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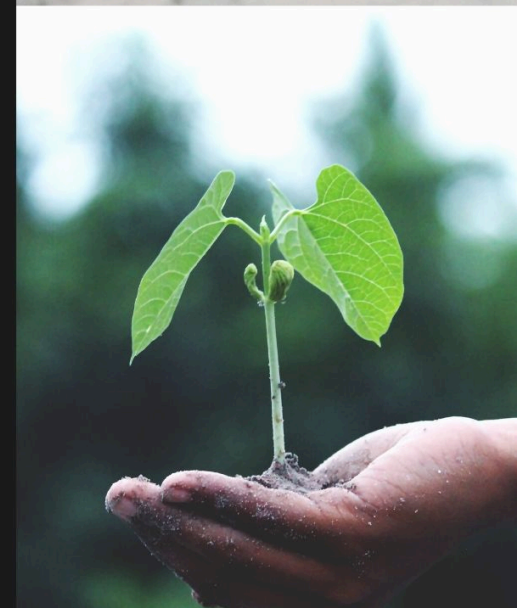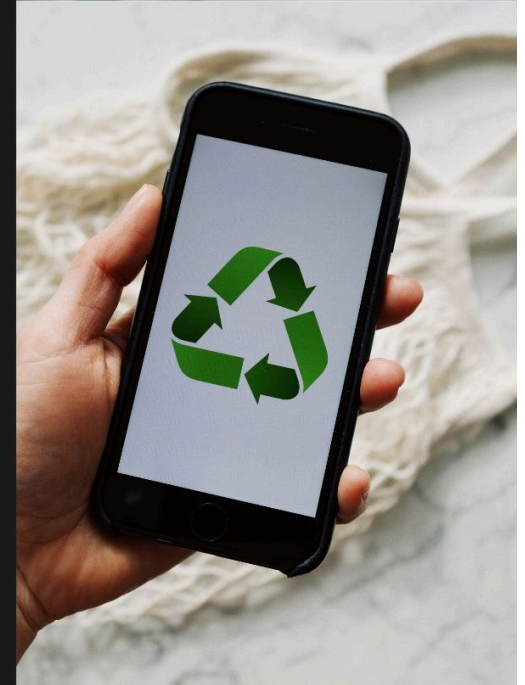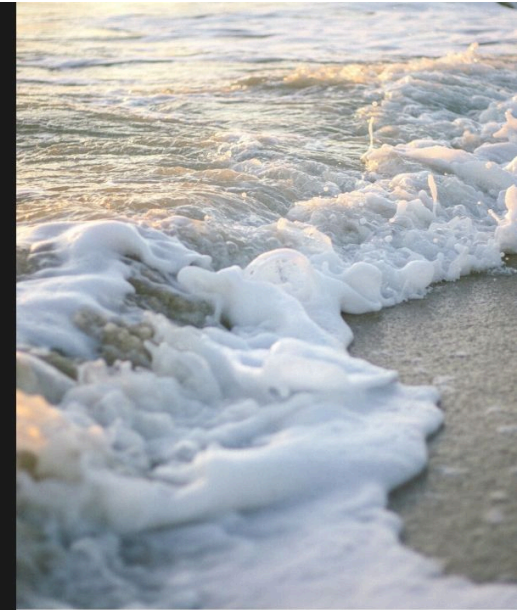|	
Subject	Degree Thesis
Lecturer	Mónica Cerdán Chiscano
Title of assignment	Sustainable hotels in la Costa Brava
Student name	Laura Giraut Planes (16166)
	Ariadna Vivet Llull (16112)
Student e-mail	laura.giraut@htsi.url.edu
	ariadna.vivet@htsi.url.edu

Sustainable hotels in la Costa Brava

Laura Giraut and Ariadna Vivet

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Abstract

Sustainability issues have an impact on almost all of the aspects of hotel operations. Sustainability-driven hotel initiatives and practices will provide a major competitive advantage for the hotel industry and make a significant contribution to the adoption of global sustainable development goals. Therefore, the research aims to determine which are the main sustainable practices the hotels in the Costa Brava apply and how this impact on customers. The purpose of this study is to determine the environmental practices in hotels in la Costa Brava and to establish the contribution that hotels are making towards mitigation of the effects.

The final analysis is the result of the information obtained through qualitative research together with the literature review from chapter 2. The qualitative study has been done through unstructured interviews to eight hotels from different locations in la Costa Brava. The findings display a wide range of benefits in different aspects that hoteliers, employees, and customers can apply in order to reduce the impact on the environment.

The results obtained suggest that the different hotels analyzed indeed implement different sustainable environmental practices in their hotel. Among different findings analysed, it has been found that the perception of the customer's environmental actions in a travel accommodation establishment has a positive impact on their experience.

In addition, the paper offers recommendations for hotels with regards to environmental issues concerning sustainability to reduce the impact on hotels. The limitations found in this study will be used for further research for academics, students, and practitioners interested in both the hospitality industry and corporate sustainability strategies.

Acknowledgements

To begin with, we would like to acknowledge and express our sincere gratitude to our thesis supervisor, Mónica Cerdán, who has been giving us a lot of support, suggestions, feedback and pieces of advice during the development of our project. Mrs. Cerdán, as a professional in the area of sustainable tourism, has guided us to develop our project according to her recommendations about the topic. We are grateful for the guidance and her positive view on our project and, at the same time, for encourage us when needed. We would also like to greatly appreciate all her contributions in our project, through her ideas, enthusiasm and continuous positivism who has helped us to have a clear motivation on the thesis.

Furthermore, we would like to show appreciation to the School of Tourism and Hospitality Management (HTSI) for giving us the opportunity of developing this amazing project which has been really interesting and useful for our future professional development. We would like to acknowledge the patience and help of the coordinator of the Degree Thesis subject, Gilda Hernández, who has given us a lot of tools and pieces of advice to conduct this professional research.

Besides, we would like to express our deepest gratitude to our parents and relatives, who have been giving us a lot of support, encouragement and motivation during all the process of the development of the degree thesis, especially because mostly all the project has been done at home due to the Covid-19, so that they have had to be with us all the time and giving us calm, patience and tolerance among this complicated days.

And finally, of course, we want to extend our sincere recognition to each representative of the 8 hotels that have been helping us. We really appreciate their time, patience, honesty and opinion. We are aware that the current situation affects directly to the hospitality industry so that we are grateful for taking some minutes on helping us, through online meetings or telephone calls, without considering the other most important issues they actually have. Their cooperation in developing and answering the interview questions are immensely appreciated. They have all shown a passion for the industry and have been very kind and open in sharing their experiences and beliefs with us.

Once again, thank you all of you for your help, support and contribution to the project.

INDEX

LIST OF FIGURES

LIST OF TABLES

- **CSR**: Corporate Social Responsibility

- **TBL**: Triple Bottom Line

- **UNWTO**: World Tourism Organization

- **WTO**: World Trade Organization

- **SDG**: Sustainable Development Goals

- **GHG**: Greenhouse Gas

- **CO2**: Carbon Dioxide

- **STP**: Sustainable Development Practices

- **UNEP**: United Nations Environmental Program

- **NZEB**: Near Zero Energy Building

- **IT**: Information Technology

CHAPTER 1. INTRODUCTION

1.1. Context of the research

During the course of history, the climate on earth has changed considerably. There have been seven periods of glacial advancement and retreat, including the end of the last ice age about 11.700 years ago naming the origin of the modern era of climate and human civilization, just in the last 650.000 years. Most of these climate variations are due to very small alterations in the orbit of the Earth that change the amount of solar energy obtained by our planet (NASA, 2020).

Tourism is on the world's fourth-most important industry record. The World Tourism Organization (UNWTO[1]) describe sustainable tourism as a model that has "*full awareness of the current and future impact of tourism in economic, social and environmental terms in order to satisfy the needs of visitors, industries, nature and host communities*". At the same time, the UN Conference on Environment and Development in Rio de Janeiro in 1992[2] described sustainability as meeting current needs without sacrificing future generations ability to meet their own needs. Three dimensions of sustainability are conceptualized by UNWTO: economic (profit), social (people) and environmental (planet). According to Bader (2005), the hospitality industry is slowly becoming the single biggest example of why operating a sustainable business will be the key to long-term accomplishment. Sustainability is becoming progressively one of the most important issues for hoteliers in the 21st century as costs continue increasing, demand is steadily more sensitive and the desire to be economically, socially and ecologically responsible is rising.

Environmental sustainability refers to the equilibrium that must occur between an operation and the climate where is developed. Tourism also has an unfavourable impact on the environment by deforestation, environmental degradation, disruption of biodiversity, contamination, creation of waste and overexploitation of non-renewable resources like water and energy, which means that, in the end, tourism makes a significant contribution to economy and recruitment (WCED, 1987).

The idea of sustainability originates from the environmentalism that gained prominence in the 1970s.

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[1] World Tourism Organization (UNWTO); Website: https://www.unwto.org/es/EU-guidebook-on-sustainable-tourism-for-development
[2] Report of the United Nations Conference on Environment and Development (Rio de Janeiro, 3-14 June 1992); Document: https://www.un.org/esa/dsd/agenda21/Agenda%2021.pdf

The International Union for Conserving Biodiversity and Natural Resources in 1980[3], first outlined the clear concept of sustainable development in its World Conservation Strategy. Environmental sustainability is now a major fear for governments on the use of natural resources, particularly economic and demographic development. Jones, P. (2016) argues that environmental issues would include in the hospitality sector the climate change and greenhouse gas emissions; water management; waste and recycling; environmentally responsible procurement, bio-diversity, and natural resources conservation; environmental impact reduction; and the establishment of green building standards for new hotel construction. During the last years, the management and promotion of tourism, hospitality and leisure activities (which have been widely recognized as very important sectors of the service economy) have received an important and growing attention (Bader, 2005).

Sustainable hotels are establishments which try to reduce natural resources consumption to the minimum, expenditure on electricity or pollution and special care for waste treatment in order to reduce their environmental impact (Ferrer Hotels, 2019). Sustainable hotels are typically designed with respect for the environment and the region where they are situated. According to Ferrer hotels (2019), in order for a hotel to be deemed sustainable, it must fulfil at least one method or procedures, such as the use of organic materials on products like towels or bed sheets, respecting the rules on bioclimatic construction which aim to minimize the use of heating and air conditioning systems, respect for the natural environment, both socially and environmentally, or encouraging local and sustainable food consumption.

This study is going to analyse the environmental dimension of a sustainable model of a hotel and more specifically, it is going to focus on the sustainable hotels in la Costa Brava (Girona, Spain). After a first-hand analysis to understand and discover the different opinions and arguments of the authors regarding sustainability and all of the related matters, there will be a deep study of the green implementations and practices of eight different hotels in la Costa Brava to discover how sustainable they are, and which practices they perform. This degree thesis is focused on empirically demonstrating what the arguments of literature review shows and find data to support it. Incorporating sustainability is nowadays a major investment but with a huge value and a purposeful sense that cannot be avoided. The paper also analyses the degree to which the environmental protection activities of the hospitality industry affect a more positive visitor experience, and indirectly, satisfaction.

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[3] International Union for Conservation of Nature and Natural Resources (IUCN); World Conservation Strategy: Living Resource Conservation for Sustainable Development; Document: https://portals.iucn.org/library/efiles/documents/wcs-004.pdf

While little attention has been given in the hospitality industry to the relationship between environmental protection and tourism experience, some studies point to a positive relationship between both of them. Lemon and Verhoef (2016), generally consider the nature of the service and the environment to be antecedents of customer experience. According to Lee et al. (2010), the hotel's green image encourages a more attractive desire to return, make constructive suggestions, and be willing to pay premium rates.

1.2. Identification of the research problem

According to UNWTO, 5 % of global CO_2 emissions are responsible for tourism. Regarding this percentage, 20% pertain to hotels, primarily based on their use of heating, air conditioning, refrigeration on bar and restaurant, and pool heating. With this information, it is seen that there is a need to look for environmental solutions as an urgent matter.

Hotels are under pressure of their stakeholders, especially tour operators and clients, in order to follow environmentally responsible policies that meet their environmental standards and criteria. Travellers are gradually demanding a minimal ecological footprint when staying in accommodations. The impact on the environment from the growth of global tourism development has become a critical issue within the hospitality industry. With increased awareness of the consumer, sustainable practices may become essential for travellers when choosing a hotel (Tzschentkea, 2008). With both casual and business travel expansion, the amount of waste generated by visitors has grown exponentially and the only way to solve this problem is by reorganizing current activities in favour of ecologically friendlier approaches. Besides, it has been demonstrated that hotels have the greatest negative effect on the atmosphere of all commercial buildings (Han, Hsu and Sheu, 2010). Growing demand for energy supply, growing management of solid waste and contamination of water sources, soil and air are among the high rates of negative environmental effects in the tourism hospitality sector (Kasim, 2006).

According to Marín, C. and Jafari, J. (2002), tourism is fortunately becoming more prudent, smarter, more compassionate, healthier and greener and is driven by certain concepts of practising sustainability. Tourism industry and hotel sector leaders, research and development centres, suppliers and service providers, destination authorities, and international agencies need to build the space and culture of collaboration with the view of making this industry sustainable. Fortunately, visitors are more concerned about their environmental footprint than ever before and will happily take their business to hotels that aim for sustainability. As such going green is no longer merely a matter of consciousness but an opportunity not to be missed for company.

All of this previous information leads to the identification of the problem: which are the sustainable practices that the hotels in la Costa Brava execute and investigate if they are actually a sustainable hotel, with all the aspects this entails. For this reason, in order to improve the benefits and positive impacts to the environment given by the sustainable hoteliers in La Costa Brava, it is of course necessary a deep knowledge of the green practices they do. This could be used to promote sustainable tourism on a big scale, demonstrating the importance of becoming a sustainable hotel and the benefits that it has to both the environment and humanity.

With all this previous research, this motivates us to discover our four-different hypothesis:

1. The sustainable hotels in la Costa Brava focused on Corporate Social Responsibility (CSR) execute different green environmental practices (H1)

2. The perception of the customer's environmental actions in a travel accommodation establishment has a positive impact on their experience (H2)

3. Sustainable hotels in la Costa Brava are trying their best to be sustainable without the special need to use marketing strategies to catch the attention of the customers (H3)

4. High costs of some sustainable practices suppose a big barrier for some hotels (H4)

1.3. Originality and contribution to knowledge

In order to discover which are the main practices sustainable hotels in la Costa Brava perform, deep research has been done on eight different hotels in la Costa Brava. All of them being a three and four-star hotel, as this level of hotels are the ones that predominate in this part of the Mediterranean Sea. After doing deep research through the Internet and word-of-mouth about which was the list of different sustainable hotels in la Costa Brava, it was decided to investigate and discover more about the following green hotels:

1. **Es Portal de Pals** → Located in Pals (Costa Brava, Girona).
2. **Hotel Rey Mar & Spa** → Located in Tossa de mar (Costa Brava, Girona).
3. **Hotel Arkhé** → Located in Pals (Costa Brava, Girona).
4. **Hotel Can Miquel** → Located in La Escala (Costa Brava, Girona).
5. **Hotel La Bionda** → Located in Begur (Costa Brava, Girona).
6. **Hotel Hostalillo** → Located in Tamariu (Costa Brava, Girona).
7. **Hostal Spa Empúries** → Located in Sant Martí d'Empuries (Costa Brava, Girona).
8. **Hostal Ses Negres** → Located in Begur (Costa Brava, Girona).

After contacting with different hotels that carried out different sustainable practices in la Costa Brava which we considered that were essential for our project, these eight hotels were chosen to be deeply analysed as they demonstrated huge interest in participating in the project. Also, their websites were accurately evaluated. Other hotels also replied in order to help us, but it was considered not enough useful information to include it into the project. After analysing the 8 hotels previously mentioned, it was realized that we arrived in the saturation point, where it was found that no new information was discovered in the data analysis so that this is why it was decided to stop in 8 interviews.

La Costa Brava started some years ago the objective to be declared a biosphere reserve in this 2020, an international recognition granted by Unesco that advocates the conservation of the landscape, the ecosystem and sustainability (Silvia Oller, 2018). Furthermore, the destination of Torroella de Montgrí and l'Estartit (Baix Empordà) has been distinguished as one of the ten most sustainable destinations in the world according to the international organization Green Destinations (Costa Brava, 2019).

To do this study, it was decided to focus on the Costa Brava hotels as we considered that this part of Catalonia is a beautiful space with lots of natural places and we wanted to determine if sustainability is implemented in this coast zone of the Mediterranean. We relate Costa Brava as a quiet, relax and unique place and we wanted to know the role of sustainability in this area. Furthermore, we wanted to investigate something different than usual and moving us to another place changing a little bit our usual environment. As we both love Costa Brava and all its aspects (including beaches, the famous "*Cami de Ronda*", the natural spaces, among others), we were truly excited to start investigating and discovering a little bit more about this incredible and special place as it is Costa Brava.

Costa Brava invited us to discover more about their hotels, how they work, how they use and see sustainability and what are their opinion and point of view of the different environmental practices. Additionally, as Costa Brava is a seasonal destination, this implies less sustainable negative impacts compared with Barcelona or other cities that stay alive 365 days a year. That is why this also encouraged us to know more about their hotels and to see how this is managed towards sustainability.

1.4. Aim and objectives

It is very important to ensure that the aim and objectives defined can be measured to the extent to which they have been achieved and are achievable within the scope of the research project (timescale, data availability and the number of words).

First of all, the main aim of this paper is to execute a qualitative study on the different practices carried out by the eight different hotels in la Costa Brava. Furthermore, our objective is to discover and analyse what is considered a sustainable hotel and its impact in the community. To do that, we are going to explore and understand deeply which are the sustainable practices that the hotels in la Costa Brava apply to avoid the different environmental impacts. To do this research, eight different hotels in la Costa Brava are going to be analysed to see if these practices such as greenhouse gas emissions, water management, plastic pollution, energy consumption, among others are correctly applied and to verify the different certifications used. A deeply analysis will be executed in order to see if these specific hotels are achieving all the sustainable practices that are considered to be a sustainable hotel and to do this, we are going to proceed with an online interview.

The research will be focused in understanding if the sustainable practices are properly applied by hotels and the use of them to attract visitors (sustainable marketing). In order to achieve such objective, guest satisfaction, loyalty, and customer experience will be assessed in order to understand how sustainability does effect on them.

To finalise the research, the future of sustainability will be analysed together with the following years forecasting. The overall objective is to encourage and promote sustainable tourism focusing on the environmental aspects. It is considered to be a crucial issue to be taken into consideration as it is affecting negatively the global warming and climate change.

Other objectives to consider are:
- To discover the theoretical framework focusing on sustainable procedures, green practices and the different environmental certifications applied in the 8 hotels (A1)
- To analyse which are the reasons hotels decided to become sustainable and to discover which are the benefits of implementing sustainable practices (A2)
- To detect which are the main differences between the several sustainable hotels that are going to analysed and to compare the environmental practices they implement
- To discover which are the green practices that the majority of the hotels in la Costa Brava use and examine the ones that are less used (A3)
- To see what the expectation among hotels in regard to the future of sustainability is (A4)
- To perform different conclusions and suggestions for the Costa Brava hoteliers with the aim to improve the environmental impacts on the community.

1.5. Structure of the study

This study will divide the research into five different chapters:

- **Chapter 1**: Introduction → The first chapter contains all the pre-study information and the reason for undertaking that particular research. The context of the research presents different information and data focused on the context of it, which is the sustainable hotels in la Costa Brava and its green practices. In addition, there is the identification of the research problem in which the different negative effects of hotels on the environment and their importance for the development of a sustainable practice are distributed. Following this, it is stated the originality of the project and the importance of its contribution. Finally, the chapter provides the main objectives of the study and how it is going to be structured.

- **Chapter 2**: Literature review → The second chapter presents the numerous studies and arguments established by various significant authors in order to explain the purpose of the study and bring it into perspective. The literature review starts with a general view of the study, including the meaning of sustainability, Corporate Social Responsibility, the Triple Bottom Line, and sustainable tourism. Consequently, the research is going deeply analyse specific and important topics in order to conduct this study, which focuses on the definition of sustainability and environmental practices a sustainable hotel must perform. Furthermore, data about sustainable marketing, guest satisfaction, and the future of sustainability is also studied in this chapter. To visualize the literature review, a literature map and a conceptual framework have been developed where the key points of concern are described alongside their most influential scholars.

