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# **SUSTAINABILITY INDICATORS FOR HOSPITALITY SMES: APPLICATION TO PORTUGUESE CONTEXT**

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## **ABSTRACT**

*Tourism has been a fundamental pillar for the development of the Portuguese economy and has supported and stimulated new opportunities. However, for small and medium enterprises (SMEs) in the hospitality sector, and given their specific characteristics, there are no specific indicators to monitor sustainability, and they are only based on existing generic models such as ETIS, WTO, and Green Globe. Given the complexity of the indicators in these models and their comprehensive vision, it makes it difficult for hospitality SMEs that have limited resources*

*to measure them. Consequently, it is important to focus their attention on the most relevant indicators for their activity. In this sense, this study is relevant in identifying the critical sustainability factors for Portuguese hospitality SMEs. In total, and after the synthesis and assessment of the various indicators, a total of 35 critical indicators were identified, distributed among the economic, social, sustainable management, and environmental dimensions.*

**KEYWORDS**

*Sustainability; Tourism, Indicator, Assessment; Portugal*

**ECONLIT KEYS**

*Z320; Q01; L260*

## **1. INTRODUCTION**

According to the World Tourism Organization (UNWTO), tourism is one of the most relevant sectors in the world with continued global economic growth, which demonstrates its enormous potential to generate development opportunities, but also presents significant challenges in terms of its sustainability. In this sense, the United Nations (UN) proclaimed 2017 as the International Year of Sustainable Tourism for Development (UNWTO, 2017).

In Portugal, tourism is a strategic sector for the growth of the national economy. According to the 2019 report on tourism in Portugal, tourism has been the main sector that has helped the country's economic recovery since the sovereign debt crisis and has strongly affected the countries of southern Europe (Bento, 2016). In 2019, the tourism sector in Portugal represented 19.1% of the national GDP (República Portuguesa, 2020). Furthermore, the tourism sector is the country's largest economic export activity, representing 52.3% of services exports and 19.7% of total exports (Turismo de Portugal, 2020a). This situation has contributed to Portugal being regarded as the 12th most competitive tourist destination in the world (Turismo de Portugal, 2019). Additionally, Portugal is ranked the fifth country in the world where tourism's contribution to GDP is highest (WTTC, 2020). The concern with sustainability in the development of tourism also appears to be a point of concern for Portuguese tourism. Tourism is intended to be a pillar of socioeconomic growth in Portugal while promoting and protecting cultural and natural heritage. Consequently, it is crucial that national and international policies include the concept of sustainability as a decisive factor in the long-term competitiveness of this sector.

There are already several studies in the field of sustainable development in tourism. A central study in this area, summarizing the various lines of action in tourism, was carried out by Guo, Jiang and Li (2019), in which six research themes were identified: (i) dimensions and scope of sustainable policy; (ii) stakeholders of sustainable policy; (iii) implementation of sustainable tourism policy; (iv) role of sustainable tourism policy; (v) climate policy; and (vi) indicators of sustainable tourism. Studies exploring the role of sustainability in high demand destinations and tourist pressure, such as France, Indonesia, or Mexico, have also been developed (Bella, 2018; Sutawa, 2012; Torres, Moreno and Fregoso, 2016). In Portugal, current studies are limited and focus only on specific geographical areas, like the coastal areas of Aveiro and Algarve (Carneiro, Breda and Cordeiro, 2016; Farinha, Oliveira, Silva, Lança, Pinheiro and Miguel, 2019). These studies only offer a geographically limited analysis, but also do not focus on the specific hospitality sector of small and medium enterprises (SMEs) that has been fundamental for the economic competitiveness of the country. In this sense, this study based on models and indicators of sustainable development widely accepted in literature, such as the European Tourism System of Indicators for Sustainable Management at Destination Level (ETIS), World Trade Organization (WTO), and Green Globe, intends to look at their applicability considering the business structure of Portuguese hospitality SMEs. This study introduces an innovative perspective, through a qualitative approach of evaluation of Portuguese hospitality SMEs in the tourism sector according to four dimensions of sustainability supported by the ETIS, WTO, and Green Globe models.

