awareness | (Iraldo et al., 2017) |
| Customers are increasingly willing to participate in green programs | (Han & Hyun, 2018) |
| Customers are willing to pay a higher price because they value sustainability | (Sánchez-Ollero et al., 2014) |
| An environmentally sustainable supply chain has a positive influence on customer willingness to pay a premium | (Xu & Gursoy, 2015a; b) |
| Companies that adopt environmental practices may benefit from premium pricing and increased sales | (Martínez, 2015) |
| Environmentally concerned tourists, of foreign countries are willing to pay more for a green hotel | (Ruiz-Molina et al., 2010) |
| There is a market pressure toward sustainability, and some open-minded tourists are willing to pay for sustainability | (Stylos & Vassiliadis, 2015) |

| NON-MONETARY MOTIVATIONS | |
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| Green efforts are a result of public and/or regulatory pressures | (Melissen, 2013) |
| Comply with local authorities' rules | (O'Neill & Alonso, 2009) |
| The introduction of a Government policy has an effect on the adoption of environmental practices | (Leslie, 2001) |
| Government and Ministry support | (Mahachi et al., 2015) |
| Some sustainable actions are implemented because of regulatory enforcement | (Xu & Gursoy, 2015a) |
| Public pressures might be a motivation to invest in green practices | (Xu & Gursoy, 2015b) |
| Advent of new technologies to foster "green" culture within companies | (Moreo et al., 2009) |
| Easy availability of biogas technology within the town | (Mahachi et al., 2015) |
| Encourage networking with providers and customers for exchanging ideas and information | (Ruiz-Molina et al., 2010) |
| Easy access to information related to sustainable practices | (López-Gamero et al., 2011) |
| Ecolabels improve environmental performance, because of peer pressure or subsidized support | (Font, 2002) |
| Green practices improve employees' morale and loyalty | (Xu & Gursoy, 2015b) |
| PERSONAL MOTIVATIONS | |
| Managers express the belief that issues on natural environment and its protection are important for performance and development of tourism industry | (Min, 2011) |
| Managers indicate concern for the environment and willingness to reduce the negative impacts of their businesses | (Haastert & Grosbois, 2010) |
| Managers are motivated by a demonstrable commitment to ecotourism, and the willingness to reduce environmental impacts | (Jarvis et al., 2010) |
| Managers recognize the importance to sustain the environment to continue to operate their business in a long-term perspective | (O'Neill & Alonso, 2009) |
| Managers recognize that hospitality facilities have an influence on the natural environment | (Min, 2011) |
| Managers recognize the impacts of a coal system | (Mahachi et al., 2015) |
| In case of independent, small, hotels environmental concern strongly depends on the managers' attitude and knowledge | (Ruiz-Molina et al., 2010) |
| The adoption of green practices is subject to "personal, socio-cultural and situational factors" | (Melissen, 2013) |
| Ethical management practices and environmental consciousness | (Xu & Gursoy, 2015b) |
| Managers' altruistic motivations for sustainable businesses and a sense of personal moral responsibility | (Jarvis et al., 2010) |

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| Environmental commitment depends on managerial education and habits learned in childhood | (Haastert & Grosbois, 2010) |
| Environmental sustainability reflects the level of moral development of managers | (López-Gamero et al., 2011) |
| Managers environmental values: “it is the right thing to do”; “we need to contribute”; “I can make the difference”; “it makes me feel good” | (O’Neill & Alonso, 2009) |
| Environmental sustainability is related to managers altruistic purposes and behaviors | (Alcaraz et al., 2017; Mahachi et al., 2015) |
| “It is smarter to be part of the solution rather than adding to the problems” | (Bohdanowicz & Zientara, 2008a) |
| Sustainability is in line with the company’s philosophy | (Bohdanowicz & Zientara, 2008; Carlsen et al., 2001) |
| Organizational and managerial values held are among the major organizational factors | (Mahachi et al., 2015) |
| Managers’ background and training influence the practices they implement | (Geerts, 2014) |
| Accommodation sharing hosts believe they contribute to a sustainable way of lodging | (Palgan et al., 2017) |
| Hospitality firms have larger investments in sustainability than other firms | (Singal, 2014) |
| Firm motivations* | |
| Location: the main attraction of rural hotels is the natural environment | (Ruiz-Molina et al., 2010) |
| Location: rural tourism operators are motivated by the appealing lifestyle, to live in the right environment | (Carlsen et al., 2001) |
| Location: hotels located on the coast or in nature spots are more likely to implement EMSs | (Line & Hanks, 2016) |
| Category: EMSs are more often adopted in lower hotel categories, maybe for differentiation purposes | (Rodríguez-Antón et al., 2012) |
| Ownership: independent hotels have more flexibility over the implementation of sustainable initiatives | (Boley & Uysal, 2013) |
| Ownership: family and owner-operated businesses are willing to adopt sustainable practices | (Carlsen et al., 2001) |
| Ownership: hotel chain is a probable determinant in adopting standardized EMS | (Rodríguez-Antón et al., 2012; Stylos & Vassiliadis, 2015) |
| Ownership: chain hotels are found to integrate more green practices, due to economies of scale | (Xu & Gursoy, 2015b) |
| Size: larger hotels have more financial and technical resources | (Mahachi et al., 2015) |

Appendix 4. List of barriers to the implementation of environmentally sustainable practices in the hospitality industry

| DIRECT MONETARY BARRIERS | |
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| Cost-related problems of becoming green | (Min, 2011) |
| Cost of environmentally friendly technologies | (Ruiz-Molina et al., 2010) |
| Cost involved in complying with environmental requirements | (López-Gamero et al., 2011) |
| Cost associated with green products | (O'Neill & Alonso, 2009) |
| Cost associated with sustainable food and beverages | (Iraldo et al., 2017; Leslie, 2001) |
| Initial costly investments on eco-friendly technologies | (Bohdanowicz & Zientara, 2008; Mahachi et al., 2015) |
| Upfront investments associated with environmental initiatives | (Haastert & Grosbois, 2010) |
| High fixed costs of implementing environmental measures | (Sánchez-Ollero et al., 2014) |
| Sustainable practices may be considered costly in the short term | (Xu & Gursoy, 2015a; b) |
| Implementation and maintenance cost of EMSs | (Aragon-Correa et al., 2015) |
| Cost of applying and membership of a green certification | (Jarvis et al., 2010) |
| Lack of funding or incentives from central or local government | (Jarvis et al., 2010; Mahachi et al., 2015) |
| INDIRECT MONETARY BARRIERS | |
| Continuous need to educate the public to increase environmental awareness | (Jarvis et al., 2010; Min, 2011) |
| Market non-responsiveness and poor consciousness of green initiatives | (Jarvis et al., 2010; Mahachi et al., 2015) |
| Not all customers value environmentally friendly actions | (Xu & Gursoy, 2015b) |
| Guests are not interested in environmental issues | (Leslie, 2001) |
| Local customers are less demanding and observing of green practices | (Mahachi et al., 2015) |
| Customers do not discriminate between hotels according to environmental practices | (López-Gamero et al., 2011) |
| Customers do not consider green certifications in their decision-making process | (Jarvis et al., 2010) |
| Need for more accurate promotion of environmentally certified establishments | (Min, 2011) |
| Sustainability is not an important motivation among accommodation sharing platforms | (Palgan et al., 2017) |
| Sustainability practices alone do not draw customers | (Geerts, 2014) |
| There still lacks a homogeneous consensus about the degree to which eco-labels affect tourists' purchasing decisions | (Aragon-Correa et al., 2015) |
| Sustainability may threaten guests' satisfaction | (Jones et al., 2014; Mahachi et al., 2015) |
| Sustainable practices might reduce the service quality delivered by the hotel | (López-Gamero et al., 2011) |

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| Some sustainable practices may decrease customers' comfort and satisfaction | (Haastert & Grosbois, 2010) |
| Managers have to balance between service quality and environmental preservation | (Haastert & Grosbois, 2010) |
| Customers display the lowest level of environmental behaviors when personal comfort is compromised | (Miao & Wei, 2013) |
| Customers have a negative attitude toward green hotels when luxury is compromised (but only in urban destinations) | (Line & Hanks, 2016) |
| NON-MONETARY BARRIERS | |
| Problematic administrative and legal processes | (Jarvis et al., 2010; Pérez-Pineda et al., 2017) |
| Processes can take a long time | (Mahachi et al., 2015) |
| Bureaucracy and paperwork | (Jarvis et al., 2010) |
| Health and safety issues may constrain environmental practices | (Mahachi et al., 2015) |
| Lack of support from local municipal authorities, e.g. in waste management | (Jarvis et al., 2010; Leslie, 2001; O'Neill & Alonso, 2009) |
| Lack of central and local Government support | (Leslie, 2001) |
| Lack of flexibility in some certification schemes | (Jarvis et al., 2010) |
| Lack of professional advice to assist hospitality managers | (Aragon-Correa et al., 2015; Jarvis et al., 2010; Styles et al., 2015) |
| Lack of necessary managerial knowledge and skills | (Aragon-Correa et al., 2015) |
| Little involvement in professional and green organizations | (Leslie, 2001) |
| Lack of availability of local food providers | (Leslie, 2001) |
| Media lack of interest in corporate green practices | (Mahachi et al., 2015) |
| Lack of collective commitment to sustainability | (Leslie, 2001) |
| Time-consuming nature of some green practices | (O'Neill & Alonso, 2009) |
| PERSONAL BARRIERS | |
| Low managerial education | (Pérez-Pineda et al., 2017) |
| Lack of environmental awareness among hospitality staff in Tanzania | (Barron & Prideaux, 1998) |
| Hospitality managers in Slovenia are in an early stage of environmental awareness | (Cvelbar & Dwyer, 2013) |
| Lack of environmental awareness among tourism operators in Cumbria, UK | (Leslie, 2001) |
| Hospitality firms have lower environmental concern than other firms | (Singal, 2014) |
| Managers, in small businesses, do not recognize their sector has an impact on the environment | (Haastert & Grosbois, 2010; Leslie, 2001) |
| Lack of knowledge about potential environmental initiatives | (Haastert & Grosbois, 2010; Jarvis et al., 2010) |
| Lack of willingness to change | (Jarvis et al., 2010) |
| Managers do not recognize whether customers are interested in a green enterprise | (Leslie, 2001) |

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| Few managers are motivated by a genuine concern for the environment | (Geerts, 2014) |
| Firm barriers* | |
| Size: small tourist businesses pay less attention to environmental practices because of their limited resources | (Aragon-Correa et al., 2015) |
| Size: only large businesses can afford more efficient dishwasher to save water | (Styles et al., 2015) |
| Size: small businesses have few resources | (Geerts, 2014; Mahachi et al., 2015) |
| Size: small businesses operators feel they have lower impacts on the environment | (Haastert & Grosbois, 2010) |
| Category: hotel rating does not affect managerial perceptions and level of implementation of sustainability | (Stylos & Vassiliadis, 2015) |
| Location: hotel location in less developed area does not affect managerial perceptions and level of implementation of sustainability | (Stylos & Vassiliadis, 2015) |
| Location: lack of physical space for expansion | (Mahachi et al., 2015) |
| Location: in urban destinations customers have a negative attitude toward green hotels when luxury is compromised | (Line & Hanks, 2016) |
| Ownership: there are limitations when renting a facility | (Mahachi et al., 2015) |
| Ownership: in chain hotels everything is driven by the parent company | (Mahachi et al., 2015) |

Environmental sustainability and hospitality.

An exploratory research on modalities, motivations and barriers

Abstract

Purpose: The natural environment is a key factor for the attractiveness of tourist destinations, and the hospitality industry may be considered both as a contributor and victim of environmental impacts. There still exists a knowledge gap regarding modalities, motivations and barriers for sustainability in the hospitality industry; therefore, the aim of this research is to explore the validity in a real context of two theoretical frameworks, the first dealing with modalities and the second addressing motivations and barriers, for the implementation of sustainable behaviors in lodging facilities.

Methodology: Qualitative research was conducted through interviews with 18 hospitality managers operating in the mature destination of Verona (Italy) and in the emerging context of Huelva (Spain).

Findings: Sustainable behaviors implemented in hospitality are related to five areas of action: waste management, water conservation, energy conservation, sustainable purchasing and people involvement. The potential of reducing operational costs and of meeting the expectations of the most sensitive customers are among the main motivations for sustainability, while upfront investments and lack of support from the public administration are barriers. In addition, belonging to a hotel chain or to a business network proves to be a relevant facilitator for the implementation of sustainable practices.

Limitations: The limited unit of analysis means the results cannot be generalized; quantitative research, with a larger sample size, could validate the frameworks. In addition, only the managerial perceptions about sustainability are investigated here. Further research should address the perceptions of other relevant stakeholders, in particular tourists.

Implications: The research adds to the existing literature by exploring the validity in a real context of two theoretical frameworks. The findings also have managerial implications for the advantages and disadvantages of environmental sustainability in the hospitality industry.

Value: The value of the research consists in shedding light on motivations for, and barriers to, sustainability in a real context and from the perspective of who is in charge of decision-making.

Keywords

Sustainability; environmental management; hospitality; motivations; barriers.

1. Introduction

Environmental sustainability is an increasingly important goal for contemporary society at large, and the Agenda 2030's Sustainable Development Goals (UN-SDGs, 2015) involve several issues related to environmental preservation such as, among others, water conservation (goal no. 6); clean energy (goal no. 7); responsible production and consumption and recycling (goal no. 12), education on climate change (goal no. 13).

The natural environment is a key factor for the attractiveness of tourist destinations, and environmental preservation becomes crucial for the survival and success of tourist organizations (Gössling, 2002; Puig et al., 2017). The production of tourism experiences, however, requires the simultaneous protection and consumption of natural resources, leading to the so-called "resource-paradox" (Williams & Ponsford, 2009). Hotels and lodging facilities are both "contributors and victims" of environmental impacts (Reid, Johnston, & Patiar, 2017): hospitality organizations are responsible for 18% of the overall tourism impact (Puig et al., 2017), but the natural environment is a fundamental part of their core product, in addition to service quality (Chan & Wong, 2006). Therefore, hospitality can and should play a significant role in environmental sustainability.

The aim of this research is to explore the modalities in which environmental sustainability is implemented in the hospitality industry, what motivations lead to the adoption of environmental behaviors and which barriers constrain environmental sustainability. Addressing the drivers of sustainability, rather than just sustainable behaviors, could be helpful to further spread environmental preservation, the ultimate goal not just for tourism but for society at large (Bansal & Roth, 2000).

The systematic review of the literature on environmental sustainability in the hospitality industry gives rise to two theoretical frameworks, the first addressing the modalities for the implementation of ES practices, and the second dealing with motivations for, and barriers to, sustainability. The first, i.e. the HOW framework, includes 5 areas of action, namely: waste management, water conservation, energy conservation, sustainable purchasing and people involvement. The second, i.e. the WHY – WHY NOT framework, motivations and barriers to sustainability are grouped according to their monetary or non-monetary nature, identifying 4 categories: direct monetary, indirect monetary, non-monetary and personal motivations/barriers.

The applicability of these frameworks in a real context and from the perspective of who is in charge of decision-making inside hospitality organizations is explored throughout the research, conducted via semi-structured interviews with 18 hospitality managers. The unit of analysis comprises 9 Italian and 9

Spanish lodging facilities. The Italian facilities are located in the mature tourist destination of Verona and surroundings, mainly lake Garda, while the Spanish locations are in the less-developed destination of Huelva and its surroundings. The purpose of case studies is not to generalize data, but to obtain an in-depth view of the phenomenon under study (Yin, 2006). The value of this research consists in the exploration of modalities, motivations and barriers to sustainability from the perspective of who is in charge of implementing ES practices inside hospitality organizations.

The findings not only support the validity of both frameworks in a real context, but also enable fine-tuning of the frameworks in order to incorporate emerging and recurrent themes in the two tourist destinations. In particular, ES behaviors can be further categorized into 10 sub-areas of implementation, thus improving the HOW framework, and one important non-monetary element can be included in the WHY – WHY NOT framework, i.e. non-monetary facilitators.

The theoretical framework adds to the existing literature on environmental sustainability in the hospitality industry and could become an important managerial tool to help and improve the levels of implementation of ES practices and behaviors.

The rest of the paper is organized as follows: a brief literature review and the two theoretical frameworks are presented in section 2; methodology is explained in section 3; results are displayed in section 4 and then discussed in section 5 while section 6 deals with research implications and concluding remarks.

2. Theoretical background

A systematic literature review (Baratta, 2018) was conducted on the Scopus database. The combination of “Environmental sustainability” and “Hospitality” as keywords provided 119 results, however, several papers were excluded due to lack of consistency. In particular, some papers did not deal with the hospitality industry alone, but also with the broader concept of the tourism value chain, while other studies adopted a customer, rather than managerial perspective. The aim of the research, however, is to address how hospitality managers implement ES practices, the motivations that lead managers to implement these practices and the potential barriers they may face. A careful content analysis was performed on the remaining 44 papers, and issues regarding sustainability modalities, motivations and barriers were classified in order to derive two theoretical frameworks. Content analysis is widely adopted in literature reviews, since it increases the quality and thoroughness of information (Qian et al., 2018).

In the first framework, i.e. the HOW framework, all ES behaviors adopted in the hospitality industry, according to previous studies, are grouped into 5 areas, as shown in Figure 1: waste management, water conservation, energy conservation, sustainable purchasing and people involvement. Waste management refers both to the separate collection of waste and recycling programs (Bohdanowicz & Zientara, 2008), but also to behaviors aimed at the reduction of waste production, such as the replacement of single packaging with soap and shampoo refillable dispensers (Mahachi, Mokgalo, & Pansiri, 2015). Water-related issues involve the monitoring and conservation of water consumption, for example by adopting water conserving fixtures in rooms (Han & Hyun, 2018) or a towel and linen reuse program (Geerts, 2014). Energy conservation deals both with the reduction of energy consumption, for example with low energy light bulbs, and the use of renewable sources of energy (Stabler & Goodall, 1997; Verma & Chandra, 2017). Sustainable purchasing involves both the purchasing of local goods, especially for food, and the purchasing of eco-friendly or certified products, especially cleaning products that may be harmful to the environment (Aragon-Correa et al., 2015; Ruiz-Molina et al., 2010). Finally, both employees and customers may be involved in, or at least informed of, the sustainable practices implemented in lodging facilities (Carlsen, Getz, & Ali-Knight, 2001; Ruiz-Molina et al., 2010). The existing literature for example highlights the importance of involving customers in environmental activities (Carlsen et al., 2001), or of providing staff with an environmental training program (Sánchez-Ollero, García-Pozo, & Marchante-Mera, 2014).

Figure 1. The HOW framework



Source: based on our analysis

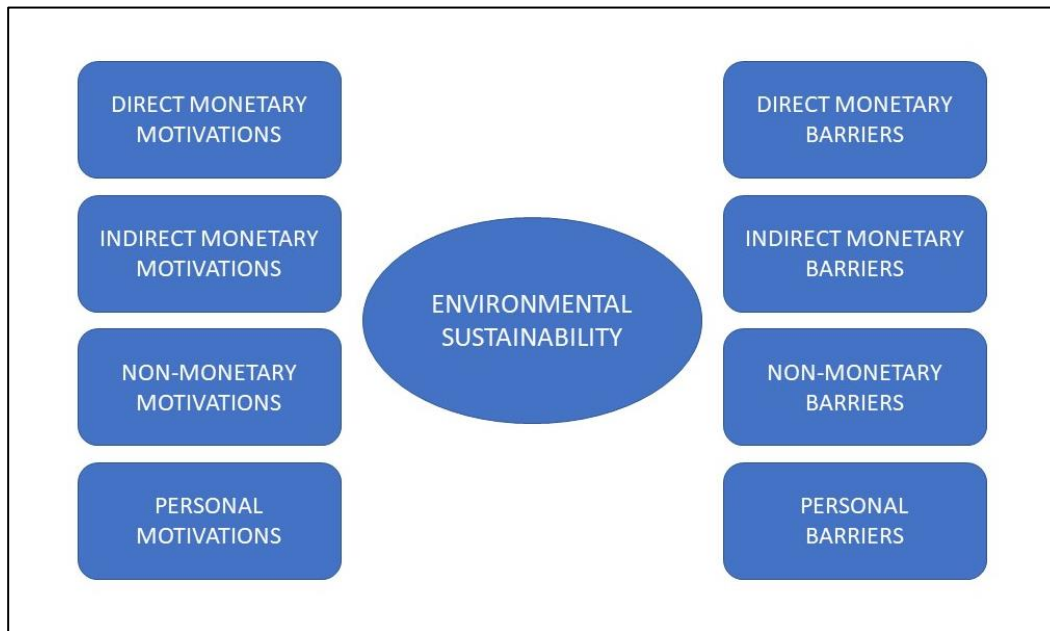
Motivations for the implementation of ES behaviors in the hospitality industry in previous studies can be classified according to their monetary or non-monetary nature. In particular, 4 categories of motivations are presented here: direct monetary, indirect monetary, non-monetary and personal motivations.