- **Chapter 3**: Methodology → This chapter presents and explains in detail the methodology employed for the development of the empirical study. Thus, the overall research design, the data collection process and the different research tools used, the research context and participants, the data analysis and the ethical considerations are developed. In this chapter, it is also explained in detail the design of the interview and the reasons why it has been created in that way.

- **Chapter 4**: Findings and discussion → In the findings and discussion chapter, the results are described and discussed by comparing the gathered data with the theoretical framework. The section is structured firstly, with an overview of the different hotels analysed for the study and secondly, each interview question will be analysed deeply through the results found,

discussing and comparing each finding among the 8 different hotels analysed. Each part examines the results of the interview compared with the results of the literature review.

- **Chapter 5**: Conclusion and Recommendations → In this chapter the conclusions of the research are disclosed. In addition, the hypothesis will be evaluated to determine if it has been achieved. Besides, some recommendations will be introduced in order to help the hoteliers to become more sustainable and finally, some limitations of the study will be shown.

CHAPTER 2. LITERATURE REVIEW

There is a lot of discussions these days about how sustainability, sustainable development and related concepts are defined (WCED, 1987; Pezzey, 1989; Costanza, 1991; Pearce and Atkinson, 1993). Sustainability may then be defined as maintaining well-being over a long, perhaps even an indefinite period. This covers largely the environmental dimension of the triple bottom line, but the environment and sustainability are not synonymous (Tom Kuhlman, 2010).

However, to achieve true sustainability, it must incorporate elements of temporal scale into our thought. The planet's ecosystems have evolved over billions of years, meeting the majority of people needs in terms of health, wealth creation and well-being. It may well also be irreversible, given that it exceeds the rate at which ecosystems evolve. Nonetheless, people do not have the luxury of another 'control' planet to test out this assumption to breaking point. Therefore, humans have to treat the 'natural' states of the planet's diverse ecosystems as a fixed reference point to frame the development activities, rather than hope that they may somehow mould themselves seamlessly and benignly to people. It becomes necessary, therefore, to define sustainability to be more relevant to the human environment (Paul Johnston et al., 2007).

In recent decades, the word sustainability has been more commonly used in many walks of life and seems to be used in certain ways to mean all things to all people, but the notion of sustainability is not just a game of mind played by modern technocrats or the brainwave of some tree-hugging eco-warriors, it is the primary cultural heritage in the world (Grober 2012, 13; Jones et al. 2014; Blanco and Sheffi, 2015).

2.1. Corporate Social Responsibility

The idea of Corporate Social Responsibility (CSR) has drawn worldwide attention and won new momentum in the global economy. Thirty years ago, Votaw wrote that Corporate social responsibility means something but not always the same to everyone. To some it implies the sense of legal responsibility or liability; to others, it conveys conduct that is ethically socially responsible; to others, the sense expressed is that of 'responsible for' in a casual manner; others simply refer to it as a charitable contribution; many take it as socially conscious; among others (Votaw, 1972). Although governments have historically accepted some responsibility for improving the living conditions of the people, the needs of the society have surpassed government ability to meet them.

The emphasis is increasingly focusing on the role of business throughout society and progressive businesses are trying to distinguish themselves through CSR participation. Companies have obligations for a society that goes beyond the maximization of shareholder capital (Henderson, 2007).

The World Business Council for Sustainable Development (WBCSD) describes CSR as business participation in contributing to sustainable economic development, collaborating with workers, their families and local communities (WBCSD, 2001). Responsibility is not enough; businesses do have to report on their CSR activities, so consistency in reporting is important if corporations want to make their decisions into account (Font et al., 2012). The basic idea of CSR is therefore that companies will strive towards meeting the needs of a wider range of stakeholders (Clarkson, 1995; Waddock et al., 2002). Therefore, CSR is focused on a stronger understanding of the role of the company as an active partner in a world of scarcity and resource decline. The use of Sustainability Language and Posturing allows the Organization to build an external and mostly internal image of what the company wants to see as CSR (Font et al., 2012).

Society and companies, the management of social issues, public policy and business, management of stakeholders and corporate transparency are just a few of the denominations used to explain the corporate responsibility phenomenon in society. Recently, a renewed interest in corporate social responsibilities and new alternative ideas including corporate citizenship and corporate sustainability have been suggested (Garriga and Mele, 2004). Font et al. (2012), agree that CSR assumes greater importance for hotel chains, but they also contend at the same time that the reality of CSR's relevance is yet to come.

2.2. Triple bottom line

Triple Bottom Line (TBL) is a relevant term focused on sustainability that was referred to as "*a brilliant and far-reaching metaphor*" (Henriques, 2007) and invented by Elkington (1997). With the arrival of the term "sustainable development" from the Brundtland Report in 1987[4], the construct gained significant popularity over the years. According to Goel (2010), driven by sustainability, TBL provides a framework for assessing business performance and organizational progress using three lines: economic, social, and environmental. TBL describes the environmental agenda's extension in a way that combines the economic and social lines (Elkington, 1997). Elkington used the words profit, people, and the planet as the three lines in his description of TBL.

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[4] Brundtland, G. (1987). Report of the World Commission on Environment and Development: Our Common Future.

A sustainable society has three requirements to fulfil: the consumption rates for non-renewable resources should not surpass the rate at which sustainable renewables are produced, the consumption rates for renewable resources should not surpass their regeneration rates and its pollution emissions levels should not surpass environmental assimilation capability (Elkington, 1997).

The concept also has been referred to as the functional sustainability paradigm (Rogers and Hudson, 2011). Based on the triple bottom line theory, companies around the world (due to globalization) have begun to worry about the degree of the success of their companies known as sustainable development and have related progress with quality of life implications (Hall and Matthews, 2008).

2.2.1. Triple bottom line: Environmental line

TBL's environmental approach refers to activities which do not damage the environment for future generations. This includes the effective use of energy resources, the elimination of greenhouse gas emissions and the minimization of environmental footprint, among others (Goel, 2010).

The unavoidable connection between tourism and the physical and social environments means that the sustainability of tourism is highly dependent on its ability to mitigate its negative impacts on these environments and societies. In other words, the level of tourist engagement will be significantly reduced if the natural environment of a tourism operation is contaminated, deteriorated or loses its aesthetic qualities due to a poorly planned growth of tourism (Azilah Kasim, 2006).

The Earth Summit held in Rio in 1992 broadened the reach of environmental issues from the conservation of wildlife habitats and the quality of the atmosphere, and the regeneration, recycling and reuse of energy and resources. Sustainable development describes a situation where all human activities are carried out in such a way that society and its members can satisfy their needs and wishes while maintaining the environmental and socio-cultural structures indefinitely (Higham, 2007).

The implementation of environmental management strategies brings profound changes to the company or destination's economic and environmental efficiency, as well as their partnership with manufacturers, customers, staff, funding agencies and regulators on environmental policies (Andrews et al., 2001). The hotel industry began implementing environmental protection initiatives in the 1990s but, like other industries, the majority of large corporations where the ones that took the initiative.

Concerns about the negative environmental and social impacts of tourism suggest a challenge for key tourism players in keeping with development through having the versatility to respond positively to a changing global environment and societal framework, whilst being attentive to sustainable development standards and practices. Wahab and Pigram (1997) mentioned that tourism must offer products operating under the local environment, attitudes and cultures of the community so that they become constant beneficiaries rather than "victims" of the growth of tourism.

2.3. UNWTO – Sustainable Tourism development

The World Tourism Organization (UNWTO[5]) defines sustainable tourism development as the *"tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities".* Guidelines for sustainable tourism growth and management practices refer to all forms of tourism in all categories of destinations, including mass tourism and the different niche tourism segments. Principles of sustainability relate to the environmental, economic, and socio-cultural aspects of tourism development and an appropriate balance must also be developed between these three parameters to ensure its long-term sustainability.

Sustainable tourism needs to make efficient use of environmental resources that are a key element in the development of tourism, sustain important ecological processes and help preserve the natural heritage and biodiversity. Furthermore, respect for the authenticity of host communities is crucial, to conserve their cultural heritage and values (UNWTO, 2019).

Sustainable development of tourism requires the active involvement of all relevant stakeholders, as well as strong political leadership to ensure broad participation and build consensus. Achieving sustainable tourism is a continuous process and it requires constant monitoring of impacts, introducing the necessary preventive and/or corrective measures whenever necessary. Reaching sustainable tourism is an ongoing process which requires constant monitoring of impacts, implementing whenever appropriate the necessary preventive and/or corrective measures. Sustainable tourism should also maintain a high level of tourist satisfaction and provide visitors with meaningful experiences, raise awareness of issues of sustainability and promote sustainable tourism practices among them (UNWTO, 2019).

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[5] World Tourism Organization (UNWTO); Website: https://www.unwto.org/es

2.4. Sustainable tourism

There is a multitude of concepts for sustainable development in tourism (Butler, 1999b; Page and Dowling, 2002). The World Tourism Organization (WTO, 2001) supports the concept of sustainable development following the idea that sustainable tourism growth satisfies the needs of present visitors while safeguarding and enhancing future opportunities. It is predicted to lead to the management of all resources in such a way that economic, social and aesthetic needs can be met while cultural identity, essential ecological processes, biological diversity, and life-support systems are retained.

Aligned to this, according to the definition stated in the Brundtland Commission Report (1987), sustainable development is understood as the development that addresses present-day needs without undermining future generations' ability to meet their own needs (WCED, 1987). Inside the Brundtland report, it is also stated that economic development cannot desist but it must change course in order to work within the ecological constraints of the world. It seems clear that no company would be sustainable without incomes. Sustainable Development's goal is explicitly to ensure economic development, social equity and protection of the environment.

Sustainable tourism development attempts to find a balance between positive and negative impacts of creating an improved quality of life for the host community and the destination. Efforts to have a minimum effect on the climate and local communities, thus helping local people create future jobs. The main purpose of sustainable tourism is to ensure that development brings a positive experience for local people, tourism companies and the tourists themselves. Sustainable tourism is a new term that is used to illustrate the need for a comprehensive tourism analysis and management as a business and as an experience (Adriana Budeanu and Can-Seng Ooi, 2016).

What sustainable tourism demand is both the sustainable use of the different resources and the atmosphere and at the same time the sustainable increase of tourism participation to the economy and society. None of these aspects can be done without a deep understanding and effective management of the tourism market (Cañizares Ruíz, 2012). Cater (1993) describes three main sustainable tourism objectives: meeting the demands of increasing numbers of visitors, meet the host population's needs in terms of better living standards (both in the short and long term) and the security of the natural environment to achieve both of the above objectives.

In the tourism sector, Chou (2014) affirms that the implementation of green practices benefits the hotel and tourism industry, and, besides, a constructive sustainability policy has a positive impact on

the competitiveness of organizations (Leonidou, Fotiadis and Aykol, 2015) and financial performance internationally (Fraj, Matute and Melero, 2015). Furthermore, Tsai et al. (2014), specified that environmental protection, in particular concerning energy consumption and CO_2 emissions in tourist accommodation, should be as much the responsibility of industry and government as tourist decisions.

According to Marin, C. and Jafari, J. (2002), tourism is luckily becoming more prudent, smarter, more compassionate, healthier and greener and is driven by certain concepts of practising sustainability. Tourism is everybody's company now. It is no longer an immoral operation or one that generates just money. Tourism industry and hotel sector leaders, research and development centres, suppliers and service providers, destination authorities, and international agencies need to build the space and culture of collaboration with the view of making this industry sustainable.

The objective of a sustainable tourism strategy of Spain 2030 [6]

Spain's government is designing Spain's 2030 sustainable tourism plan for the medium to long-term challenges confronting the industry. To this end, it has promoted a participatory mechanism between the business and the autonomous communities. The goal of the new strategy is to lay the foundations of the transformation of tourism to a model of sustained growth and sustainable, which allows them to maintain its leading position worldwide. The new model will be assisted in enhancing the industry's competitiveness and profitability, in spreading destinations of natural and cultural values, and equal distribution of tourism's benefits and burdens. Spain is a world leader in the tourism sector and constitutes one of the main pillars of our economy, source of income and employment generation, used to 12.2% of total contributors in Spain.

2.5. Sustainable hotels

The hotel industry contributes to economic and social development as it has a huge impact on the world economy. The hotels generate environmental impacts to develop their activities and services that may contribute to the depletion of natural resources and global warming (Fabricia Silva da Rosa and Luana Caroline Silva, 2017).

For over a decade, hotels have been incorporating numerous green approaches in their operations (Revilla et al., 2001). Such practices range from recycling to purchasing local produce, to implementing rigorous LEED (Leadership in Energy and Environmental Design) certification standards. However,

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[6] Sustainable tourism strategy of Spain 2030; Website: https://turismo.gob.es/en-us/estrategia-turismo-sostenible/Paginas/Index.aspx

these practices have been employed arbitrarily and without research on how specific practices might influence a customer's hotel selection (Millar and Baloglu, 2008).

There is no doubt that the hotel and hospitality industry are major contributors to the global pollution, beginning with the large supply chain hotels all the way down to the small family-owned hotel resorts and the situation in developing countries is no different. Even in developing regions the excessive use of unclean energy sources, water or generation of excessive waste can in large negative amounts contribute not only to the environment of the local community, region or country but to the rest of the world as well (Fukey, 2014). In other words, sustainability will be one of the crucial factors in the future of the hotel industry. With the ever-growing emissions, greenhouse gases and general population, the hospitality industry will be either voluntarily or involuntarily forced to change their classic business operations into sustainable ones (Middleton and Hawkins, 1998).

Hotel energy and resource use remain considerable despite years of conservation efforts. That also opens the way to further sustainability efforts, which have the double advantage of saving money and benefiting the environment. Hotel operators are aware of the significant benefits of sustainability, and lots of them publicly promote resource conservation (Alexandra Bruns-Smith et al., 2015).

However, the idea of sustainability presents a teasing paradox throughout much of the hospitality industry. For example, at the operational level, on the one hand, the industry is constantly trying to incorporate sustainability in both its marketing messages and customer experience while, on the other hand, the headline focus is often on conspicuous, consumption which in many ways is the antithesis of sustainability (P. Jones, D. Hillier and D.Comfort, 2016).

2.5.1. Sustainable hotels practices

As an essential component of the hotel industry, hotel operations are distinguished by a large variety of activities that have a direct impact on global resources collectively (Kirk, 1995). Hotels' substantial environmental impacts lead to challenges, many of which are international in nature, with the main one being climate change (Andrea 2007; Bohdanowicz, Zientara and Novotna 2011). Hotel operations generate greenhouse gas emissions, especially CO_2 and chlorofluorocarbons, which are released into the air (Kirk, 1995). According to several estimations, an average hotel is expected to release between 160 kg and 200 kg of CO_2 per square meter of room floor area per year and water consumption per guest per night in the average four / five-star hotel is between 170 and 440 litters. Moreover, the hotels generate on average 1 kg of waste every visitor per night (Han, Hsu and Sheu, 2010). Growing demand for energy supply, growing management of solid waste and contamination of water sources,

soil and air are among the high rates of negative environmental effects in the tourism hospitality sector (Kasim, 2006).

A research executed by Du Plessis, Van der Merwe and Saayman (2012) advise that accommodations units should be supplied with eco-friendly products such as biodegradable soaps and detergents. They also recommend the use, where possible, of paperless communication and billing systems and the delivery of maps or some other information on recycled paper if aesthetically appropriate. Such green practices are designed to draw the attention of companies from markets that support green practices (Manaktola and Jauhari 2007).

As regards creativity in sustainability programs, some hotel chains have a clear strategic advantage over the implementation of Sustainable Technologies and Practices (STPs) in their environmental management strategies. Sustainable technologies can be defined by Barbieri (1997) as those working in the management and use of natural resources within the context of environmental management based on "*sustainability or respecting the ecosystems capacity limits*". Sustainable practices will be those that Barbieri describes as "*efficient and marketing activities that aim to minimize inputs, reuse and recycling*". As explained by Dias and Pimenta (2005), hotels are the largest sector within the tourism industry and must, therefore, be seen as key elements in the cycle of sustainable tourism destination management.

According to David Val Palao (2019), hotels have to take into consideration the 5 R's of a sustainable hotel: Rethink (rethink the business in a sustainable way), Reduce (reduce consumption and waste in its establishment, with the aim of "reducing its impact on the environment), Reuse (either in the hotel itself or as a way of launching and promoting sustainable initiatives in the community), Recycle (essential in the development of the sustainability strategy) and Respect (respecting the natural, social and environmental aspects).

➢ **ENERGY CONSERVATION**

The hotel sector is one of the main producers of jobs and economic income for the tourism industry but is one of the most energy-intensive at the same time. Hotels and other categories of accommodation make up 2% of the 5% global CO2 emissions from the tourism sector. In different hotels, various forms of energy are used. Hotel-generated energy includes electricity, gas, diesel, among others. Electricity is used mainly for refrigeration, illumination, and equipment. Gas and diesel are used as heating, hot water, and cooking fuel (UNWTO, 2019).

Energy is one sustainability problem which can be monitored and regulated and diminished easily. Furthermore, even if energy costs account for a small percentage of hotel operating costs, their reduction will lead to substantial increases in revenues. Energy is the most important source of CO_2 emissions for hotels in terms of environmental impacts, which is a crucial subject in today's sustainability challenges (Energy Solutions, 2019). All accommodations, whether big or small, have a huge opportunity to reduce their carbon footprint and have a beneficial effect on the green movement (Marinela Krstinić Nižić and Stefani Matoš, 2018).

Concerning to operating technology, Webster (2000) has suggested several measures to achieve mid-term energy savings (compensation between one and five years), including the replacement of light fittings, roof insulation, door closing systems, the installation of all radiators with individual thermostats and the adoption of an ongoing energy management training program for the workers. Lighting costs can account for 15 to 25% of hotels energy consumption and 25 to 30% of overall energy costs (Greenhotelier, 2003). According to the Alliance to Save Energy[7], fluorescent lamps generate four times as much lighting per watt as incandescent lamps, and they can work eight to ten times longer.

According to Sarah Alexander (2002), there are several alternatives in order to conserve energy. Strategies from planning for passive solar heating for something as basic as having good insulation will help reduce or remove the need for costly heating and refrigerating. Changing the thermostat settings clearly can make a major difference. Solar power is becoming more widely known as an unlimited natural resource with economic and environmental advantages and it is being exploited in several new systems that provide hotels with creative ways thermal and light power.

Heating, ventilation and air conditioning (HVAC) can account for up to 50 per cent of the overall utility cost of a hotel depending on the geographical location of the hotel (Baker, 2005). Modern air-conditioning technologies require 30% less energy than a 20-year-old device and can reuse power to preheat water for washing or for swimming pools (Greenhotelier, 2004).

The hotel kitchen is another important field for cost and environmental impact. A kitchen can expend about 15 per cent of all the electricity and fossil fuel in a hotel. For guestrooms, the most efficient room energy-saving tool is the use of a cardholder at the room entrance that can connect or disconnect all electrical as well as heating and ventilating systems (Greenhotelier, 2005).

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[7] Alliance to Save Energy; Website: https://www.ase.org/

➢ MANAGEMENT OF WATER

Green management has been aimed at reducing water wastage and enhancing water quality partly because the hospitality industry is significantly impacted by water availability and quality and will face problems in reducing over-consumption and water and water-saving costs (Zhao and Merna, 1992).

Due to its scarcity and its role in several properties activities such as washing, food production, bathrooms and outdoor facilities, water is indeed a vital resource for the hospitality industry (Baker, 2005). Webster (2000) claims that only 5% of the total water intake of a hotel is used to eat and drink while the larger percentage is used for cleaning (including showering, bathing, laundry and dishwashing). Stipanuk (2002) argues that water usage legislation will be tightening up in the future and hoteliers will have no choice except to implement water management strategies and technology to further reduce consumption.

Water scarcity issues have been reported across the planet. Such issues generally involve either the quantity of water or the quality of water, or both. Water quantity is generally defined and relates to the volume of clean water available for its use, whereas water quality refers to water protection and accessibility for human consumption (United Nations Environmental Program [UNEP], 2012).

Development in international tourism to destinations indicates a rise in tourism amenities such as hotels, restaurants, resorts, golf courses, spas and water-related leisure facilities, each of them requiring water (Azilah Kasim et al., 2014). Guest behaviour is one of the key explanations for excessive water consumption in the hotel industry. Hotel guests prefer to use more water than they usually would at home, using a "*pleasure technique*" to shower or bath (Eurostat, 2009).