The remaining of this manuscript is organized as follows: Initially, a literature review is made considering the role of sustainability in tourism and the relevance of monitoring and assessing it. Then, the methodology of the study is presented and the evaluation of the Portuguese hospitality SMEs according to the various dimensions of sustainability is carried out. After that, the results are presented and discussed considering the existing literature in the field. Finally, in the conclusions section, the theoretical and practical contributions of this study are discussed, and some suggestions for future work are provided.

## **2. BACKGROUND**

### **2.1) SUSTAINABLE DEVELOPMENT AND TOURISM**

The experience of many tourist destinations shows that, although tourism offers new possibilities for the development of the regions, it is not a harmless activity and, from certain levels of visitors and without proper planning, it can introduce negative effects. The need to reorient the negative consequences of the development model of conventional mass tourism has motivated tourism to incorporate the sustainability paradigm (Mowforth & Munt, 2015). Therefore, sustainable tourism emerges as an approach to meet the needs of the different parties involved, minimizing the negative impacts of tourism while seeking to optimize the benefits for the destination.

Environmental conservation and the management of natural and cultural resources are vital to tourism. They form the basis of the tourist offer that responds to the different motivations. It is currently accepted that the development of tourism cannot be achieved without respecting the principles and objectives of sustainable development. Accordingly, and as Edgell (2019) states, tourism activity must be carried out on a sustainable basis through respect for social, economic and environmental needs.

Although the concept of sustainable development was initially associated with the environment, today it is seen as a broader concept that equally integrates economic and socio-cultural aspects. Sustainable tourism development is defined by the UNWTO (2020a) as one that meets the needs of today's tourists and the destination regions while protecting and fostering opportunities for future tourism. Resources must be managed in such a way that they can meet economic, social, and aesthetic needs while respecting cultural integrity, essential ecological processes, biological diversity, and the systems that sustain life. Moreover, Shen, Sotiriadis and Zhou (2020) state that sustainable tourism requires more responsible tourists who interact in a balanced way with the host communities in the cultural, social, and environmental dimensions.

Sustainable tourism is a process of qualitative change in the political and planning aspects of tourism activity with the essential participation of the local population. Accordingly, Khuntia and Mishra (2014) state that sustainable tourism seeks the

development of tourism based on the balance between the preservation of natural and cultural heritage, the economic viability of tourism, and the social equity of development. As advocated by the European Environment Agency (EEA, 2020), a healthy economy depends on a healthy environment. Economic development cannot take place in a degraded environment, just as the environment cannot be protected if excluded from development.

A set of indications of good practices in the development of sustainable tourism can be found in the literature. Ramukumba, Mmbengwa, Mwamayi and Groenewald (2012) refer to the need to know in-depth the socioeconomic space in which tourism is intended to be developed. Song and Li (2008) mention that, in the management of tourism demand, different areas should be established in the same territory, distributing the flow, without the need to reduce the total number of arrivals in the tourist area. Therefore, it becomes important to know the capacity that each place supports according to its attractiveness. Hall (2010) highlights the relevance of establishing protection mechanisms for flora and fauna species that may be threatened, as well as establishing protected areas and corridors where endangered animal species circulate. At the same time, tourists should be fully aware of the importance of these attitudes, which will facilitate their relationship with local activities and communities. Finally, Postma and Schmuecker (2017) state that the environmental impact of tourist activities should be minimized, seeking to mitigate their effects.

The implementation of sustainable principles is achieved through education, participation of local communities, exchange of information, and cooperation between the business sector and the public sector. Some forms of partnerships and cooperation between different stakeholders include environmental education and participation in projects with schools, establishing symbiotic relationships between conservation and marketing, managing supply according to resource limits, and promoting and adhering to codes of ethics and guidelines for responsible practices and behavior (Barisic & Maric, 2012; Martini & Buffa, 2020; Tribe, 2002; Zaharia, 2014).