Direct monetary motivations refer to the presumed financial benefits connected with the implementation of ES practices (Mahachi et al., 2015). In other words, the reduction of resource consumption or the optimization of resources may increase overall organizational efficiency (Cvelbar & Dwyer, 2013), and provide substantial cost savings (Jones, Hillier, & Comfort, 2014; Rodríguez-Antón, Del Mar Alonso-Almeida, Celemín, & Rubio, 2012). Moreover, there may be financial incentives and government grants related to the implementation of ES practices (Rodríguez-Antón et al., 2012; Stabler & Goodall, 1997). Other monetary benefits of sustainability may be derived from customers, who may be willing to choose a more sustainable lodging facility, or to pay a higher price to stay in green accommodation. But since these benefits depend on customers' sensitiveness to sustainability-related issues, here they are considered indirect monetary motivations. In particular, sustainability has been found to improve the overall organizational image (Bohdanowicz & Zientara, 2008), and it may therefore be a tool to differentiate and position hospitality organizations (Jones et al., 2014; Stylos & Vassiliadis, 2015). Environmental awareness is growing among tourists (Cvelbar & Dwyer, 2013), and ES initiatives can help to meet and satisfy customer expectations (Singal, 2014). Although environmental sustainability may not affect the willingness to pay a higher price, according to previous studies it does affect the choice of a hotel, and the number of customers willing to stay in a green lodging facility has increased (Deloitte, 2014). Non-monetary motivations of sustainability are related to the organizational response to all stakeholders other than customers. The literature has found that growing environmental regulations (Carlsen et al., 2001), environmental protection organizations (Stylos & Vassiliadis, 2015), industry associations (Singal, 2014), local networks (Martini and Buffa, 2015) and even competitors (López-Gamero, Claver-Cortés, & Molina-Azorín, 2011) exert a strong influence on the adoption of ES behaviors in the hospitality industry. Finally, the personal commitment of managers to environmental preservation has obvious implications for the effective implementation of ES behaviors. Hence here, managerial ethics (Xu & Gursoy, 2015a), personal values (Mahachi et al., 2015), and the acknowledgment of the need to reduce environmental impacts (Jarvis, Weeden, & Simcock, 2010) are considered as personal motivations.

In the same way, the barriers to environmental sustainability can be classified as direct monetary, indirect monetary, non-monetary and personal barriers. The need to face upfront investments to meet

sustainability requirements (Singal, 2014), or higher costs in order to purchase eco-friendly goods or certified products (Aragon-Correa et al., 2015; Haastert and Grosbois, 2010) is often reported as an important direct monetary barrier to sustainability. Indirect monetary barriers include the fact that not all customers value environmental sustainability equally (Xu & Gursoy, 2015b), and even when they are aware of sustainability issues they may not be willing to pay a higher price, especially when service quality and comfort are at stake (Miao & Wei, 2013; Rahman, Park, & Chi, 2015). This gap between customer attitudes and purchasing behaviors (Aznar, Sayeras, Galiana, & Rocafort, 2016) often constrains the implementation of ES behaviors, and managers have to find a balance between environmental protection and service quality (Verma & Chandra, 2017; Zhang, Joglekar, & Verma, 2012). The lack of stakeholder pressures for environmental preservation, low public awareness (Pérez-Pineda, Alcaraz, & Colón, 2017), and the lack of external support from local public administrations (Jarvis et al., 2010; O’Neill & Alonso, 2009) are non-monetary barriers to sustainability. And finally, the lack of managerial awareness of sustainability (O’Neill & Alonso, 2009), or of managerial recognition of the environmental impacts related to their activities (Haastert & Grosbois, 2010) are personal barriers to sustainability. The framework encompassing both motivations and barriers to environmental sustainability in the hospitality industry is shown in Figure 2.

Figure 2. The WHY – WHY NOT framework



Source: based on our analysis

Based on this review and the two theoretical frameworks presented, this research aims to explore the validity of the following three propositions:

Proposition 1: ES behaviors belong to at least one of the following areas of action: waste management, water conservation, energy conservation, sustainable purchasing and people involvement.

Proposition 2: ES behaviors are driven by direct monetary, indirect monetary, non-monetary and personal motivations.

Proposition 3: ES behaviors are constrained by direct monetary, indirect monetary, non-monetary and personal barriers.

3. Methodology

Since the aim of the research is to discover how and why environmental sustainability is implemented in the hospitality industry, a qualitative case study approach has been chosen. In case studies “a how or why question is being asked about a contemporary set of events over which the investigator has little or no control” (Yin, 2003, p. 9).

Two tourist destinations at different stages of the tourist life cycle were chosen as the research setting: the mature destination of Verona and lake Garda in Italy, and the less developed destination of Huelva in Spain. Tourism development in Huelva started only in the 1990s (Vargas-Sánchez et al., 2015), much more recently than Verona and lake Garda, which, due to their strategic position, have been tourist destinations for many years. Verona and its province are the fourth most significant tourist destination in Italy, and in 2016 had 4,484,355 arrivals and 16,535,415 overnight stays, more or less equally divided between international and domestic tourists (U. O. Sistema Statistico Regionale, Regione Veneto, 2016). The province of Huelva, on the contrary, had its best tourist year in 2016, with 1,281,935 arrivals and 4,927,350 overnight stays, nearly 70% from Spain (Vargas-Sánchez, 2017).

The unit of analysis comprises 18 lodging facilities, 9 located in Italy and 9 in Spain, selected for their commitment to environmental sustainability. This purposeful sampling approach is considered appropriate to select cases rich in information (Mahachi et al., 2015; Patton, 2002). More precisely, an intensity purposive sampling was adopted (Patton, 2002) in order to select cases that, through environmental commitment, are excellent examples of the phenomenon under investigation (Pérez Pineda et al., 2017). Commitment to the environment is here defined as participation in environmental programs, environmental certification or the receipt of an environmental award, or membership of a

business network committed to environmental preservation (only one facility was selected through the recommendation of a peer organization), and this method is useful to avoid a social desirability bias (Juvan & Dolnicar, 2014).

After establishing an environmental commitment, “practicality and convenience” were also considered during the sampling approach, as they are common in qualitative, interview-based studies (Gobo, 2004). Italian facilities were selected as follows: the first facility was chosen, and the interviewee was asked to suggest other facilities implementing ES behaviors. Only one facility could be included in the unit of analysis, the others being inappropriate because of a lack of a sufficient number of ES measures. The second interviewee recommended the third facility and put the author in touch with the member of a business network specifically committed to environmental preservation. Lastly, the full list of the facilities in the network was obtained, and 5 of the managers of the 9 companies in the network were willing to take part in the study. At a later stage of the research, Spanish facilities were selected, again according to “practicality and convenience” (Gobo, 2004). Only a few organizations have green certification in the province of Huelva, therefore the selection of the Spanish unit of analysis was easier and faster.

Table 1 summarizes the environmental certificates, associations or awards in the unit of analysis.

Table 1. Environmental certification, associations and awards

| |
|---|
| <p>➤ Stay for the Planet is a rating program that has been developed with the aim of helping both independent hotels and chain hotels to monitor their environmental performance, to improve energy efficiency and reduce CO2 emissions. Additional information can be found at: https://www.lifegate.it/impres/progetti/lifegate-experience/il-manifesto.</p> |
| <p>➤ The Zero Waste Italy association was created in 2009 with the aim of developing the program “<i>10 passi verso rifiuti zero</i>” (10 steps toward waste elimination). These steps involve: waste sorting; door to door waste collection; composting; recycling; waste reduction; reuse and repair; waste taxation according to waste production; R&D; waste elimination. The Zero Waste program is available at: http://www.rifiutizerocapannori.it/rifiutizero/dieci-passi-verso-rifiuti-zero/.</p> |
| <p>➤ Best of Wine Tourism is an international competition, promoted by the network Great Wine Capitals. The contest includes several categories where wine tourism companies can compete, one of them being “Sustainable practices in wine tourism”.</p> |

➤ **Garda Green** is a business network that includes some lodging facilities located on the eastern side of lake Garda. The network was specifically created in order to monitor and reduce the impact that hospitality companies produce on the natural environment. The network has developed its own guidelines that involve 6 areas: communication; waste management; sustainable mobility; energy supply; water recovery; energy efficiency. All information is available at: <http://www.gardagreen.org/it/il-protocollo/>.

➤ The **ISO 14001** standards refer to the well-known voluntary certification for environmental management practices.

➤ **Travelife** is an international certification scheme that can be applied both to tour operators, and hotels and accommodation facilities. The Travelife checklist is not limited to environmental preservation, but it based on the triple line sustainability principles. Additional information can be found at: <http://www.travelife.org/Hotels/home.asp?p=1>.

➤ **Europarc** federation is an international professional network of protected areas whose aim is to conserve the natural environment, including by providing a professional forum to share experience and collaborate. The Europarc website can be found at: <https://www.europarc.org/>.

➤ The **Doñana 21** label was created by the Doñana 21 foundation in order to promote environmental management practices among the companies located in the Spanish region of Doñana (Huelva). It is mainly based on ISO 9001 and ISO 14001 standards. Additional information is available at: <http://www.juntadeandalucia.es/turismoydeporte/opencms/areas/turismo/calidad/calidad-certificados-y-distinciones/certificados/detalle/Etiqueta-Donana-21/>.

➤ The **European Charter for Sustainable Tourism in Protected Areas (ECST)** is a practical tool created by the Europarc Federation to enhance the sustainable development of tourism in protected areas. The core element of the Charter is to promote collaboration among all relevant stakeholders. Additional information is available at: <https://www.europarc.org/library/europarc-events-and-programmes/european-charter-for-sustainable-tourism/>.

➤ The **Q Sostenible** is a Spanish certification scheme for energy efficiency. The Q Sostenible website can be found at: <http://qsostenible.org/>.

➤ The **Eco-Management and Audit Scheme (EMAS)** is a voluntary tool promoted by the European Community to monitor and improve companies' environmental performances., and to provide stakeholders with all the relevant information on company environmental management practices. Website at: http://ec.europa.eu/environment/emas/index_en.htm

- The **Tripadvisor Greenleader** is a program created by Tripadvisor, which includes sustainable hospitality companies meeting environmental requirements in the following areas: water, waste, purchasing, site, innovation and education. Additional information is available at: <https://green.tripadvisor.com/survey/about>.

Source: based on our analysis

The facilities included in the unit of analysis vary by category, location, size, age and ownership structure. In order to ensure anonymity, facilities were coded according to their organizational structure, i.e. code A corresponds to chain hotels, hence hotels belonging to a chain were labelled from A1 to A6; code B corresponds to independent lodging facilities, labelled from B1 to B6; code C corresponds to facilities in a business network and in one case to an environmental association, and these facilities were labelled from C1 to C6. This classification was made in the second phase of the research, when commonalities among the 3 clusters emerged. The main characteristics of the unit of analysis are shown in Table 2.

Table 2. The unit of analysis

| ID | Location | Type | Year of foundation | Size | Organizational structure | Reason of choice |
|-----------|-----------------|-------------|---------------------------|----------------------------|-----------------------------------|--|
| A1 | Italy Urban | 4S hotel | 1927 | 49 rooms 20 employees | Chain hotel, but family run | Stay for the Planet |
| A2 | Spain Beach | 4S hotel | 1992 | 349 rooms 90 employees | Chain hotel | ISO 14001; Travelife; Greenleader Tripadvisor |
| A3 | Spain Beach | 4S hotel | 2005 | 300 rooms 90 employees | Chain hotel | ISO 14001; Travelife |
| A4 | Spain Beach | 4S hotel | 1992 | 344 rooms 150 employees | Chain hotel | Travelife; Q Sostenible |
| A5 | Spain Beach | 4S hotel | 1968 | 66 rooms 40 employees | Chain hotel, but publicly hold | ISO 14001; EMAS; ECST; Doñana 21 |
| A6 | Spain Beach | 5S hotel | 2001 | 175 rooms 95 employees | Chain hotel | ISO 14001; Travelife |
| B1 | Italy Rural | 3S hotel | 1900 | 26 rooms 6 employees | Family firm | Peer recommendation |
| B2 | Italy Rural | Agritourism | 2015 | 4 rooms 3 employees | Family firm | Best of Wine Tourism; |

| | | | | | | |
|----|----------------|-------------|------|--|-------------|--------------------------------------|
| B3 | Spain Rural | 4S hotel | 2009 | 20 rooms 18 employees | Family firm | ISO 14001; Doñana 21; Europarc |
| B4 | Spain Rural | Farmhouse | 2007 | 12 apart. 4 employees | Family firm | ISO 14001; ECST |
| B5 | Spain Rural | Farmhouse | 2007 | 15 rooms 5 employees | Family firm | ECST |
| B6 | Spain Rural | Farmhouse | 2000 | 6 rooms 3 employees | Family firm | ECST; Tripadvisor Greenleader; |
| C1 | Italy Beach | 3S hotel | 1971 | 20 rooms 5 employees | Family firm | Garda Green; |
| C2 | Italy Beach | 3S hotel | 1970 | 47 rooms 15 employees | Family firm | Garda Green |
| C3 | Italy Rural | 3S hotel | 1955 | 65 rooms 15 employees | Family firm | Garda Green |
| C4 | Italy Beach | Inn | 2015 | 5 rooms 5 employees | Family firm | Garda Green |
| C5 | Italy Beach | 4S campsite | 1958 | 250 fixed bungalows and 700 emplacements 60 employees | Family firm | Garda Green; ISO 14001 |
| C6 | Italy Rural | 3S hotel | 1990 | 13 rooms 6 employees | Family firm | Zero Waste Italy |

Source: based on our analysis

Primary data were collected through on-site visits and semi-structured interviews with hospitality managers or owners in the case of family businesses. Semi-structured interviews are a common tool in case studies, since they can place more emphasis on exploring “why” questions (Saunders, Lewis, & Thornhill, 2009). Qualitative interviews are especially useful in exploratory research in order to gain insights into the reasons behind certain decisions (Cooper and Schindler, 2008), and they may lead the discussion into areas not previously considered, allowing unexpected issues to emerge (Saunders et al., 2009). Managers were considered appropriate as key informants, since they are responsible for decision-making and have sufficient knowledge about the company. Interviews were conducted *in situ*, according to managers availability, in two phases: Italian managers were interviewed between April and June 2017, Spanish managers in October and November 2017. The semi-structured interview protocol was based on questions related to the environmental measures implemented, i.e. “how” questions and the reasons for their implementation, i.e. “why” questions, and the barriers managers have to cope with. Questions were created based on the review of the literature and the two theoretical frameworks.

All interviews were recorded and transcribed verbatim. Transcripts were then coded following a template approach to text analysis (Crabtree & Miller, 1999). A middle ground approach to coding was selected, beginning with a basic set of codes based on the theoretical underpinnings of the research that was further expanded according to themes that emerged during the interviews. The full codebook is given in Appendix 1. A codebook is a useful data management tool to organize large segments of text, summarize data and look for recurrent themes, in order to explore the validity of three propositions of the current research. Text analysis was performed with the aid of Atlas.ti. software. Results are presented and discussed in the following sections, from the Italian unit of analysis first, followed by the Spanish unit. Lastly, results deriving from grouping the facilities into 3 clusters according to their organizational structure are presented and discussed. In the discussion paragraphs the number of facilities implementing some ES behaviors is given; however it is worth noting that the current research is qualitative in nature, and numbers are provided only for the sake of clarity, as in previous qualitative research (Alonso-Almeida, Fernández Robin, Celemín Pedroche, & Astorga, 2017).

4. Results

Results obtained from the Italian lodging facilities were analyzed first, then the data analysis process was replicated for the Spanish facilities. Replication is a useful tool to assess the quality of the research in terms of validity and reliability (Easterby-Smith et al., 2008). Findings are presented in this order.

4.1. *The Italian unit of analysis*

4.1.1. *Facility A1*

A1 is a 4-star hotel in the city center of Verona. The facility was selected because of the implementation of the program “Stay for the Planet”. It is part of an international hotel chain, but still run by a family organization. Founded in 1927, it has 49 rooms. The interview was conducted with the owner, who is also the executive director.

In the first area of ES implementation, i.e. waste management, recycling bins are placed on each floor as required by the hotel chain. Moreover, in order to minimize waste production, refillable soap and shampoo dispensers are provided in each room, and dispensers for food are preferred to single dose containers at breakfast. Toilet paper is recycled. Water conservation behaviors mainly consist in towel

and linen reuse programs, and aerated faucets. Several initiatives are in place in order to reduce energy consumption: master power cards to prevent wasting energy, led lighting in each area of the hotel and a low energy refrigeration and heating equipment. No renewable source of energy can be implemented, since the facility lacks physical space for a solar or photovoltaic plant; however, part of the electricity comes from a green certified supplier. The interviewee is also interested in the possibility of fitting a charger for electric cars. The purchasing policy favors eco-friendly detergents and local food, and even natural and organic materials when possible. Lastly, both customers and employees are informed about the ES behaviors in place, and customers are also asked for their cooperation in the separate collection of waste and in the towel and linen reuse programs.

The interviewee does not seem to perceive any direct monetary motivation in the implementation of ES behaviors, except for some tax reductions for green certified electricity, which, however, is more expensive. The cost of investments is considered the first and most relevant barrier to the achievement of environmental sustainability.

Although recognizing the importance of ES behaviors to enhance a company's image and reputation, the interviewee does not believe that customers are willing to pay a premium to stay in a green hotel. Indeed, another important barrier to sustainability is represented by "Low environmental awareness among customers". Finding a balance between environmental preservation and service quality may sometimes be a complex task, as in the case of natural construction materials: "We try to pay attention to construction materials, but within certain limits... we are not willing to give our customers a low-quality product".

In relation to non-monetary factors, the interviewee does not see the need to fulfill other stakeholders' requirements: "I've never had any kind of pressure", not even from the local public administration, which in some cases is actually undermining sustainability by lengthy and complex bureaucratic procedures. Being part of a chain is, however, a strong motivator and facilitator for the implementation of ES behaviors: "Belonging to a hotel chain gives us a benchmark to make comparisons with other hotels in other cities and countries... In addition, we are constantly informed by the website and newsletters, and best practices are always shared".

The most important motivation for the implementation of ES behaviors, however, seems to be the interviewee's ethics: "Of course we have our professional ethics, we do our best to convey these issues", and "There are codes of ethics, it is our duty to save energy". In some cases, personal commitment to environmental preservation is also linked to personal pride and satisfaction, and to the need to start doing something for the environment; when asked about the reasons for the possible fitting of a charger for electric cars, with no financial benefit expected, the interviewee simply said: "Somebody has to do it".

4.1.2. Facility B1

B1 is a 3-star hotel in a rural area close to Verona. The hotel has 26 rooms and has been family-owned and run since 1900. Although lacking any environmental certification or award, it was recommended by another interviewee in the unit of analysis. The interview was with the son of the owners.

As in the other selected facilities, the owners implement the separate collection of waste and try to minimize waste production through composting, glass bottles, and feeding animals with food waste. No water conservation practices are in place: they used to have a towel reuse program, but it was not appreciated by customers, who perceived the program as lowering service quality. Heating and air conditioning are controlled by the reception in order to save energy, and solar panels are used to warm water. Most cleaning products are natural or eco-friendly products, and staff are told how to reduce the use of chemicals.

Regarding direct monetary issues, energy saving measures are implemented mainly for cost saving reasons, although the interviewee also faces additional costs for eco-friendlier products. In addition, he sees no indirect monetary advantages derived from customers, who seem to display quite poor environmental awareness: “They are always asking for air conditioning, every month of the year!”, and again: “We used to have labels to ask customers if they wanted a towel change, but then they were always complaining... I pay for that towel, so I’m using it”. To sum up, the interviewee encounters problems in finding a balance between service quality and environmental preservation.

Sources of support, i.e. non-monetary facilitators to environmental sustainability, include suppliers who may provide advice on which products are less harmful to the environment, and some peers who may help to improve knowledge and awareness of ES behaviors. However, in the interviewee’s opinion, trade associations are more concerned with other issues than environmental preservation: “You talk about other things with them... with the regulations we have, the taxation system...”. And finally, a feeling of complexity over the implementation of ES behaviors emerges: “We don’t use dispensers for food at breakfast, that increase the workload. With single-dose containers it’s much easier and convenient”.

Lastly, personal commitment toward environmental preservation for this interviewee is a kind of habit: “We do it because we’ve always done it that way, and we are used to it”.

4.1.3. Facility B2

B2 is an agritourism located in a rural location close to Verona city center. With only 4 rooms, it was founded in 2015, and is family-owned. This facility was selected because of its participation in the Best of Wine Tourism competition, in the category related to “Sustainable practices in wine tourism”. In

addition, the agritourism is also committed to the “Casa Green project”, a series of guidelines aimed at environmental preservation, with 5 areas: organic food; water conservation; energy conservation; waste management; sustainable materials. The interview was with the owner.