Kirk (1995) and Kasim (2009) emphasized that although the hotel sector might not be big consumers or polluters in comparison to other sectors, the industry's increasing scale means they may have significant accumulative impacts. Nevertheless, low water prices for manufacturing / commercial use can, therefore .be seen as a barrier for a more water-friendly approach to management.

Practices that are water-intensive use improved technology that provides equivalent or better service with less energy. Water conservation helps hotels to properly understand how and when water is used, resolving water management problems on both the technological and human sides. Several options for water conservation are low-flow showerheads and faucet aerators, which are becoming popular among the hotel amenities. Urinals and automatic flushing toilets are found to use significant volumes of water in many water tests (Sarah Alexander, 2002).

> **PLASTIC POLLUTION**

Because of their flexibility, durability, mechanical resistance and economic affordability, the use of plastic materials has grown at an unprecedented level in virtually every inhabited corner of the world over the last half-century. Plastic items such as straws (introduced in 1960), plastic bottles (1970), shopping bags (1982) and tetra packs (1983) have become key elements to the lifestyle of everyday routine (Reachel Nabirye, 2017). The lack of restrictions, personal and social conduct habits, and consumption patterns; inefficient usage and inadequate management cause and increase the unregulated concentration of plastics in the terrestrial and marine environment (Auta et al., 2017).

For instance, as Dhimer (2017) describes, micro-plastics reach the marine food chain quite quickly and accumulate in the gastrointestinal tracts of edible seafood, while tiny material and the associated toxins accumulated in the flesh may quickly migrate up the food chain to humans. Litter also raises the risk of susceptibility to many diseases and health problems (Fewtrell and Kay, 2015).

As for the contamination source, Ivar do Sul and Costa (2013) found evidence that all these species are not only affected by marine-based activities (e.g. commercial fisheries, leisure activities, etc.) but rather from land-based human actions which are often related to the hospitality industry. In Spain, for example, there is an increasing concern about environmental costs such as degradation and over-exploitation of natural resources due to tourist development (Bujosa and Rosselló, 2007).

There's no doubt that the world is facing a big issue when it comes to plastics use and disposal. Plastics have been one of the most commonly used and manufactured materials worldwide in a period of just 60 years. They are cost effective, lightweight, robust, and recyclable (TUI, 2019).

TUI Group (2019) recognizes that we must all assume responsibility for reducing their consumption, particularly when more environmentally sustainable alternatives are now available more rapidly. According to The Ellen MacArthur Foundation[8], "*if nothing changes, in 2050 there will be as much plastic waste in the oceans as there are fish*".

The ' 4-Rs ' concept (TUI Group, 2019) help to control the usage of the plastic: Reduce, Reuse, Replace and Recycle. Reduce the excessive use of plastics among the businesses, test what plastic objects can be changed for reusable one, replace plastic products of single-use with more natural alternatives, and ensure that the plastic items used are recyclable and composed by recycled plastic.

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[8] The Ellen MacArthur Foundation; Website: https://www.ellenmacarthurfoundation.org/

> ➢ **CO2 EMISSIONS (AIR QUALITY MANAGEMENT)**

Hotel activities produce greenhouse gas emissions, specifically CO_2 and chlorofluorocarbons, which are released into the air. According to some estimations, an average hotel produces between 160 kg and 200 kg of CO_2 per square meter of room or area each year and consumes between 170 and 440 litres of water each guest per night in the average of a four/five-star hotel (Mbasera, M. et al., 2016).

Tourist transport is a key participant to environmental emissions associated with the mode of transportation and journeys travelled during a trip, fossil fuel consumption and the production of CO_2 emission. Air conditioning and lighting in hotels include direct and indirect energy consumption; therefore, the amount of CO_2 emissions can be measured accordingly. Research of the use of hotel energy resources and CO_2 emissions is essential because visitors are highly independent in the choice of accommodation with different facilities and service levels (Kang-Ting Tsai et. al., 2013)

Focusing on the hospitality sector, which accounts for 2% of global CO_2 emissions, Near Zero Energy Building (NZEB)[9] technologies may bring major benefits. The first benefit found is that energy consumption in hotels is generally higher than in residential buildings, therefore there is a greater potential for energy-saving measures. The second benefit is that hotel guests will feel the comfort of living at NZEB and learn how to replicate applicable architectural and technological solutions at home as well. Finally, initiators ' strategic advantages would force other hotels to replicate their strategies (Energy Solution, 2019).

Hotels are among the most demanding energy consumers in all the building stock categories (Dascalaki and Balaras, 2004). This is because of their 24-hour service, the different range of facilities and services offered, and the often-careless use of energy (Deng, 2003).

> ➢ **PAPER REDUCTION**

Strategies for recycling and reuse have also been used as sustainability programs within the hotel industry. These include recycling schemes for selected products such as paper, cardboard, cans, bottles, shipping pallets, glass, plastic, printer cartridges, landscape waste and the use of recycled paper (Lai Hong Chunga and Lee D. Parkerb, 2009). Green information technology (IT) is a term used to characterize the effective use of digital resources. Green IT arises from device suppliers who create environmentally friendly products and enable consumers to follow environmentally friendly practices, for example, by reducing the use of paper by minimizing printing, working more effectively with power

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[9] Near Zero Energy Building (NZEB); According to Article 2 "*nearly zero-energy building*" means a building that has a very high energy performance; European Comission; Website: https://ec.europa.eu/energy/content/nzeb-24_en

management and practising appropriate recycling habits (Michael L. Kasavana 2008). According to the Washington Department of Environmental Protection (2000), recycling paper employs 60% less energy than fresh timber paper and eliminates emissions by 50%.

While on the age of incredible technological advancements, relying on paper for the everyday customer transactions not only seems old-fashioned but also unnecessary. Today almost everyone owns and uses a smartphone. Each business has to adapt to its audience; therefore, most hotels have also created their mobile applications and blogs which customers can benefit. Customers can also pay bills through these services, check-in and check-out and send all feedback and suggestions at their disposal. Smart travel assistants provide resources that help hotels better serve the needs of their guests, ensuring their stay exclusive and affordable by removing the need to print menus, catalogues, leaflets and any other paper-based marketing material that hoteliers use to promote their ancillary services (Giles Kirkland, 2019). Furthermore, hotels can purchase recycled paper items, such as paper towels, toilet fabrics, facial tissues, napkins and menu papers (Snarr and Pezza, 2000).

> **SOLID WASTE MANAGEMENT**

Many human actions produce waste, and how this waste is managed, stored, processed and disposed of can present environmental and public health risks (Zhu et al., 2008). Recycling is at the frontline of handling waste-related issue effectively. This is one of the methods used alongside reduction and reuse in Integrated Solid Waste Management (Memon, 2010).

Waste disposal in landfills generates greenhouse gas (GHG) emissions which contribute to environmental degradation. Prevention and recycling of waste, generally referred to as waste management, helps to handle solid waste in a better way, leading to decreased disposal in landfills and thus fewer GHG emissions (Nripendra Singha et al., 2014). One of the main contributors to organic/wet waste in landfills is the hotel sector, which is the major cause of GHG emissions. Bacot et al. (2002) report that approximately 45% of all solid municipal waste is generated for commercial sector facilities, which hotels represent 23%. Hotel waste can be commonly categorized as both dry and wet waste. Wet waste generally includes organic waste (food waste, garden waste, cooking oil waste) and dry waste comprises recyclable waste such as metal, plastic, paper, linen, among others.

Baker (2005) argues that "*costs can be greatly reduced by waste reduction and replacing conventional waste disposal activities with practices aiming for reuse, disassembly, recycling and composting*". Baker (2005) notes that the majority of the waste will be created during a hotel's operational cycle.

Because of this, waste management strategies should be introduced very early, during the creation of the hotels. Reducing waste begins in the procurement department, guaranteeing that products are purchased with limited packaging (Stipanuk, 2002).

➢ **FOOD WASTE**

In previous studies, it is explained that there is a difference between food loss and food waste. It is pointed out that food loss means the decrease in food mass or in its quality, which makes it unsuitable for human consumption (FAO, 2011, in Cuglin, Petljak, and Naletina, 2017). Another source suggests that food loss is food spills, spoils, creates an irregular consistency reduction such as bruising or get lost until it hits the customer. In the food supply chain, food loss typically occurs at the stages of production, storage, manufacturing, and distribution (Lipinski, 2013). Hotels generate food that has significantly impacted the environment, social well-being and tourism economy. Sustainable food waste management strategies are critical in the hotel sector's business operations to reduce food waste and operating costs by using food resources effectively (Saraswathy Kasavan, Ahmad Fariz Mohamed and Sharina Abdul Halim, 2017).

Tourists consume more food than at home and eat more food imported than at home (Gössling, 2015), thus increasing the tourism-related environmental impact on the destinations (Hunter and Shaw, 2007). Buffets can also increase the cost of food service, since more food is consumed (Kuo and Shih, 2016) and more food is taken, but not eaten (Wansink and Ittersum, 2013). Higher food demand and increased plate waste have negative environmental impacts. There is a need to produce, transport, store and process more food (Emil Juvan, Bettina Grün and Sara Dolnicar, 2017).

Adopting a food waste reduction system in a hotel, while developing a more environmentally friendly hotel, will generate substantial cost savings in waste hauling charges. Reducing food waste can often be a large part of the waste generated in hotels and accommodation facilities. Overpreparation, table scraps, losses in cooking and deficiencies in packaging contribute to food waste build-up. Since it is possible to recycle wasted food, hotels are gradually realizing that composting is a safer use of organic materials rather than exporting them to landfills (Sarah Alexander, 2002).

➢ **LOCAL PRODUCTS**

Creating local, self-reliant, community economies (Fred Curtis, 2003) is the path to environmental sustainability. A growing interest in local food among consumers, social movements, the media and academia over the last decades has been focused on strong perceptions that local food is more affordable, more environmentally friendly and healthier (Adams and Salois, 2010; Thilmany et al.,

2008). Research by Weber and Matthews (2008) in the US also discovered that changing diets would be more effective than relying on miles of food to reduce the effects of food consumption.

Connecting tourism to farming can minimize foreign-exchange leakage (Smith and Jenner, 1992; Bah and Goodwin, 2003). Tourist hotels should, therefore, acquire local goods, as opposed to imports. The type of tourism enterprise depends on a hotel buying local agricultural produce. Shah (2000) pointed out that there is a very high probability of using local supplies in cases where formal sector tourism firms are operated by the local elite. In his research, Andriotis (2002) stated that 85 per cent of tourism companies bought their local fresh food supplies, and smaller tourism companies were more likely to purchase their local supplies. Finding ways to help farmers tap into the hotel and restaurant markets will increase participation (Ashley, 2006).

When tourists eat at a destination they are not only fulfilling their hunger but also experiencing local culture and engaging with their hosts. Nonetheless, the demand from tourists for local food exists at various intensity levels. Many tourists arrive in the area exclusively for gastronomy, some see local food as a by-product of their cultural experiences, and others, as familiar food (Tarik Sengel et al, 2015). Therefore, local food and beverage consumption can be an incentive for visiting a destination. It can also be believed that the increased use of local food in tourist destinations would eventually contribute to the local economy. Besides, it can be claimed that the use of local food products in the tourism industry could have advantages such as providing tourists with new and high-quality products and their benefits for producers and suppliers (Kurtulus Karamustafa; Mustafa Ülker, 2017).

> **STAFF TRAINING**

Studies in operations management have been inspired to try and recognize the effect on the workplace of environmental factors, awareness-raising and individual environmental values (Angell and Klassen, 1999). Internal stakeholders are important to training, as workers are often the primary targets and beneficiaries of constructive environmental initiatives within an organization (Daily and Huang, 2001). Support and governance from managers are crucial to maintaining an organizational awareness of environmental concerns and engagement (Zhu et al., 2008). By incorporating environmental education, businesses will attract qualified candidates who have a clear desire to work in organizations with a positive philosophy of environmental management (Reinhardt, 1999).

Training programs which focus on educating and enhancing education for employees of the organization can help to overcome the barriers that can be identified when implementing

environmental practices. With this new insight, workers will then understand how their roles and actions will influence and affect the environment (Joseph Sarkis et.al, 2009).

Different studies have shown that training is a crucial factor in implementing environmental management programs by improving the attitude and actions of managers and workers (Sammalisto and Brorson, 2008). The strong involvement of the management and its strategic alignment, as well as the encouragement and engagement of the staff, have a positive effect on the company gaining a competitive advantage based on environmental action; training is intended to help this initiative (del Brio et al., 2007). Nevertheless, the effectiveness of a hotel in implementing green practices depends not only on the corporate approach to environmental issues but also on the willingness of its workers to protect the environment (Ramus and Killmer, 2007). As Sweetman (2007) stated, "*No matter how good your policies and practices look on paper, you will change nothing without the active support of employees across the organization*".

Batstic and Gojcic (2012) argued that the eco-behaviour of hotel employees is the most important influence on the impressions of visitors about the efficiency of the green practices of a hotel. The attitudes of hotel employees also directly influence the recycling practices of visitors. Well educated, environmentally aware attitudes among members of the hotel staff indirectly influence the environmental attitudes of visitors. Through providing employees with education and training, the best way to deliver environmental policies is to allow employees to understand what the company wants from them and how they can fulfil the expectations (Pichel, 2008).

> **BIODIVERSITY PROGRAM**

Biodiversity is another method of environmentally friendly practice. Biodiversity is defined "*as the very basis of life on earth which remained one of the pillars of sustainable development*", according to the United Nations (2007). Towards this, it is necessary to consider the fact that diversity of life forms on earth enhances the ecosystem services on which humans rely, among others, for food, shelter, medicine and clothing. In addition to preserving the habitats from natural disasters, the protection of biodiversity also improves the environmental aesthetic quality (Grimes, Bouchair and Tebbouche, 2017; Orie, 2018), particularly in the hotel and tourism industry.

The decrease in the biodiversity of the planet has no precedent. For instance, extinction threatens 25% of mammals, 11% of birds, 20% of fish, and 13% of plants (Accor, 2006). Mensah (2006) discovered that protecting the environment also meant that flowers and other ornamental plants kept

the surroundings green and attractive. Accor (2006) proposed that hotels would contribute to preserving local biodiversity through the creation of green areas and giving donations and supporting environmental groups.

The hotel is required to protect and conserve the aesthetic quality of the environment because the better the quality of the environment, the higher the proportion of visitors who are likely to be able to visit the area. Therefore, common benefits are created between the hotel and the natural environment (Han, Yoon, 2015; Wan, Chan, and Huang 2017).

2.5.2. Certifications

- Tripadvisor's greenleaders

The GreenLeaders Program of TripAdvisor was created to recognize hotels and B&Bs which implement environmentally friendly practices. To demonstrate their contribution to the environment, a GreenLeader logo is shown on a TripAdvisor profile of a property. According to its website, the program was designed with help from other green industry expert organizations.

Figure 1. Tripadvisor's Greenleaders logo
Source: tripadvisor.com

In order to meet the minimum GreenPartner level, properties must have linen and towel re-use plans, track energy usage regularly, recycle, use energy-efficient light bulbs, educate staff and guests on green practices and properly treat wastewater (either using on-site or municipal sewage system).

Businesses must also complete a survey and obtain a minimum score to qualify as a GreenLeader. Badge levels are bronze, silver, gold and platinum.

- LEED certification

The LEED certification or LEED acronym for Leadership in Energy and Environmental Design is the method of evaluation of sustainable buildings with more international projection through objective design guidelines and quantifiable parameters. The final evaluation of the LEED certification is granted by the Council of Sustainable Buildings of the USA, U.S. Green Building Council, USGBC®.

Figure 2. LEED logo
Source. U.S. Green Building Council

The LEED certification is based on the incorporation into the project of aspects related to the sustainable development of the free spaces of the plot, water consumption efficiency, energy efficiency, the use of alternative energies, improvement of indoor environmental quality and material selection and construction waste management.

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Many benefits can be described when implementing LEED certification, it can be mentioned, for example, a building designed based on LEED certification guidelines can save between 30% and 50% of energy compared to traditional buildings, LEED-certified building increases occupant productivity, reduces the negative effects of construction on the environment, reduces greenhouse gas emissions to the environment, preventing damage to the ozone layer, favourable to climate change, reduces waste sent to landfills, conserving natural environments, protecting ecosystems and biodiversity, among others.

LEED certification is voluntary and increasingly applied, it guarantees through an independent agent, the analysis and validation of the sustainability of a building. Each of these categories is made up of a series of prerequisites, depending on the number of credits approved, the amount of total points achieved per category is assigned. The levels can be LEED certificate, LEED silver certificate or LEED silver certificate, LEED gold certificate or gold LEED certificate, LEED platinum certificate or LEED platinum certification.

- BIOSPHERE

BIOSPHERE is an international and voluntary certification, based on the principles of sustainable development, with specific criteria and requirements covering all three areas of the sustainability, that is, the environmental, cultural and social variables of development.

Figure 3. Biosphere logo
Source. Biosphere tourism

The BIOSPHERE certification recognizes and certifies companies, destinations, tourism products and establishments that have made sustainable tourism the central axis of their activities and, therefore, are examples of sustainability in the tourism sector worldwide. With the certification, the Responsible Tourism System seeks to achieve a sustainable and differentiated destination, product or tourism company that implies a guarantee of added value to the visitor.

Some of the benefits derived from the implementation of the Biosphere certification are fundamentally focused on the preservation and proper management of natural and landscape values, the protection of heritage and cultural diversity, guaranteeing its permanence and conservation over time, as well as its enhancement as a tourist resource, the improvement of the quality of life of the local community, among others.

- CETS

The European Charter for Sustainable Tourism in Protected Natural Areas (CETS) is an initiative of the EUROPARC Federation, an organisation in 38 European countries that brings together protected natural areas. EUROPARC is the managing entity that grants accession to CETS to protected areas in which it verifies that

Figure 5. Europarc logo
Source: EUROPARC federation

there is a commitment to apply the principles of sustainable tourism. It is a voluntary method and commitment; CETS guides managers of protected natural areas and tourism businesses to define their development strategies jointly and in a participatory manner. CETS improve the sustainable development and tourism management of the protected area and its area of influence, considering the needs of the environment, the population and local businesses and visitors. Involve local businesses in a common sustainable tourism project.

Regarding the protected natural space, the benefits found are the protection and conservation of the territory, improvement of the tourist offers integrated into the space. On the other hand, the benefits focused on tourism businesses are having useful tools for the sustainability of the company, technical support and network promotion. Furthermore, the benefits for tourists are the idea of enjoying a unique and sustainable experience with a higher level of service quality. Finally, the benefits for administration follow the opportunity to improve the image of the territory and reliable criteria to distinguish companies and sustainable practices.

- Environmental quality guarantee badge

The Environmental Quality Guarantee Badge is a Catalan eco-labelling system that recognizes products and services that exceed certain environmental quality requirements beyond those established as mandatory by current regulations.
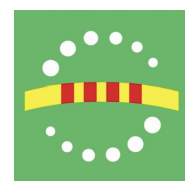
Figure 6. Environmental Quality Guarantee Badge logo
Source: AOC

The main goals of this certificate are to promote the design, production, marketing, use and consumption of products and services that favour the minimization of waste or the recovery and reuse of by-products, materials and substances they contain, and also those that involve a saving of resources, especially energy and water. Moreover, it aims to provide consumers with more reliable information on the environmental quality of products and services, which guides them in their use or purchase decisions. It is compatible with other official environmental quality assurance systems.

- EMAS regulation

EMAS is the acronym for Eco-Management and Audit Scheme. It is an instrument of environmental management for companies and other organizations, of voluntary application, that allows to evaluate the environmental impact, improve it in qualitative and quantitative terms and declare it in an official and transparent way. Organizations that successfully verify their environmental management system according to the EMAS Regulation obtain the EMAS badge and are recognized by the European Union.

Figure 7. EMAS logo
Source: AENOR

As in ISO 14001, the EMAS environmental management system obliges the company to comply with a series of environmental requirements and environmental regulations. Among the main differences, it is basically found that the EMAS Regulation obliges to have a greater degree of commitment and requirement than ISO 14001, especially in the face of compliance with environmental legislation.

The implementation of the EMAS Regulation implies an initial environmental diagnosis that contemplates the environmental assessment of all aspects related to the production processes and services provided by the organization. ISO 14001 also performs this environmental assessment of environmental aspects, but not as an individualized and initial environmental diagnostic process but as a continuous process linked to the operational control of the management system.

- EU Ecolabel

Founded in 1992, the EU Ecolabel is an environmental labelling scheme approved by a third party, Type I (ISO 14024), aimed at promoting products and services which have a reduced environmental impact, thereby helping European consumers to identify more environmentally friendly products.