## **2.2) MONITORING SUSTAINABILITY AND INDICATORS OF SUSTAINABLE TOURISM**

Given the complexity of sustainable development concepts, a system for monitoring and evaluating all processes and performances in this field is crucial. Among the existing methodologies is the use of indicators, which are a set of measures that can be used to assess performance over time; they are essential components in the overall assessment of progress toward sustainable development (Tasaki & Kameyama, 2015). Accordingly, the indicators should measure resource use not only in the present, but also in the future, by other generations on the sustainability side. Indicators also have the virtue of increasing the visibility on the progress of a certain target to be reached, as in the case of sustainable development, and can also be seen as a resource that leaves a perceptible trend or phenomenon that is not immediately detectable.

The UNWTO has been a pioneer in the application and development of these indicators, emphasizing the importance of tourism planning and management as a determining factor for the benefit of any destination. They are, therefore, important in providing indispensable information for general understanding, decision-making, and action planning. Torres-Delgado and Saarinen (2014) state that the indicators serve to inform how to develop and conduct policies and projects for the development of a given tourist destination, and to assess whether the sustainability goals set are being met. Through tourism sustainability indicators, tourism managers will be better able to identify emerging issues and promote the adoption of responsible knowledge-based decisions.

Several authors report that reliable, clear, and comparable indicators generate several advantages. Tanguay, Rajaonson and Therrien (2013) refer to risk or cost reduction, promoting better decision-making, while Kristjánisdóttir, Ólafsdóttir and Ragnarsdóttir (2018) highlight that measuring performance and implementing plans enable the anticipation of deviations and promotes continuous improvement and Gkoumas (2019) mentions the contribution that indicators can make to increasing transparency by providing public information on the development process. It becomes possible to identify benefits both in preventive action and in corrective and adaptive management.

Several models and indicators of sustainable tourism development have emerged. ETIS is a model promoted by the European Commission (EC) that aims to promote the development of sustainable tourism in the European Union. It is a model that stands out for its simplicity and enables tourist destinations to assess themselves according to sustainability parameters. This model may be useful for stakeholders in the tourism process (e.g., policy makers, tourism enterprises). ETIS offers four dimensions (EC, 2017): (i) destination management (i.e., sustainable tourism public policy, customer satisfaction); (ii) economic value (i.e., tourism flow at destination, tourism enterprise performance, quantity and quality of employment, tourism supply chain); (iii) social and cultural impact (i.e., social and cultural impact), community/social impact, health and safety, gender equality, inclusion/accessibility, protecting and enhancing cultural heritage, local identity, and assets); and (iv) environmental impact (i.e., reducing transport impact, climate change, solid waste management, sewage treatment, water management, energy usage, landscape, and biodiversity protection).

The WTO has established a set of 17 goals for sustainable development that are part of the UNWTO's sustainable development agenda for 2030. Their applicability is broader and not specific to the tourism sector. These targets include (UNWTO, 2020): (i) end poverty; (ii) end hunger and malnutrition; (iii) access to health; (iv) access to education and lifelong learning programs; (v) gender equality; (vi) access to water and sanitation; (vii) access to energy; (viii) access to employment; (ix) promote sustainable industrialization and innovation; (x) reduce inequality; (xi) promoting sustainable cities; (xii) sustainable consumption and production; (xiii) combating climate change; (xiv) sustainability of marine life; (xv) sustainability of terrestrial and forest ecosystems; (xvi) access to justice; and (xvii) establishing global partnerships for sustainable development.

Green Globe is a model for sustainability performance assessment and certification of tourism companies (e.g., hotels, travel agencies, tour operators). The model is based on three pillars, safety, security, and sustainability, which should serve as the basis for the operation of companies. Four dimensions can be found (Green Globe, 2020): (i) sustainable management (i.e., implementing a sustainability management system, legal compliance, employee training, customer satisfaction, accuracy of promotional materials, local zoning, design and construction,

interpretation, communication strategy, health, and safety); (ii) social/economic (i.e., community development, local employment, fair trade, supporting local entrepreneurs, respecting local communities, exploitation, equitable hiring, employee protection, basic services); (iii) cultural heritage (i.e., code of behavior, historical artifacts, protection of sites, incorporation of culture); and (iv) environmental (i.e., conserving resources, reducing pollution, conserving biodiversity, ecosystems, and landscapes).