The separate collection of waste is implemented, and food waste is used to feed the animals. Water saving fixtures are implemented and rainwater is recycled for the garden. The facility is fitted with solar panels, low energy light bulbs, and heating and air conditioning can be controlled from the reception. The purchasing policy favors eco-friendly detergents, and most fruit and vegetables are locally produced, in their garden. Customers can find information on the company’s website and are told about ES behaviors on arrival.

Although energy cost savings can be obtained, the interviewee complains about upfront investments and the difficulty of obtaining funding and incentives from the public administration.

Sustainability is seen as a way to distinguish the facility from others. This strategy is supported by the fact that most customers in this agritourism are looking for a natural environment and are already environmentally very aware: “Normally we have experienced customers, with a certain kind of culture... and once they understand your values, then the economic aspect looks after itself”. Nevertheless, he reports the problem of balancing environmental preservation and service quality, as in the case of customers too often demanding air conditioning.

Several non-monetary barriers are mentioned by the interviewee. First and foremost, the long and complex bureaucracy involved in fitting photovoltaic plant: “The problem is that, more often than not, the supervisor of environmental goods doesn’t even understand what you are talking about”. And consequently, a problem of time emerges, especially for a small facility like this: “It’s a huge job that’s killing us... we have to face the same bureaucracy as a hotel with 100 rooms... and you have to invest time I would rather spend on other things”. Indeed, no external sources of support are highlighted by the interviewee, except for a short comment on the usefulness of technological development: “I took all the precautions available today, thanks to technology”.

Lastly, the interviewee is strongly committed to environmental preservation, due to his culture and background: “I was born in the countryside and wanted to come back to the countryside”; he enjoys living in a natural, unspoiled environment: “When you feel the pleasure of living in such a place, of course you try to protect and safeguard it”; “This is something we like, so we do it with pleasure”.

4.1.4. Facility C1

C1 is a 3-star family hotel on lake Garda, in the province of Verona. The hotel has 20 rooms and was founded in 1971. It was selected because it is one of the lodging facilities in the Garda Green business network. The interview was with the owner.

With regard to waste management, the interviewee mentions recycling, preferring bulk products, refillable soap and shampoo dispensers, dispensers for food at breakfast and keeping records of waste production. No water conservation measures are implemented: they would like to fit sensors to the water meter to keep a record of water consumption but are having problems with the water suppliers. Sensors have been fitted to electricity meters, with green certified energy. In addition, they have a charger for electric cars and rent out electric bicycles. They are careful about buying only eco-friendly and certified cleaning products. Customers are provided with data on consumption and CO₂ emissions at the check-in, and they are asked for their cooperation for example in setting the air conditioning and for recycling. The interviewee does not seem to see any direct monetary motivation in implementing ES behaviors, except for the chance to obtain government funds for business networks. In addition, several ES behaviors, such as certified energy or eco-friendly products, represent a cost for the company. While referring to their waste recording system, the interviewee says: “We keep these records just to monitor our impact, but we don’t have any economic advantage from that”, and he brings the positive example of other towns where the taxation for waste is proportional to the waste produced.

Indirect monetary motivations are more relevant to the interviewee: although he does not see sustainability as a way to attract more customers, at least at present, he believes that ES behaviors may meet the expectations of the most sensitive customers, especially from Germany: “We work 80% with German guests, or from northern Europe... they are more attentive, they share these values”. In the interviewee’s opinion, environmental sustainability also meets the expectations of OTA, such as Booking.com: “They have been asking us for a long time for something like that (a green hotel) ... and as far as I know there aren’t many in Italy”.

Another very important non-monetary driver of sustainability is the business network, of course. The network provides help, knowledge and awareness to its members: “We wanted to be green, and to stay connected: if anyone has a doubt, a problem, we can help each other, and our suppliers can help us”, and: “These are really challenging projects, one hotelier alone can’t do it”. On the other hand, the local administration seems to have other priorities at the moment; moreover, the lack of adequate knowledge and awareness from water suppliers is a strong barrier to the successful implementation of some ES behaviors: “We asked them to have sensors on the water meters, as required by the law, but unfortunately

they don't know what we are talking about... we have been waiting for 2 months... maybe it's because nobody has asked them before, because nobody is doing what we are doing, we are the first".

This sense of being the first to do something is a recurrent theme in the interviewee's words: "We are the first, we believed in this and we are leading the way for others", revealing pride in, and satisfaction from, a personal environmental commitment.

4.1.5. Facility C2

C2 is a 3-star family hotel on lake Garda, in the province of Verona. It was founded in 1970 and has 47 rooms. It was included in the unit of analysis because it belongs to the Garda Green business network. The interview was with the hotel owner.

In addition to the separate collection of waste, waste production is reduced by bulk products and dispensers for food at breakfast. A towel reuse program is in place, and extra towels for the swimming pool are given to guests only on payment, reducing the number of extra towels. Energy related behaviors include: led lighting, low energy refrigeration and heating equipment, green certified energy, sensors on energy meters to monitor consumption, a charger for electric cars and the rental of electric bicycles. All cleaning products are eco-friendly and certified. The staff is trained on ES behaviors, and customers are encouraged to take public transport.

The interviewee is quite interested in the direct monetary advantages of implementing ES behaviors: "I really appreciated the ability to see real costs and consumption, and Garda Green is amazing in this", and referring to the energy saving he has achieved: "I saw the difference and I simply couldn't believe it!". However, larger investments would be required to make the facility more energy efficient.

According to the interviewee, it would be really helpful to provide customers with more accurate data on energy consumption, otherwise customers may not see the importance of some ES initiatives: "Objective data are fundamental, other stuff doesn't matter to them", and in some cases sustainability may be a threat to service quality and customer satisfaction: "We are trying to eliminate all jelly packets at breakfast, but we will see... in some cases customers prefer a single dose". Moreover, although he acknowledges that customers from Germany and northern Europe are more sensitive to environmental issues, he does not believe that sustainability determines the choice of a hotel: "I don't' chose a hotel because it's eco-friendly... all hotels should be eco-friendly! But what if we had an eco-friendly destination instead? That would be something!". The interviewee thinks that promoting sustainability at the destination level would be much more effective in attracting new customers, even if environmental preservation is not a priority

for the local public administration: “The system needs innovation, but the concept isn’t moving forward... they are all still dealing with other problems”.

The interviewee also complains about a lack of coordination and information regarding ES initiatives, which he believes should be provided by the local administration: “There may be several interesting initiatives, but we know nothing about them, because we are not informed or supported. There’s no coordination at the destination level...”.

Lastly, personal environmental commitment is expressed both in terms of pride: “I’m almost the only one here that has green certified energy”, and of hope and optimism about the future: “I hope that environmental awareness will develop, not only in words but also in deeds”.

4.1.6. Facility C3

C3 is another hotel in the Garda Green business network, albeit not directly located on lake Garda but in a rural destination very close to the lake. It is a 3-star family run hotel, founded in 1955, with 65 rooms. The interview was with the owner.

Waste management-related ES behaviors in place are recycling and the reduction of waste through dispensers both for food and for soap and shampoo. Water conserving fixtures are installed in the rooms with sensors on the water meter to monitor water consumption. Sensors are also installed on the energy meter, and the facility is fitted with solar panels and photovoltaic plant. They have a charger for electric cars and rent out electric bicycles. Heating and air conditioning can be controlled from the reception, led lighting has been fitted both in the rooms and common areas, and there are also timers for lighting in common areas. The purchasing policy favors local food and eco-friendly detergents, and they use organic painting. Lastly, the staff is informed of, and trained on, ES behaviors and customers are provided with written information.

The interviewee is convinced that energy saving cuts costs, and he also mentions the possibility of obtaining government funding related to ES behaviors as direct monetary drivers of sustainability. On the other hand, eco-friendly products are undoubtedly more expensive: “We have organic paint, and it costs a boatload of cash!”.

Moreover, in the interviewee’s opinion, environmental sustainability is not a priority for customers, who do not perceive the importance of most ES behaviors, compared to service quality: “They tell me, ok you’re green, you are photovoltaic, you have solar panels... but you haven’t changed the bedrooms, the bathroom is the same as 10 years ago. They couldn’t care less if you have invested 60 000 € in a cogeneration plant!”. He does not believe that environmental sustainability is a factor in choosing a hotel,

and also thinks that it sometimes comes at the expense of the personal comfort of customers, as in the case of timed heating or air conditioning. Sustainability could however contribute to attracting more customers if properly promoted and communicated, and this is easier through a business network: “When you are alone you don’t have the visibility of 10, 15 companies... we must create a network, to introduce ourselves... and we can also try to sell packages through the network”.

The network provides the support lacking from the local administration, which seems to have other priorities. In the interviewee’s words: “We need the administration to be more interested, more forward-looking, maybe even to try to get some funding... and that’s why this network was created”. The interviewee also complains about the lack of interest of other hoteliers in the same location: “They should be more open-minded, but unfortunately things are going too well for them, so they don’t need to step up”; or the lack of support from trade associations: “They are not in the network, they were at the beginning, but they left. And that’s a pity, it’s all about politics”.

Pride and satisfaction related to personal commitment to environmental preservation are clear: “I think I’m the only one who invested this kind of money in photovoltaic plant”, or: “And then they will say well done, you were the first to do this”, and “Someone has to start, to set an example”. Moreover, he really cares about the environment: “I don’t want to show off, I just want to feel good about myself. And I really believe in this”.

4.1.7. Facility C4

C4 is a small inn on lake Garda, with only 5 rooms that were added to a restaurant in 2015. It is family owned and part of the Garda Green network. The interview was with the owner.

They have separate waste collection and try to reduce waste by avoiding single dose containers in favor of detergents with biodegradable packaging. No water related ES behaviors are in place. The building is however energy efficient, partly because it is a very new building. They have solar panels, photovoltaic plant, green certified energy, sensors on energy meters, and a charger for electric cars. Almost all cleaning products are eco-friendly, and local is preferred to processed food. Customers are provided with data on energy consumption and are asked to cooperate in setting heating and air conditioning.

The interviewee acknowledges some cost reductions from energy saving or green energy, although upfront investments, especially for photovoltaic plant, pay for themselves only after a long time.

Energy-related ES behaviors are appreciated by customers, especially those from northern Europe, and the interviewee sees sustainability as a way to fulfill customer expectations: “This is something more, something you can offer to your guests. You can achieve differentiation if you offer something more,

something different”. She also thinks that these environmentally attentive customers are more likely to travel during the low season, and therefore sustainability can help deseasonalization. However, she does not believe that sustainability really influences the choice of a hotel, at least not at the moment.

The interviewee complains about the fact that the local public administration seems to have other priorities, about the need to raise general awareness concerning environmental sustainability, and especially the awareness of energy suppliers: “It’s incredible, they don’t know what I’m asking them... we need sensors on the energy meters and I’ve even spoken with headquarters, but the ignorance is astonishing”. Belonging to the business network represents almost the only source of support she was able to find: “Especially for a small facility like this one, you can talk to other people, ask them what they are doing, exchange ideas...”.

Personal commitment is a strong driver of ES behaviors and is shared by other family members: “It was my husband’s idea (referring to the photovoltaic plant), I must confess it was very costly at the beginning, but he really believes in renewables, and you have to believe otherwise you will never do anything, it’s too expensive”.

4.1.8. Facility C5

C5 is quite a large campsite on lake Garda, with 250 bungalows and 700 tent spaces. It was founded in 1958, is family run and part of the Garda Green network. It is certified to ISO 14001 standards. The interview was with the owner.

The owner is committed to waste management practices, and the campsite has its own system for the separate collection of waste and recycling. It carefully monitors waste production and in just 2 years has moved from 30% to 65% of recycled waste. Water consumption is also monitored, and the facility is fitted with a water purifier. It controls energy consumption and CO2 emissions, and is supplied with green certified energy; it has a charger for electric cars, electric bicycles, and solar panels. Cleaning products are eco-friendly. A lot of attention is paid to staff training: employees are informed of, and involved in, ES initiatives, partly through trade fairs and team building activities. Customers are informed, provided with data on consumption and asked for their cooperation in recycling activities; each week the customer that recycles the most wins an award.

The interviewee does not mention any direct monetary motivation for the implementation of ES behaviors, except avoiding penalties from the certification body or the local administration. On the other hand, she admits she had to make quite large investments for the recycling system: “From the financial perspective, it was a bloodbath!”.

The achievement of a differentiation strategy based on sustainability is a very significant driver for the interviewee: “It was a challenge... I think that our mission, including to distinguish ourselves from competitors, should be environmental preservation. Everybody can offer good service quality, but we are here, in this beautiful place, surrounded by this huge park...”. The possibility to deseasonalize tourist flows also emerges from her words: “We are making projects for the low season too, and this could be interesting...”. Overall, customer expectations have been a significant driver of environmental sustainability, since they seem to reflect fairly high environmental awareness, albeit not universally: “Of course, there are always impolite customers”.

Both the business network and the certification body have been an important source of support for the interviewee: “When you face the certification audits, you immediately understand your impacts on the environment... and you learn a method”, and “We received a lot of help from Garda Green: it’s really difficult if you have to handle everything alone, but if you can exchange ideas with others... I think it’s a great opportunity”. Every year she goes to a trade fair related to environmental issues, which she considers another great source of support and knowledge: “I’ve learned a lot in Ecomondo and I wanted my staff to learn with me; I took them with me to the fair, an amazing experience”. Hence, these sources of knowledge and support somehow replace the shortcomings of the public administration.

The interviewee is committed to environmental preservation and shows pride and satisfaction when talking about what she has achieved: “In waste management behaviors we are the jewel in the crown! Nobody recycles as much as we do, and we lead the way for other campsites”, and “I wanted an award... I mean... I wanted everyone to know what I have done”. And lastly, she is concerned for future generations: “I take care of the environment for my children and grandchildren, that’s fundamental”.

4.1.9. Facility C6

C6 is a 3-star family hotel in a rural destination very close to Verona city center. The hotel was opened in 1990 and has 13 rooms. This facility participates in the Zero Waste Italy program, and in 2014 the owner was acknowledged by this association for the commitment to environmental preservation. The interview was with the hotel owner.

The owner is fully into waste management initiatives and has created genuine guidelines for a “Zero Waste Hotel”. “Unfortunately, a hotel generates a huge amount of waste” complains the interviewee, and therefore, besides the separate collection of waste, several initiatives are in place to reduce waste production: dispensers for food at breakfast, soap dispensers in the rooms, glass bottles instead of plastic bottles, composting, bulk products wherever possible, recycled toilet paper. The “Zero Waste Hotel”

guidelines are not limited to waste management but also include water conservation initiatives, such as recycling rainwater for the garden and the towel reuse program; energy conservation initiatives, such as the gradual replacement of low energy light bulbs and led lighting, or the fitting of photovoltaic plant. The purchasing policy favors local products, with fruit and vegetables from the garden, and eco-friendly cleaning products. Lastly, a great deal of effort is made to raise customer awareness of environmental preservation: they can find information about ES behaviors both in their rooms and on the website and are provided with data on the hotel consumption. They are asked for their cooperation in basic ES behaviors such as the towel reuse program.

Cost savings on energy and water is an important forerunner of sustainability, and in the interviewee's opinion, the ability to save money on waste management activities would be of great help in the further spread of ES behaviors. In particular, he gives examples of other Italian cities where waste is taxed according to the weight, and he hopes this kind of taxation can be introduced in Verona too: "Everyone is able to do the math! Where there is an economic advantage, that's where it all starts... save 10% on waste tax, and it spreads like wildfire!"

Regarding indirect monetary motivations, the interviewee sees sustainability as an additional value to be delivered to customers: "We are offering something that other hotels don't... and it is also a way of keeping us up to date, of innovating, so we don't stand still". Image improvement is also very important for the interviewee. In his opinion, environmental preservation is not a reason to choose a hotel or a priority for customers.

Important non-monetary drivers for the implementation of ES behaviors include increased knowledge and awareness that can be derived from environmental associations: "It all started when I met those people promoting environmental sustainability" (referring to Zero Waste Italy), or from peer organizations: "There is a Hotel in Naples, and they have done much more than us! I have learned a lot from them, as with glass bottles. When I saw that I thought: wow, look at this!". In this sense, peer imitation can raise awareness and provide examples to be followed: "If I copy a best practice from another hotel, I am not stealing anything, it's just sharing an idea. And if I can implement that practice in my hotel, why not?". On the other hand, environmental preservation is not a priority for other relevant stakeholders, such as trade associations or for the local public administration. "I was talking with other hotel managers, I tried to explain my ideas, but they simply said they weren't interested. At that moment, they were dealing with other issues. And I just kept going on my way"; but then he adds: "My hotel is a small one... what if everybody joins forces? There would be collective benefits", hence recognizing the limits and complexities faced by a single independent company. Indeed, he praises the positive

experience of the other hotel managers he knows who have joined a business network specifically committed to environmental preservation.

Lastly, the interviewee is strongly concerned with environmental issues, and is genuinely proud of what he has achieved: “You know, being invited to collect that prize, it was a great satisfaction!”. He wants to set an example for other organizations, and to show that sustainability is not an impossible task: “We started to set a kind of example to others, to show that it was possible. Compared to other people, we can say we can make the difference”.

4.1.10. Discussing the Italian unit of analysis

To sum up, the analysis of the data provides support for Proposition 1 since all ES behaviors implemented by the Italian lodging facilities belong to one of the 5 areas of action. In particular, the separate collection of waste is adopted by all interviewees, at least in common spaces, partly because it is a statutory requirement. More interestingly, all interviewees have also adopted solutions aimed at reducing waste, such as refillable dispensers or recycled toilet paper. Water related behaviors are less common, and mainly consist in having a towel reuse program and water conserving fixtures. In 3 facilities no water saving measures are undertaken. Energy conservation behaviors are implemented by all interviewees, together with renewable sources of energy or green certified energy. In purchasing policy, eco-friendly cleaning products are preferred by all interviewees, and local food by 5 out of 9 interviewees. Lastly, people involvement activities aimed at raising both customer and employee awareness are carried out in each facility. In 4 cases, specific staff training is not mentioned in the interview, because these are very small family companies, with few or no employees and where formal training is usually replaced by word of mouth.

Proposition 2 is supported by the research, since all drivers of ES behaviors reported by the interviewees are in one of the 4 categories of motivations. In particular, direct monetary motivations, such as cost saving, access to funding, lower taxation or avoiding penalties, are reported by each interviewee. Indirect monetary motivations also exist for each interviewee, except one, and they mainly consist in improving the company image, meeting customer expectations, providing customers with additional value or achieving differentiation. Several non-monetary elements are mentioned by each interviewee, all related to an external source of support able to provide knowledge and information: belonging to a hotel chain or to a business network; peer organizations, especially those in the same business network; certification bodies; environmental associations or environmental trade fairs; suppliers of goods and services; technological development. Rather than being a source of pressure or a requirement as suggested by the

theoretical background (Stylos and Vassiliadis, 2015; Singal, 2014), all these stakeholders represent a source of support and awareness, hence, an additional category of non-monetary elements can be identified, i.e. non-monetary facilitators. Finally, partly due to the purposeful sampling approach, all interviewees are driven by a strong personal commitment to environmental preservation. Interestingly, pride and satisfaction emerged from almost every interview, together with the idea of setting an example, and in some cases seeking pleasure and feeling good about living and working in a pleasant and unspoiled environment.

Regarding barriers to ES behaviors, direct monetary barriers exist for all interviewees, both as the cost for upfront investments and the cost for eco-friendly goods and services as well as the lack of incentives. Indirect monetary barriers are also reported by all interviewees, who sometimes need to find a balance between service quality and environmental preservation and do not believe sustainability exerts a strong influence on the choice of a hotel, or that customers are willing to pay more to stay in green accommodation. Non-monetary barriers to sustainability mainly consist in the lack of support provided by the local public administration, as reported by all interviewees, along with the lack of support from trade associations and lack of skills and awareness by energy and water suppliers. Of course, due to the purposeful sampling approach, no personal barriers to sustainability could be found in the interviews. Proposition 3 is supported by the data because all the barriers that have been reported by the interviewees can be classified in one of the above categories.

4.2. The Spanish unit of analysis

4.2.1. Facility A2

A2 is quite a large 4-star hotel on the seaside in the province of Huelva. It has 349 rooms and was founded in 1992. The hotel belongs to an important Spanish chain and is certified to ISO 14001 standards (Travelife certification). It is a Tripadvisor Greenleader. Both the executive director and assistant director took part in the interview.

Waste management activities work well in this facility: all waste is sorted and directly collected according to a back-take scheme. Waste production is monitored and recorded, including hazardous waste. They are also planning to install waste bins in common areas. Water consumption is monitored, there are water conserving fixtures in the rooms and a towel and linen reuse program. Relating to energy-related behaviors, 99% is led lighting, the facility is provided with biomass energy, and energy consumption is monitored through dedicated software. Local food is chosen whenever possible. Lastly,

customers are provided with all the information about ES behaviors and a sustainability report is available online; communication and activities are in place in order to raise customer awareness. Specific training on ES behaviors is carried out for employees.