Figure 8. EU Ecolabel logo
Source: European Comission

Recognized in Europe, the EU Ecolabel is a label of environmental excellence awarded during their life-cycle to products and services that meet high environmental standards: from the extraction of raw materials to manufacturing, distribution and disposal.

The EU Ecolabel covers an expansive range of product categories, from major production areas to visitor accommodation. Key experts create the requirements for each product category in collaboration with the main stakeholders in order to reduce the major environmental impacts over

the product's entire life cycle. As the life cycle of each product and service is different, the standards are adjusted to reflect the specific features of each type of product.

In an average of four years, the requirements are revised to reflect technical innovation such as the evolution of materials, production or reduction in emissions and market changes.

- Catalan council for organic agricultural production

The Catalan Council for Organic Agricultural Production (CCPAE) is the control authority of Catalonia and its function is to audit and certify the organic food products of our country. CCPAE is a corporation under public law, with its own legal personality. This agency is administratively governed by the Generalitat de Catalunya Department of Agriculture, Livestock, Fisheries and Water.

Figure 9. CCPAE logo
Source: Gencat.cat

Organic certification guarantees that products have been produced or made in accordance with the rules of organic farming and that they have been controlled throughout their production, processing, packaging and marketing processes. Organic vegetable products are products grown without chemical fertilizers or pesticides (fungicides, insecticides or herbicides). Therefore, without waste of these substances. Organic animal products are products that come from livestock that provide decent living conditions for livestock and herds, with respect for their biological and behavioural needs.

2.6. Sustainable hotels in Catalonia

Catalonia, one of the world's leading tourist destination, also wants to become a reference in responsible and sustainable tourism. Thanks to ancient history, a privileged cultural and landscape heritage and a mild and stable climate, Catalonia has become one of the first international tourist destinations. Now, in addition, visiting Catalonia can become an environmentally sustainable and socially inclusive experience (Generalitat de Catalunya[10]).

The sector faces two distinct sets of challenges as a result of the early growth of large-scale tourism in Catalonia; fixing deep-rooted deficiencies in many of the established resorts and implementing sustainable practices in destinations currently in development. For the relative overall sustainability of mature destinations, it must be struck a balance between the very restricted potential of many

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[10] Generalitat de Catalunya; Website: https://web.gencat.cat/ca/inici

natural resources and the operational feasibility of such combined infrastructures and facilities generating employment (Priestley and Mundet, 1998; Priestley, 2007).

Catalonia works intending to help destinations and tourism companies move forward firmly towards the goal of seeking sustainable and responsible tourism. Through la Catalan Tourist Board, it promotes responsible management models, which includes guidance on the different certificates or stamps that allow to prove their sustainability and ensuring that more and more spaces and destinations are accessible to all. Awareness of the tourism sector of the importance of the elements and effects of climate change and the implementation of criteria for eco-efficiency in establishments and supporting those initiatives that seek to reward good practices in these aspects (Agencia Catalana del Turisme[11]).

The Catalan Tourist Board gives us some practical advice for committed tourism which focuses on looking for good information on the environmental characteristics of the place people is visiting, use public transport and, at the destination, try to move by bicycle or by foot. Also, when looking for accommodation or a place to eat, they recommend getting information on whether the establishment is committed to sustainable and responsible tourism. Finally, they also agree on do not oversize the consumption due to being on vacation and to look out for the respect and conservation of the culture, customs, gastronomy and traditions of local populations.

Sustainable development goals

The National Plan for the 2030 Agenda[12] aims to implement the 2030 Agenda in Catalonia, ensuring the achievement of the 17 Sustainable Development Goals (SDGs) through public policies promoted by the Government of Catalonia. The Plan is conceived as a dynamic instrument, which must be improved as it progresses through the periodic updating process. From the approval of the Plan, channels of participation of experts and actors of civil society will be opened through the participation and consultation authorities of the Generalitat of Catalonia to make contributions and amendments, which will be delivered to the authorities promoting and coordinating the Plan.

The Plan has been prepared with the participation of the 13 departments of the Generalitat. It includes 696 unique commitments that become 920 because some of them are included in several SDGs or in addition to a milestone in the same SDG, reflecting the cross-cutting nature of the UN 2030 Agenda

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[11] Generalitat de Catalunya: Agència Catalana del Turisme; Available at: http://act.gencat.cat/act-about-us/act-about-the-catalan-tourist-board/?lang=en

[12] Gencat (2019), Pla nacional per a la implementació de l'Agenda 2030 a Catalunya. Available at: http://cads.gencat.cat/ca/Agenda_2030/pla-nacional/(Accessed March 12, 2020)

and the plan. The Plan is intended as an instrument to ensure the coherence of policies for sustainable development. The 2030 Agenda for Sustainable Development was approved by the General Assembly of the United Nations on September 25, 2015 - by resolution "*Transforming our world: The 2030 Agenda for sustainable development*" - to stimulate action in 5 spheres of critical importance (known as 'the 5 P'): people, the planet, prosperity, peace and partnerships.

2.7. Sustainable hotels in la costa brava

The Costa Brava has started the race to be declared a Biosphere reserve in this 2020, an international recognition granted by UNESCO that advocates the conservation of the landscape, the ecosystem and sustainability. If the process is completed successfully, it would be the third destination of Catalonia with this seal after Montseny and Terres de l'Ebre. Worldwide there are about 700 biosphere reserves, of which 48 are in Spain, the country with the most distinctive in the world (Silvia Oller, 2018).

The preliminary proposal with which the "*Diputación de Girona*" works is that the Costa Brava reserve covers 70 municipalities of Alt Empordà, Baix Empordà and La Selva with the only exception of Llagostera, in the Gironès. In total, the future reserve would embrace an area of approximately 4,170 square kilometres, of which 69% would be marine and 31% land. The destination of Torroella de Montgrí and l'Estartit (Baix Empordà) has been distinguished as one of the ten most sustainable destinations in the world according to the international organization Green Destinations. The two villages include the Medes Illes, the Montgrí massif, the Baix Ter wetlands and the Life Pletera project that has converted urbanization into a protected natural area (Costa Brava official website).

The Costa Brava promotes a sustainable tourism development strategy for the Costa Brava Girona Tourism Board of the "*Diputación de Girona*", and in accordance with the implementation of the Tourism Marketing Plan of Catalonia 2018-2022, promoted by the Department of Tourism 'Company and Knowledge of the Government of Catalonia, they stated: "*Sustainability as an opportunity for tourism companies and destinations*". A cycle of conferences and round tables organized by the Costa Brava Girona Tourism Board of the "*Diputación de Girona*", which aimed to work and raise awareness of the importance of creating a quality and sustainable tourism offer between about a hundred companies and tourist entities of the Costa Brava (Costa Brava, Marca turística, 2019).

2.8. Sustainable Marketing

One of the biggest issues in recent years has been the narrow marketing approach embraced by the travel and tourism sector. Sustainability marketing may also make effective use of marketing skills and techniques through comprehending market needs, creating more sustainable good and distinguishing

more constructive communication strategies to bring about behavioural change (Xavier Font and Scott McCabe, 2017).

Successful market segmentation and targeting implicate suitable adaptation of tourist needs towards the experience offered and in the case of sustainable tourism, it is particularly important to have this match into consideration (Tregear et al., 1997). According to Adarsh Batra (2006), one of the major issues to take into consideration is the need to maintain a clear focus on the idea of sustainability. Sustainability, in marketing terms, is a matter of product quality. In the developed world, there is no clear evidence that more than a small minority of travellers understand the principles of sustainability and environmental good practices when selecting products. Tourism organisations, irrespective of how individuals may act when they arrive, have continued to promote "*anyone and everyone*" to visit a particular region. The new environmentally conscious principles now emerging, are challenging the fundamental marketing concepts.

According to Babakhani, Ritchie and Dolnicar (2017), some scientists start applying ground-breaking psychological and sociological techniques to enhance the interpretation of the connection between the situation of consumers as their desires, behaviours and intentions and their actual behaviour as tourists to distinguish market segments willing to buy more sustainable services or act in a more environmentally friendly manner while on vacation.

Fear-based messages, including ads addressing possible climate change consequences, has been found to be less successful than other forms of messages because users are not individually able to respond to such messaging and find this difficult to imagine future scenarios. Some research suggested that marketing messages would concentrate on encouraging consumers' own change capabilities to be more effective (Van der Linden, 2014).

Jones et al. (2008) point out that some critics claim that marketing encourages excess consumption, a culture of materialism and an unremitting quest for unreachable lifestyles; for and for those who cannot afford them, and for whom their success does not necessarily make them happier. In addition, other marketing activities, especially ads, have been explicitly criticized for spurious claims in promoting sustainability, epitomized in greenwashing practices, misleading customers on the environmental performance of a product for business benefits (Delmas and Cuerel Burbano, 2011; Laufer, 2003). Greenwashing is not a new phenomenon. The term has been widely recognized and accepted since the mid-1980s in order to describe the practice of making unjustified or overblown

statements of sustainability friendliness in an attempt to increase market share (Environmental Health Perspectives, 2010). This rise in sustainable tourism has some organizations concerned about watering down the meaning of ecotourism and is used as a marketing tool to tap into increased demand to raise revenue (Powell and Ham, 2008).

Due to the lack of standardization and marking in the use of the word "*eco*" concerning tourism, "*it seems that any company offering an experience in the great outdoors can simply add the word eco-tourism to its advert or brochure, whether the holidays live up to the name is another matter*" (Baker, 2005). According to Constantineau (2007), most ecotours are just ordinary operations that "greenwash" themselves by accepting the tourism label while doing almost nothing to act responsibly on the environment. Since ecotourism is increasing most rapidly with the weakest regulations in developing countries, strict standards are required to reduce greenwashing (Clayton, 2004).

2.9. Sustainability effects in guest satisfaction, loyalty and customer experience

Sustainability is one of the main factors affecting customer understanding, decision-making, satisfaction, loyalty and willingness to pay, as customers pay more attention to product and service environmentally friendly features. Research in the green hotel sector also confirms that sustainability can help hotels build a good image, enhance guest satisfaction, stimulate consumer behavioural intentions to stay at hotels, and even increase consumers' willingness to pay extra premiums (Tsai-Chiao Wang et al., 2019).

The impact of quality and environmental management on competitive advantage and environmental management enhances competitive edge in various factors such as cost benefits and brand image creation, retaining customers by implementing organizational environmental practices. Hotels have benefited from green management, such as augmented reputation and better-quality customers (Sashi Bhushan, Dr. Jyoti and Dr. Gunjan Malik, 2018). Tourists are constantly aware of environmental concerns and are more conscious of their decision-making in the tourism sector, not just in their choice of destination but also in their loyalties (Mercadé, Molina and Sousa, 2020).

Given some evidence of a positive correlation between corporate environmental management and the satisfaction they receive from their customers, and growing demands for companies to coordinate their environmental policies to have a positive effect on natural environment sustainability, customer satisfaction is also associated with the improved environmental performance of companies. As some evidence shows, customers are not only interested in companies undertaking environmental

initiatives but are also interested in the environmental performance of those initiatives. They are interested in companies giving prominence to the wellbeing of the natural environment (Taryn Renatta De Mendonca and Yan Zhou, 2019). Environmental sustainability has a direct and positive impact on the customer's experience in accommodation and, indirectly, on their satisfaction. The key conclusion is that it is possible to demonstrate the connection between environmental sustainability and the customer experience in the hospitality industry. The history of the customer experience must be explored in the different moments of truth in the journey of the customer (pre-consumption, consumption, and post-consumption) (Moliner et al., 2019).

2.10. The future of sustainability

Hotel management companies should engage in a pro-ecological and pro-social activity designed to address the well-being of their employees and guests (Borkowska-Niszczota, 2015). Today, some hotel chains and independent hospitality businesses integrate sustainable practices into their daily business. International hotel chains like Marriott, Hilton, Fairmont and Accor made significant steps towards "corporate hotel sustainability". Examples of sustainable measures that they make are waste separation, efficient use of energy and water, installation of solar systems and water purification means (Bader, 2005).

Customers will be seeking even more green businesses in the future and hotels will need to listen to them to be successful. Furthermore, governments and European regulations will force hotel businesses to behave more responsibly. Businesses will also be motivated to behave more sustainably and to incorporate sustainable practices in their daily business (Bader, 2005).

Therefore, it is surprising that no more hotel owners, especially corporate owners, find sustainability as essential to their business or integrate it more deeply into their operating philosophy. This is a start to what has been achieved in the hotel industry so far, particularly by global companies. But it has to be understood that in the near future deeper changes are required. The issue is taken more seriously by the independent hotels, resorts and eco-lodges around the world that operate only for the sake of sustainability. This needs to be done globally, and the latent demand for responsible business practices is the first sign that it is beginning (Elana E. Bader, 2005). There is a substantial need to design a new tourism development strategy focused on the use of so-called "*green technologies*". Such a developmental tourist paradigm must be based on the principles of protecting the environment, population awareness and the use of renewable energy sources with a commitment to ensuring sustainable development (Ljerka Cerovic and Danijel Drpic, 2012).

SCHOOL
OF TOURISM
& HOSPITALITY
MANAGEMENT
SANT IGNASI
RAMON LLULL UNIVERSITY

LITERATURE REVIEW MAIN ARGUMENTS		
TOPICS	**MAIN AUTHORS**	**IMPORTANT ARGUMENTS**
CSR	Votaw (1972)	Corporate social responsibility means something but not always the same to everyone
	WBCSD (2001)	CSR as businessparticipation in contributing to sustainable economic development, collaborating with workers, their families and local communities
	Font, Walmsley, Cogotti, McCombes and Hustler, (2012)	Businesses do have to report on their CSR activities, so consistency in reporting is important if corporations want to take their decisions into account
TBL	Elkington (1997)	TBL describes the environmental agenda's extension in a way that combines the economic and social lines. Elkington used the words profit, people, and planet as the three lines in his description of TBL.
	Goel (2010)	TBL provides a framework for assessing business performance and organizational progress using three lines: economic, social, and environmental.
	Dias & Pimenta (2005)	Hotels represent the largest sector in the tourism industry and must consequently be considered as crucial components in the cycle of sustainable tourism destination management.
	Wahab and Pigram (1997)	Tourism must offer products operating in accordance with the local environment, attitudes and cultures of the community so that they become constant beneficiaries rather than "victims" of the growth of tourism.
UNWTO	UNWTO (2019)	Sustainable development of tourism requires the active involvement of all relevant stakeholders, as well as strong political leadership to ensure broad participation and build consensus.
SUSTAINABLE TOURISM	WTO	Sustainable tourism growth satisfies the needs of present visitors and host regions, while safeguarding and enhancing future opportunities
	Brundtland Commission Report (1987)	Sustainable development as the development that addresses present-day needs without undermining future generations' ability to meet their own needs
	Marin, C. and Jafari, J. (2002)	Tourism is luckily becoming more prudent, smarter, more compassionate, healthier and greener and is driven by certain concepts of practicing sustainability
SUSTAINABLE HOTELS	Fabricia Silva da Rosa and Luana Caroline Silva (2017)	The hotels generate environmental impacts to develop their activities and services that may contribute to the depletion of natural resources and to global warming.
	Alexandra Bruns-Smith et. Al. (2015)	Hotel operators are well aware of the significant benefits of sustainability, and lots of them publicly promote resource conservation
SUSTAINABLE HOTEL PRACTICES	Kirk (1995)	As an essential component of the hotel industry, hotel operations are distinguished by a large variety of activities that have a direct impact on global resources collectively
	Timothy & Teye (2009)	The hospitality industry has represented a crucial role in ecological degradation as a part of tourism, although its impacts have not been as significant as those of cars, airlines and cruise ships. An increased solid waste burden is, however, another primary environmental effect of hotel operations
	Barbieri (1997)	Sustainable practices will be those that Barbieri describes as "efficient and marketing activities that aim to minimize inputs, reuse and recycling
SUSTAINABLE MARKETING	Tregear et al. (1997)	Successful market segmentation and targeting implicate suitable adaptation of tourist needs towards the experience offered and in the case of sustainable tourism, it is particularly important to have this match into consideration
	Adarsh Batra (2006)	One of those major issues to take into consideration is the need to maintain a clear focus on the idea of sustainability
	Van der Linden (2014)	Some research suggested that marketing messages would concentrate on encouraging consumers ' own change capabilities to be more effective
	Powell & Ham (2008)	This rise in sustainable tourism has concerned about watering down the meaning of ecotourism and used as a marketing tool to tap into increased demand to raise revenue
GUEST SATISFACTION	Pere Mercad. Mel., et. al. (2020)	Tourists are constantly aware of environmental concerns and are more conscious of their decisionmaking in the tourism sector and also in their loyalties
	Taryn Renatta De Mendonca and Yan Zhou (2019)	They are interested in companies giving prominence to the wellbeing of the natural environment
FUTURE OF SUSTAINABILITY	Bader, 2005	Customers will be seeking even more green businesses in the future and hotels will need to listen to them to be successful. Businesses will also be motivated to behave more sustainably and to incorporate sustainable practices in their daily business
	Elana E.Bader 2005	No more hotel owners, especially corporate owners, find sustainability as essential to their business or integrate it more deeply into their operating philosophy

Table 1. Literature review main airguments.
Source: Own elaboration

SUSTAINABLE HOTEL PRACTICES MAIN ARGUMENTS		
HOTEL PRACTICES	**MAIN AUTHORS**	**IMPORTANT ARGUMENTS**
ENERGY CONSERVATION	UNWTO (2019)	The hotel sector is one of the main producers of jobs and economic income for the tourism industry, but is one of the most energy-intensive at the same time. In fact, hotels and other categories of accommodation make up 2% of the 5% global CO2 emissions from the tourism sector
	Sarah Alexander (2002)	Solar power is becoming more and more widely known as an unlimited natural resource with economic and environmental advantages.
	Baker, 2005	Heating, ventilation and air conditioning can account for up to 50 per cent of the overall utility cost of a hotel depending on the geographical location of the hotel
WATER MANAGEMENT	Zhao and Merna, 1992	Green management has been aimed at reducing water wastage and enhancing water quality partly because the hospitality industry is significantly impacted by water availability and quality and will face problems in reducing over-consumption and water and water saving costs
	Webster (2000)	Only 5% of the total water intake of a hotel is used to eat and drink while the larger percentage is used for cleaning (including showering, bathing, laundry and dishwashing)
	Stipanuk (2002)	Water usage legislation will be tightening up in the future and hoteliers will have no choice except to implement water management strategies and technology to further reduce consumption.
PLASTIC POLUTION	Auta et al.,(2017)	The lack of restrictions, personal and social conduct habits, and consumption patterns; inefficient usage and inadequate management cause and increase the unregulated concentration of plastics in the terrestrial and marine environment
CO2 EMISSIONS	Mbasera, M. et al., (2016)	Hotel activities produce greenhouse gas emissions, specifically CO2 and chlorofluorocarbons, which are released into the air. According to different estimations, an average hotel produces between 160 kg and 200 kg of CO2 per square meter of room
	Dascalaki and Balaras (2004	Hotels are among the most demanding energy consumers in all the building stock categories
SOLID WASTE MANAGEMENT	Bacot et al. (2002)	Approximately 45% of all solid municipal waste is generated for commercial sector facilities, which hotels represent 23%
	Baker (2005)	"Costs can be greatly reduced by waste reduction and replacing conventional waste disposal activities with practices aiming for reuse, disassembly, recycling and composting"
BIODIVERSITY PROGRAM	United Nations (2007)	Biodiversity is defined as "the very basis of life on earth which remained one of the pillars of sustainable development"
	Mensah (2006)	Discovered that protecting the environment also meant that flowers and other ornamental plants kept the surroundings green and attractive.
	Accor (2006)	Hotels would contribute to preserving local biodiversity through the creation of green areas and giving donations and supporting environmental groups.
STAFF TRAININGS	Daily and Huang, 2001	Internal stakeholders are important to training, as workers are often the primary targets and beneficiaries of constructive environmental initiatives within an organization
	Reinhardt (1999)	Businesses will attract qualified candidates who have a clear desire to work in organizations with a positive philosophy of environmental management
	Batstic and Gojcic (2012)	The eco-behaviour of hotel employees is the most important influence on the impressions of visitors about the efficiency of the green practices of a hotel.
PAPER REDUCTION	Washington Department of Environmental Protection (2000)	Recycling paper employ 60 percent less energy than fresh timber paper and eliminates emissions by 50 percent
	Snarr & Pezza (2000)	Recycling helps on raw materials, energy and waste from the atmosphere. Hotels can purchase recycled paper items, such as paper towels, toilet fabrics, facial tissues, napkins and menu papers.
FOOD WASTE	Saraswathy Kasavan,et.al. (2017)	Sustainable food waste management strategies are critical in the hotel sector's business operations to reduce food waste and operating costs by using food resources effectively
	Gössling (2015)	Tourists consume more food than at home, and eat more food imported than at home
	Emil Juvan, Bettina Grün and Sara Dolnicar (2017)	There is a need to produce, transport, store and process more food.
LOCAL PRODUCTS	Kurtulus Karamustafa, Mustafa .Iker 2017	It can be claimed that the use of local food products in the tourism industry could have advantages such as providing tourists with new and high-quality products and their benefits for producers and suppliers