### **2.3) THE IMPORTANCE OF SMEs IN THE PORTUGUESE CONTEXT**

There are several definitions of SMEs and, consequently, it is relevant to clarify this concept and its limitations. This study adopts the OECD definition which states that an SME employs fewer than 250 people and has a turnover of less than EUR 50 million (OECD, 2005). A micro company is defined as an enterprise that employs fewer than 10 people and whose annual turnover does not exceed EUR 2 million (OECD, 2005).

SMEs are extremely important for the Portuguese economy and society. They represent around 99.6% of the national business network, only surpassed by Italy (Ferreira, 2019). The Portuguese SMEs that assume the greatest protagonism are the micro and small enterprises. Portugal has a tertiary business structure with little representation of the manufacturing industry. Trade and services, including tourism, are predominant in the national economy. Portuguese SMEs have a considerable level of concentration of their structure in the North and Lisbon and Tagus Valley regions. SMEs represent more than 99% of the business sector in any region of the country, providing the majority of jobs in any of them (IAPMEI, 2017).

Portuguese SMEs have specificities that are relevant to consider. Matias, Baptista, and Salsa (2015) point out that the organizational structure tends to be quite simple with a little delegation of the decision by the manager to subordinates. Managers are easily confused with partners. Furthermore, Serrasqueiro, Matias and Salsa (2016) state that financial and human resources are scarce and there is a high dependence on national and European public funds. Moreover, Oliveira (2020) mentions flexibility as the great virtue of Portuguese SMEs, which allows Portugal to be the European

leader in SME innovation despite the country being below the European average in innovation.

Several challenges are posed to Portuguese SMEs in the tourism field. In Portugal, there is a strong real estate component of tourism, mainly related to the weight that traditional hotels have in the sector. This sector has traditionally lived with fragile financial structures, directly and indirectly affecting its competitiveness (Estevão, Nunes, Ferreira and Fernandes, 2018). Furthermore, and transversally in the tourism sector, SMEs with insufficient levels of capitalization predominate, which recur to excessive debt and whose healthy growth is often conditioned by financial fragility. Faced with this scenario, Tourism of Portugal (2020b) considers that, for the consolidation and sustainability of companies in this sector it is essential to foster an agile and proactive relationship between the public administration and the business fabric. Equally important according to the 2027 tourism strategic plan is to strengthen access to investment, capacity building, and knowledge, to position Portugal as a reference pole in innovation and production of goods and services for the tourism industry (Turismo de Portugal, 2020b).

Another key area for the sustainable development of tourism in Portugal is the digital economy (Liberato, Alén-González and Liberato, 2018). The presence of companies on the Internet requires the development of content and the presentation of services to maximize visibility and the ability to interact with the end customer and intermediaries. Portuguese SMEs also have a limited presence in their reach and low capacity to articulate with other services at the destination or distribution. In this sense, improving this presence means having a benchmark that identifies the information and services to be made available in a format that facilitates interoperability in the context of digital networks and their relationship with the customer.

Portuguese companies, in particular SMEs, lack the skills and resources to develop these experiences and incorporate them into their offer (Oliveira, 2019). In this sense, the existence of a service network that develops innovative concepts of activities and experiences, and places them in the market independently or associated with service brands (e.g., hotels, guest houses, restaurants) becomes relevant. Moreover, SMEs in this sector have some economic weaknesses, due to the seasonality of tourism activity, and the excessive indebtedness these companies

have (Alshuqaiqi & Omar, 2019). This means that companies do not have the capacity to strengthen their sustainability with long-term policies and are subject to limited and short-term implementation measures.

The sustainability of operations in tourism SMEs includes a multiplicity of components and integrates concepts from many other disciplines, such as management, geography, and sociology (Guo et al., 2019). Sustainable tourism should also be promoted by SMEs and can be seen as the component of tourism that safeguards the environment and natural resources, ensuring the economic growth of the activity. In Portugal, there has been a strong tourist pressure, especially near the large urban centers, which has significantly increased the cost of living and led to a recharacterization of cities, leading their inhabitants to migrate to metropolitan areas. Therefore, sustainable tourism must be based on a new paradigm that seeks to reconcile the desires of tourists with those of the receiving regions, ensuring not only the protection of the environment, but also stimulating the development of the activity in line with the local society involved. Accordingly, a framework that analyzes sustainable tourism must be based, as proposed by Ninerola, Sánchez-Rebull and Hernández-Lara(2019), on four fundamental pillars: (i) economic dimension that allows SMEs to ensure their business activity; (ii) social dimension to have a positive impact on the community; (iii) environmental dimension to minimize the effects on the environment; and (iv) sustainable management that allows to manage the intersection of these three dimensions in an integrated way.