Energy-related behaviors provide substantial cost savings due to energy efficiency; however, large upfront investments are required, and the interviewees complain about the lack of government funding: “I would love a totally eco-friendly hotel, working only with renewables! But can you imagine the cost for that?”, and: “All incentives are for SMEs, we can’t apply for them”.

Image enhancement, with respect both to customers and tour-operators, are strong indirect monetary motivations for ES behaviors as mentioned by the interviewees, especially regarding German customers and tour operators: “The motivation for green certification is to improve the company image, both with tour operators and customers. If German tour-operators value certification, it means German customers also appreciate it”. And they add: “Our guests are like an audience, they come here to enjoy a holiday, but they also observe us. We ask them not to change towels every day, and they can see how we manage water consumption, they see we are certified and they really appreciate it”. However, the hotel executives do not think sustainability will become the source of competitive advantage based on differentiation: “We still don’t know how much sustainability matters in choosing a hotel. Probably you need to be quite radical, a leader, the most ecological, the hotel with the least emissions... but this is not the case here”.

Compliance with certification requirements is another important driver of ES behaviors, and at the same time a source of support in managing internal operations: “Procedures are more orderly, the staff is better trained, everything is more efficient and day-by-day operations are easier”. Support, guidelines and standards also come from the hotel chain, especially for waste management policies and staff training activities. On the other hand, trade associations seem to have other priorities at the moment.

Personal commitment to environmental preservation is in part due to the particular location: “First and foremost we understand we need to protect the environment we are living in. We are in this unique place, almost in a protected environment...”. The executive director’s environmental awareness is clear from these words: “Among the several motivations I was telling you about, personal awareness is important and I would like the law to require more of those who lack personal awareness.... I personally feel much more comfortable when I am in a place where I know the environment is being respected”.

4.2.2. Facility A3

A3 is a 4-star hotel in a chain, with 300 rooms, built in 2005. It is on the seaside in the province of Huelva, is certified to ISO 14001 standards and also has Travelife certification. The interview was with the executive director.

Regarding waste management practices, the interviewee mentions the separate collection of waste, both in common areas and in the kitchen. Water conserving fixtures are fitted. Energy related behaviors include: low energy light bulbs and led lighting, solar panels, a charger for electric cars and the rental of electric vehicles. The hotel is provided with a suppliers' assessment form and the purchasing policy involves organic paint and eco-friendly amenities in the rooms; chlorine in the swimming pool has been replaced by salt. Local food is preferred. The interviewee is very committed to information and communication techniques in order to raise customer awareness and sensitivity. Customers are provided with written information on the hotel websites and through newsletters. Several activities are organized to raise both customer and employee awareness and the staff is trained on ES behaviors.

Energy savings provide cost cuts; however, there are direct monetary barriers for the implementation of ES behaviors: "As far as possible... you'll understand that each measure we can take for the natural environment involves financial costs. We can carry out simple activities, based on our creativity or on our environmental commitment, but more advanced behaviors require large investments". And government incentives for ES behaviors are not dedicated to large hotel chains, but only to SMEs.

The interviewee does not see any indirect monetary advantages from sustainability, except for meeting tour-operator requirements through green certification. Customers, especially domestic customers, do not usually value ES practices: "There are studies showing that environmental sustainability affects the choice of a hotel for a certain percentage of customers... But in reality, what percentage? How many customers? Just hippies or people like this... Most customers do not value sustainability that much".

In addition, there does not seem to be any pressure for environmental sustainability from the local administration, green associations or trade associations.

A non-monetary driver of sustainability is provided by the hotel chain: "Environmental sustainability and CSR are part of our mission and our vision, that's why we are always looking for ES measures and initiatives".

The interviewee is also personally committed to environmental preservation: "It is part of who I am: for example, I personally drive an electric car..." and pride and satisfaction are evident in his words: "I think that in this area we are the most committed hotel. We clean the beach, we pressure our suppliers... because we need to set an example".

4.2.3. Facility A4

A4 is a 4-star hotel in a chain, located on the seaside in the province of Huelva. It is quite a large hotel, with 344 rooms, and was founded in 1992. The hotel operates both Travelife and Q Sostenible certification schemes. Both the executive director and the assistant director participated in the interview. As regards waste management, the separate collection of waste (including hazardous waste) is carried out in common areas and in the kitchen; waste production is reduced by small purchases and installing soap dispensers. They have a towel reuse program and extra towels for the swimming pool are against payment; water conserving fixtures are installed in the rooms, rainwater is recycled for the garden and water consumption is monitored. Energy consumption is also monitored, and the hotel is fitted with led lighting, there are occupancy sensors in common areas, low energy refrigeration equipment and solar panels. Suppliers are evaluated via an assessment form, eco-friendly and local products are preferred, and chemicals are reduced as far as possible. Customers are provided with information on ES behaviors online and on social networks; activities are organized to raise customer awareness and the staff is properly trained.

Both interviewees acknowledge cost cuts from water and energy saving, and they do not mention direct monetary barriers to the implementation of ES behaviors, although costs always have to be kept in mind: “When we have to decide on a new supplier, we require some documentation and we always select the one that works in a sustainable way, as long as the economic conditions are the same”.

The achievement of a differentiation strategy based both on sustainability and accessibility criteria is a strong indirect monetary motivation: “We want to be an important hotel chain for accessibility and sustainability... Of course, if we differentiate ourselves on these issues, we can achieve financial advantages because there are customers that look precisely for these services”. And then they add: “I believe that at an international level, Germany or the UK, they are more aware of these issues... German or English tour-operators too, they require these things...”.

The only thing they complain about is the lack of support from the local public administration, mainly due to lengthy bureaucratic procedures: “There is a complex hierarchy, you have to climb up so many steps... it’s complicated”.

Both sustainability and accessibility are firmly rooted in the corporate culture: “We belong to a chain, and these values, accessibility, sustainability, are in the company’s DNA... Our mission is to build a better world through our hotels, and we’re the only company doing this, it’s in our DNA”. The cultural values of the company are shared and internalized by the interviewees themselves, who also feel proud

of what they are achieving: “We are unique, we know that, and we believe in it. We are doing what nobody else is doing”.

4.2.4. Facility A5

A5 is a public chain hotel, founded in 1968 with 66 rooms in the seaside, close to the city of Huelva. It is certified to ISO 14001, Doñana 21, ECST and EMAS standards. The interview was with the executive director.

They have the separate collection of waste, including the hazardous type. Water related behaviors include a towel reuse program and a water purifier. Regarding energy conservation behaviors, part of the lighting system has recently been replaced by led lighting and they have low energy heating equipment. Some local suppliers are favored by the purchasing policy. They try to raise customer awareness of environmental preservation, stressing the fact that they are located in a protected natural environment. Only a few comments were made about direct monetary elements: “Solar energy is really cheap, but the upfront investment is high”. The interviewee did not seem very concerned with indirect monetary drivers or barriers; he acknowledges the fact that international customers may be more respectful of the environment, and that is exactly the kind of customers they want to target, but he does not think this will lead to any advantages for his hotel.

He wishes the local public administration could provide more support and raise awareness, since he believes that Spain is lagging behind other countries: “I think we still lack environmental awareness... The local administration should be more proactive in emphasizing these issues... especially in this location”. Indeed, the strongest driver of ES behaviors for this hotel manager is working and living in a protected natural environment: “When you are in a place like this you don’t overlook anything. You must behave in a proper way with nature, because we are where we are! You have to look after the place where you are”.

4.2.5. Facility A6

A6 is a 5-star independent hotel located on the seaside. It has 175 rooms and was founded in 2001. The hotel is certified to ISO 14001 and Travelife standards. The interview was conducted with the hotel’s executive director.

They implement the separate collection of waste and keep records of their waste production. In addition, they avoid printing written documents whenever possible, using online platforms for internal communications. They have a towel reuse program and water consumption is monitored. The reduction

of 1% of overall water consumption and 1% of overall energy consumption is a business objective. They have an energy recovery system and monitor energy consumption. The purchasing policy favors eco-friendly suppliers, especially for cleaning products. The staff is trained on ES behaviors, customers are informed about and involved in activities related to environmental preservation such as cleaning the beach, and they are also involved in fund raising activities for ecological purposes.

Among the direct monetary motivations of sustainability, the interviewee reports cost cuts from energy and water savings and avoiding penalties for non-compliance with tour-operator requirements. However, every ES initiative involves a cost: “You have to be coherent with what you have, and even sustainability-related objectives must be within reach of your financial resources”.

Improving the company image in the mind of customers is very important for the interviewee: “Cleaning and taking care of the environment, this is the basic and most important thing. I want my customers to see a clean environment, a clean beach, that they like... so they say: I want to come back here next year!”. Moreover, he generally deals with customers who display quite high environmental awareness and are even a source of knowledge and ideas: “Indeed, they sometimes make suggestions to improve our activities. For example, one of them suggested putting up a sign to ask people not to take shells from the beach...”. And he adds: “Our guests are mainly from northern Europe; they have a strong environmental commitment. It’s a matter of culture. But the good thing is that when domestic customers come here, they become aware of what they see, and they start behaving differently”. Service quality however must always be very high in a 5-star hotel and sometimes they have to find a compromise with environmental preservation: “When they ask for an extra towel for the swimming pool, well... we give them one of a different color, so that other guests think it’s their own towel, not ours, and they don’t ask us for extra towels too”.

Certification bodies have requirements to comply with, but they are also an important source of support: “You know, often you lack information, you lack ideas... but the certification body always tells the chain what other facilities are doing”. A relevant non-monetary barrier is the local public administration: “We would like to replace oil with gas, but we are not able to at the moment because we lack the power supply lines, and that’s the administration’s responsibility. Believe me, the only thing that slows down processes is needing something from the administration”.

The interviewee’s personal commitment mainly consists in doing things properly: “We want to do this well, we want to be up to date”.

4.2.6. Facility B3

B3 is a 4-star family hotel in a rural destination close to the city of Huelva. It was founded in 2009 and has 20 rooms. This facility was selected because of certification to Doñana 21 and ISO 14001 standards and membership of the Europarc federation. The interview was with the hotel owner.

The hotel is built from recycled wood and organic materials; however, the separate collection of waste is not carried out. Regarding water measures, water conserving fixtures are in place both in common areas and in the rooms. They use solar panels to warm water. Eco-friendly detergents are preferred, and eco-friendly amenities are provided in the rooms. They also try to reduce chemicals and chlorine is replaced by salt in the swimming pool. Customers can find information on ES initiatives on the hotel website.

The interviewee acknowledges cost cuts from energy saving, especially from the solar panels. However, he also complains about the large upfront investments and the lack of governmental funding: “There are some incentives, but they are created in order to make you invest more money”.

An important driver of ES behaviors consists in meeting the expectations of attentive customers: “It perfectly suits our market demand, it’s more attractive for the kind of guests we have here and want to attract... everybody now is against chemicals and stuff like that, and we decided to eliminate chlorine from the pool”. In the interviewee’s opinion, customers particularly from northern Europe are increasingly aware of environmental issues, and sustainability may enhance overall service quality: “Domestic customers are fine, but those from Germany or the Netherlands... they are radical! And in a job like this, sustainability is an additional value... maybe it’s more important than having good food in the restaurant”. In addition, environmental certification is a useful tool to obtain visibility from sensitive customers, besides also being an important source of support for operational activities: “It helps a lot in managing internal activities, and allows you to enter into a market looking for green hotels”.

On the other hand, the interviewee complains about the lack of support from the local public administration, especially in the case of the separate collection of waste: “We are unable to recycle here, they’re not collecting waste separately...I don’t know if it’s only here or throughout Andalucía, but there’s still a long way to go, we’re lagging behind. I don’t want to blame the public administration, but they could provide a little more support or information...”.

Lastly, the interviewee does not express his personal environmental commitment very often during the conversation, but states: “It’s something you have to feel inside, and get away from a totally business-oriented mentality. Unfortunately, there’s a lot of greenwashing here”.

4.2.7. Facility B4

B4 is a family-run farmhouse in a rural destination in the province of Huelva. The 12 apartments were built in 2007. The facility is certified to ISO 14001 and ECST standards. The interview was with the owner.

The separate collection of waste is implemented in each apartment and in addition soap and shampoo dispensers and dispensers for cleaning products are provided to reduce waste production. Water conserving fixtures are fitted and there is a water purifier. They have solar panels and eco-friendly cleaning products. Customers are informed, made aware of, and asked for their cooperation in simple ES behaviors such as recycling.

Although they are able to save money thanks to solar panels, the interviewee complains about the huge upfront investment she had to face, and about the lack of relevant government incentives: “You need a tremendous effort to become sustainable...a very large investment, with no certainty about future returns... And you can get some incentives but it’s not enough when compared to the investment you face”.

Meeting customer expectations is a relevant driver for ES behaviors, since customers display quite high environmental awareness: “Generally, our customers are very committed to environmental preservation... some of them even thank us for what we are doing. And we’re selling the natural environment, we’re working with this environment, how could we not protect it? Environmental awareness is very strong here, it’s our core product, people come here for it”.

Regarding non-monetary elements, the interviewee mentions the importance of information and knowledge from a local association for small hospitality businesses: “Before this association we were all unaware... but now we have proper guidelines, we know each other, we can visit other lodging facilities and see what they’re doing”. However, she complains about the lack of support from the local public administration, a real obstacle to the separate collection of waste: “They must make things easier! We had a huge problem in collecting of waste: they said it was impossible to collect waste here and we had to take all waste to the town dump... But why should I do that? I’m doing it, I’m doing everything I can, but I shouldn’t”.

She is really committed to environmental preservation, partly due to the natural location where she lives and works, and she tries as much as possible to act in a sustainable manner, displaying some pride: “As best I can, within my limitations, I must feel proud... the passion we have, the efforts we make... counting only on our resources”.

4.2.8. Facility B5

B5 is a family-run farmhouse with 15 rooms, founded in 2007 in a rural location close to Huelva. The facility was first certified to ISO 14001 and Doñana 21 standards but now only is only ECST certified. The interview was with both owners.

The separate collection of waste is adopted in common areas, and refillable soap dispensers are provided to reduce waste production. They have water conserving fixtures and a towel reuse program. Energy consumption is monitored, they have solar panels and would like to fit photovoltaic plant too; most of the lighting has been replaced with low energy lighting. Local products are preferred when possible, and they have eco-friendly detergents. Customers can find information on ES initiatives at the reception and online. They used to provide customers with data on energy consumption, but stopped because consumption didn't decrease.

They also had to quit Doñana 21 and ISO 14001 certification because of direct monetary barriers: "After the crisis, I think they everybody left the Doñana 21, it was too costly to keep". And costs and investments are also delaying fitting photovoltaic plant, since there are very few government incentives: "We are under no illusions, if you absolutely need funding, just don't do it!". However, some cost cuts are obtained from energy saving.

The interviewees started implementing ES behaviors partly to meet the expectations of the kind of customers they wanted to target. After the crisis they had to adapt and the target changed: "So we had to diversify... on the one hand we have very concerned customers, they come here, maybe from the Netherlands or the UK, ornithologists with very marked environmental awareness... but on the other hand we had to include smart box tourists... they stay here 2 nights, drink champagne and don't care if the light is left on all day".

ECST certification is useful in terms of knowledge sharing, but, in the interviewees' opinion, does not yield commercial advantages: "We can exchange ideas between ECST members, share experience, news, ideas... but I don't think customers care about ECST when they choose a hotel. I definitely don't think so".

Summing up, both interviewees display environmental commitment, are members of the WWF, love living in a rural place, but the environment takes a back seat to economic reasons.

4.2.9. Facility B6

B6 is a family-run farmhouse in a rural destination in the province of Huelva. It has 6 rooms and was opened in 2000. The facility has been awarded Tripadvisor Greenleader and is certified to ECST

standards. The owners have developed their own environmental policy, “Proyecto Ecológico”. The interview was with one of the owners.

Waste management is implemented in common areas and in the kitchen. Water saving fixtures are installed in the rooms. They are provided with led lighting, solar panels and geothermal energy. The purchasing policy favors local food and they have an organic garden; cleaning products and amenities are eco-friendly and part of the building materials are ecological, with cork or wool and organic paint. Lastly, customers can find written information on ES behaviors both in the rooms and in a sort of green corner at the reception.

Small cost cuts from energy saving is reported as a direct monetary motivation by the interviewee, who, however, complains much more about the investments they have had to make: “We are a small facility, we have very limited financial resources. Ecological products are more expensive, and we can’t print money! I would love to do more but, you know, 25 or 30 thousand euros...”.

A significant indirect monetary motivation is to meet customer expectations. Generally, they are looking for a natural, unspoiled, environment: “Our guests here are looking for nature, they are drawn to it”, especially international customers: “We’ve been Greenleader on Tripadvisor; foreign customers really appreciate these things”. The problem lies in the lack of adequate promotion based on sustainability: “We know for sure that 30% of German tourists travel for sustainability, but we don’t have German guests, because they don’t know about us!”.

The interviewee does not mention any external source of support for the implementation of ES behaviors, except for the case of geothermal energy: “It happened just because my brother is an architect; he lives and works in Iceland and knows geothermal energy very well”.

Personal commitment is a strong driver of sustainability: “We do it for little Sofia, 11 years old! But before that, we did it for ourselves, because that’s what we are like. And we do precisely what we enjoy doing”. The interviewee also expresses his pride as a unique contributor to sustainability: “When we put in solar panels nobody had them, but we were convinced. Nobody has done what we have done, we are a rare thing actually. We are the only facility here that is totally sustainable”.

4.2.10. Discussing the Spanish unit of analysis

Summing up, all ES behaviors in place in the Spanish unit of analysis are in one of the 5 areas of action, hence Proposition 1 is supported by the data. Waste management activities are adopted in each facility, and the only facility where the separate collection of waste is not carried out was built with organic and recycled materials. Water conservation measures are reported by all interviewees, especially water

conserving fixtures and towel reuse programs. Energy related measures are implemented in each facility, the most common being the use of renewables, especially solar panels, and led lighting. A purchasing policy that favors eco-friendly products and/or local products is reported by all interviewees. Regarding people involvement activities, customers are always informed or involved in environmental activities; employees are provided with specific training on ES behaviors only in 4 out of 9 facilities, but most of these facilities are very small family-run companies, where word of mouth may be considered enough. Proposition 2 is also supported by the research, and all interviewees report sustainability drivers in one of the 4 categories. Direct monetary motivations are mentioned by all interviewees, especially cost cuts from energy or water saving. Regarding indirect monetary motivations, meeting customer expectations is an important driver of ES behaviors, especially in such a natural location, together with improving the company image, and achieving differentiation based on sustainability criteria. Non-monetary drivers or facilitators of ES behaviors are also reported by all interviewees: certification bodies or the hotel chain itself represent a useful source of knowledge and support and in some cases the corporate culture of the chain is a forerunner of sustainability; for independent companies it is much more difficult to find this kind of support. All interviewees display personal commitment to environmental preservation, due to the purposeful sampling approach. Sustainability is something that they feel inside and it provides pleasure. In several cases, the importance of being in such a natural and protected location adds to the personal commitment of the interviewees.

As regards barriers to sustainability, the analysis of the data again provides support to Proposition 3, since the obstacles highlighted by the interviewees are in one of the above categories, with the exception of personal barriers connected to the purposeful sampling approach. Large investments and lack of governmental funding are the most commonly cited direct monetary barriers to ES behaviors, together with the higher cost of eco-friendly goods and services. Not all interviewees see indirect monetary barriers to sustainability, and few think ES behaviors influences the choice of hotel or that customer are willing to pay a higher price for them. However, partly due to the particular location, customers almost always display significant environmental awareness. Non-monetary barriers to sustainability mainly consist in the lack of support from the local public administration and in a few cases also from trade associations.

4.3. Does organizational structure matter?

The middle ground approach to textual analysis allows recurrent and common themes to emerge from the data. In particular, it was possible to identify 3 different clusters among the facilities in the unit of analysis, irrespective of the Italian or Spanish setting: chain hotels (cluster A), small, independent companies (cluster B) and companies belonging to the Garda Green business network (cluster C). Company C6 was added to cluster C, since because of several similarities between the Zero Waste association and the Garda Green network. It was therefore possible to highlight significant commonalities in the non-monetary factors: on the one hand, the chain, the network and, to some extent, the association provide standards companies have to comply with, hence are an additional non-monetary motivation for sustainability. On the other hand, belonging to a hotel chain, business network or environmental association offers a substantial source of support lacking for independent accommodation facilities, hence chains, networks and associations can be considered a non-monetary facilitator of environmental sustainability.

According to the interviewees in cluster A, environmental sustainability is generally part of their corporate objectives, and the implementation of ES behaviors is driven by the need to be coherent with the corporate mission and vision. “We have our list of corporate environmental objectives: first, reduce 1% of energy consumption; second, reduce 1% water consumption per guest...” (A6); “We belong to a chain, and these values, accessibility, sustainability, are in the company’s DNA... Our mission is to build a better world through our hotels, and we’re the only company doing this, it’s in our DNA” (A4); “In our mission and in our vision, we have corporate social responsibility, looking after the environment, and sustainability of course. So, we always look for things that are sustainable”; and “One of our objectives is to reduce the carbon footprint per guest. How do we do that? Well, through resource optimization and communication tools. We do not have a numerical target, but in each decision we take, we must be coherent with sustainability principles” (A3).