Table 2. Sustainable hotel practices main arguments
Source: Own elaboration

2.11. Literature Map

The following map shows and explains the main topics developed in the literature review, where the main authors are exposed. In here it can be found the development of the literature review and the organization of the study.
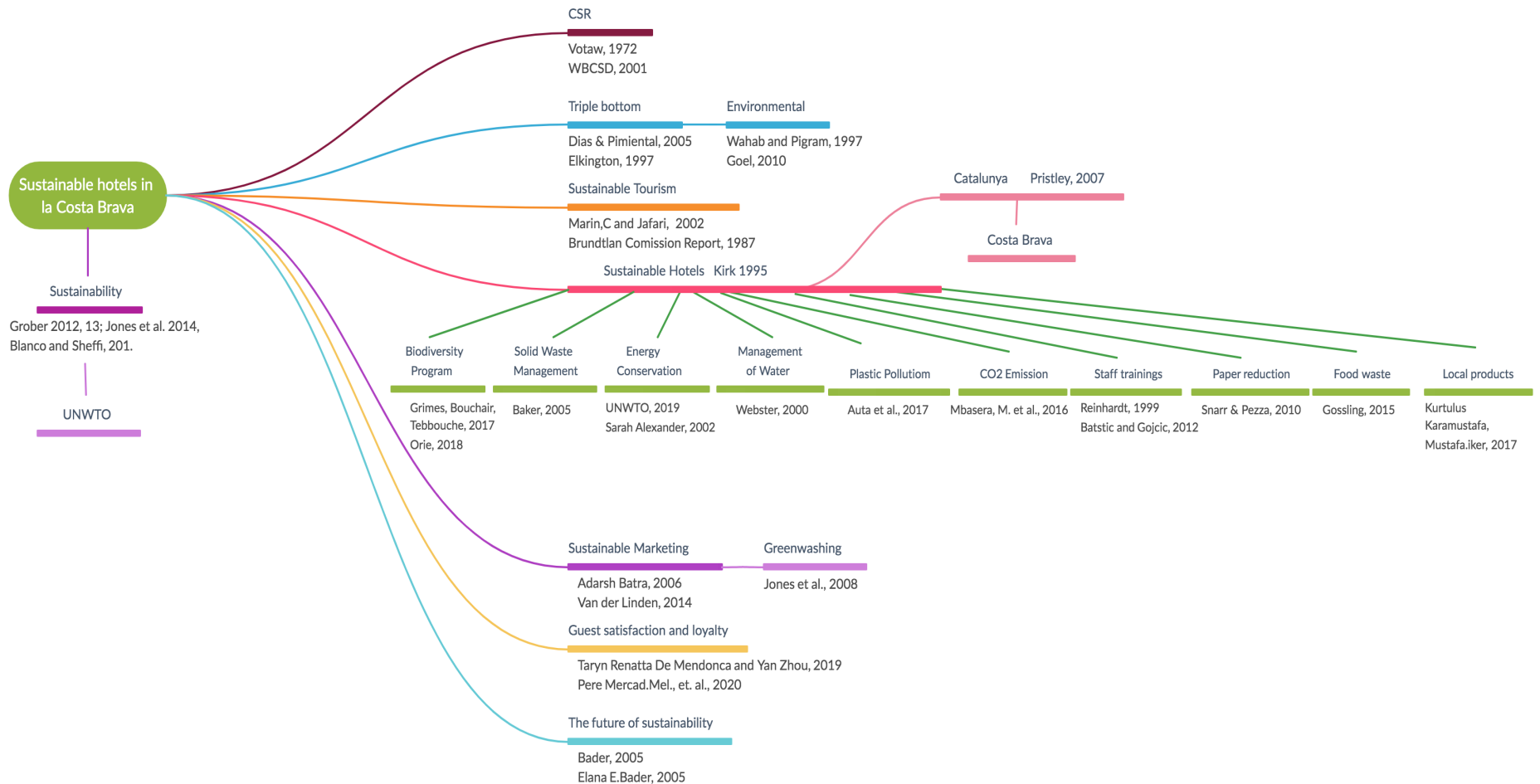
Figure 9. Literature map
Source: Own elaboration

2.12. Conceptual framework

In the following image, it can be found the conceptual framework developed for this study. The conceptual framework has helped the study to illustrate what it is expected to expect through the research, including how the variables have been considered in relation to each of the others. For this reason, this will help to develop a visual idea of the main purpose of the project, which is discovering and analysing the sustainable practices in la Costa Brava and determine how the different variables are related to it.

Figure 10. Conceptual Framework
Source: Own elaboration

CHAPTER 3: METHODOLOGY

Following the literature review, this chapter is going to be presented with the different methodologies that this degree thesis is going to use in order to analyse and collect all the data. Once arrived in this section of the study and having discovered and found opinions and arguments of the different authors, now it is time to take into consideration the importance of the evidence that needs to be collected to support their arguments and also to maintain stronger their findings. Applying research methods and skills is essential for the purpose of connecting the literature already conducted with the different findings obtained.

3.1 Overall research design

To begin with, it is important to start considering the research philosophy of this degree thesis, which is focused on **phenomenology** viewpoint. It includes using the thick definition and closely evaluating lived experience to understand how significance is generated by embodied awareness (Sokolowski, 2000; Stewart and Mickunas, 1974). Moreover, as Sokolowski (2000) wrote, "*Phenomenological statements, like philosophical statements, state the obvious and the necessary*". He also suggests that research in phenomenology shows what we all already know. They are not new arguments, but they can still be relevant and enlightening, even if they are not new. Aligned with this research method, this paper has therefore collected data through eight different **interviews** done to different hoteliers. It has been decided to do eight interviews as when doing the data analysis step, it was realized that we arrived in the saturation point, where no new information was discovered while doing the interview process. Interviews offer a valuable tool for researchers to know about other people's environment, although often true comprehension can be unclear (Sandy Q. Qu, John Dumay; 2011).

Following the idea of using the interview as the research method of this study, it is also important to consider that the interviews have not been done face-to-face, it has been used virtual meetings and telephone interviews in order to contact with the hotels and ask them the different interview questions. Online interviews are better than conventional interviews since there are no travel costs. In addition, the whole interviewing procedure can be less stressful and more pleasant for respondents, because they can be surveyed at work or at home in a familiar and unthreatening atmosphere (Duffy et al., 2005; Miller and Dickson, 2001). According to Joinson (2001) participants often disclose more private information in computer-mediated interaction than in typical face-to-face conversations because of visual anonymity and high

levels of personal self-awareness. Likewise, Hanna et al. (2005) found that, in an online environment, respondents are more interested in sharing their deeper feelings than during conventional interviews. In addition to face-to-face (FtF) interviews, telephone interviews are common too. Some of the benefits of telephone interviewing is longer access to participants as opposed to FtF interviews, due to asynchronous place communication. One downside of telephone-by-place asynchronous communication is the lack of social signs. The interviewer does not see the respondent and it is not possible to use body language etc. as a means of extra data (Raymond Opdenakker, 2006).

In this project, all interviewees are asked the same questions in the order it has been considered with the aim to compare each answer from the different sustainable hotels. However, as it is an unstructured interview, any other interesting questions that helped with the project to determine more data has been asked to the interviewees too. The interviewer observes the narrative of the interviewees in a preferably unstructured interview and creates questions spontaneously based on his or her thoughts on the narration. However, it is understood that the interview framework may be broadly guided by a series of questions, called an aide-memoire or agenda (McCann and Clark, 2005). The aide-memoire or agenda is a detailed guide to subject topics that may be discussed in the interview rather than the specific questions that need to be answered. It is flexible and open-ended (Burgess, 1984).

Virtual interviews were especially appropriate for this research, as they were a good way to create rich written records of the sustainable practices of hotels through observations and experiences that remember long-term involvement in the hotel sector.

Primary data are data obtained for the particular research issue at hand, using best-adapted methods to the research problem (Joop J. How, Hennie R. Boeije, 2005). For this study, the data used in order to analyse deeply and answer the hypothesis has been **primary data**. The most significant benefit of collecting one's own data is that it is possible to adapt the research issue to the operationalization of the theoretical frameworks, the research design, and the data collection method, which guarantees that the analysis is consistent, and the generated information actually helps to solve the problem. Furthermore, one of the key methods for gathering data is experimentation. The researcher has complete influence in an experiment over who is involved in that specific experiment (Joop J. How, Hennie R. Boeije, 2005).

Furthermore, this research is focused on a **qualitative** study. Qualitative research uses analytical categories to describe and explain social phenomena. In this project, the social phenomena that are going to be considered are the sustainability in hotels. Qualitative data analysis is not an easy or rapid task. If it is performed correctly, it is coherent and comprehensive, and consequently, it is labour-intensive and time-consuming (Pope, Ziebland and Mays, 2000). The research interview is among the most effective methods of gathering qualitative data (Sandy Q. Qu, John Dumay, 2011), and that is why we have used this method in order to find the efficiently the responses needed for answering the research questions. The qualitative interview in which interviewees are given the floor to speak about their perceptions, opinions and so on is a common method of data collection (Joop J. How, Hennie R. Boeije, 2005). This is the reason why it has been decided to use interviews to go deeper with the research and find as many real responses as possible.

As a qualitative methodology was used in this analysis, the research approach is **inductive.** The main function of the inductive approach is to enable research findings to arise without the restrictions established by structured methodologies from the frequent, dominant or significant themes inherent in raw data. Inductive methods are expected to assist in interpreting the nature of complex data by creating raw data description themes or categories ("data reduction"). For other qualitative data analyses, these techniques are evident (David R. Thomas, 2003). For this reason, the purposes for using an inductive approach in this study are first, to compress large and diverse text data into a short, summary format and, secondly, to create obvious connections between the research goals and the data summary findings.

3.2 Data collection techniques and research instruments

Researchers use various forms of data collection techniques to meet the requirements of their studies. It is necessary to determine the correct procedures and resources considering the study's goals and objectives (Altinay, Praskevas and Shawn, 2016).

As it has been mentioned in the previous topic, considering that this study is focused on a qualitative and inductive research, it has then been implemented a qualitative interview. There are several techniques of data collection in a qualitative study, the main aim of which is to gather information from the respondents based on expectations, values, feelings, meanings and attitudes, making the interview a valuable tool that will be used to study this analysis (Ileana Vargas Jiménez, 2012).

According to Denzin and Lincoln (2005), the interview is "*a conversation, it is the art of asking questions and listening to answers*". Besides, this approach is heavily influenced by the personal characteristics of the interviewer. The qualitative interview allows the collection of detailed information with the aim that the person who is interviewed shares orally with the researcher the specific experiences of his or her life regarding the specific topic that is asked for, as Fontana and Frey (2005) argues. It can be said that the interview within qualitative research is more intimate, and flexible, according to Creswell cited by (Hernández, Fernández and Baptista, 2005). Qualitative interviews without pre-established categories should be open, so then participants can share their experiences (Ileana Vargas Jiménez, 2012).

The first part of the interview is focused on an unstructured interview. The present investigation has been undertaken to develop and validate an unstructured interview for assessing hotels sustainable practices in the Costa Brava region. There is no distrust that qualitative interviewing is a versatile and effective method for documenting voices and the ways people find their experiences meaningful. Unstructured interviews are often called 'discovery interviews,' which are more like a 'guided exploration' than a strictly structured interview. Often, they are called informal interviews. It might not be necessary to use an interview schedule, and even if one is employed, they may include open-ended questions that can be presented in any order. As the interview continues, several questions could be added/missed (Saul McLeod, 2014).

Following this, with the first part of the study, it has been developed 14 different questions, considering all the topics and aspects of research necessary for analysing and understanding the hypothesis and research question. The interview questions start with four basic and specific questions regarding sustainable hotels in general, including aspects of the reason why they have become a sustainable hotel, the certificates, sustainable marketing and customer satisfaction. Following this, the next questions are focused on specific sustainable hotel practices, such as energy conservation, water management, food waste, among others. The aim of these questions is to understand and investigate if they actually use sustainable practices to help the environment and sustainability aspects. The idea of this is to let them explain which their methodologies regarding sustainable practices are and compare the different hotels responses in order to find a clear conclusion. The last question is focused on a future hotel view, including the idea of how they expect the future in terms of sustainability. This last question was based with the idea of Middleton and Hawkins (1998), where they argued that sustainability will be one of the crucial factors in the future for the hotel industry and that the hospitality industry

will be either voluntarily or involuntarily forced to change their classic business operations into sustainable ones (See Appendix B).

The <u>second part of the interview</u> is focused on a statistical table with different indicators. The aim of this kind of interview is to see visually and easily identify which are the practices that they consider more important depending on the questions that are asked at the top of the table. The idea is to let the hoteliers respond efficiently regarding the sustainable practices they use, and the importance of each one according to each question. It has been included the ten different sustainable practices studied in this dissertation and the questions asked are basically focused on more specific and deep research, including aspects such the efficiency, the importance, the difficulties, the costs of the different practices, among others (See Appendix B).

In general, we came up with the different questions based on the studies made on the literature review, specifically, studies focused on sustainable hotel practices, following different authors such as Webster (2000), Baker (2005) or Sarah Alexander (200), among others, where the interview questions were proposed according to their thoughts and arguments.

Both interviews are going to be taken in the Catalan language, as it is easy for the hoteliers to respond us the questions with more extension, as this is their mother tongue. After all the interviews, the responses will be taken and translated into English.

3.3 Research context and participants

The research context took place in La Costa Brava, a coastal region of Catalonia located in north-eastern of Spain, comprising of the "*comarques*" of Alt Empordà, Baix Empordà and Selva in the province of Girona. With a population of 648.086 habitants, it is one of the most important coasts in terms of tourism in Catalonia.

The choice of studying sustainable hotels in la Costa Brava was because this project wanted to focus on something different than usual and move in other places that are not already discovered at all. As far as we are concerned, not many studies have been made on sustainable hotels in la Costa Brava, where mostly all researchers look at common cities, as it is Barcelona. That is why this study was focused on researching aspects and regions not exploited at all, allowing us to observe more about charming places as it is Costa Brava. What is more, the Costa Brava is also one of the places where sustainable tourism is an actual issue and it is already being

updated for the protection and conservation of the environment affected by tourism. Costa Brava is a place with a full natural environment, where the basic idea of going to this area is to relax and disconnect. That is why there is a clear necessity of hotel sustainable practices, to avoid any kind of negative interactions towards tourism and its ideals of Costa Brava.

To have a visual and clear idea of the research context, it has been created a map of la Costa Brava with the hotels that are going to be analysed:

Figure 11. Map of the interviewed hotels
Source: Own elaboration

To give a more concrete focus to the conceptual research, the data collection is primary and is collected through qualitative data, based on interviews with eight hotels in La Costa Brava. Also, reading scientific papers, articles, visiting different webpages, among others provided the knowledge required to execute this research.

To do the research interviews, we electronically interviewed the General Managers of the eight sustainable hotels on the Costa Brava. The sampling technique used is " *theoretical construct sampling* " (Altinay, 2008), since data are collected and analysed simultaneously to determine the next step. Once sufficient relevant data are collected, the sampling process terminates.

3.4. Data analysis

The purpose of data analysis is to interpret the data and the resulting themes, to facilitate understanding of the phenomenon being studied (Sargeant, 2012). In the basis of the previous approaches, it has been defined that the qualitative method is the one that suited best this study. The qualitative data of this study is mainly analysed from interview transcripts and document analysis. The interview is a data collection method which involves researchers searching for open-ended answers related to a number of questions, topic areas, or themes.

As previously explained, the first step of the research is a fully unstructured interview that has been conducted virtually with a structure that is divided into two parts. The first part of the interview is based on a total of fourteen questions whereas the second part is focused on a statistical table with different sustainable practices that the hotel manager needs to fill based on the practices they execute in the hotel. In order to analyse each interview and compare the reasons obtained, it has been used the software called NVivo, in order to help with the project to organize better the results and accomplish the findings obtained easily. It has been used this qualitative coding as it was considered useful for the project. The coding or categorization of data plays a significant part in the research analysis. It includes subdividing the data and allocating categories (Dey, 1993). Codes or categories are labels or marks which are used to assign meaning units to the descriptive or inferential information gathered during research. Codes are typically connected to chunks of terms, phrases, sentences or entire paragraphs of different sizes, linked or unconnected to a particular setting (Miles and Huberman, 1994). The data will be analysed carefully and compared with the other hotels' responses with the aim to found out which are the main sustainable practices carried out by the hotels in la Costa Brava.

Qualitative research, based on interviews, should develop and endorse content validity, which has a clear and established empirical basis and shall be performed with the rigour needed for all exact research. This rigour is assisted by an interviewer who is well versed in the conduct of qualitative scientific research and who recognizes the value of accurately expressing the individual's speech (Brod, Tesler and Christensen, 2009).

When these data have been obtained using the methods described above, it has been interpreted. The electronic interviews were conducted in order to be able to do the transcript, and the transcript was used to execute a more in-depth review of the results. In this case of sustainable activities, the study used the categorization method to provide a data table.

3.5. Ethical considerations

This research has been conducted in an ethical approach respecting each of the participants' privacy, during and after the research. It was carefully done the research in order to ensure the comprehension of the participants in this case the Hotel Managers during the electronic interview. The participants filled a consent form (Appendix A) to provide proof that they gave the consent to the researchers to use the information obtained from the questions.

During the research, it was taken into consideration to explain in detail the purpose of the study, the contact details of the students and the supervisor of Degree Thesis, as well as information about the university. All the questions in the interview expressed a specific and clear purpose that corresponded with the objectives stetted in the first stage of the research.

This research took account of the respect for human beings since it meant that every person participating in the study was elected to participate voluntarily. Furthermore, their rights and cultures were respected. For instance, before doing the interview, the participants were informed in detail for both telephone and email about the idea of the research and the aims of the study in order to let them have the freedom to think and choose if they wanted to participate in the study or not. Once they confirmed that they wanted to share their opinions and experiences towards the topic of research and participate with the study, in some of the hotels were decided an appointment of virtual meeting whereas others were decided to organize a telephone call because of personal circumstances. Furthermore, before the interview, it was deeply explained that the participation was voluntary and in case they did not want to they did not continue with it, they were more than free to leave the interview. After their acceptance, the consent form was correctly delivered to each hotel manager for their signature, to have proof they agreed with all the interview specifications.

Another aspect that this study has put into practice is the beneficence principle. The idea of this is that every one that is involved in the research gets something positive, not just the researchers of the study. So, according to this, the study does not have benefits only for the investigators, it also has a positive effect on the participants, in this case, the hotels interviewed. This can be demonstrated as once the study has been done, it has been sent to the sustainable hotels' different ideas and recommendations on how to improve their sustainable practices so that everyone in the project has a clear benefit.

The next principle used in this research has been the research merit and integrity, that means the researchers need to be professional and experienced. Besides, the information needs to be well-conceived, carefully planned and the outcomes and benefits phase of the research is transparent to those concerned. In this study, it has been used a clear and planned process of interview, explaining carefully each part of the interview to the participant (via virtual meeting) and also sharing with them the telephone number of the researches in case of any doubt. There has also been an informal interaction between the researcher and the participant before sending the interview, to create confidence and integrity.

Finally, the fourth principle used in this study has been justice. Justice refers to making sure that the research is fair and inclusive, which means that nobody of a community or population is deliberately left out. Of course, this principle has been used, with the idea of looking to a specific region of Catalonia not commonly studied, which is Costa Brava, giving them the opportunity to show which are their sustainable practices, and not focus only on common cities or commonplaces.