### **3. METHODOLOGY**

#### **3.1) RESEARCH DESIGN**

This study employs a qualitative exploratory approach in which it aims to identify, classify, and perform a comparative analysis of sustainable indicators in tourism considering the specificities of hospitality SMEs in the tourism sector in Portugal. According to Queirós, Faria and Almeida (2017), qualitative research offers a means of exploring a complex phenomenon in which its perspectives must be understood in the natural context of its occurrence. This approach is fundamentally interpretative and provides a holistic perception of social phenomena. In tourism, techniques

initially focused on quantitative aspects also tend to incorporate qualitative techniques that provide an understanding of the challenges of the tourism sector in its natural context. In this regard, Massukado (2008) states that exclusively quantitative methods tend to reduce the analytical and explanatory character of a research. In the context of this work, the adoption of qualitative methods is essential to understand the challenges posed to Portuguese hospitality SMEs.

The study is structured in three fundamental phases, as shown in Figure 1. In the contextual phase, the phenomenon of sustainability in tourism is understood and the relevance of monitoring is explored, as well as the existence of indicators to identify, evaluate and propose improvements in the sustainability performance of tourism companies. In this phase, the challenges that are posed to Portuguese hospitality SMEs are assessed, particularly for those operating in the tourism sector. In the fieldwork stage, the aim is to systematize the sustainability indicators, identify areas and criteria considering the ETIS, WTO, and Green Globe models. This process is fundamental to identify convergent/divergent points between them and to assess their applicability considering the paradigm of the Portuguese hospitality sector. For this purpose, a Likert scale of five levels (i.e., very low, low, medium, high, and very high) is applied. This scale is in conformity and aligned with other Likert scales adopted in studies of tourism sustainability in countries like South Africa and China (Mutana & Mukwada, 2017; Wang, Liu, Zhou and Wang, 2019). The evaluation of the relevance of each criterion was made considering the specificities of the hospitality sector, namely using two empirical case studies: a hostel and a country house. The use of the Likert scale allows us to perceive comparatively the relevance of each indicator considering the specificities of each hospitality business. Interviews were carried out with the managers of these two establishments. For this purpose, a semi-structured interview was used in which an evaluation table for each indicator was requested, considering the five levels of the Likert scale. This information was complemented by a discussion of the relevance of the indicators with a divergent score (i.e., more than two levels of difference) in each dimension. The interviews were conducted via Google Meet and Zoom platform due to the restrictions of social interaction and mobility posed by the COVID-19 pandemic. The hostel (HT) is located in the historical center of Porto overlooking the Douro River and offers a privileged location for access to the cultural sites of the city. The country house (CH) is located

in the village of Ponte de Lima in the district of Viana do Castelo and offers accommodation in two independent rooms with access to a common garden, 24-hour reception, and free Wi-Fi. The choice of these two case studies for the empirical application of the framework is relevant in allowing its demonstration of applicability considering the specified needs of the hospitality sector in the city and countryside. Finally, in the analytical phase, the results are interpreted and discussed considering the existing literature in the area and the main conclusions of this study are drawn.