In addition, chain hotels are often required to obtain green certification in order to comply with corporate standards. “We have our certification scheme, required by the chain with the help of Life Gate, and the chain is also monitoring our minimum standards” (A1); “All facilities are certified to ISO 14001 standards, it’s mandatory for us” (A5); “We have to comply with Travelife standards” (A6).

Several chain programs that involve ES activities are mentioned by the interviewees, together with required staff training programs. In relation to chain programs aimed at raising customer awareness, interviewees report: “We organize different activities for children, but each of them involves a small part

related to the environment... we plant trees, talk about water conservation..." (A2); "In our young entertainment programs we want children to learn something, and we are creative. For example, we made an ecological insecticide, or we plant trees and each year our guests can see how the tree has grown... we organize the Day of the Planet, the Day of the Environment, Earth Day and the like, it's fun but it also raises awareness" (A3); "During Mobility Week we avoid driving cars and we promote the use of bicycles, on the Day of the Planet we organize several activities for guests, not just for children..." (A4); "Each month we try to organize at least 2 activities for guests, to raise environmental awareness, such as cleaning the beach and so on" (A6).

Regarding chain programs for employees: "We have staff training programs, in all departments, established at the chain level. And each training program includes a part dedicated to environmental sustainability" and "We have a special chain program, the "Energy Unit", where people from different departments can meet and work together, to point out potential improvements that can be adopted in order to optimize energy and resource allocation", and again "Each year we organize activities aimed at enhancing staff environmental awareness. Last year for example we went to see a recycling plant near here, this year we are going to visit the local oil refinery..." (A2); "We have staff training courses each year, it's a chain requirement" (A6).

Moreover, the purchasing policy of hotel chains sometimes require a supplier assessment form and service providers are more strongly controlled. "Each time we have a new provider we have an evaluation, including environmental criteria" (A3); "Our corporate policy favors small purchasing, in order to minimize waste production" (A4); "We must meet both the chain and the minimum certification standards with our purchasing policy" (A6).

Lastly, the chain is a source of information and knowledge, and provides hotel managers with a benchmark to enhance their skills and awareness regarding ES issues. "Belonging to a hotel chain enables us to benchmark and make comparisons with other hotels in other cities and countries... In addition, we are constantly informed through the website and newsletters, and best practices are always shared" (A1); "We have software to monitor our energy consumption, in each area of the hotel... and that was established by the chain" (A2); "You know, often you lack information, you lack ideas... but the certification body always shares with the chain what other facilities are doing" (A6).

Comparable issues emerged among the interviewees in cluster C; the Garda Green business network and the Zero Waste association were found to offer similar non-monetary drivers and facilitators of sustainability. Although less formal than a chain, the network has an environmental protocol and lodging facilities have to comply with some standards in order to become part of the network. The Zero Waste

association also has its own protocol with 10 steps or ES behaviors companies are required to follow. Like chain hotels, the idea is to be coherent with the missions and the vision of the business network or of the environmental association. Indeed, the purchasing policy of the network does not require a supplier assessment form proper, however local providers and eco-friendly products are generally preferred; energy is provided by green certified providers and members of the network are asked to have sensors on their energy and water meters to monitor consumption. No activities are organized to enhance customer awareness, nevertheless customers are provided with data on CO2 emissions during their stay in one of the network facilities.

The most important advantages of the network and the association are non-monetary facilitators: the network enables members to compare and share information, to obtain help and advice and to enhance managerial awareness and skills: “We created this kind of network to coordinate our efforts” (C1); “If I observe a good practice in other facilities, I can just copy that practice” (C3); “Especially for a small facility like this one, you can talk to other people, ask them what they are doing, exchange ideas...” and “It’s a chance to discuss, and that sort of thing always works well” (C4); “We wanted to be green and to stay connected: if anyone has a doubt, a problem, we can help each other, and our suppliers can help us” (C1); “We received a lot of help from Garda Green: it’s really difficult if you have to handle everything alone, but if you can exchange ideas with others... I think it’s a great opportunity” (C5); “I really appreciated seeing real costs and consumption, and Garda Green is amazing in this”, and “Unfortunately in several hotels we lack skills, a person in charge of environmental sustainability, a person who explains what measures to take to optimize the consumption of resources... and Garda Green helps a lot in that” (C2). Very similar comments were made in the interview with the hotel in the Zero Waste association: “It all started when I met those people, who were promoting environmental sustainability” and “From now on, our first selection criterion is to make things more sustainable” and “You start becoming more aware of things, prices and products... you become more skilled and expert” (C6).

These important non-monetary facilitators are lacking for interviewees in cluster B, i.e. small, independent lodging facilities, often faced with the great challenge of a single in relation to environmental sustainability: “It’s a huge job that’s killing us... we have to face the same bureaucracy as a hotel with 100 rooms... and you have to spend time I would rather invest on other things” and “I repeat, all this bureaucracy, holding us up, it’s an incredible waste of time and energy for a small business like mine” (B2); “Our is a family business. It’s a problem of time and resources, and sometimes you don’t even think about environmental issues” and “I would like to join some kind of green hotel association... it helps a lot in daily operations and it helps if you lack sufficient knowledge and expertise and are asked

to comply with particular standards” (B3); “We don’t even have enough time to think about it (referring to environmental certification). Maybe in large chain hotels...” (B1); “We are such a small facility, with such small economic resources...” (B6).

One interviewee who has joined a local association for small hospitality businesses acknowledges that: “Before this association we were all unaware... but now we have proper guidelines, we know each other, we can visit other lodging facilities and see what they’re doing”, although probably this kind of association, with such limited resources, is not enough: “We still lack help and support from the institutional side, they have to understand that we are doing the best we can; they have to make things a little easier for us” (B4). Another interviewee joined a local environmental association but is disappointed: “Here we have an association for sustainable tourist enterprises, and we are a member. But we don’t talk about environmental measures, we discuss business, developing new products and other things like that” (B5).

In addition, the challenges of a small, independent company are underlined by 2 interviewees in cluster C: “These are really challenging projects; one hotelier alone can’t do this” (C1); “When you are alone you don’t have the visibility of 10, 15 companies... we must create a network, to present ourselves...” and “That’s why we have a network, one company alone can’t make it” (C3).

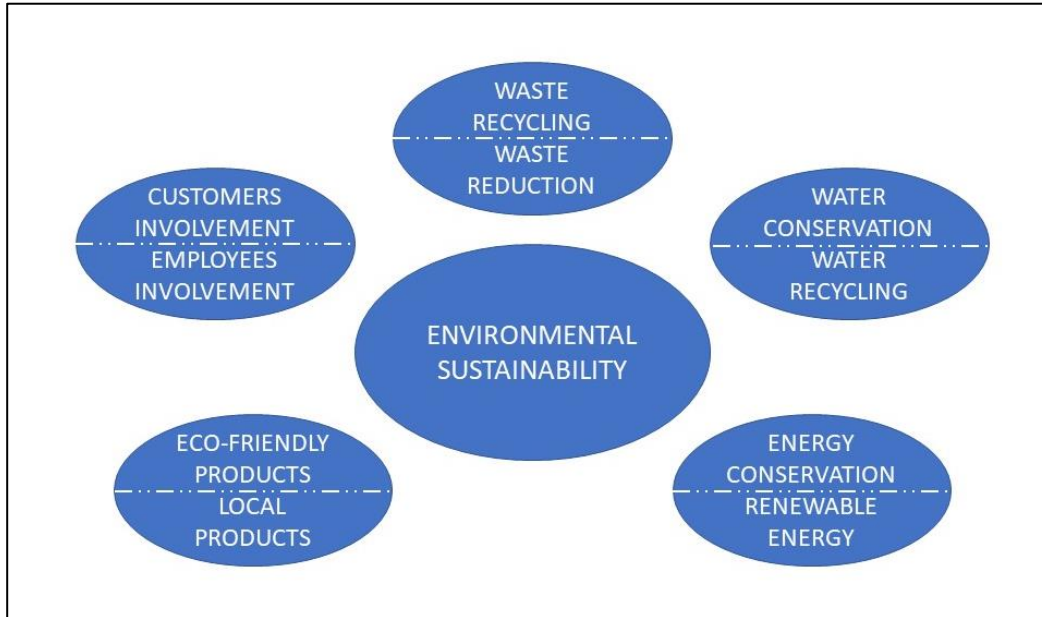
5. Discussion

The analysis of the data provides support for the validity of the 3 research propositions in a real context, both in the Italian and in the Spanish unit of analysis.

All ES behaviors reported by the interviewees can be classified in one of the 5 areas of action, i.e. waste management, water conservation, energy conservation, sustainable purchasing and people involvement, thus supporting Proposition 1. In addition, thanks to the middle ground approach adopted for textual analysis, it was possible to code emerging and recurrent themes, and each area of the HOW Framework was further divided into two subcategories: waste management involves both the separate collection of waste and the reduction of waste production; water conservation involves both the reduction of water consumption through water conserving fixtures, towel and/or linen reuse programs, and water recycling; energy conservation involves both the reduction of energy consumption through low energy equipment of led lighting and the use of renewable sources of energy; sustainable purchasing refers to the purchase of eco-friendly or local products and services; people involvement can target both customers and

employees. According to these recurrent themes, an adjusted version of the HOW framework is presented in Figure 3.

Figure 3. The adjusted HOW framework



Source: based on our analysis

Proposition 2 is also supported by the data, both in the Italian and in the Spanish context. And again, it was possible to identify common and recurrent themes in both units of analysis.

In particular, cost saving and access to government funding are the most recurrent direct monetary motivations for the implementation of ES behaviors, although differences exist between the two settings.

While most Spanish interviewees merely report cost cuts resulting from energy or water savings, several Italian interviewees mention the possibility of obtaining incentives by the adoption of ES initiatives.

Most recurrent indirect monetary motivations include improving the company image and meeting the expectations of sensitive customers. In this respect, customers from northern Europe are considered more sensitive and attentive to sustainability-related issues by both the Spanish and Italian interviewees.

Very few non-monetary motivations could be identified, beside compliance with the law, whereas several non-monetary elements are reported as facilitators for the implementation of ES behaviors, since they provide the necessary support, knowledge and information to hospitality managers. According to the interviews, facilities in a hotel chain (cluster A) or a business network (cluster C) benefit while small and independent facilities (cluster B) have to face the difficulties alone. While the relevance of chain

affiliation in the successful implementation has been discussed in previous studies, especially regarding sharing information and knowledge (Alvarez Gil, Burgos Jiménez & Céspedes Lorente, 2001), the originality of the present research consists in finding similarities with other, less formal, types of organizational structures, i.e. business networks.

Lastly, all interviewees display personal commitment to environmental preservation, partly thanks to the purposeful sampling approach. It is however noteworthy to include personal pride and satisfaction, together with the idea of setting an example, as emerging and recurrent personal drivers of ES behaviors. Regarding the final Proposition, it can be argued that direct monetary barriers are the most significant for interviewees in both settings. According to the interviews, upfront investments, higher costs for eco-friendly products and services and insufficient funding are strongly constraining the implementation of ES behaviors.

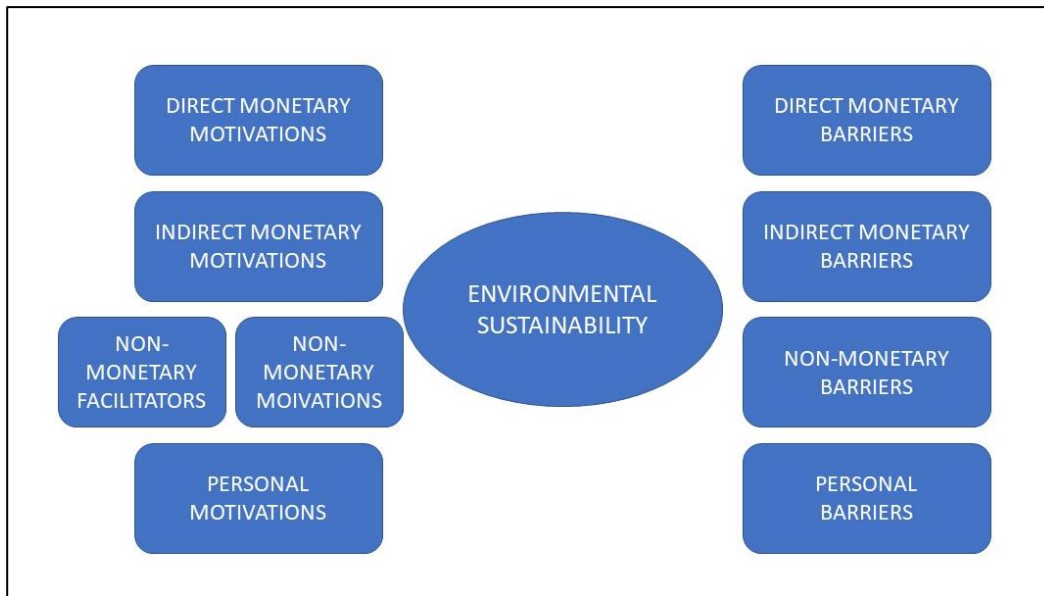
Indirect monetary barriers are more frequently reported by Italian interviewees, who also confess to difficulties when trying to balance service quality and environmental preservation. However, interviewees in both settings believe that no matter how environmentally attentive their customers are, ES behaviors do not influence clients in their choice of a hotel or their reluctance to pay a premium to stay in green accommodation.

The lack of support from the local public administration is the most relevant non-monetary barrier to sustainability in both contexts. The fact that the administration has other priorities and that bureaucratic procedures are too long and complex are recurrent themes in the interviews.

Finally, as expected, interviewees do not display personal barriers toward environmental sustainability. On the contrary pride and setting an example are recurrent themes in the interviews, giving the impression that other hospitality managers in the same locations may not be so concerned with environmental preservation.

According to the recurrent and emerging themes, an adjusted version of the WHY – WHY NOT framework is presented in Figure 4.

Figure 4. The adjusted WHY – WHY NOT framework



Source: based on our analysis

6. Conclusion

The aim of the research was to investigate the implementation of ES behaviors in the hospitality industry, the motivations that lead hospitality managers to adopt such behaviors and the barriers that may constrain their successful adoption. In particular, the research explored the applicability in a real context of two theoretical frameworks derived from previous literature, i.e. the HOW framework and the WHY – WHY NOT framework, and consequently the validity of 3 research propositions.

Proposition 1 and the related HOW framework was supported by the analysis of the data, since all ES behaviors reported by the interviewees, both in the Italian and the Spanish contexts, can be classified in one of the 5 areas of action, i.e. waste management, water conservation, energy conservation, sustainable purchasing and people involvement. Moreover, due to the middle ground approach to textual analysis, emerging and recurrent themes were coded, leading to the adjustment of the initial HOW framework, and the inclusion of sub-areas for the adoption of ES initiatives.

Proposition 2 also found support and all drivers of sustainability reported by the interviewees can be successfully classified in one of the 4 categories of ES motivations, i.e. direct monetary, indirect monetary, non-direct monetary and personal motivations. Again, emerging themes were considered during the data analysis, and a sub-category of non-monetary elements was identified, i.e. non-monetary

facilitators and especially organizational facilitators, mainly consisting of external support, information and knowledge provided by hotel chains or business networks. According to the interviews, these elements play a key role in the successful implementation of ES behaviors.

The interviews provided support for Proposition 3; all the barriers to ES behaviors mentioned could be grouped in one of the 4 above categories, i.e. direct monetary, indirect monetary, non-monetary and personal barriers. The last category, however, was not applicable to the research setting due to the purposeful sampling approach.

Again, including emerging themes in the coding process led to the adjustment of the initial WHY – WHY NOT framework, to improve coherence with motivations for, and barriers against, the implementation of ES behaviors in a real context.

The research adds to the existing literature on sustainability in the hospitality industry by providing two theoretical frameworks addressing modalities, motivations and barriers for the implementation of environmental sustainability. The validity of both frameworks in real contexts is successfully explored in this research, and the required adjustments have been made. In addition, it is noteworthy that no significant difference emerged between the two tourist destinations, despite their different stages in the tourist area life cycle, and the same frameworks were applicable both to the Italian and the Spanish unit of analysis.

Relevant practical implications can be derived from the results of the research. In particular, the HOW framework could become a useful tool for hospitality managers to assess the level of environmental sustainability of their own facility, to consider implementing new ES measures and to check the areas of implementation that deserve further attention.

The WHY – WHY NOT framework provides insights into the potential advantages of environmental sustainability, the possibility of drawing financial benefits from some ES behaviors and into the stakeholders who may provide support and therefore act as drivers or facilitators for environmental sustainability, as well as the benefits of membership of a hotel chain or business network in terms of sharing knowledge and information.

On the other hand, it also warns managers about the potential disadvantages that may derive from the implementation of ES practices, consisting mainly in the rather substantial investments companies have to face; about the stakeholders who are not able or willing to support organizations; about the additional complexities small and independent companies have to cope with.

The limited unit of analysis does not allow results to be generalized; quantitative research, with a larger sample size, would better validate the frameworks. Generalization and statistical representativeness,

however, are not the aim of case studies, which seek to obtain in-depth insights into the phenomenon under investigation (Pérez-Pineda et al., 2017).

Another limitation is the focus on the hospitality industry alone; further research should consider the idea of broadening the focus to other tourist organizations, or even to other industries.

An additional important limitation is the fact the only managerial perspectives are included, without the input of other stakeholders such as tourists, the public administration or environmental associations. Meeting customer expectations, in particular, proved to be a significant motivation for the implementation of ES behaviors. Further research should investigate the importance customers ascribe to environmental sustainability, to justify and reinforce managerial efforts in the implementation of ES behaviors. Indeed, according to these studies, it is still unclear whether and to what extent ES behaviors influence customer satisfaction, their choice of a hotel or their willingness to pay a premium to stay in green accommodation. The existence of a positive relationship between ES practices and customer behaviors could enhance and reinforce the spread of environmental sustainability in the hospitality industry and ultimately lead tourist organizations toward a more sustainable path.

References

- Alonso-Almeida, M. M., Fernández Robin, C., Celemín Pedroche, M. S., & Astorga, P. S. (2017). Revisiting green practices in the hotel industry: A comparison between mature and emerging destinations. *Journal of Cleaner Production*, *140*, 1415-1428.
- Alvarez Gil, M. J., Burgos Jiménez, J., & Céspedes Lorente J. J. (2001). An analysis of environmental management, organizational context and performance of Spanish hotels. *Omega*, *29*, 457-471.
- Aragon-Correa, J. A., Martin-Tapia, I., & Torre-Ruiz, J. D. (2015). Sustainability issues and hospitality and tourism firms' strategies. Analytical review and future directions. *International Journal of Contemporary Hospitality Management*, *27*(3): 498-522.
- Aznar, J. P., Sayeras, J. M., Galiana, J., & Rocafort, A. (2016). Sustainability commitment, new competitors' presence, and hotel performance: The hotel industry in Barcelona. *Sustainability (Switzerland)*, *8*(8).
- Bansal, P., & Roth, K. (2000). Why Companies Go Green: A Model of Ecological Responsiveness Author. *The Academy of Management Review*, *43*(4), 717-736.
- Baratta, R. (2018). Environmental sustainability and hospitality. A literature review on modalities, motivations and barriers. Unpublished doctoral dissertation.
- Bohdanowicz, P., & Zientara, P. (2008). Corporate social responsibility in hospitality: Issues and implications. A case study of Scandic. *Scandinavian Journal of Hospitality and Tourism*, *8*(4), 271-293.
- Carlsen, J., Getz, D., & Ali-Knight, J. (2001). The environmental attitudes and practices of family businesses in the rural tourism and hospitality sectors. *Journal of Sustainable Tourism*, *9*(4), 281-297.
- Chan, E. S. W., & Wong, S. C. K. (2006). Motivations for ISO 14001 in the hotel industry. *Tourism Management*, *27*(3), 481-492.
- Cooper, D.R., & Schindler, P.S. (2008). *Business Research Methods*. London: McGraw-Hill.
- Crabtree, B., & Miller, W. (1999). A template approach to text analysis: Developing and using codebooks. *Doing Qualitative Research*, 163-177.
- Cvelbar, L. K., & Dwyer, L. (2013). An importance-performance analysis of sustainability factors for long-term strategy planning in Slovenian hotels. *Journal of Sustainable Tourism*, *21*(3), 487-504.
- Deloitte (2014). *Hospitality 2015: game changers or expectators*, available at: www.deloitte.com/assets/DcomMalta/Local%20Assets/Documents/Industries/dt_Hospitality_2015.pdf
Accessed on: July 2014.
- Easterby-Smith, M., Thorpe, R., Jackson, P., & Lowe A. (2008). *Management Research*. London: Sage.
- Geerts, W. (2014). Environmental certification schemes: HOTEL managers' views and perceptions. *International Journal of Hospitality Management*, *39*, 87-96.