Research involves cooperation and communication between different individuals and various backgrounds, organizations, principles that are ethical in order to promote collaborative efforts. It includes; trust, transparency, respect for one another and justice. Researchers will implement guidelines that are consistent with laws on authorship, copyright and patents, data sharing laws, and peer review rules on confidentiality (Stephen Ifedha Akaranga and Bretta Kavutha Makau, 2016).

CHAPTER 4: FINDINGS AND DISCUSSIONS

In the following chapter, the results are described and discussed by comparing the gathered data with the theoretical framework. The section is structured firstly, with an overview of the different hotels analysed for the study and afterwards, the findings obtained from the interviews will be developed and discussed. The second part of the interview will be indeed analysed, comparing all the results of each hotel and its answers to the statistical table.

4.1 Companies profile

HOTEL	LOCATION	CATEGORY	CERTIFICATES	SIZE	POSITION
HOTEL 1	Pals	4	CETS SICTED	9 rooms	Director and responsible of HR
HOTEL 2	Tossa de Mar	4 Superior	Biosphere	166 rooms	Revenue Manager
HOTEL 3	Pals	No stars	No certificates	6 rooms	Director of the hotel
HOTEL 4	Escala	3	No certificates	34 rooms	Director of the hotel
HOTEL 5	Begur	4	No certificates	8 rooms	Director of the hotel
HOTEL 6	Tamariu	3	No certificates	70 rooms	Front Desk Manager
HOTEL 7	Escala	4	LEED GOLD	34 rooms	Public Relations
HOTEL 8	Begur	3	No certificates	17 rooms, 5 apartments	Director of the hotel

Table 3. Companies profile
Source: Own elaboration

4.2 Reason for becoming a sustainable hotel and its benefits

In this part, it is going to be analysed the findings obtained regarding the aim 2 (A2) of the study. This first objective is focused on the analysis of which are the reasons why hotels decided to become sustainable and discover which are the benefits of implementing sustainable practices. In general, among all the results it can be seen that sustainability have clear benefits on the development and management of the hotel. But it is not only about benefits in the internal aspects of the hotel, but it also benefits the external part, as it is clearly stated by the H5, "*it benefits internally for having a healthier work environment and for respecting the environment and externally in the image that is increasingly valued by customers*". As it is mentioned in the literature review by Cater in 1993, it is exposed three main sustainable tourism objectives: meeting the demands of increasing numbers of visitors, meet the host population's needs in terms of better living standards, both in the short and long term, and the security of the natural environment to achieve both of the above objectives.

This research has found that the main reason why hotels became sustainable is to take care of the ecosystem and environment but also because they are aware of the problem, they have this kind of philosophy and also, they are educated in order to take care of the planet, especially the hoteliers that have new projects and have just started. As stated by H2, they want to be responsible *"for our fragile ecosystem, out of solidarity with the environment and through interaction with our customers"*, which is mainly what all the different hotels argued during their interview. As H8 has expressed, they consider that taking care of the hotel and environment is a *"win-win"*, caring for the tourist-resident relationship. Furthermore, sustainability benefits the hotel in prestige and in having a good image, "*which leads a customer happy to join that sustainability*" according to H6. The benefits include both in terms of the quality of the services and the well-being of the staff, as explained by H7. In general, it has been found that sustainable practices have a positive effect on the customer. All of them agree that sustainability at the beginning requires huge investment but in the long terms, it is a benefit, as it saves a lot of money. Of course, it can be related this with the idea that it opens the way to further sustainability efforts, which have the double advantage of saving money and benefiting the environment. Hotel operators are well aware of the significant benefits of sustainability (Alexandra Bruns-Smith et al., 2015). They all agree that sustainability leads to great customer experience and when they realize that the hotel is sustainable they are more than satisfied.

Sustainable hotels express that they are trying their existence to have the least impact on the world possible. In this way, the planet of today will live many more years and will be a better place for future generations. As hotels express this means benefits for the community, society and the environment, and protecting and finally for improving the upcoming future. This can, of course, be aligned with the definition of sustainability which focuses on meeting current needs without sacrificing future generations' ability to meet their own needs (UNWTO, 1992).

4.3 Certifications

In this section, it is shown the findings obtained regarding to the different environmental certifications that the different hotels have (A1). In terms of certification, the majority of the hotels does not have any certificate, however, they expressed that they are willing to obtain one in the future. According to H8, with all the issue in regard to COVID-19, the fact of obtaining a sustainable certificate is not the main objective right now. "*This was our commitment for 2020 but with the whole issue of covid-19, this will keep us apart, for at least one season, and we will go to 2021*", argued by H8. Furthermore, it is found the case of H3 which expressed in the interview that they do not have any sustainable certificate as they "*do not want to cover this*

cost" as it "*will cost us a cost that is not sustainable or logical for our volume*". H3 argue that they do not want to guarantee something to their guest just through certificates as they consider that the guarantee is the way they work and the way they serve people. They do not agree on having sustainable certificates just to represent and show to the guest they are sustainable, just for the image.

Certification is a way of ensuring that a product meets certain standards. Therefore, it is an effective way to prevent travellers from possible fraud, to improve the quality of the service or product, and to help strengthen environmental awareness. H2 has the biosphere certificate, mainly they expressed that is for "*satisfying current needs of tourists and the host regions*". On the other hand, the H7 has the LEED Gold certificate, which accredits them as the first hotel in Europe to obtain this leading certification in architecture, efficiency and sustainable design. Finally, H1 is accredited by the company CETS (certificate for protected areas in which it is verified that there is a commitment to apply the principles of sustainable tourism) and SICTED.

4.4. Sustainable marketing and guest satisfaction

To describe the findings obtained on this topic, it has been focused on the development and deep analysis regarding to Hypothesis 2 (H2) and Hypothesis 3 (H3) of the project. H2 is focused on discovering if the perception of the customer's environmental actions in a travel accommodation establishment has a positive impact on their experience whereas H3 explains that sustainable hotels in la Costa Brava are trying their best to be sustainable without the special need to use marketing strategies to catch the attention of the customers

Sustainable Marketing

What is clear is that all hotels agree that they are taking advantage of being sustainable as a marketing campaign as they all want to sell their product and if sustainability helps with it, they will continue doing it. All the hotels perceive sustainable marketing as a positive aspect on the hotel as argued by H5 "*if a hotel takes advantage of this because it meets the requirements, I find it good as it is positive*". H8 also agrees with the idea that marketing strategies help the client to become more grateful about how they take care of the environment. H1 explained that for them, sustainable marketing "*it is still one more business opportunity*".

In general, hoteliers think that there is an increase on the awareness of the client in sustainability so, many people like to know that hotels are making efforts in these regards. Clients are

nowadays evolving more in this ambit and are more conscious about the importance of preserving and taking care of the environment, so they love to be informed about it. Some research suggested that marketing messages would concentrate on encouraging consumers ' own change capabilities to be more effective (Van der Linden, 2014). Moreover, some of the hotels talked about the importance of using these strategies to catch the attention of the international clients, as it is the case of H4, where they explained that "sustainable marketing has to influence much more, especially on the international customer", and also this can be involved with Nordic countries, which are more conscious about sustainability. In the results, it has been seen that international clients value more sustainability rather local clients as they relate sustainability to a higher cost.

It is clear with the findings obtained that the hotels love promoting their use of local products so that they all agree with the idea of "*promoting the gastronomic quality of the territory and identifying Empordà as a gastronomic destination of the highest magnitude*", as argued by H1. H7 agree with the other hotels and confirm that "*developing sustainable projects in the hotel represents an added value that customers increasingly appreciate and value more*". They consider that this can have more positive aspects rather than negative as they work with it in order to "*sensitize society to the sea and to promote sustainable tourism*". This can be aligned with what Van der Linden (2014) explained where some research suggested that marketing messages would concentrate on encouraging consumers' own change capabilities to be more effective, and what is what H8 wanted to share with us.

What is clear is that all hotels have to be aware because "*the customer is informed of everything, and it is impossible to deceive him*", according to H6. This can be related with what Xavier Font and Scott McCabe (2017) shared that sustainability marketing may also make effective use of marketing skills, creating more sustainable good and distinguishing more constructive communication strategies to bring about behavioural change.

However, H3 has a different point of view from the others in terms of sustainable marketing. H3 also agree that hotels use sustainable marketing strategies to catch the attention of the customers but also argues that we have to be careful as most of the companies that pollute the most are the ones that invest more in the image on sustainability. He also argues that we "*let companies tricked us*", as there are a lot of interests in this industry. This idea can be related with what Powell and Ham (2008) argued where the rise in sustainable tourism has some

organizations concerned about watering down the meaning of ecotourism and is used as a marketing tool to tap into increased demand to raise revenue. H3 also thinks that nowadays we are in a society with lots of inconsistencies, since they promote that they are ecological but "*if you look at the whole production procedure of that product they buy for example part of the product in a company that pollutes a lot*". This idea can for sure be related with the concept of "greenwashing" which describe the practice of making unjustified or overblown statements of sustainability friendliness in an attempt to increase market share (Environmental Health Perspectives, 2010).

Guest satisfaction

It has been found that hotels do not receive more clients for being sustainable, but they value and feel more comfortable in an establishment with this awareness. According to Pere Mercadé Melé et. al. (2020) tourists are aware of environmental concerns and are more conscious of their decision-making in the tourism sector, not just in their choice of destination but also in their loyalties. Other hotels also argue that people have other priorities nowadays when choosing a hotel, as it is the case of H8 where "*people have other priorities and does not take sustainability as the main issue, they consider the location, service is given, among others as main importance*". What is clear is that this sector of clients that value sustainability as the main focus when going to a hotel is really small, but even if it that small, it helps a lot. This also was expressed by H7 which commented that "*it is still a small percentage, although increasingly important*".

According to Adarsh Batra (2006), there is no clear evidence that more than a small minority of travellers understand and rely upon principles of sustainability and environmental good practices when selecting products. However, the guests that are more satisfied in sustainable practices are those international, specifically the Nordic countries, as they value it a lot and feel better as explained by H2. H5 also consider that "*a person who knows that they are participating in a sustainable hotel makes them satisfied and they take into account*". Environmental sustainability has a direct and positive impact on the customer's experience in accommodation and, indirectly, on their satisfaction (Miguel Ángel Moliner et. al., 2019).

A really interesting practice that H6 implement is using internal surveys to evaluate their experience, including those related to sustainability. Thanks to this, the clients feel a part of the hotel development as they also have collaborated to become more sustainable. Taryn Renatta De Mendonca and Yan Zhou (2019) explained that customer satisfaction is also associated with

the improved environmental performance of companies. Furthermore, having certifications also help to catch the attention of the clients, as it is the case of H7, which has allowed them to receive *"clientele that does recognize the importance of our project"* and also, they have helped customers to have a better health thanks to the construction and architecture process enhancing improvement of air quality. Research in the green hotel sector also confirms that sustainability can help hotels build a good image, enhance guest satisfaction and stimulate consumer behavioural intentions to stay at hotels (Tsai - Chiao Wang et al., 2019). What is clear among all the results found is that it is possible to demonstrate the connection between environmental sustainability and the customer experience in the hospitality industry (Miguel Ángel Moliner et. al., 2019).

4.5. Sustainable practices undertaken by the different hotels

During this section of the findings and discussion chapter, it is going to be analysed deeply the Hypothesis 1 (H1) and Aim 1 (A1) of the project. H1 states that sustainable hotels in la Costa Brava focused on CSR execute different green environmental practices. A1 is basically focused on discovering the theoretical framework focused on sustainable procedures applied in the 8 hotels and the green practices undertaken. In order to develop this analysis, it has been created different questions of the interview to see deeply which the practices hoteliers are accomplish. Moreover, Hypothesis 4 (H4) will be also found among this section which states that high costs of some sustainable practices suppose a big barrier for some hotels.

4.5.1. Green practices

	ENERGY CONSUMPTION	WATER USAGE	PLASTIC POLLUTION	PAPER REDUCTION	WASTE & RECYCLING	FOOD WASTE	LOCAL PRODUCTS	STAFF TRAININGS	BIODIVERSITY PROGRAMS
	DIRECT QUOTATIONS INTERVIEWS (Sustainable Practices)								
INTERVIEW 1	"We do not do it in a systematic way, but we are studying the installation of photovoltaic electricity generation plates"	"Faucets installed to improve efficiency. Inform the room about the possible reduction in water consumption"	"We recycle all the plastic we generate, and we use it as little as we can. In certain aspects it is very difficult to get it all recycled"	"We print on two sides and we work whenever we can in a virtual way and not on physical paper"	"We separate all the fractions (glass, plastic,...) and we take it to the "deixalleria" the material that can be recycled"	"We offer the client to take the leftover food home to minimize the food waste of our restaurant"	"We always prefer local products directly, and if the radius is 20 km, we prefer it much more"	"We do not have them implemented yet, it is very interesting, and we will think about it"	"Our commitments is to install nest cages in our garden. We are open to other initiatives that may arise from the Natural Park"
INTERVIEW 2	"We do not follow any strategy to reduce it, we should consider it for the future"	"We do not have a filter system. Customers are informed of the efficient use of water"	"We ask our suppliers to deliver without plastics as far as possible and, we try to eliminate single-use plastics"	"Trying to have all the information through email. Replacement of information papers in rooms for digital tablets"	"Everything is recycled by departments. Other types of waste are transported to the Tossa clean point"	"The decrease is very small. It is served in the staff dining room, which is further minimized"	"Yes. Local suppliers are always sought"	"Yes, the training is regarding our responsibility, recycling, and mentality of the company and the team we are"	"No, we do not apply any measure in terms of biodiversity programs"
INTERVIEW 3	"Yes, we collect the data of energy consumption because of the costs analysis and see how to reduce them"	"We are in the process of making an investment"	"We use as little plastic as possible, in fact, practically nothing since we use almost all glass containers, bamboo cane straws, among others"	"We send everything by e-mail. Everything that can be done digitally is done digitally"	"With the few we have it is correctly separated. It is a manual procedure and based on how you would do it in your home"	"In case we have food waste we give to the farmer of the organic gardens and they use it to feed their bestiary"	"Everything related with the consumption of food is bought at km0 of farms within 10 minutes of where we are"	"We do not receive any environmental practice training"	"No, we do not use any biodiversity program but I am looking on a project to participate"
INTERVIEW 4	"No, we do not carry out any practice in energy consumption, but we are trying to put this aspects on our future practices"	"Guests informed about our water saving policy. There are two different underground tanks for the use of rainwater"	" In each department a strict recycling of plastic is carried out. We are minimizing the purchase of products and packaging of this material"	"The use of paper has been minimized. A digital internal control system has been created to avoid printing reservation"	"Each department carries out its selective waste collection according to its own procedure manual"	"The organic waste that cannot be used, we use it to make compost for the vegetable garden"	"Yes. Basically, in the restaurant, most of the raw material is local"	"Not all, pedagogy as an intrinsic culture, but not standardized"	"No, we do not carry out any biodiversity program"
INTERVIEW 5	"We will use photovoltaic panels and aerothermal and in the future we will use it to evaluate if it is effective"	"All this is very expensive and we had to choose and focus on aerothermal. Use of information panel on the efficient use of water"	"We only use glass and ceramics materials.We use organic products, and the packaging is made with non-polluting recycled products"	"Yes, we do everything electronically. In everything that is not possible, we try to use recycled paper"	"Recycling practices such as glass, organic and all of this it is obviously done"	"In the case we have food waste, we will look for a center to take this waste somewhere appropriate"	"Use product of proximity and quality, we try to give support local shops. Use authentic products that are 100% of the Empordà"	"I will do trainings to implement all of these issues. It will be much easier for the client to become even more sustainable"	"Do not apply any program"
INTERVIEW 6	"Unfortunately, not at the moment, but a study of a plan to install photovoltaic panels in the short term is underway"	"Modern system for cleaning, saving the use of water. Clients has information panels about an efficient use of water"	"We do recycling of plastic throughout the hotel and in all departments. The packaging of the amenities are biodegradable"	"Paper notebook was used to record everything.The Outlook calendar is now used, saving time and paper"	"Its rules for recycling paper, plastic and glass"	"With the remaining food from the restaurant what we basically do is recycle it all in the organic container"	"Yes, the hotel uses local products. Then also to enhance the local product and promote the wealth of the area"	"We do not have a specific program, but each department is committed to the environment according to legislation"	"Students from University of Tübingen have been coming to the Hotel dedicated to study marine biology of Tamariu"
INTERVIEW 7	"The reduction of energy has been achieved with passive strategies (solar panels). 100% of the energy comes from renewable energies"	"The hotel has a gray water tank, where all the water from the green roofs stop, as well as receiving all the water from the showers of the rooms"	"Our philosophy in the operation of the hotel and in its construction does not contemplate plastic in any of its practices"	"The System that we have for reservations, the paper is the minimum, we only have the paper where the client checks in and signs"	"All departments have implemented waste recycling protocols, to carry out proper waste management"	"Following the "Zero Waste" philosophy. The compost is reused as fertilizer in the vegetable garden"	"The main maxim in our gastronomy is the ecological and local product. The hotel has its own cultivation field"	"New hires receive a welcome manual that provides information on all our sustainable practices"	"We have several practices in this regard: Native Flora project, Butterflies project and cuttelfish project"
INTERVIEW 8	"I don't know why we didn't finally put solar panels, but I know that we had this in mind when doing all the installation of the new hotel"	"The water distributors have a limiter of water flow. The consumption is really controlled. Advise customers to reuse towels and sheets"	"We do not generate much plastic, everything is used with cardboard or glass or biodegradable materials"	"Workers have the instructions in each department to reduce the use of paper and work with digital files and documents"	"We have a different bin for each area of the hotel. We have 4 different bins: plastic, glass, paper and organic"	"In order to avoid food waste, breakfast can be used for the next day and the pastris left are offered later in the bar"	"Almost all our providers are local, we work with the president of l'Empordanet, which has a commitment to KM0"	"At the moment we do not have any staff training"	Participating in "Els perduts de Begur" who are walkers of "camins de ronda" and have a commitment to collect all the waste"

Table 4. Direct quotations from the interviews
Source: Own elaboration

To determine more information regarding to **ENERGY CONSUMPTION** the question number 6 of the interview has been deeply analysed. In regard to energy consumption, hoteliers, in general, do not use any system in order to control energy consumption and its usage at the moment. It is important to consider that energy is the most important source of CO_2 emissions for hotels in terms of environmental impacts, which is a crucial subject in today's sustainability challenges (Energy Solutions, 2019). However, it is clear among the hoteliers that do not use any practices on energy consumption is that they have plans for the future to expand their sustainable actions in this aspect through the installation of photovoltaic panels. According to Sarah Alexander (2002), strategies from planning for passive solar heating for something as basic as having good insulation will help reduce or remove the need for costly heating and refrigerating. H8, for example, uses presence sensors to avoid energy consumption and they also use the cardholder to activate the electricity in the room. If the client is not inside, air-condition and everything in relation to energy consumption will be disconnected. As Greenhotelier (2005) explained, the most efficient room energy-saving tool is the use of a cardholder at the room that can connect or disconnect all electrical as well as heating and ventilating systems. Moreover, according to Greenhotelier (2004), modern air-conditioning technologies require 30% less energy and can reuse power to preheat water for washing or swimming pools.

On the other hand, it is found the case of Hostal Empúries (H7), which is the most important answer in regard to energy consumption. This hotel carries out an incredible green practice where they have achieved the reduction of energy consumption thanks to passive strategies (such as LED's, solar thermal panels, among others). This statement can be related with what Webster (2000) stated where several measures to achieve energy savings are the replacement of light fittings, roof insulation, door closing systems, the installation of all radiators with individual thermostats was included. Moreover, 100% of the energy consumed by the hotel comes from renewable energies. It is interesting to consider that implementing these practices requires a big amount of money, as explained by H5, the energy costs in regards with the photovoltaic panels require a significant investment so that then other practices are not carried out because of the lack of money.

To discover more information in regard to **WATER MANAGEMENT** for this project, the question number 11 has been deeply analysed. With the results obtained, it can be found that all hoteliers inform the guests about the importance of the efficient use of water and its responsibility. That is a positive aspect of the results as raising awareness to the guests is essential to save water and help the environment.