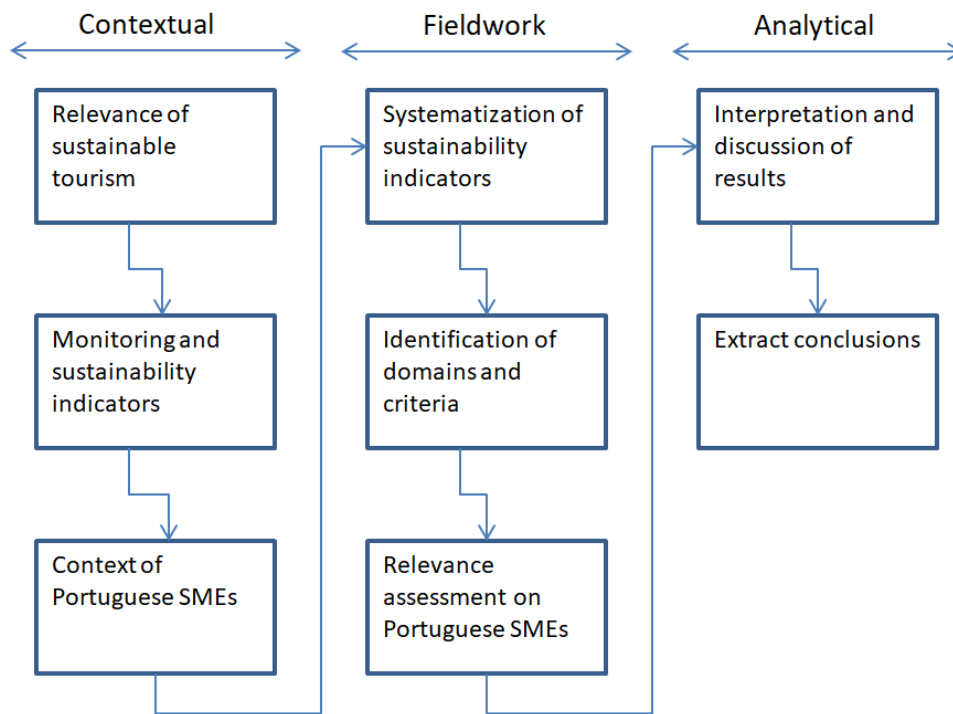


Figure 1: Phases of the research design  
Source: Own elaboration

The study considered the ETIS, WTO, and Green Globe frameworks. ETIS is a framework proposed by the European Commission that aims to encourage tourist destinations to take a more intelligent approach to tourism planning through a sustainable approach to managing their operations. ETIS presents a total of 27 core indicators and 40 optional indicators that are organized in four dimensions: (i) destination management; (ii) social and cultural impact; (iii) economic value; and (iv) environmental impact. ETIS has been used to explore the challenges of sustainable management in several regions of European countries, such as Ireland and Romania (McLoughlin, Hanrahan Duddy and Duffy, 2018; Tudorache, Simon, Frent and Musteată-Pavel, 2017). WTO is the most complete and comprehensive model and

presents suggestions for quantitative and qualitative indicators in several areas such as, among others, the impact of tourism activity, process management efforts, the effects of activities on ecosystems. By not presenting a set of specific indicators, this model makes its applicability more reduced, hence its use has essentially been to frame and justify environmental policies in areas such as energy, environmental management, or reduction of greenhouse gases (Eliason, 2018; Vera, 2008). Finally, the Green Globe organizes sustainability indicators in four dimensions: (i) sustainable management; (ii) social/economic; (iii) cultural heritage; and (iv) environmental. A total of 25 criteria are included. Although this framework is the least comprehensive in the number of indicators, the Green Globe is the only standard and offers a guide to the certification processes. Studies in the area have essentially explored the effects of the adoption of the Green Globe on tourism companies in sectors such as hospitality and real estate (Alameeri, Ajmal, Hussain and Helo, 2018; Bible & Chikeleze, 2018).

The collection of sustainability indicators used the techniques of content analysis and matrix analysis. In an initial phase, it was necessary to deepen knowledge on each indicator and identify the relevance of each one of them to the hospitality sector. After that, all ETIS, WTO, and Green Globe indicators were mapped in a matrix, which allowed identifying common dimensions among the models and indicators that are redundant in the face of the existence of another more comprehensive one. At the end of this process, four dimensions (i.e., economic, social, sustainable management, environmental) and a total of 73 indicators were identified. These indicators and corresponding areas are explored separately.