- Gobo, G. (2004). Sampling, representativeness and generalizability. In C. Seale, G. Gobo, J. Gubrium, & D. Silverman (Eds.), *Qualitative research practice* (pp. 435–456). London: Sage.
- Gössling, S. (2002). Global environmental consequences of tourism. *Global Environmental Change*, 12(4), 283–302.
- Haastert, M. V., & Grosbois, D. D. (2010). Environmental Initiatives in Bed and Breakfast Establishments in Canada: Scope and Major Challenges with Implementation. *Tourism and Hospitality, Planning and Development*, 7(2), 179–193.
- Han, H., & Hyun, S. S. (2018). What influences water conservation and towel reuse practices of hotel guests? *Tourism Management*, 64, 87–97.
- Jarvis, N., Weeden, C., & Simcock, N. (2010). The Benefits and Challenges of Sustainable Tourism Certification: A Case Study of the Green Tourism Business Scheme in the West of England. *Journal of Hospitality and Tourism Management*, 17(1), 83–93.
- Jones, P., Hillier, D., & Comfort, D. (2014). Sustainability in the global hotel industry. *International Journal of Contemporary Hospitality Management*, 26(1), 5–17.
- Juvan, E., & Dolnicar, S. (2014). The attitude-behaviour gap in sustainable tourism. *Annals of Tourism Research*, 48, 76–95.
- López-Gamero, M. D., Claver-Cortés, E., & Molina-Azorín, J. F. (2011). Environmental perception, management, and competitive opportunity in Spanish hotels. *Cornell Hospitality Quarterly*, 52(4), 480–500.
- Mahachi, D., Mokgalo, L. L., & Pansiri, J. (2015). Exploitation of Renewable Energy in the Hospitality Sector: Case Studies of Gaborone Sun and the Cumberland Hotel in Botswana. *International Journal of Hospitality and Tourism Administration*, 16(4), 331–354.
- Martini, U., & Buffa, F. (2015). Local networks, stakeholder dynamics and sustainability in tourism. Opportunities and limits in the light of stakeholder theory and SMA. *Sinergie, Italian Journal of Management*, 96.
- Miao, L., & Wei, W. (2013). Consumers' Pro-Environmental Behavior and Its Determinants in the Lodging Segment. *Journal of Hospitality and Tourism Research*, 40(3), 319–338.
- O'Neill, M. A., & Alonso, A. D. (2009). Small hospitality business involvement in environmentally friendly initiatives. *Tourism and Hospitality, Planning and Development*, 6(3), 221–234.
- Patton, M. Q. (2002). *Qualitative Research and Evaluations Method* (3rd ed.). Thousand Oaks: Sage.
- Pérez-Pineda, F., Alcaraz, J. M., & Colón, C. (2017). Creating sustainable value in the hospitality industry: a (critical) multi-stakeholder study in the Dominican Republic. *Journal of Sustainable Tourism*, 25(11), 1633–1649.

- Puig, R., Kiliç, E., Navarro, A., Albertí, J., Chacón, L., & Fullana-i-Palmer, P. (2017). Inventory analysis and carbon footprint of coastland-hotel services: A Spanish case study. *Science of the Total Environment*, 595, 244–254.
- Qian, J., Shen, H., & Law, R. (2018). Research in Sustainable Tourism: A Longitudinal Study of Articles between 2008 and 2017. *Sustainability*, 10, 590.
- Rahman, I., Park, J., & Chi, C. G. (2015). Consequences of “greenwashing”. Consumers' reactions to hotels' green initiatives. *International Journal of Contemporary Hospitality Management*, 27(6): 1054-1081.
- Reid, S., Johnston, N., & Patiar, A. (2017). Coastal resorts setting the pace: An evaluation of sustainable hotel practices. *Journal of Hospitality and Tourism Management*, 33, 11–22.
- Rodríguez-Antón, J. M., Del Mar Alonso-Almeida, M., Celemín, M. S., & Rubio, L. (2012). Use of different sustainability management systems in the hospitality industry. the case of Spanish hotels. *Journal of Cleaner Production*, 22(1), 76–84.
- Ruiz-Molina, M., Gil-Saura, I., & Moliner-Velázquez, B. (2010). Good environmental practices for hospitality and tourism. *Management of Environmental Quality: An International Journal*, 21(4), 464–476.
- Sánchez-Ollero, J. L., García-Pozo, A., & Marchante-Mera, A. (2014). How Does Respect for the Environment Affect Final Prices in the Hospitality Sector? A Hedonic Pricing Approach. *Cornell Hospitality Quarterly*, 55(1), 31–39.
- Saunders, M. N. K., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (5th ed). New York: Prentice Hall.
- Singal, M. (2014). The Link between Firm Financial Performance and Investment in Sustainability Initiatives. *Cornell Hospitality Quarterly*, 55(1), 19–30.
- Stabler, M. J., & Goodall, B. (1997). Environmental awareness, action and performance in the Guernsey hospitality sector. *Tourism Management*, 18(1), 19–33.
- Stylos, N., & Vassiliadis, C. (2015). Differences in Sustainable Management Between Four- and Five-Star Hotels Regarding the Perceptions of Three-Pillar Sustainability. *Journal of Hospitality Marketing and Management*, 24(8), 791–825.
- Tencati, A., & Pogutz, S. (2015). Recognizing the limits: sustainable development, corporate sustainability and the need for innovative business paradigms. *Sinergie, Italian Journal of Management*, 96.
- UN General Assembly (2015). *Transforming our world: the 2030 Agenda for Sustainable Development*, available at: <https://www.refworld.org/docid/57b6e3e44.html> Accessed on March 2019.
- U. O. Sistema Statistico Regionale, Regione Veneto.
http://statistica.regione.veneto.it/banche_dati_economia_turismo.jsp Accessed on: March 2017.
- Vargas-Sánchez, A., Oom do Valle, P., da Costa Mendes, J., & Albino Silva, J. (2015). Residents' attitude and level of destination development: An international comparison. *Tourism Management*, 48: 199-210.

- Vargas-Sánchez, A. (2017). *Cuadro de Mando de la Provincia de Huelva como Destino Turístico (2009-2016)*, Universidad de Huelva.
- Verma, V. K., & Chandra, B. (2017). Sustainability and customers' hotel choice behaviour: a choice-based conjoint analysis approach. *Environment, Development and Sustainability*, 1–17.
- Williams, P. W., & Ponsford, I. F. (2009). Confronting tourism's environmental paradox: Transitioning for sustainable tourism. *Futures*, 41(6), 396–404.
- Xu, X., & Gursoy, D. (2015a). A Conceptual Framework of Sustainable Hospitality Supply Chain Management. *Journal of Hospitality Marketing & Management*, 24(3), 229–259.
- Xu, X., & Gursoy, D. (2015b). International Journal of Hospitality Management Influence of sustainable hospitality supply chain management on customers' attitudes and behaviors. *International Journal of Hospitality Management*, 49, 105–116.
- Yin, R. (2003). *Case study research. Design and Methods*. Thousand Oaks: Sage.
- Zhang, J. J., Joglekar, N., & Verma, R. (2012). Pushing the frontier of sustainable service operations management: Evidence from US hospitality industry. *Journal of Service Management*, 23(3), 377–399.

Appendix 1. The codebook

| RQ | CATEGORY | CODE | DESCRIPTION |
|---------|-------------------------------|----------|--|
| HOW | Waste management | WS | All practices related to waste minimization or recycling |
| | Water conservation | WT | All practices related to water conservation issues |
| | Energy conservation | EN | All practices related to energy conservation or alternative sources of energy |
| | Sustainable purchasing | PU | All practices related to the purchasing of eco-friendly or local products |
| | People involvement | PE | All practices related to raising employees or customers' awareness and involvement |
| WHY | Direct monetary motivations | DIR_MM | Achievement of cost saving or revenue increasing |
| | Indirect monetary motivations | INDIR_MM | Image improvement and fulfillment of customers' expectations |
| | Non-monetary motivations | NON_MM | Fulfillment of other stakeholders' expectations or requirements |
| | Non-monetary facilitators* | NON_MF | External sources of support |
| | Organizational facilitators* | ORG_F | Organizational characteristics that foster sustainability |
| | Personal motivations | PERS_M | Managerial commitment toward the environment |
| WHY NOT | Direct monetary barriers | DIR_MB | Cost or lack of incentives |
| | Indirect monetary barriers | INDIR_MB | Lack of customers' expectations |
| | Non-monetary barriers | NON_MB | Lack of other stakeholders' expectations or requirements |
| | Organizational barriers* | ORG_B | Organizational characteristics that hinder sustainability |
| | Personal barriers | PERS_B | Lack of managerial commitment toward the environment |

Source: based on our analysis

- Codes marked with * were added in the second phase of the coding process;
- Organizational facilitators and barriers are a sub-code of non-monetary facilitators and barriers respectively.

Environmental sustainability and hospitality.

How sustainability influences customers' behavioral intentions

Abstract

Purpose: There is still no consensus about the extent to which environmental sustainability influences hospitality customer intentions and behavior. The aim of the research is therefore to investigate whether and to what extent different environmentally sustainable practices affect customer choices regarding which hotel to stay in, their expectations during the stay and willingness or reluctance to pay a higher price to stay in green accommodation.

Methodology: The quantitative research is conducted via an online survey sent to 237 respondents. The questionnaire has 3 sections where respondents are asked to rate on a 5 point Likert scale the extent to which 10 different sustainable practices affect their choice of hotel, their expectations and willingness to pay more.

Findings: All environmental behaviors are rated higher than 3.00 for the choice of a hotel and customer expectations; and in most cases for willingness to pay. Results also support the idea that not all sustainable behaviors have the same influence on customer intentions, which depends on the type of behavior. Three types of behaviors can be distinguished, i.e. "health related", "indirect involvement" and "low comfort" environmental behaviors.

Limitations: The research addresses almost exclusively Italian respondents, preventing comparison with travelers of different cultures and nationalities. Further research should enlarge the sample to other countries.

Implications: Corporate marketing strategies should emphasize each environmentally sustainable behavior undertaken by the company, since they all exert a positive influence on customer intentions, especially "health-related" behaviors. However, sustainable behaviors should be prioritized. Moreover, hospitality managers should be able to integrate "low comfort" environmental behaviors into a coherent communications strategy, so that overall service quality is not undermined.

Value: The value of the research consists in supporting the positive influence of sustainability on customers' behavioral intentions. In addition, the study highlights 3 different types of environmental behaviors that can be implemented in the hospitality industry, each with different effects and implications on customers' intentions.

Keywords

Sustainability; hospitality; customers' behavioral intentions; environmental behaviors.

1. Introduction

The natural environment plays a key role in the attractiveness of tourist destinations and their competitiveness; tourist and hospitality organizations are now facing the increasing need for environmental preservation (Gössling, 2002). Hotels and lodging facilities are “both victims of and contributors” to environmental degradation (Reid, Johnston, & Patiar, 2017), and can and should actively engage in environmentally sustainable practices (Tencati & Pogutz, 2015).

Previous research has found a positive relationship between environmental sustainability and organizational performance (Vargas-Sánchez & Riquel-Ligero, 2012), since most environmentally sustainable (ES) behaviors can lead to a reduction in operating costs (Martínez, 2015; Melissen, 2013); cost cuts can be derived from energy or water savings (Bohdanowicz & Zientara, 2008; Ruiz-Molina, Gil-Saura, & Moliner-Velázquez, 2010). The literature, however, highlights several barriers that may constrain the implementation of ES practices, such as costly investments associated with eco-friendly technologies and green products and services (Mahachi, Mokgalo, & Pansiri, 2015; O’Neill & Alonso, 2009; Ruiz-Molina et al., 2010); the lack of professional advice to assist hospitality managers (Aragon-Correa, Martin-Tapia, & Torre-Ruiz, 2015); the lack of support from local municipal authorities (Jarvis, Weeden, & Simcock, 2010).

In addition, previous research shows a lack of consensus about the degree to which ES practices influence customer attitudes and behaviors (Aragon-Correa et al., 2015). On the one hand, a hotel’s overall green image, if supported by an effective green marketing strategy, has been found to exert a positive effect on customer loyalty, trust and satisfaction (Martínez, 2015). A positive relationship was also found between an environmentally sustainable hospitality supply chain and customer satisfaction, loyalty and willingness to pay a premium (Xu & Gursoy, 2015a). Customer satisfaction is especially likely to increase through ES practices that focus on areas close to the personal sphere, such as health-related dimensions (Iraldo, Testa, Lanzini, & Battaglia, 2017). Other studies, however, show that customers display the lowest level of pro-environmental behaviors when compromising on personal comfort is the result, as in the case of water-saving ES behaviors (Miao & Wei, 2013). Some ES practices aimed at “reducing costs wherever possible” may be a threat to customer satisfaction (Jones, Hillier, & Comfort, 2014) and reduce perceived quality (López-Gamero, Claver-Cortés, & Molina-Azorín, 2011); hospitality managers may be required to find a balance between service quality and environmental preservation (Haastert & Grosbois, 2010).

While several studies treat environmental sustainability as a homogeneous construct, it is possible to distinguish different types of ES behaviors in hospitality and different levels of customer engagement in such behaviors (Miao & Wei, 2013; Stern, 2000), depending among other things on the level of effort required or on the compromise with overall service quality.

To sum up, different ES practices may exert a different influence on customers' behavioral intentions in the hospitality industry. Therefore, the aim of the present research is to investigate whether and to what extent ES practices influence customer intentions when choosing a hotel, customer expectations during the stay and their willingness to pay a premium price to stay in green accommodation.

The quantitative research is carried out via an online survey in which respondents are asked to rate the influence of 10 ES behaviors on their choice of hotel, expected satisfaction and willingness to pay a higher price. The final sample size comprises 237 completed questionnaires.

The results show that all ES behaviors exert a positive influence on customer intention when choosing a hotel and on the satisfaction they expect to experience during the stay; most customers were also willing to pay a premium price. In addition, the findings support the idea that different ES behaviors have a different influence on intentions and it is possible to identify 3 different and significant types: "health-related", "indirect involvement" and "low comfort" ES behaviors.

The research has useful practical implications for hospitality managers, especially providing recommendations on how to prioritize different ES actions in hospitality companies. Moreover, the existence of a positive relationship between the implementation of ES behaviors and customers' behavioral intentions may enhance the further spread of sustainability in the hospitality industry, justify and reinforce managerial efforts in this direction, and ultimately lead tourist and hospitality organizations toward a more sustainable path.

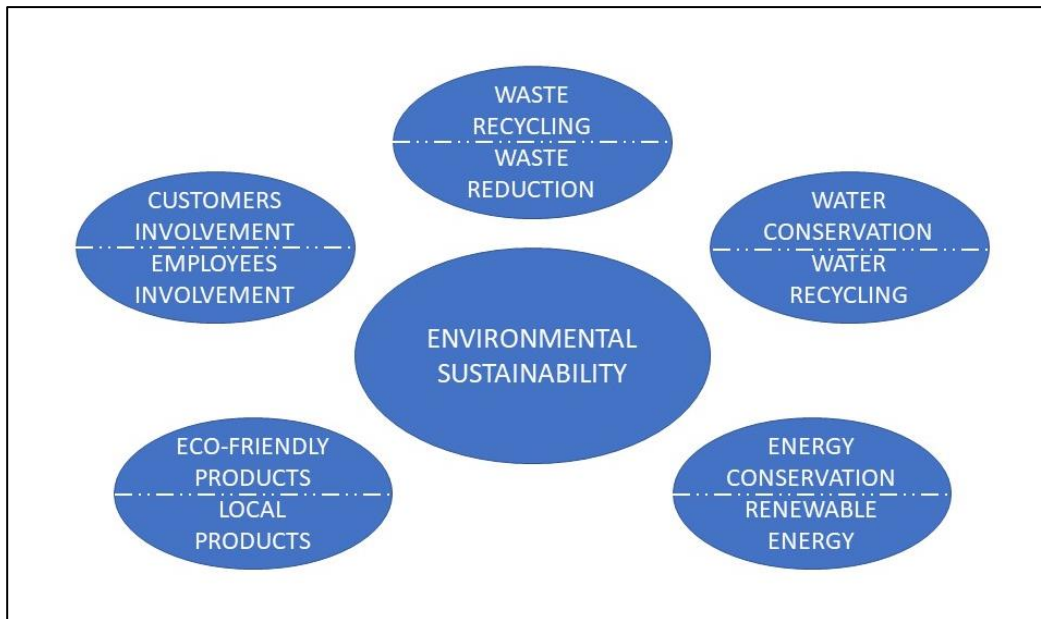
The rest of the paper is organized as follows: the theoretical background is presented in section 2; the methodology is explained in section 3; the findings are set out in section 4 while section 5 deals with conclusions and the main research implications.

2. Theoretical background

2.1. Environmental sustainability in hospitality

According to the Green Hotels Association, “Green hotels are environmentally-friendly properties whose managers are eager to institute programs that save water, save energy and reduce solid waste - while saving money – to help protect our one and only earth” (Green Hotels Association, 2017). Although previous research on sustainability in the hospitality industry has identified almost countless behaviors that can be implemented by lodging facilities to minimize their impact on the natural environment (e.g. Holcomb, Upchurch, & Okumus, 2012; Verma & Chandra, 2017), these practices can generally be summarized as water conservation, energy conservation and waste management practices. A comprehensive review of the literature was carried out (Baratta, 2018a) and two additional areas for the implementation of ES behaviors were identified: sustainable purchasing and people involvement. The literature review led to grouping all ES behaviors implemented in the hospitality industry into 5 separate categories: waste management, water conservation, energy conservation, sustainable purchasing and people involvement. These 5 categories combined together produced a single framework for the implementation of ES behaviors, i.e. the HOW framework. Moreover, in a previous study by the same author (Baratta, 2018b), the validity of the framework was explored through a qualitative investigation with managers or owners of 18 lodging facilities and each area of the framework was further divided into two sub-dimensions, producing an “adjusted” HOW framework, as shown in Figure 1. Waste management involves the separate collection of waste but also the reduction of waste production, for example by replacing single-packaging with refillable dispensers, or by avoiding unnecessarily printing paper; water conservation measures include the reduction of water consumption, for example by a towel and linen reuse program, or with water conserving fixtures, but also by recycling rainwater for the garden; energy conservation involves both the reduction of energy consumption, through led lighting or low energy equipment, and the use of renewable sources of energy such as solar or photovoltaic energy. Sustainable purchasing mainly refers to the purchasing of local goods, especially food, and eco-friendly goods, such as cleaning products; lastly, both customers and employees can be involved in ES activities: they can be provided with information on the ES behaviors implemented and the staff can be trained on how to behave in a more sustainable way. Activities can be organized to raise environmental awareness, and customers can be involved in basic ES behaviors such as water and energy conservation, or recycling.

Figure 1. The adjusted HOW framework



Source: based on our analysis

Although environmental concern is increasing among hospitality customers (Boley & Uysal, 2013) and tourists are increasingly aware of the environmental impacts of their activities (Mahachi et al., 2015; Verma & Chandra, 2017), not all customers equally value environmental sustainability (Xu & Gursoy, 2015b) and not all ES behaviors have the same effect on customer attitudes (Haastert & Grosbois, 2010; Miao & Wei, 2013). Indeed, environmental sustainability is a multidimensional concept and different types of ES behaviors with different levels of customer engagement with such behaviors (Miao & Wei, 2013; Stern, 2000). Among other factors, ES behaviors can differ depending on the level of effort required, the compromise of service quality and the extent to which they directly impact the personal sphere (Manaktola & Jauhari, 2007). Accordingly, at least 3 types of ES behaviors in hospitality can be identified: “low comfort” ES behaviors involving a compromise with personal comfort, service quality, and some effort by customers; “health-related” ES behaviors involving the personal sphere and health dimensions, sometimes enhancing service quality; “indirect involvement” ES behaviors, i.e. behaviors outside the above categories, requiring no effort or compromise of personal comfort, but also not seen as providing benefits for customers personally.

It is reasonable to argue that these different ES practices have a different impact on customer intentions and behavior. The following section therefore deals with hospitality customers’ pro-environmental behavioral intentions.

2.2. Customers' pro-environmental behavioral intentions

Customer care can be an important forerunner for the implementation of ES practices in the hospitality industry (Leslie, 2001) and hospitality managers can adopt ES behaviors in order to fulfill the expectations of more sensitive and attentive customers (Martínez, 2015; Verma & Chandra, 2017).

There is evidence from previous research that environmental sustainability is beginning to influence purchasing decisions; ES behaviors may increase a hospitality company's overall bookings (Boley & Uysal, 2013). Due to their increasing environmental awareness, customers may prefer lodging facilities that are moving toward sustainability and may be more likely to stay in a hotel that adopts measures in order to minimize its environmental impacts (Mahachi et al., 2015). A study in the Indian context (Verma & Chandra, 2017) reveals that some elements of environmental sustainability, i.e. greenscaping, may affect the choice of hotel more than other variables, such as price and location. A true commitment to the environment can have a positive influence on the choice of hotel and therefore create a win-win situation, both for the natural environment and for hospitality companies (Bohdanowicz & Zientara, 2008).