What it has also been found is that in general, hoteliers use different types of systems in regard to having an efficient water usage. H1 use faucets installed in the filter system to improve efficiency. This idea can be related to what Sarah Alexander (2002) argued where several options for water conservation are low-flow showerheads and faucet aerators, which are becoming popular among the hotel amenities. Besides, H4 has "*two different underground tanks for the use of rainwater for irrigation in the different gardens*". Also, "*all gardens are drip-irrigation*" so that they try to save as much water as possible. As H7 explains, "*the hotel has a grey water tank, where all the water from the green roofs will stop as well as receiving all the water from the rooms of the guests*". Thanks to this amazing green practice in terms of water efficiency, "*the average consumption per guest is cut in half through the installation of flow regulators in taps, showers, urinals, cisterns, etc*". Using these practices, water conservation helps hotels to properly understand how and when water is used, resolving water management problems on both the technological and human sides (Sarah Alexander, 2002). Other hotels use systems to save water including, for example, the use of modern systems to clean all cutlery and pans saving water (H4) or use limited water flow (H8).

Most of the hotels also try to encourage guests to reuse towels and sheets if they do not want to change it. However, this is really difficult to execute as "*customers generally spend more at hotels, such as more showers, bathtubs, and more overall water use*" (H7). According to Eurostat (2009), guest behaviour is one of the key explanations for excessive water consumption in the hotel industry. Hotel guests prefer to use more water than they usually would at home, using a "pleasure technique" to shower or bath.

The hotels that do not use any water usage practice is because of the big investment that this implies (H5) so that they have decided to choose other sustainable practices instead of this one.

What is clear with all the findings obtained is that there is a need of responsibility and awareness of the guests in the hotels and the usage of water, because they do not understand how important is to reduce water use.

To discover more information in regard to **PLASTIC POLLUTION** for our analysis, question number 5 has been deeply considered. Once the different answers have been analysed, it has been found that all the hotels try to reduce the plastic use as possible and in some cases, the non-utilization of this material. H7 has stated that "*our philosophy in the operation of the hotel and in its construction does not contemplate plastic in any of its practices*". Moreover, they all have different recycling policies in these regards, so that in case of having plastic materials, they are correctly recycled in this aspect. In fact, the majority of the hoteliers ask their suppliers to deliver without plastics as far as possible and to replace it with cardboard boxes. Aligned to this, they try to minimize the purchase of product

packaging of this material. For this reason, hoteliers (such as H2, H3 or H5) have replaced plastic materials to other environmentally friendly materials such as glass, ceramics, cardboard, bamboo or biodegradable materials. In the case H7, "all the products used, in addition to not containing chemicals, are packaged in materials with the ECO Label certificate", avoiding in that way the use of plastic materials. Du Plessis, Van der Merwe and Saayman (2012) advise that accommodations units should be supplied with eco-friendly products such as biodegradable soaps and detergents.

Regarding the amenities, some hoteliers use small amenities but not with plastic materials (they use recycling products or biodegradable materials) whereas other hotels use gel dispensers in order to avoid in a maximum the usage of this material. Some examples are H6 where "*the packaging of shampoo and gel amenities are biodegradable*" or "*shampoo and gel dispensers have been placed in the clients' bathrooms instead of single-use amenities*" stated by H2. The ' 4-Rs ' concept (TUI Group, 2019) help to control the usage of the plastic: Reduce, Reuse, Replace and Recycle. It can be confirmed that hotels analysed to achieve the 4-Rs concept where they reduce, reuse, replace (through the use of natural alternatives such as bamboo, glass, among others) and recycle any kind of plastic material. So, it can clearly be seen that all hoteliers use sustainable practices in order to reduce plastic pollution so that this is a positive result of the study. This can, of course, be related to what TUIGroup (2019) recognizes where the challenges facing the tourism industry with single-use plastics and recognizes that we must all assume responsibility for reducing their consumption. However, it has been found that H6 has some cost issues in this regard as they have to use plastic bags in the rooms of the clients as "*the cost of bags such as those made from potatoes or other environmentally friendly materials*" are really expensive.

To discover more information in regard to **PAPER REDUCTION**, question number 10 has been deeply considered. Once all the findings have been analysed, it has been found that hoteliers try to reduce their use of paper thanks to new technologies. Some ideas on how they develop procedures to avoid paper usage are by doing all the procedures digitally and in a virtual way, avoiding printing unnecessary papers, such as invoices. This idea can be related with what Michael L. Kasavana (2008) stated in relation with Green information technology (IT), which is a term used to characterize the effective use of digital resources such as by reducing the use of paper by minimizing printing, working more effectively with power management and practising appropriate recycling habits. Additionally, the youngest managers argue that they have been grown in the digital generation so for them is easier to avoid paper usage. In fact, on the age of incredible technological advancements, relying on paper for the everyday customer transactions not only seems old-fashioned but also unnecessary (Snarr and Pezza, 2000). H1 argues that they print in two sides to reduce paper consumption.

In case of needing paper for any reason, some hoteliers use recycled paper. Manaktola and Jauhari (2007) recommended the use of paperless communication and billing systems and the delivery of maps or some other information on recycled paper.

In the rooms, where usually notebooks or information papers are disposed for the clients, H2 has had an idea to avoid paper consumption where *"the information paper of the rooms has been replaced by tablets in each room with the hotel information".* This idea can be for sure related with what Giles Kirkland (2019) argued where smart travel assistants provide resources that help hotels better serve the needs of their guests, ensuring their stay exclusive and affordable by removing the need to print menus, catalogues, leaflets and any other paper-based marketing material that hoteliers use to promote their ancillary services. H4 had another idea to reduce paper usage where they installed a digital internal control system to avoid printing the reservations to reduce paper consumption, minimizing them by 85%.

In the case of the restaurant, most of the hoteliers argue that is really difficult to avoid the use of paper. However, they have tried to look for alternatives, as it is the case of H4 where they have had the idea of "*printing the menus on better print and quality paper, to avoid changing them as often as before*". However, H8 has some issues in terms of the reduction of paper as all the guests have to sign a consent document when they check-in and also, they print daily suggestions menus for the restaurant, so this is harming the environment.

To have a deep analysis in regard to **WASTE MANAGEMENT AND RECYCLING POLICIES**, it has been created the question number 9. Once seen all the results obtained, it has been realized that all hotels do the basic procedure of recycling, separating each material (glass, cartoon/paper, plastic and organic) to the correct container and this has been done since the beginning of their opening of the hotel. As Baker noted (2005), waste management strategies should be introduced very early, during the creation of the hotels. Moreover, they recycle everything by the different departments, where each of them carries out their selective waste collection separating it according to its origin with the different waste recycling protocols. Stipanuk argued (2002) that reducing waste begins in the procurement department, guaranteeing that products are purchased with limited packaging.

What H2 do is that with the other type of waste left, they bring it to the Tossa clean point where the city council takes the responsibility of all the waste generated. On the other hand, H1 take all the sensitive material that can be correctly recycled to the "*deixalleria*".

H4 try to raise awareness to the client about the importance of recycling so that "*in the public zones, the hotel differentiates the trash in two different recyclable bags, waste and plastic*".

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H8 argues that in Begur "*there is a lot of awareness in general and the city council makes a selective collection of the waste in each hotel".* They know the importance of recycling so if they find any material not recycled correctly in the specific container, they do not pick the waste from the hotel. Prevention and recycling of waste, generally referred to as waste management, helps to handle solid waste in a better way, leading to decreased disposal in landfills and thus fewer GHG emissions (Nripendra Singha et al., 2014). Thanks to this prevention of Begur city council, all the town is excluded from any type of GHG emissions, have better air quality. H5 stated an interesting statement to consider where "*the more second-hand furniture you can use, the more life you have, the less waste you create on the planet*". This statement helps to reflect on the importance of carrying out different waste management and recycling policies. Furthermore, this can be aligned with what The Ellen MacArthur Foundation explained: "*if nothing changes, in 2050 there will be as much plastic waste in the oceans as there are fish*".

FOOD WASTE analysis has been done during the interview to discover which practices they use in order to avoid food waste and, for this reason, question 8 has been created. Within the results obtained, it can be clearly seen that each hotel uses different systems in order to avoid food waste. In general, the hotels do daily purchase (the ones that have a restaurant and requires fresh fish, meat or others) and most of them does not have the idea of "buffet" to avoid leftover food, they use "a la carte" style in the restaurants so that they can generate just what will be consumed by the client. This idea can be aligned with what Kuo and Shih (2016) stated where buffets can also increase the cost of food service since more food is consumed and according to Wansink and Ittersum (2013) more food is taken, but not eaten. Small hotels such as the ones regarding to H3 or H5, in general, do not generate much food waste.

What H1 do is to give to the client the leftover food to have the possibility to take it to their homes. On the other hand, H2 and H4 use the remaining food left for the staff dining. In the case of H3, they just use organic food in their breakfast menu and, in the case of having leftover food of the client, what they do is "*giving to the farmer the leftover food from the organic waste that we have had, and they use it to feed the chickens and to their bestiary*". Another idea of avoiding or managing food waste is the one done by H4 and H7. What they both do in case of having remaining organic food is to reuse the compost as a fertilizer for the vegetable garden. This idea of composting can be related with what Sarah Alexander (2002) explained where she stated that since it is possible to recycle wasted food, hotels are gradually realizing that composting is a safer use of organic materials rather than exporting them to landfills. Other hoteliers, such as the case of H8, reuse the food for other meals, for example, some food from the breakfast can be used for the next day or any of the pastries (which are made on-

demand) left can be offered later on in the bar. H8 also "*try to take advantage of the day before for the next day and create new dishes*".

In order to discover which are the different practices that are carried out by hoteliers in reference to the **LOCAL PRODUCTS** that they use, question number 7 has been deeply analysed. Once seen all the different results in regard to local products, it has been found that all the hotels prefer and use local products in all of their processes and try to have local hotel suppliers at the same time. All of the hotels have a commitment of their products to buy it in a 0km and the main reason is that the area where they are have a lot of benefits in that aspect, where products in regards of food for example (such as meat, fish, vegetables, …) are easy to get, as they are close to local fish markets (for the fish) and at the same time they are near to the farms and vegetable gardens in the Empordà (for the meat, vegetables and fruits). Andriotis (2002) showed that 85 per cent of tourism companies bought their local fresh food materials, and smaller accommodation firms were more likely to purchase their local supplies.

Hotels want the "*product of proximity and quality*" and "*trying to give support to local shops*" as H5 stated and, as stated by Kurtulus Karamustafa, Mustafa Ülker (2017) the use of local food products in the tourism industry could have advantages such as providing tourists with new and high-quality products and their benefits for producers and suppliers.

Thanks to the use of local products, hotels are helping the territory to "*promote the gastronomic quality of the territory and identifying Empordà as a gastronomic destination of the highest magnitude*" (H4). Aligned to this, Tarik Sengel et. Al (2015) explained that many tourists arrive in the area exclusively for gastronomy, some see local food as a by-product of their cultural experiences. H5 also argues that clients value a lot the products that are "100% of the Empordà". When tourists eat at a destination they are not only fulfilling their hunger but also experiencing local culture and engaging with their hosts (Tarik Sengel et al, 2015).

Some hotels can buy their products in Km0, thanks to farms and local shops close to them. Having this opportunity is not easy for all the hotels to be as close as they are to the farms and used as a clear benefit for their clients to have a better diet. Apart from using local products, they encourage and promote health (with conscious nutrition) for their clients through healthy products. Furthermore, in the case of H8, they work with "*the president of l'Empordanet, which is a collective of chefs in the area and he has a commitment to KM0*".

Following these criteria, H7 implement an amazing practice in terms of local products, which is having their own cultivation field where the fruits and vegetables consumed in their restaurant are grown. It is clear that H7 wants to promote local products but also, they argued that "*in addition to ensuring an*

ecological, local and proximity product, we significantly reduce the carbon footprint produced by transport and the movement of raw materials".

Another interesting finding obtained is that hoteliers argue the need of being careful of the products bought (even if they are locals or not) since there are materials that just for the fact of being ecological are much more expensive. According to H3 "*you do not know if it is more about value-added by ecological brand than really the ecological impact of that product*". H5 also argues that "*there is a lot of lies around this world of ecology because they are trying to use the green brand to give added value to products*". So, even if they want to be sustainable and help the environment, they all need to be aware of not being deceived by companies.

To determine more information in regard to **STAFF TRAINING AND EDUCATION**, question number 14 of the interview has been deeply analysed. Among the results obtained it has been discovered that almost all of the hoteliers do not execute any practice in regard to staff training. Most of them argue that they have not to think about it at the moment, but they do not discard to do it in the future. Some of them such as H4 argue that the training is done "*pedagogy as an intrinsic culture, but not standardized*". In general, they do not carry out any program that encourages the staff to help with the environment, as basically the people they hire at the end understand the importance of taking into consideration sustainable practices.

However, H2 does a kind of training which argues that they do it: "*mainly regarding our responsibility, recycling, and mentality of the company and the team that we are".* They try to explain to the staff the importance of being sustainable but not as a strict program and education process. H7 does not have any staff training program but an interesting practice they implement is that *"new hires receive a welcome manual that provides detailed information on all our sustainable practices" and "the department heads are responsible for ensuring compliance with them".* This can be related to what Zhu et. Al (2008) argued where explained that the support and governance from top-level managers are crucial to maintaining an organizational awareness of environmental concerns and engagement. H5 have plans to do training in the future because "*it will be much easier for the client to inform, apply new techniques to become even more sustainable".* Batstic and Gojcic (2012) argued where the eco-behaviour of hotel employees is the most important influence on the impressions of visitors about the efficiency of the green practices of a hotel.

So, the general finding here is that hoteliers, in general, do not have any specific program for educating the staff as all of them is aware of the importance of carrying out these practices and they easily understand how everything works. By incorporating environmental education, businesses will attract

qualified candidates who have a clear desire to work in organizations with a positive philosophy of environmental management (Reinhardt, 1999).

To research more information in regard to **BIODIVERSITY PROGRAMS**, question number 13 has been deeply analysed. In general, it has been discovered that almost all hotels do not take into consideration the practices in regard to biodiversity programs. One of them does not apply for any biodiversity program but *"one of our commitments is to install nest cages in our garden" (*H1). Just three out of eight hotels carry out biodiversity programs. In regards of H6, a group from the University of Tübingen has been going to the hotel for many years to do a study of marine biology (marine fauna of Tamariu) and cleaning the plastic and garbage from the oceans so that the hotel collaborate with their project. H7 have different projects in this concern, for example, Native Flora project, "*where the hotel garden is cultivated with native plants and trees of the region, allowing them to subsist in our ecosystem*". Mensah (2006) discovered that protecting the environment also meant that flowers and other ornamental plants kept the surroundings green and attractive. The second project they carry out is called Butterflies project, which "*was carried out with biologists to recover and increase the population of native butterflies in our region*". Also, they have the Sepia project, "*which wants to ensure the reproduction of cephalopods and the incorporation of juveniles through cuttlefish in the populations of the Empordà bays*". Accor (2006) proposed that hotels would contribute to preserving local biodiversity through the creation of green areas and giving donations and supporting environmental groups, which is exactly what the last three hotels explained to carry out. H8 also develop a biodiversity strategy, basically focused on collecting all the waste and garbage found in the "camins de ronda", which are really famous in la Costa Brava. The hotel participates with the association called "Els perduts de Begur" to remove the waste but they have also created picking waste tools for the customers to help the association and collaborate with the environment, "*so we also raise awareness as a hotel*" (H8). Han, Yoon (2015) and Wan, Chan, and Huang (2017) argued that the hotel is required to protect and conserve the aesthetic quality of the environment because the better the quality of the environment, the higher the proportion of visitors who are likely to be able to visit the area.

Among the interviews done, **OTHER PRACTICES** have been commented on and considered important for the project. First of all, the use of environmentally friendly materials in terms of construction, as it is the case of H7 were "*materials such as natural resin-bonded black cork, FSC certified farm wood, and bamboo is used for the deck, carpentry, and floor insulation*". Besides, in regard to air quality, some answers obtained argued that what they do is to "*run on renewable energy so the air used inside*

the hotel is almost 100% green", as it is argued by H5. Additionally, it is also clear that clients will have "*health benefits generated by sustainable practices in construction and architecture (improvement of air quality, etc.)*", as explained by H7.

4.6. Future of sustainability

This last section of the first part of the interview is focused on the Aim 4 (A4) of the project focused on discovering the future expectations of the hotels. The findings regarding this aim have been found through question number 14 of the interview. The interviews showed the motivation and education that hotels on the Costa Brava have to reduce their environmental impact in the area and to keep growing for a more sustainable hotel.

The main aspect unresolved for hotels is the control of energy consumption and the new procedures for water management. The idea for the future for the different hotels interviewed that do not have any energy consumption practice is to introduce photovoltaic panels. As Elana E. Bader (2005) explained, this is a start to what has been achieved in the hotel industry so far. But it has to be understood that shortly deeper changes are required. This needs to be done globally, and the latent demand for responsible business practices is the first sign that it is beginning. Moreover, one of the main objectives for the future of the different hotels is to apply for staff training programs, as they think that it is essential for employees to be aware of the situation of sustainability so that there is the need of educating them deeply. However, they still do not know well when or how to apply it.

However, according to H8, nowadays there are more important issues and problems to consider for the future instead of sustainability, which is mainly because of Covid-19. So, there is the fear of becoming sustainability as a second visualization for the hotels due to the current situation.

In general, the hotels have expressed their commitment to implement new sustainable practices and projects in the future, and they have all the motivation and awareness to become more sustainable. H7 exposed this idea clearly "*our responsible and sustainable tourism project is a living project, which is always open to incorporate, modify and improve all those aspects that technological innovations or advances in sustainability allow us to improve our practices*". We can relate this commitment with what it is previously explained by "La Diputació de Girona" (2019) that sustainability does not have to be punctual in certain products but must become a cross-cutting concept and a way of doing of all the tourist sector of the Costa Brava.

According to H6 "*it is very important that today we are aware that if the hotel itself reduces the impact on the environment it will be a chain effect since the client himself will become aware that he also has*

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to do it". In fact, "*sustainability is the only way for all of us to enjoy the magnificent Costa Brava for many years*". So, the need for the preservation of the area is clear among all the hoteliers. According to Elana E.Bader (2005), it is surprising that no more hotel owners find sustainability as essential to their business or integrate it more deeply into their operating philosophy. This statement for our study has to be rejected like all the hotels analysed in this project are trying their best to integrate sustainability in their future practices and considering it as an essential tool on their future development.

4.7. Statistical table results

This section of the research relies on the results of the comparative table with different indicators. The purpose of this section is to visually and accurately see the practices the hotels find to be more relevant based on the questions asked at the top of the statistical table. The aim is to get an accurate response from the hoteliers of the environmental practices they use and to give more detail and value of every question (Appendix D).

The first question was focused on which practice they considered most important for establishing in the hotel and, among the options, the most voted has been energy conservation, water administration, plastic pollution, waste management and staff training. Even in developing regions the excessive use of unclean energy sources, water or generation of excessive waste can in large negative amounts contribute not only to the environment of the local community, region or country but to the rest of the world as well (Fukey, 2014). The main environmental measures they find to be most successful and for which the hotel gets better results has been energy efficiency, the use of local products and staff training.

In terms of the difficulty of implementing practice in a sustainable hotel, the most difficult is, according to all hoteliers, energy conservation and water management. Marinela Krstinić Nižić and Stefani Matoš (2018) exposed that energy production and how it is used have a serious environmental impact, causing both local and national emissions, as well as global problems including global warming and climate change and as it is affecting all the hotel is complex.

Regarding the practices that hoteliers consider most expensive to conduct in a sustainable hotel, it has been found that energy conservation is the most expensive practice, while H7 considers that no practice can be considered as pricy. Lighting costs can account for 15 to 25% of hotels energy consumption and 25 to 30% of overall energy costs (Greenhotelier, 2003).

Focusing on the practices that are more valued by customers and that they are more aware of is plastic pollution, the consumption of local products and the administration of water.

In terms of money invested for sustainable marketing, hotels argue that local products are the main and most important practice to promote in the hotel.

Regarding to which are the practices that the staff are more aware and have acquired a kind of learning and consciousness is mainly waste management. H6, also added the contamination of plastic and H7, in addition to the previous ones, the hotel selected the biodiversity program.

In the literature review, there is a sustainability section focus on the future, so the last question has been focused on the practices that hoteliers consider most important for the hotel in the future. All practices were selected by H5 and H8 since they could not leave any practice as less important. The other hotels have considered energy conservation, biodiversity program and staff training the most important practices for their future development.

At the end of the interview, it has been created a section were observations or other practices added would be deeply considered so H7 decided to add that building with sustainable materials is an important part of sustainability and that they consider that there is no marketing campaign of a specific practice.