The literature also suggests that environmental sustainability may not only lead to higher customer demand, but also to increased customer satisfaction during the stay (Melissen, 2013). A hotel's overall green image, if supported by an effective green marketing strategy, has been found to improve customer loyalty, trust and satisfaction (Martínez, 2015). Some market segments place a high value on ES behaviors (Sirakaya-Turk, Baloglu, & Mercado, 2014), and sustainability can be perceived as a relevant part of overall service quality (Iraldo et al., 2017). This is especially true of ES behaviors that focus on health-related dimensions, such as organic or local food: local food is generally associated with the demand for authenticity (Sims, 2009), but also contributes to the economic, social and environmental dimensions of sustainability (Iraldo et al., 2017).

An overall environmentally sustainable supply chain may positively affect customer loyalty, satisfaction and even the willingness to pay a premium price (Xu & Gursoy, 2015b). Due to the growing market pressures toward sustainability, lodging facilities that adopt ES behaviors may benefit from premium pricing and increased sales (Martínez, 2015). A study in the Spanish context shows that implementing ES measures can generate higher room prices by 5.15% on average (Sánchez-Ollero, García-Pozo, & Marchante-Mera, 2014). The willingness to pay more increases with practices related to the personal sphere, and attentive customers mainly focus on health-related dimensions such as organic and local food (Iraldo et al., 2017). A study in the US reports that almost all customers would agree to pay more to eat in a green restaurant (Schubert, Kandampully, Solnet, & Kralj, 2010).

However, other studies show that not all customers value ES measures (Xu & Gursoy, 2015b) and that sustainability alone does not increase demand (Geerts, 2014). Some ES behaviors may even lower customer satisfaction (Haastert & Grosbois, 2010), and generally the pro-environmental attitudes of people traveling are not the same as when they are at home (Miao & Wei, 2013). In particular, hospitality customers have been found to display a negative attitude toward ES behaviors when personal comfort and luxury are compromised (Line & Hanks, 2016; Miao & Wei, 2013). A research in the Canadian small hospitality industry found that uncaring customers made no effort to reduce their energy and water consumption (Haastert & Grosbois, 2010); ES behaviors can be perceived as a tool aimed at merely cutting costs and therefore may threaten both service quality and overall customer satisfaction (López-Gamero et al., 2011).

There is still no consensus on the extent to which ES behaviors influence customer attitudes (Aragon-Correa et al., 2015); often managers have to find a balance between service quality and environmental preservation (Haastert & Grosbois, 2010).

The purpose of the present research is to investigate whether and to what extent ES practices affect customers' behavioral intentions in the hospitality industry, in terms of (a) choosing a hotel, (b) customers' expected satisfaction and (c) willingness to pay a higher price to stay in green accommodation. In particular, the research tests the following hypothesis:

Hypothesis 1: Different ES practices in the hospitality industry have a different influence on choosing a hotel, on customers' expected satisfaction and their willingness to pay a higher price.

3. Methodology

3.1. Measures

To test the research hypothesis, a questionnaire was drafted. Previously validated measures for (a) choosing a hotel, (b) customers' expected satisfaction and (c) their willingness to pay a premium price were adapted from previous studies on customers' pro-environmental attitudes in the hospitality industry (Line & Hanks, 2016; Martínez, 2015; Xu & Gursoy, 2015b).

ES behaviors are derived from existing literature and from prior qualitative research by the author (Baratta, 2018a; 2018b). In particular, 10 different ES behaviors were taken from the adjusted HOW

framework: 2 waste management practices, i.e. separate collection of waste and refillable soap and shampoo dispensers; 2 water conservation practices, i.e. rainwater recycling and towel reuse program; 2 energy conservation practices, i.e. energy saving through led lighting and renewable sources of energy; 2 sustainable purchasing practices, i.e. local food and eco-friendly detergents; and 2 people involvement practices, i.e. informing customers about the environmental policy and involving customers in basic ES behaviors such as recycling, water and energy conservation. Since the purpose of the research is to investigate customer attitudes to environmental sustainability, employee involvement in ES activities was not included in the questionnaire.

Of the 10 chosen ES behaviors, 3 behaviors, i.e. a towel reuse program, refillable dispensers and customer involvement can be considered “low comfort” ES behaviors because all involve a trade-off with service quality and customers are required to make an effort to cooperate. Local food, eco-friendly cleaning products and renewable sources of energy on the other hand can be considered “health-related” ES behaviors since they all deal with quality and health issues, the reduction of chemicals and polluting emissions harmful to the customers’ personal sphere. The remaining 4 ES behaviors, i.e. the separate collection of waste, rainwater recycling, energy saving through led lighting and informing customers can be considered as “indirect involvement” ES behaviors since they take place in the “back office”, customers are not required to make an effort, the practices do not enhance service quality or provide direct benefits to the customer’s personal sphere.

Finally, the respondents’ demographic information was collected, including: age, gender, city and country of origin, profession, income, education, frequency of traveling and motivations for traveling. The final questionnaire, which is set out in Appendix 1, has 4 sections. Section 1, “The reservation”, deals with the choice of hotel: respondents are asked to imagine they have to make a reservation in a hotel, or another kind of lodging facility, and rate their level of agreement on a 5-point Likert scale in the choice of accommodation implementing one of the 10 previously identified ES behaviors. In Section 2, “The stay”, respondents rate their expected satisfaction during the stay in accommodation implementing one of the 10 ES behaviors, and in Section 3, “The bill”, they rate their willingness to pay a 5% premium price for staying in accommodation implementing one of the 10 ES behaviors. In the last Section, respondents are asked for demographic information and whether they want to make additional suggestions or observations, as recommended by the literature (Bell, 2006).

A pilot test was conducted prior to the full research, to fine-tune the survey and incorporate suggestions from the respondents. One of the main purposes of a pilot test is to ensure that respondents have no problems answering the questions (Saunders, Lewis, & Thornhill, 2009), hence the original order of

questions was adjusted to make them clearer to respondents. In particular, instead of grouping questions according to the type of ES behaviors, questions are grouped in 3 steps in a logical order from the respondents' point of view, i.e. the reservation, the stay and the bill.

3.2. Sample and data collection

The final questionnaire was created with the aid of the LimeSurvey platform and distributed online, through social networks, mostly Facebook. A non-probabilistic convenience sampling technique was adopted (Saunders et al., 2009), and a link to the survey was posted in several Italian Facebook pages related both to travel and tourism, and to education and research issues. In addition, the link to the survey was shared through Whatsapp with several relatives, friends and colleagues of the author. Over the 2-month period of the survey (July 2018 – August 2018), 328 questionnaires were returned, including 91 not completed. The final sample size is therefore 237 usable questionnaires, with quite a high response rate (72%).

The analysis of the data was carried out with the aid of Gretl and SPSS software.

4. Results

The final sample comprises 237 questionnaires. Most respondents are women (70%), and the average age is 40, from 19 to 78. Most respondents are Italian (95%); 3% are from northern Europe and 2% from eastern Europe. Regarding professional status, 51% are employees, 18% are self-employed, 14% are students, 7% are retired, 4% are managers, 4% are unemployed, 1% perform household work and 1% other jobs. Most respondents (69%) define their income as average, 14% above the average, 14% below the average and 3% prefer not to answer this question. Regarding education, 34% have a Master's degree, 32% a high school diploma, 17% a PhD, 12% a Bachelor's degree, 2% a postgraduate degree, 2% quit school before 18 and 1% another kind of degree.

Regarding frequency of travel, 24% travel from 1 to 5 nights per year, 28% from 6 to 10 nights, 20% from 11 to 15 nights, and 28% travel more than 15 nights per year. Most respondents (84%) travel for leisure, while 16% travel for business. A positive, weak, correlation (+ 0.364) was found between frequency of travel and reasons for traveling, suggesting that respondents who travel for business are more frequent travelers than those who travel for holidays.

All ES behaviors have a positive influence on the choice of hotel, since they all receive an average rating of above 3.00, the median value. However, ratings range from 3.47 for a towel reuse program to 4.72 for preferring local to processed food, indicating that different ES practices exert a different level of influence on the choice of a hotel.

Very similar trends emerge for customers' expected satisfaction during the stay: again, all ES behaviors are rated above 3.00 on average, and, again, ratings range from 3.64 for a towel reuse program to 4.73 for preferring local food. These results support the idea that customers' satisfaction varies with different ES behaviors.

Regarding customer willingness to pay a higher price to stay in green accommodation, the variability in ratings increases: preferring local food remains the most influential ES practice, with an average rating of 4.10, and a towel reuse program is again given the lowest rating, in this case actually below the median value (2.75). These results suggest that some ES behaviors may even exert a negative influence on a customer's willingness to pay a premium price. This is in line with previous research related to the gap between customer attitudes and purchasing behaviors (Manaktola & Jauhari, 2007).

Mean, median and standard deviation for each ES behaviors in choosing a hotel, customers' expected satisfaction and their willingness to pay a premium price are shown in Tables 1, 2 and 3 respectively.

Table 1. Hotel selection – Descriptive statistics

| Variable | Mean | Median | SD |
|------------------------------|-------------|---------------|-----------|
| Towel reuse program | 3.47 | 4 | 1.42 |
| Involving customers | 3.79 | 4 | 1.18 |
| Refillable dispensers | 3.87 | 4 | 1.22 |
| Informing customers | 4.22 | 5 | 0.96 |
| Rainwater recycling | 4.30 | 5 | 1.02 |
| Energy saving | 4.30 | 5 | 0.95 |
| Separate collection of waste | 4.32 | 5 | 0.98 |
| Eco-friendly detergents | 4.41 | 5 | 0.86 |
| Renewable sources of energy | 4.46 | 5 | 0.84 |
| Local food | 4.72 | 5 | 0.69 |

Source: based on our analysis of SPSS

Table 2. Customers' expected satisfaction – Descriptive statistics

| Variable | Mean | Median | SD |
|------------------------------|-------------|---------------|-----------|
| Towel reuse program | 3.64 | 4 | 1.39 |
| Refillable dispensers | 4.00 | 4 | 1.19 |
| Involving customers | 4.08 | 4 | 1.05 |
| Informing customers | 4.23 | 5 | 0.99 |
| Rainwater recycling | 4.49 | 5 | 0.82 |
| Energy saving | 4.49 | 5 | 0.85 |
| Eco-friendly detergents | 4.57 | 5 | 0.77 |
| Separate collection of waste | 4.59 | 5 | 0.77 |
| Renewable sources of energy | 4.59 | 5 | 0.76 |
| Local food | 4.73 | 5 | 0.70 |

Source: based on our analysis of SPSS

Table 3. Willingness to pay a premium – Descriptive statistics

| Variable | Mean | Median | SD |
|------------------------------|-------------|---------------|-----------|
| Towel reuse program | 2.75 | 3 | 1.44 |
| Informing customers | 2.79 | 3 | 1.42 |
| Involving customers | 3.03 | 3 | 1.37 |
| Refillable dispensers | 3.03 | 3 | 1.39 |
| Separate collection of waste | 3.10 | 3 | 1.43 |
| Energy saving | 3.13 | 3 | 1.34 |
| Rainwater recycling | 3.14 | 3 | 1.37 |
| Renewable sources of energy | 3.43 | 4 | 1.34 |
| Eco-friendly detergents | 3.50 | 4 | 1.39 |
| Local food | 4.10 | 5 | 1.23 |

Source: based on our analysis of SPSS

Table 4. Two-tailed T test

| Variable | T-value (2-tailed) | P-value |
|---|--------------------|--------------|
| Choose - Separate collection of waste | 20.65 | 0.000 |
| Choose - Local food | 38.20 | 0.000 |
| Choose - Rainwater recycling | 19.56 | 0.000 |
| Choose - Energy saving | 21.17 | 0.000 |
| Choose - Informing customers | 19.46 | 0.000 |
| Choose - Towel reuse program | 5.12 | 0.000 |
| Choose - Involving customers | 10.31 | 0.000 |
| Choose - Refillable dispensers | 11.04 | 0.000 |
| Choose - Renewable sources of energy | 26.96 | 0.000 |
| Choose - Eco-friendly detergents | 25.32 | 0.000 |
| Satisfied - Separate collection of waste | 31.77 | 0.000 |
| Satisfied - Local food | 38.37 | 0.000 |
| Satisfied - Rainwater recycling | 27.99 | 0.000 |
| Satisfied - Energy saving | 26.85 | 0.000 |
| Satisfied - Informing customers | 19.04 | 0.000 |
| Satisfied - Towel reuse program | 7.08 | 0.000 |
| Satisfied - Involving customers | 15.76 | 0.000 |
| Satisfied - Refillable dispensers | 12.87 | 0.000 |
| Satisfied - Renewable sources of energy | 32.21 | 0.000 |
| Satisfied - Eco-friendly detergents | 31.69 | 0.000 |
| <i>Pay - Separate collection of waste</i> | <i>1.09</i> | <i>0.278</i> |
| Pay - Local food | 13.77 | 0.000 |
| <i>Pay - Rainwater recycling</i> | <i>1.56</i> | <i>0.120</i> |
| <i>Pay - Energy saving</i> | <i>1.45</i> | <i>0.147</i> |
| Pay - Informing customers | -2.24 | 0.026 |
| Pay - Towel reuse program | -2.67 | 0.008 |
| <i>Pay - Involving customers</i> | <i>0.38</i> | <i>0.704</i> |
| <i>Pay - Refillable dispensers</i> | <i>0.28</i> | <i>0.779</i> |
| Pay - Renewable sources of energy | 4.98 | 0.000 |
| Pay - Eco-friendly detergents | 5.53 | 0.000 |

Source: based on our analysis of SPSS

A two-tailed T test was performed, and not all mean values resulted significantly different from 3.00 at a 95% confidence interval, as shown in Table 4. In particular, for willingness to pay a premium, 3

“indirect involvement” ES behaviors, i.e. separate collection of waste, rainwater recycling and energy saving, did not significantly differ from 3.00. The same is true for two “low comfort” ES behaviors, i.e. involving customers and refillable dispensers, meaning that even if these types of behaviors may lower overall service quality, customers do not seem to mind if they have to pay a 5% more when these ES behaviors are in place. On the other hand, in choosing a hotel and for customers’ expected satisfaction dimensions, all mean values are significantly above 3.00, supporting the idea that ES behaviors have a positive influence on the choice of a hotel and customers’ expected satisfaction during the stay.

Only few correlations were found between ES behaviors and the demographic data of respondents. In particular, the variables “Female” and “Choose a hotel with eco-friendly detergents” have a positive weak correlation (+ 0.295), as do “Female” and “Satisfied with a hotel that saves energy” (+ 0.302). Unfortunately, due to a lack of significant correlations, the results do not allow market segmentation based on demographic criteria.

On the other hand, several correlations were found among ES behaviors. The 9 variables related to “low comfort” ES behaviors are highly correlated: a towel reuse program, refillable dispensers and involving customers are significantly correlated with the choice of hotel, customers’ expected satisfaction and their willingness to pay a premium. Cronbach’s alpha was used to assess the reliability of the measurement and the coefficient of 0.90 is above the acceptable level of 0.70 (Nunnally & Bernstein, 1994). The 3 “health-related” ES behaviors, i.e. local food, renewable sources of energy and eco-friendly detergents, are correlated only with the choice of hotel and customers’ expected satisfaction dimensions, not with the willingness to pay, which is again in line with previous research (Manaktola & Jauhari, 2007). Dropping the 3 variables related to customers’ willingness to pay a premium, Cronbach’s alpha increases from 0.85 to 0.88. Lastly, the 12 variables related to “indirect involvement” ES behaviors, i.e. the separate collection of waste, rainwater recycling, energy saving and informing customers are highly correlated in the 3 dimensions, and Cronbach’s alpha is 0.92. Correlations are shown in Appendix 2, while reliability evaluations for “low comfort”, “health related” and “indirect involvement” ES behaviors are given in Table 5.

Table 5. Reliability test

| | | |
|----------------------|------------------|------------|
| Low comfort | Cronbach's alpha | N of items |
| | .90 | 9 |
| Health related | Cronbach's alpha | N of items |
| | .88 | 6 |
| Indirect involvement | Cronbach's alpha | N of items |
| | .92 | 12 |

Source: based on our analysis of SPSS

In order to compare means for the 3 types of ES behaviors, 3 additional variables were created grouping the “low comfort”, “health related” and “indirect involvement” ES behavior items, excluding the willingness to pay a premium (because of the lower reliability found for “health-related” ES behaviors). A paired sample T test was conducted for each type of ES behavior, supporting the significant difference in means. The results are shown in Table 6.

Table 6. Paired sample T test

| | T value | P-value (2-tailed) |
|----------------------|----------------|---------------------------|
| Low comfort | -14.70 | 0.000 |
| Health related | | |
| Low comfort | -12.08 | 0.000 |
| Indirect involvement | | |
| Health related | -8.03 | 0.000 |
| Indirect involvement | | |

Source: based on our analysis of SPSS

Different ES behaviors therefore have a different influence on customers' intentions. Considering the approximate cost that different ES behaviors may involve, a ranking of priorities can be established for the implementation of ES behaviors in the hospitality industry. In particular, in line with previous research (Baratta 2018a; 2018b) some ES behaviors enable cost savings, others involve additional costs, while still others do not have any economic impact for the company. Moreover, as shown in Tables 3 and 4, different ES behaviors can have a positive, negative or neutral influence on customers' willingness to pay a higher price. Therefore, ES behaviors can be grouped into 6 different categories, as shown in Table

7. Group A1 includes behaviors that cut costs but that do not influence the willingness to pay a higher price; group A2 includes behaviors that cut costs but exert a negative influence on the willingness to pay more. Behaviors that involve higher costs but also have a positive influence on the willingness to pay a higher price are in group B. Group C1 includes behaviors that do not affect costs and have a positive influence on the willingness to pay a higher price; group C2 includes behaviors that do not affect costs or the willingness to pay more and lastly, group C3 includes behaviors that do not affect costs but have a negative influence on the willingness to pay more. In this perspective, considering the advantages and disadvantages associated with each ES behavior, the ranking could be as follows: behaviors in groups A1 and C1 produce a positive trade-off; behaviors in groups A2, B and C2 produce a neutral trade-off, and behaviors in group C3 produce a negative trade-off.

Table 7. Ranking of ES behaviors

| Group | ES behavior | Cost saving | Willingness to pay a premium | Trade-off |
|--------------|------------------------------|--------------------|-------------------------------------|------------------|
| A1 | Rainwater recycling | + | = | + |
| | Led lighting | | | |
| | Refillable dispensers | | | |
| | Involving customers | | | |
| A2 | Towel reuse program | + | - | = |
| B | Eco-friendly detergents | - | + | = |
| | Renewable sources of energy | | | |
| C1 | Local food | = | + | + |
| C2 | Separate collection of waste | = | = | = |
| C3 | Informing customers | = | - | - |

Source: based on our analysis

5. Conclusion

The aim of the research was to investigate whether and to what extent different ES practices have an influence on customers' behavioral intentions in terms of (a) choosing a hotel, (b) customers' expected satisfaction and (c) their willingness to pay a premium. The analysis of the data supports the research hypothesis, since different ES behaviors exert a different influence on various customer attitudes. In particular, all ES behaviors have a positive influence on (a) choosing a hotel and on (b) customers' expected satisfaction during the stay, since ratings are significantly higher than 3.00. On the other hand, some ES behaviors (the separate collection of waste, rainwater recycling, energy saving, involving customers and refillable dispensers) do not have any influence on (c) customers' willingness to pay a 5% higher price, since their average ratings do not statistically differ from 3.00. In addition, two ES behaviors (i.e. informing customers and having a towel reuse program) have a negative influence on customers' willingness to pay a higher price.

The reliability test provides support for the existence of 3 different kinds of ES behaviors, i.e. "health-related", "indirect involvement" and "low comfort" behaviors, and the paired sample T test confirms the hypothesis that these kinds of ES behaviors exert a different influence on (a) the choice of hotel and (b) customers' expected satisfaction during the stay.

The research adds to the existing literature on environmental sustainability and customers' intentions in the hospitality industry, and is an important theoretical contribution in terms of grouping ES behaviors in 3 different categories: "health-related", "indirect involvement" and "low comfort". This underlines the different and specific dimensions of environmental sustainability, rather than treating it as a single, and sometimes quite abstract, notion.

In addition, these results have important practical implications for hospitality managers. First and foremost, the results suggest that all ES behaviors should be emphasized in corporate marketing and communications strategies, since all of them positively affect the choice of a hotel and overall expectations of customer satisfaction. The results suggest prioritizing various ES behaviors, because it may not be possible for operators to adopt all of them. Regarding customers' willingness to pay a higher price, the preference for local and organic food should be promoted, as suggested by previous studies (Iraldo et al., 2017). However, other behaviors are expected to produce a positive trade-off for hospitality companies, i.e. rainwater recycling, led lighting, refillable dispensers and customers' involvements, since they enable cost savings without affecting the willingness to pay a premium price. Practices that lower personal comfort, particularly a towel reuse program, have a negative influence on the willingness to pay

a premium and deserve greater attention from hospitality management. This is only partially in line with previous studies (e.g. Miao & Wei, 2013), since this research shows that these ES practices have a positive influence on the other two dimensions, i.e. the choice of a hotel and customers' expected satisfaction. Hospitality managers should reassure customers about the quality of the service provided (Line & Hanks, 2016), try to make the physical environment more conducive to sustainability (Miao & Wei, 2013), and integrate these practices into a consistent and coherent marketing strategy, so that customers are aware of the value these ES behaviors represent for the natural environment, and understand that they are not simply a way to cut costs.

A limitation of the study is that only customers' behavioral intentions are investigated, whereas there is often a gap between intentions and actual behavior (Juvan & Dolnicar, 2014). Another research methodology, e.g. experimental design, would give rise to insights into real customer behaviors. Moreover, in creating the priority ranking for the implementation of ES behaviors, only the approximate cost of ES behaviors is taken into account, as derived from prior research (Baratta, 2018a; 2018b). Another important limitation of the research is that it addresses Italian respondents almost exclusively, preventing comparisons with other cultures and nationalities. Prior research has found that nationality can play a significant role in eco-behaviors (Bonera et al., 2017). Further research should broaden the sample to include respondents from other countries, especially from northern Europe, who have been found to display more awareness of environmental preservation issues (Baratta, 2018b). Enlarging the sample may also lead to significant correlations with other demographic variables of the respondents, lacking in this study, perhaps enabling market segmentation. In addition, further research could include additional dimensions for sustainability, neglected here, i.e. the economic and socio-cultural dimension, as well as tourist organizations not in the hospitality industry, such as airlines and transport organizations, which have even greater impacts on the natural environment.

References

- Aragon-Correa, J. A., Martin-Tapia, I., & Torre-Ruiz, J. D. (2015). Sustainability issues and hospitality and tourism firms' strategies: Analytical review and future directions. *International Journal of Contemporary Hospitality Management*, 27(3), 498-522.
- Baratta, R. (2018a). Environmental sustainability and hospitality. A literature review on modalities, motivations and barriers. Unpublished doctoral dissertation.
- Baratta, R. (2018b). Environmental sustainability and hospitality. An exploratory research on modalities, motivations and barriers. Unpublished doctoral dissertation.
- Bell J. (2006). *Doing your research project: a guide for first-time researchers in education, health and social science* (4th ed). Maidenhead, Berkshire, England: Open University Press.
- Bohdanowicz, P., & Zientara, P. (2008). Corporate social responsibility in hospitality: Issues and implications. A case study of Scandic. *Scandinavian Journal of Hospitality and Tourism*, 8(4), 271–293.
- Boley, B. B., & Uysal, M. (2013). Competitive synergy through practicing triple bottom line sustainability: Evidence from three hospitality case studies. *Tourism and Hospitality Research*, 13(4), 226–238.
- Bonera, M., Corvi, E., Codini, A. P., & Ma, R. (2017). Does nationality matter in eco-behaviour? *Sustainability*, 9, 1964.
- Geerts, W. (2014). Environmental certification schemes: HOTEL managers' views and perceptions. *International Journal of Hospitality Management*, 39, 87–96.
- Gössling, S. (2002). Global environmental consequences of tourism. *Global Environmental Change*, 12(4), 283–302.
- Green Hotel Association (2017). Available at: www.greenhotels.com/whatare.htm Accessed on: July 2018.
- Haastert, M. V., & Grosbois, D. D. (2010). Environmental Initiatives in Bed and Breakfast Establishments in Canada: Scope and Major Challenges with Implementation. *Tourism and Hospitality Planning & Development*, 7(2), 179-193.
- Holcomb, J. L., Upchurch, R. S., & Okumus, F. (2012). Corporate social responsibility: what are top hotel companies reporting? *International Journal of Contemporary Hospitality Management*, 19(6), 461-475.
- Iraldo, F., Testa, F., Lanzini, P., & Battaglia, M. (2017). Greening competitiveness for hotels and restaurants. *Journal of Small Business and Enterprise Development*, 24(3), 607-628
- Jarvis, N., Weeden, C., & Simcock, N. (2010). The Benefits and Challenges of Sustainable Tourism Certification: A Case Study of the Green Tourism Business Scheme in the West of England. *Journal of Hospitality and Tourism Management*, 17(1), 83–93.
- Jones, P., Hillier, D., & Comfort, D. (2014). Sustainability in the global hotel industry. *International Journal of Contemporary Hospitality Management*, 26(1), 5–17.

- Juvan, E., & Dolnicar, S. (2014). The attitude-behaviour gap in sustainable tourism. *Annals of Tourism Research, 48*, 76–95
- Leslie, D. (2001). Serviced Accommodation, Environmental Performance and Benchmarks. *Journal of Quality Assurance in Hospitality & Tourism, 2*(3–4), 127–147.
- Line, N. D., & Hanks, L. (2016). The effects of environmental and luxury beliefs on intention to patronize green hotels: the moderating effect of destination image. *Journal of Sustainable Tourism, 24*(6), 904–925.
- López-Gamero, M. D., Claver-Cortés, E., & Molina-Azorín, J. F. (2011). Environmental perception, management, and competitive opportunity in Spanish hotels. *Cornell Hospitality Quarterly, 52*(4), 480–500.
- Mahachi, D., Mokgalo, L. L., & Pansiri, J. (2015). Exploitation of Renewable Energy in the Hospitality Sector: Case Studies of Gaborone Sun and the Cumberland Hotel in Botswana. *International Journal of Hospitality and Tourism Administration, 16*(4), 331–354.
- Martínez, P. (2015). Customer loyalty: exploring its antecedents from a green marketing perspective. *International Journal of Contemporary Hospitality Management, 27*(5), 896–917.
- Melissen, F. (2013). Sustainable hospitality: A meaningful notion? *Journal of Sustainable Tourism, 21*(6), 810–824.
- Miao, L., & Wei, W. (2013). Consumers' Pro-Environmental Behavior and Its Determinants in the Lodging Segment. *Journal of Hospitality and Tourism Research, 40*(3), 319–338.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric Theory*, (3rd ed.). New York, NY: McGraw-Hill.
- O'Neill, M. A., & Alonso, A. D. (2009). Small hospitality business involvement in environmentally friendly initiatives. *Tourism and Hospitality, Planning and Development, 6*(3), 221–234.
- Reid, S., Johnston, N., & Patiar, A. (2017). Coastal resorts setting the pace: An evaluation of sustainable hotel practices. *Journal of Hospitality and Tourism Management, 33*, 11–22.
- Ruiz-Molina, M., Gil-Saura, I., & Moliner-Velázquez, B. (2010). Good environmental practices for hospitality and tourism. *Management of Environmental Quality: An International Journal, 21*(4), 464–476.
- Sánchez-Ollero, J. L., García-Pozo, A., & Marchante-Mera, A. (2014). How Does Respect for the Environment Affect Final Prices in the Hospitality Sector? A Hedonic Pricing Approach. *Cornell Hospitality Quarterly, 55*(1), 31–39.
- Saunders, M. N. K., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (5th ed). New York: Prentice Hall.
- Schubert, F., Kandampully, J., Solnet, D., & Kralj, A. (2010). Exploring consumer perceptions of green restaurants in the US. *Tourism and Hospitality Research, 10*(4), 286–300.
- Sims, R. (2009). Food, place and authenticity: local food and the sustainable tourism experience. *Journal of Sustainable Tourism, 17*(3), 321–336.

- Sirakaya-Turk, E., Baloglu, S., & Mercado, H. U. (2014). The Efficacy of Sustainability Values in Predicting Travelers' Choices for Sustainable Hospitality Businesses. *Cornell Hospitality Quarterly*, 55(1), 115–126.
- Tencati, A., & Pogutz, S. (2015). Recognizing the limits: sustainable development, corporate sustainability and the need for innovative business paradigms. *Sinergie, Italian Journal of Management*, 96.
- Vargas-Sánchez, A., & Riquel-Ligero, F. (2012). Influence of the institutional context on the performance of golf courses, considering the natural environment. *Environmental Engineering and Management Journal*, 11(11), 2001-2012.
- Verma, V. K., & Chandra, B. (2017). Sustainability and customers' hotel choice behaviour: a choice-based conjoint analysis approach. *Environment, Development and Sustainability*, 1–17.
- Xu, X., & Gursoy, D. (2015a). A Conceptual Framework of Sustainable Hospitality Supply Chain Management. *Journal of Hospitality Marketing & Management*, 24(3), 229–259.
- Xu, X., & Gursoy, D. (2015b). Influence of sustainable hospitality supply chain management on customers' attitudes and behaviors. *International Journal of Hospitality Management*, 49, 105–116.

Appendix 1. The questionnaire

Step 1. The reservation

Imagine you are making a reservation in a hotel (or another kind of lodging facility). Prices being equal, would you select a hotel that tries to limit its environmental impact?

| Please rate on a 5-point scale your level of agreement with the following statements: (where 1 = totally disagree; 2 = disagree; 3 = not agree nor disagree; 4 = agree; 5 = totally agree) | | | | | |
|---|---|---|---|---|---|
| Prices being equal, I would choose a hotel that implements the separate collection of waste | 1 | 2 | 3 | 4 | 5 |
| Prices being equal, I would choose a hotel where local is preferred to processed food | 1 | 2 | 3 | 4 | 5 |
| Prices being equal, I would choose a hotel where rainwater is recycled for the garden | 1 | 2 | 3 | 4 | 5 |
| Prices being equal, I would choose a hotel that saves energy with led lighting | 1 | 2 | 3 | 4 | 5 |
| Prices being equal, I would choose a hotel where customers are informed about environmental policies | 1 | 2 | 3 | 4 | 5 |
| Prices being equal, I would choose a hotel that implements a towel reuse program | 1 | 2 | 3 | 4 | 5 |
| Prices being equal, I would choose a hotel where customers are involved in recycling, energy and water saving activities | 1 | 2 | 3 | 4 | 5 |
| Prices being equal, I would choose a hotel provides refillable soap and shampoo dispensers | 1 | 2 | 3 | 4 | 5 |
| Prices being equal, I would choose a hotel that adopts renewable sources of energy | 1 | 2 | 3 | 4 | 5 |
| Prices being equal, I would choose a hotel that adopts eco-friendly cleaning products | 1 | 2 | 3 | 4 | 5 |

Step 2. The stay

Imagine you are staying in a hotel (or another kind of lodging facility) that tries to limit its environmental impact. Would you be satisfied?

| Please rate on a 5-point scale your level of agreement with the following statements: (where 1 = totally disagree; 2 = disagree; 3 = not agree nor disagree; 4 = agree; 5 = totally agree) | | | | | |
|---|---|---|---|---|---|
| I am happy to stay in a hotel that implements the separate collection of waste | 1 | 2 | 3 | 4 | 5 |
| I am happy to stay in a hotel where local food is preferred to the processed one | 1 | 2 | 3 | 4 | 5 |
| I am happy to stay in a hotel where rainwater is recycled for the garden | 1 | 2 | 3 | 4 | 5 |
| I am happy to stay in a hotel that saves energy with led lighting | 1 | 2 | 3 | 4 | 5 |
| I am happy to stay in a hotel where customers are informed about environmental policies | 1 | 2 | 3 | 4 | 5 |
| I am happy to stay in a hotel that implements a towel reuse program | 1 | 2 | 3 | 4 | 5 |

| | | | | | |
|---|---|---|---|---|---|
| I am happy to stay in a hotel where customers are involved in recycling, energy and water saving activities | 1 | 2 | 3 | 4 | 5 |
| I am happy to stay in a hotel provides refillable soap and shampoo dispensers | 1 | 2 | 3 | 4 | 5 |
| I am happy to stay in a hotel that adopts renewable sources of energy | 1 | 2 | 3 | 4 | 5 |
| I am happy to stay in a hotel that adopts eco-friendly cleaning products | 1 | 2 | 3 | 4 | 5 |

Step 3. The bill

Imagine you are staying in a hotel (or another kind of lodging facility) that tries to limit its environmental impact. Would you be willing to pay a little more?

| | | | | | |
|---|---|---|---|---|---|
| <p>Please rate on a 5-point scale your level of agreement with the following statements: (where 1 = totally disagree; 2 = disagree; 3 = not agree nor disagree; 4 = agree; 5 = totally agree) *** 5% = imagine you have to pay 105 € instead of 100 €</p> | | | | | |
| I am willing to pay 5% more to stay in a hotel that implements the separate collection of waste | 1 | 2 | 3 | 4 | 5 |
| I am willing to pay 5% more to stay in a hotel where local food is preferred to the processed one | 1 | 2 | 3 | 4 | 5 |
| I am willing to pay 5% more to stay in a hotel where rainwater is recycled for the garden | 1 | 2 | 3 | 4 | 5 |
| I am willing to pay 5% more to stay in a hotel that saves energy with led lighting | 1 | 2 | 3 | 4 | 5 |
| I am willing to pay 5% more to stay in a hotel where customers are informed about environmental policies | 1 | 2 | 3 | 4 | 5 |
| I am willing to pay 5% more to stay in a hotel that implements a towel reuse program | 1 | 2 | 3 | 4 | 5 |
| I am willing to pay 5% more to stay in a hotel where customers are involved in recycling, energy and water saving activities | 1 | 2 | 3 | 4 | 5 |
| I am willing to pay 5% more to stay in a hotel provides refillable soap and shampoo dispensers | 1 | 2 | 3 | 4 | 5 |
| I am willing to pay 5% more to stay in a hotel that adopts renewable sources of energy | 1 | 2 | 3 | 4 | 5 |
| I am willing to pay 5% more to stay in a hotel that adopts eco-friendly cleaning products | 1 | 2 | 3 | 4 | 5 |

A little bit more about you...

| | | |
|--|---|---|
| How old are you? | _____ | |
| You are: | <input type="checkbox"/> Male | <input type="checkbox"/> I prefer not to answer |
| | <input type="checkbox"/> Female | |
| Your city: | _____ | |
| Your Country: | _____ | |
| Your job: | <input type="checkbox"/> Unemployed | <input type="checkbox"/> Manager |
| | <input type="checkbox"/> Student | <input type="checkbox"/> Retired |
| | <input type="checkbox"/> Self-employed | <input type="checkbox"/> Household work |
| | <input type="checkbox"/> Employee | <input type="checkbox"/> Other, please specify _____ |
| Your income: | <input type="checkbox"/> Below the average | <input type="checkbox"/> Above the average |
| | <input type="checkbox"/> In the average | <input type="checkbox"/> I prefer not to answer |
| Your education: | <input type="checkbox"/> Lower than high school | <input type="checkbox"/> Postgraduate degree |
| | <input type="checkbox"/> High school | <input type="checkbox"/> PhD |
| | <input type="checkbox"/> Bachelor's degree | <input type="checkbox"/> Other, please specify _____ |
| | <input type="checkbox"/> Master's degree | |
| How many days per year do you spend traveling, on average? | <input type="checkbox"/> 1-5 nights | <input type="checkbox"/> 11-15 nights |
| | <input type="checkbox"/> 6-10 nights | <input type="checkbox"/> More than 15 nights |
| You mainly travel for: | <input type="checkbox"/> Business | <input type="checkbox"/> Other, please specify _____ |
| | <input type="checkbox"/> Leisure | |
| Do you have any additional observations/suggestions? | _____ _____ | |

Appendix 2. Correlation matrices

Low comfort ES behaviors

| Choose Towel reuse program | Choose Refillable dispensers | Choose Involving customers | Satisfied Towel reuse program | Satisfied Refillable dispensers | Satisfied Involving customers | |
|----------------------------|------------------------------|----------------------------|-------------------------------|---------------------------------|-------------------------------|---------------------------------|
| 1,0000 | 0,4702 | 0,6088 | 0,8471 | 0,4289 | 0,5175 | Choose Towel reuse program |
| | 1,0000 | 0,4745 | 0,4174 | 0,8755 | 0,4279 | Choose Refillable dispensers |
| | | 1,0000 | 0,5137 | 0,4311 | 0,7661 | Choose Involving customers |
| | | | 1,0000 | 0,4431 | 0,5336 | Satisfied Towel reuse program |
| | | | | 1,0000 | 0,4673 | Satisfied Refillable dispensers |
| | | | | | 1,0000 | Satisfied Involving customers |
| | | | Pay Towel reuse program | Pay Refillable dispensers | Pay Involving customers | |
| | | | 0,5354 | 0,3657 | 0,4197 | Choose Towel reuse program |
| | | | 0,3236 | 0,5287 | 0,3976 | Choose Refillable dispensers |
| | | | 0,3973 | 0,4417 | 0,5473 | Choose Involving customers |
| | | | 0,5524 | 0,3598 | 0,3850 | Satisfied Towel reuse program |
| | | | 0,3016 | 0,4899 | 0,3414 | Satisfied Refillable dispensers |
| | | | 0,3609 | 0,4086 | 0,5122 | Satisfied Involving customers |
| | | | 1,0000 | 0,7056 | 0,7331 | Pay Towel reuse program |
| | | | | 1,0000 | 0,7606 | Pay Refillable dispensers |
| | | | | | 1,0000 | Pay Involving customers |

Health-related ES behaviors

| Choose Local food | Choose Renewable energy | Choose Eco-friendly detergents | Satisfied Local food | Satisfied Renewable energy | Satisfied Eco-friendly detergents | |
|-------------------|-------------------------|--------------------------------|----------------------|----------------------------|-----------------------------------|-----------------------------------|
| 1,0000 | 0,3333 | 0,4562 | 0,8905 | 0,3867 | 0,4223 | Choose Local food |
| | 1,0000 | 0,6741 | 0,3223 | 0,7617 | 0,5826 | Choose Renewable energy |
| | | 1,0000 | 0,4391 | 0,6376 | 0,7783 | Choose Eco-friendly detergents |
| | | | 1,0000 | 0,3953 | 0,4712 | Satisfied Local food |
| | | | | 1,0000 | 0,6914 | Satisfied Renewable energy |
| | | | | | 1,0000 | Satisfied Eco-friendly detergents |

Indirect involvement ES behaviors

| Choose Separate collection of waste | Choose Rainwater recycling | Choose Energy saving | Choose Informing customers | Satisfied Separate collection of waste | |
|-------------------------------------|----------------------------|-------------------------------|----------------------------------|--|--|
| 1,0000 | 0,6981 | 0,6568 | 0,6014 | 0,6516 | Choose Separate collection of waste |
| | 1,0000 | 0,6608 | 0,5402 | 0,5133 | Choose Rainwater recycling |
| | | 1,0000 | 0,5743 | 0,5219 | Choose Energy saving |
| | | | 1,0000 | 0,5568 | Choose Informing customers |
| | | | | 1,0000 | Satisfied Separate collection of waste |
| Satisfied Rainwater recycling | Satisfied Energy saving | Satisfied Informing customers | Pay Separate collection of waste | Pay Rainwater recycling | |
| 0,5413 | 0,5506 | 0,5183 | 0,4166 | 0,3762 | Choose Separate collection of waste |
| 0,6903 | 0,5272 | 0,4453 | 0,3735 | 0,4369 | Choose Rainwater recycling |
| 0,5575 | 0,7297 | 0,4589 | 0,3481 | 0,3842 | Choose Energy saving |
| 0,5357 | 0,5810 | 0,6999 | 0,4144 | 0,4302 | Choose Informing customers |

| | | | | | |
|--------|--------|--------|----------------------|-------------------------------|--|
| 0,7071 | 0,6960 | 0,6293 | 0,3955 | 0,3520 | Satisfied Separate collection of waste |
| 1,0000 | 0,7221 | 0,6050 | 0,3314 | 0,3711 | Satisfied Rainwater recycling |
| | 1,0000 | 0,6258 | 0,3099 | 0,3335 | Satisfied Energy saving |
| | | 1,0000 | 0,3986 | 0,3947 | Satisfied Informing customers |
| | | | 1,0000 | 0,7656 | Pay Separate collection of waste |
| | | | | 1,0000 | Pay Rainwater recycling |
| | | | Pay Energy saving | Pay Informing customers | |
| | | | 0,3623 | 0,3394 | Choose Separate collection of waste |
| | | | 0,3879 | 0,3207 | Choose Rainwater recycling |
| | | | 0,4597 | 0,3368 | Choose Energy saving |
| | | | 0,4194 | 0,4399 | Choose Informing customers |
| | | | 0,3429 | 0,3215 | Satisfied Separate collection of waste |
| | | | 0,3201 | 0,2698 | Satisfied Rainwater recycling |
| | | | 0,3913 | 0,2938 | Satisfied Energy saving |
| | | | 0,3840 | 0,4209 | Satisfied Informing customers |
| | | | 0,7755 | 0,7142 | Pay Separate collection of waste |
| | | | 0,8195 | 0,7463 | Pay Rainwater recycling |
| | | | 1,0000 | 0,7669 | Pay Energy saving |
| | | | | 1,0000 | Pay Informing customers |

Source: based on our analysis of SPSS