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CHAPTER 5: Conclusions

This chapter includes the conclusions undertaken in the research. The four hypotheses previously exposed will be concluded to see if it has been achieved. Therefore, some recommendations will be introduced in order to help the hoteliers to become more sustainable or encouraging them to promote these sustainable practices. Once the project is finished, a recommendation program will be sent to each property that has participated in this study to give them feedback of their interviews and also to help them to become more sustainable or just simply encourage them to continue using these practices. Finally, some limitations of the study will be shown.

5.1. Conclusions

This present paper has attempted to deeply analyse and identify which are the main sustainable practices that green hotels in la Costa Brava perform, to explore their sustainable certifications, how these practices involve in the guest satisfaction and look for their future view in terms of sustainable development in the hotels. At the beginning of this study, four different hypotheses were developed in order to discover and analyse deeply the sustainable hotel practices in la Costa Brava. To investigate and determine if the hypothesis were confirmed or not, it was realized different interviews with eight hotels in la Costa Brava. After considering and analysing the findings obtained, some conclusions can be drawn in this direction.

The first conclusion of this study is aligned with A2, which has been correctly achieved, where results show that the main reason of becoming a sustainable hotel is to take care of the environment and to be responsible for the fragile ecosystem. They also argued that there is a need of changing customers mentality and raise awareness of the importance of sustainability practices. Furthermore, as the main conclusion of what truly benefits sustainable hotels, it has been found that the image and prestige of the hotel are satisfactory, and this leads to the happiness of the client. Moreover, in spite of becoming sustainable suppose a big investment at the beginning, in the long-term it saves a lot of money.

The results obtained regarding the A1 of the study shows that not all the hotels have a sustainable certification. Just three out of the eight hotels have an official sustainable certification, that is to say that there is the need to raise awareness to the hoteliers in this ambit as having a certification can suppose big advantages. None of the hotels explained the reason of not having a certificate, although they all planned to obtain one in the future. Nonetheless, not having a certification does not mean

that you are not sustainable, as it has been shown that all hotels implement a lot of sustainable practice even, they do not have certifications.

It can be shown that H3 is in contrast with the results obtained as it has been discovered that all hoteliers are taking advantage of being sustainable as a marketing campaign. It is found that hoteliers who use sustainable marketing to attract the guests affects positively and is well appreciated by the guests.

Regarding to H2, according to the results obtained, it can be confirmed that the perception of the customer's environmental actions in a travel accommodation establishment has a positive impact on their experience. Customers recognise the participation of hotels into sustainability which increases their satisfaction. The main conclusion found in this regard, is that although tourists appreciate variety in sustainable practices, it is still not sufficient for a guest to decide whether or not to choose a hotel. As consequence, people do not go to a specific hotel for being sustainable, they go for other reasons such as location or services.

The main conclusion in this project in regard to H1 has been achieved. As all hotels analysed implement different sustainable practices. It is found that hoteliers have put all their effort into developing sustainable practices for their hotels and they are trying their best to accomplish all of them. Between all the practices analysed, it is discovered that local products, waste management, recycling practices, and plastic pollution are the main practices that hotels use more deeply. Moreover, food waste is also a practice that hotels have developed the most and have tried to implement. Paper reduction is a practice that hotels have in mind and it has been easy to implement thanks to new technologies. Although some hotels have different energy consumption strategies, (such as photovoltaic panels) or water usage practices (such as the use of faucets), it is found that in general, it is not fully put in practice. Likewise, talking about biodiversity program, it can be seen that just three out of eight hoteliers has developed this practice. It can be considered that there is the need to raise awareness on this ambit to hoteliers as biodiversity programs have big advantages to the environment.

Unfortunately, among of the all the results obtained it is found that staff training programs are the only practice that none of the hoteliers implement. They inform the staff about its importance and the responsibility of it, and all staff members are conscious of the situation. However, they all plan to have staff training in the future. To conclude the aspect of the sustainable practices, it can be found

that hoteliers are implementing many sustainable practices to the maximum extent, and they are trying their best to become more sustainable and to use further practices in the future.

Another conclusion obtained shows that, in general, the size of the hotel does not matter at all in the fact of becoming sustainable or not, as each hotel analysed has their own sustainable practices and they apply it according to its size and volume. However, it is clearly seen that hotels with a big volume of rooms and size have more possibilities to apply more sustainable practices as they have more money to invest in sustainability. On the other hand, smaller hotels cannot implement, and they have to decide in which practice to invest due to the lack of money. This conclusion can be aligned with H4, where can be confirmed that high costs of some sustainable practices suppose a big barrier for some hotels. These findings have been obtained specifically focusing on small hotels, that do not have a big volume of customers. They have seen that they cannot execute all the practices that they want because of the high costs that these practices imply and because of the lack of money, as they need a big investment to do, specifically with energy consumption and water usage practices.

Furthermore, other conclusion discovered in this project is concerning how prices of ecological products rise just because of the fact of being environmentally friendly. It has been found that there is the need of being careful of the ecological products used as some of this companies uses sustainable marketing campaign that is not really true at all greenwashing, as if we look on all the whole production procedure sometimes it is found that they pollute a lot.

The last conclusion found is that all hoteliers have plans and different projects to continue becoming more sustainable in the future (A4), as they want to progress and continue developing in this aspect. The interviews showed the motivation and education that hotels in the Costa Brava have to reduce their environmental impact in the area and to keep growing. However, there is a big concern of how Covid-19 will affect sustainable practices and there is the fear that sustainability can become like a second visualization for the hotels due to the current situation (for example with the use of plastic materials to cover tv controls to avoid contagion).

As a general conclusion for the project, it can be seen that there is a need to continue developing and carrying out sustainable practices in Costa Brava hotels to help the environment. Moreover, rising the awareness to people is one of the main objectives' hotels should consider as they are the main responsible for the success of taking care of the ecosystem. So, in general, all the hypothesis and aims has been correctly achieved and all the findings obtained have shown evidence to support them. For

this reason, it can be confirmed that the main aim of this study is accomplished thanks to the interviews carried out through the different Costa Brava hotels sustainable views and experiences.

5.2 Recommendations

The present paper has attempted to identify the main sustainable practices that the hotels in la Costa Brava take part in and how this influence on their customers. Given all the above discussion and the conclusions obtained, some recommendations can drown.

As it has been previously analysed, hotels are working to reduce their environmental impact while at the same time improving the guest experience. To truly make a difference to the environment and achieve a competitive advantage, hoteliers need to do more than the bare minimum, like getting new sustainable certificates and implementing marketing campaigns with their sustainable practices. Travellers are constantly searching for eco-friendly travel choices, and some are even willing to pay extra to help the sustainability system of the hotel. According to booking.com, 68% of global travellers intend to stay in sustainable hotels in 2018. So, the main recommendation is to focus more on showing the client that the hotel is carrying out sustainable practices as they are becoming more and more aware of the importance of taking care of the environment.

Another recommendation to consider is the importance of implementing sustainable practices although this implies a huge investment. We encourage and recommend hoteliers to try to do an effort by implementing sustainable practices as soon as they can as they will all receive lots of savings in this aspect. It can be understood that it is difficult to implement it because of the money it requires but we recommend giving sustainability a chance to help both the company and the environment in the long-term run. Investment in being more environmentally friendly results not only in more customers but also in more revenue in the future.

The main and most important recommendation we would like to develop to hoteliers is to implement and organize staff training programs regarding to the importance of sustainability. Education should cover all aspects of the hotel, such as waste recycling, food waste management, the use of local goods, water and energy conservation, among others. Hotel workers should also be educated on environmentally responsible management and marketing practice as part of their induction. They should be constantly updated on current environmental trends in the industry. Green marketing and green branding should be aggressively followed by hotels that are keen to implement environment-friendly practices in their daily operations.

We also encourage hoteliers to educate the guests through brochures (with the recycled paper of course), signs or electronic information about the importance of sustainability and its implementation. A clear example can be the use of water in the rooms. Also, hoteliers can develop a program for promoting local products and culture. Hotels should offer incentives to guests who participate in green practices such as receiving discounts in future bookings.

For new hoteliers, we recommend them to start its green hotel program from the beginning. Some initiatives can be setting up recycling bins, asking guests to switch off the lights in their rooms when they leave, or to staff to enquiry guests if they would like their room to be cleaned daily if their stay is longer than one day. These measures are simple and less expensive than many other green solutions and make a difference in the development of a sustainable hotel. A very important aspect of being green is to understand that while some measures may be minimal, none of them are insignificant.

Another recommendation and the significant move were taken by sustainable hotels around the world is to set up monitoring systems and guidelines for each section of the hotel. This system can be used for tracking areas such as water, electricity or solid waste. This would be very useful if, for example, for the hotel to locate the biggest use of energy in the building. Consequently, the hotel would track the lighting in those areas.

In terms of biodiversity programs, hotels are not as well informed in comparison to other practices. A clear recommendation is to incorporate biodiversity considerations into hotel planning and operational decisions. Those are critical not only for the continued viability and conservation of ecosystems but also for the long-term financial sustainability of hotels, since biodiversity is necessary for human life. In regard to the use of water, as per the guide Hotel Water Management and Energy Efficiency of Miele, our advice is to inculcate guests the importance of having a shower instead of a bath as the shower only requires 35 litres of water while the regular bath requires 80 litres. Additionally, eco-friendly showerheads reduce water consumption by 75% relative to 'modern age' showers.

One of the hoteliers exposed an interesting recommendation that consists in creating a system based on scored. When a guest has an attitude towards the environment the hotel will provide an environmental card with the different records of all the environmental acts. Depending on this card and the points obtained, you have better facilities or discounts. In this way, people would be much more aware of the situation.

To provide feedback and to help the interviewees to become more sustainable and environmentally friendly, a recommendation document has been designed (Appendix E) with some of the basic recommendations on sustainable practices that have been previously discovered through the results obtained of this study.

5.3. Limitations and further research

During the development of this research, several limitations have been found. For this reason, during this point, it is going to be explained the limitations discovered by the researchers while doing the dissertation project.

To begin with and as an essential topic to consider regarding our limitations on this study has been Covid-19 (Coronavirus). It has been the main and most important limitation found, specifically in regards on our qualitative data analysis, where the principal idea was to go to each hotel and ask the different interview questions to the general managers to have better contact and a deep interview with lots of aspects analysed. We wanted to go specifically to each hotel because we needed to see each of the practices done, showing us their ideas on sustainability and how they apply it to their hotel. At the beginning of all this disaster, for us was disappointing as we wanted to go to each hotel and see physically everything related with sustainability, we were truly excited for doing this project in regards of this theme, as we considered it nowadays very interesting. Of course, due to Covid-19, we needed to change plans at the end of February and it was decided to interview the hoteliers through virtual meetings (such as skype, google meets, …) or phone call, in order to try to analyse better each question and ask them the questions needed in case of any doubt.

Another limitation regarding the interviews was that some hotels that the researchers were in contact to do the interview, suddenly they started to not answer any email, specifically at the beginning of the Covid-19. It was a difficult situation and of course, we lose a lot of time looking and finding other hotels for doing our analysis. After a week, more or less, hoteliers started to answer us emails but they told us that "*when they have time*" they will do it because they all have a lot of problems regarding the coronavirus and the closing of the hotels, so that they had a lot of more important issues rather than answering our interview questions. Other answers of the hoteliers were "*we are living an extreme situation and we are deleting all emails that are not essential for the development of the hotel*". With this, it can be found that a lot of hotels that confirmed us the collaboration, suddenly they avoid contact with the researchers so that the situation was so hard and complicated to endure.

As it has been previously said, time was a big deal for this project. Due to coronavirus, the lack of time and also the loss of time has been presented in the worst weeks of the semester. The limitation of the study in front of the coronavirus regarding the hotel responses delays together with the loss of time of waiting and trying to look for other alternatives has, of course, delayed the investigation, causing a big challenge for the investigators.

All the interviews we decided to use for the project were done virtually or by phone call. However, we send the interview questions by email to other potential hotels which ask us to send it by email as they did not have enough time to do a meeting online. However, this was found as a limitation as a lot of answers we receive from the hoteliers were insufficient or not consistent enough in order to help us for the project, even if we knew that the hotel was a big opportunity to use for the project. So, a clear limitation is that we could have had more interviews done if the answers sent by email were deeply analysed. However, as this was not the case, any of them were used for our project because the information was insufficient. For these reasons, due to the coronavirus, the limited time and the problems that hoteliers are facing nowadays, eight interviews were undertaken for the study. However, we considered it more than enough to take relevant conclusions.

One recommendation to give for future researchers is to do the same process of investigation and analysis in other cities, towns or summer vacations destinations. The idea of this is clearly to identify more information about what other cities or places do, how they use sustainability and compare and contrast the results of these papers towards the other investigations. Determine how other cities see sustainability and how this affects the guest satisfaction. A clear example would be comparing this paper's results with the city of Barcelona, look for the differences and the barriers found in each location. It is significant to investigate further to analyse the impact of hotels in sustainability and determine which are the practices they execute. See what other cities do and compare it to our results and look for solutions altogether to combat sustainability issues as this is a matter of all of us. There is the need to take care of the environment, for this reason, is essential to work as a team.

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1. **Why did you decide to become a sustainable hotel? How does hotel sustainability benefit your hotel?**
2. **Which sustainable certificates do you have and how did you get them?**
3. **Do you think hotels are nowadays taking advantage of being sustainable as a marketing campaign for catching the attention of customers?**
4. **How do hotel's environmental sustainability practices contribute to forming customer satisfaction? Do the customers come because of being a sustainable hotel?**
5. **Which practices do you use to reduce plastic pollution?**
6. **Does the hotel regularly collect data on energy consumption, and take action to reduce it?**
7. **Does the hotel prefer local products (200 km. radius), whenever these have less impact on the environment than non-local products?**
8. **What do you do with the food left in the restaurant? Do you carry out any food waste practice?**
9. **What are your hotel's waste management and recycling practices?**
10. **Do you use any practice focused on the reduction of paper?**
11. **Does the hotel use a filter system for efficient water usage? Are all guests informed about efficient water usage?**
12. **Do you use any biodiversity program practice to help the natural and animal environment?**
13. **Do your employees receive training on environmental practices? Which trainings are them?**
14. **Do you expect to apply more sustainable practices in the future? Why?**

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PART 2: Statistical table

 Put a cross (X) in the boxes you agree with the questions on the top. You can put more than one cross in the different boxes

	Which practice do you consider is the most important one to establish in a sustainable hotel?	Which practice do you consider is more effective?	Which practice is more difficult to apply in a sustainable hotel?	Which practice is more expensive and implies more costs when applying it in your sustainable hotel?	Which practices are the guests more aware of?	In which practice you spend more money in terms of marketing?	Which practices is the staff more trained or aware for its importance in the hotel?	Which practice do you consider will be more essential to apply in the future?
ENERGY CONSERVATION								
WATER MANAGEMENT								
PLASTIC POLLUTION								
CO2 EMISSIONS								
SOLID WASTE MANAGEMENT								
FOOD WASTE MANAGEMENT								
STAFF TRAININGS								
BIODIVERSITY PROGRAM								
THE USE OF LOCAL PRODUCTS								
REDUCTION OF PAPER								
OTHER PRACTICES								

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Appendix E: Recommendations – Feedback to hoteliers

Laura Giraut I Ariadna Vivet

GUIDE FOR SUSTAINABLE HOTELS

HOW TO HELP THE ENVIRONMENT

WATER

1. Water saving and management plan
2. Raise customer awareness with information boards
3. Install showers instead of bathtubs
4. Aerators or diffusers to reduce flow
5. Install thermostatic taps
6. Use washing machines at full load
7. Reuse of sheets and towels (under the client's consent)

STAFF TRAININGS

1. Awareness campaigns
2. Specific sustainability training for each group of the company
3. Publication of a manual of good practices
4. Incentive programs

ENERGY

1. Photovoltaic panels
2. Improve thermal insulation
3. Install energy efficient lamps and light bulbs
4. Change the air filters regularly
5. Install devices such as occupancy and daylight sensors
6. Implementation of renewable energy

PLASTIC POLLUTION

1. Change amenities for wall dispensers or recyclable products
2. Use of biodegradable straws
3. Water bottles replaced by dispensers of water
4. Bio-Cassava starch bags
5. Buy in bulk
6. Biodegradable amenities: Bamboo brushes

FOOD WASTE

1. Quantity based on demand
2. Donate the surplus to associations or farms
3. Reuse leftovers: hotel staff or take away
4. Compost food scraps on the property
5. Measure food waste

Km. 0
Alimentos cerca de casa

LOCAL PRODUCTS

1. Offer local products km 0 & local suppliers
2. Seasonal and organic products
3. Own cultivation field

RECYCLING

1. Carefully evaluate the needs of recycling
2. Consider donating additional supplies
3. Encourage customers to participate
4. Use of labeled containers to collect recyclable materials, in rooms and common areas

PAPER REDUCTION

1. Pay bills, check in and out, give reviews and suggestions electronically
2. Use recyclable paper
3. Print on both sides
4. Inform customers through tablets or digitally

BIODIVERSITY PROGRAM

11. Incorporation of programs in the area
2. Program to help protected areas, wildlife and habitats
3. Management and rehabilitation of ecosystems in the hotel and surroundings
4. Financing or participation in programs to help the environment

165

It is important that you are sufficiently prepared to collect data doing fieldwork with 'human participants.' Your supervisor will support you in completing the Ethics Form.

The Ethics Form MUST BE COMPLETED BY YOURSELF AND SIGNED OFF BY YOUR SUPERVISOR **BEFORE UNDERTAKING RESEARCH**.
THE SIGNED ETHICS FORM **MUST BE INCLUDED IN THE FINAL DEGREE THESIS**.

Risk checklist – Please answer ALL the questions in each of the sections below.

Risk category 1	Yes	No
Use any information OTHER than that which is freely available in the public domain?	X	
Involve analysis of pre-existing data which contains sensitive or personal information?		X
Involve direct and/or indirect contact with human participants?	X	
Require consent to conduct?	X	
Require consent to publish?	X	
Have a risk of compromising confidentiality?		X
Have a risk of compromising anonymity?		X
Involve risk to any party, including the researcher?		X
Contain elements which you OR your supervisor is NOT trained to conduct?		X
Risk Category 2		
Require informed consent OTHER than that which is straightforward to obtain to conduct the research?		X
Require informed consent OTHER than that which is straightforward to obtain to publish the research?		X
Require information to be collected and/or provided OTHER that that which is straightforward to obtain?		X
Risk category 3		
Involve participants who are particularly vulnerable?		X
Involve participants who are unable to give informed consent?		X
Involve data collection taking place BEFORE consent form is given?		X
Involve any deliberate cover data collection?		X
Involve risk to the researcher or participants beyond that experienced in everyday life?		X
Cause (or could cause) physical or psychological negative consequences?		X
Use intrusive or invasive procedures?		X
Include a financial incentive to participate in the research?		X

IF APPLICABLE:

List agreed actions with your tutor to be taken to address issues raised in questions Risk Category 2:
…………………

Student Declaration: I confirm that I will undertake the Degree Thesis as detailed above. I understand that I must abide by the terms of this approval and that I may not make any substantial amendments to the Degree Thesis without further approval.

Name: Laura Giraut / Ariadna Vivet **Signed:** *Ariadna Vivet* **Date:** 26.04.2020
Agreement from the supervisor of the student: *Laura Giraut*

Name: Mónica Cerdan Chiscano **Signed:** **Date:** 26.04.2020

Risk Category 1: If you answered NO to all the questions, your study is classified as Risk Category 1. In this case:
- The supervisor can give immediate approval for undertaking the field work for the Degree Thesis.
- A copy of this signed Form MUST be included in the Degree Thesis.

Risk Category 2: If you answered YES only to questions in Risk Category 1 and/or 2, your study is classified as Risk Category 2. In this case:
- You must meet with your supervisor and clarify how the issues encountered are going to be dealt with before taking off with the field work.
- Once clarified, the actions taken must be stated in the Form. Then the supervisor can guarantee approval for the field work for the Degree Thesis.
- A copy of this signed Form MUST be included in the Degree Thesis.

Risk Category 3: If you answered YES to questions included in Risk Category 3, your study is classified as Risk Category 3. In this case:
- You must discuss with your supervisor how to re-direct the research and data collection thesis to avoid risks mentioned in Category 3.
- You must complete the Ethical Form again until Risk Category 1 or 2 is obtained.
- A copy of this signed Form MUST be included in the Degree Thesis.

A copy of this signed form MUST be included in the Degree Thesis.