### **3.2) DIMENSIONS AND INDICATORS**

Table 1 shows the 20 indicators collected in the economic dimension. In this dimension, five indicator domains have been identified: (i) seasonality; (ii) transport; (iii) economic benefits; (iv) tourist satisfaction; and (v) employment. In seasonality, we find the analysis of tourism activity considering the different seasons of the year and it gauges the robustness regarding fluctuations in market demand throughout the year. In transport, we seek to explore the role of transport diversity in access to the tourist destination. In the economic benefits, there are indicators of the economic

advantages that can be found by tourism activity. Finally, in employment, the contributions made by tourism to the various dimensions of employability are examined considering gender equality, qualification of human resources, and local communities.

ID	Domain	Indicator	Criterion	Model
EC1	Seasonality	Nights per month	The company monitors the number of occupied nights per month, controlling seasonality.	ETIS
EC2		% seasonal jobs	Percentage of temporary employees in peak seasons compared to the existing workforce.	ETIS
EC3		Seasonality rate	The company monitors the instability between supply and demand at certain periods of the year.	ETIS WTO
EC4		% of sites open all year	Companies that do not close in periods of lower affluence.	ETIS
EC5	Transport	Access to the destination through different modes of transport	The company seeks to improve the quality and number of transports, which facilitates access to customers.	WTO
EC6	Economics benefits	% contribution of tourism to GDP	Contribution of the tourism sector to GDP.	ETIS
EC7		Daily number of tourists	Daily counting of the number of tourists.	ETIS WTO
EC8		Daily expenses per tourist during the night	Average spending by tourists over one night	ETIS
EC9		Average length of tourist visit	Average time tourists stay	ETIS
EC10		Support for local entrepreneurs	The company sells or offers the means for small local entrepreneurs to develop sustainable products based on the nature, history, and culture of the area.	ETIS Green Globe
EC11		Fairtrade	Local and fair-trade services and goods are purchased by the company when available.	Green Globe
EC12		Investment in the tourism sector	Comparative evaluation of the investment made in tourism with other sectors.	WTO
EC13		Tourism expenses	Monitoring tourist spending on museums and other entertainment.	WTO
EC14		Community	The company actively supports	Green

		development	initiatives for the development of the social community and infrastructure, including, among others, education, health, and sanitation.	Globe
EC15	Tourist satisfaction level	Tourist satisfaction in relation to price/quality	The company seeks to know from tourists their level of quality in relation to the price practiced, as a way of implementing corrective actions when necessary.	WTO Green Globe
EC16		Tourist satisfaction with the destination and degree of loyalty	The company seeks to assess the tourists' level of satisfaction with the destination.	WTO
EC17	Employment	Employment / Total economy	Contribution of the tourism sector to employment in the total economy.	ETIS
EC18		Fair employment	The business is equitable in hiring women and local minorities, including in management positions while restricting child labor.	ETIS Green Globe
EC19		Employment by qualification	Percentage of jobs in the tourism sector by academic level.	ETIS
EC20		Local employment	Local residents are employees, including in management positions. Training is offered as required.	Green Globe

Table 1: Economic dimension indicators  
Source: Own elaboration

Table 2 shows the 20 indicators for the social dimension. A total of six fields have been identified: (i) satisfaction; (ii) pressure; (iii) accessibility; (iv) effects of tourism on the community; (v) conservation of cultural heritage; and (vi) quality of life. In satisfaction, we find elements related to the level of positive satisfaction on the impacts of tourism, while, in pressure, we can identify elements with a negative impact. Accessibility aims to focus the analysis on tourists with some kind of disability. In the effects of tourism on the community, we try to explore the impact of tourism in local communities. In the conservation of cultural heritage, it is addressed how tourism promotes and protects the cultural elements of the tourist destination. Finally, the quality of life aims at assessing how tourism has contributed to the quality of life of communities and employees.

ID	Domain	Indicator	Criterion	Model
SC1	Satisfaction	% of satisfied tourists	Monitoring the tourist satisfaction level.	ETIS Green Globe
SC2		% of returning visitors	Monitoring the number of returning visitors.	ETIS
SC3		% of residents satisfied with the impacts of tourism	Monitoring the impact of the tourism sector on the local community.	ETIS
SC4		% of tourists satisfied with the safety of the destination	Monitoring the degree of tourist satisfaction in relation to security.	WTO
SC5	Pressure	Number of beds per 100 residents	The company accounts for the number of beds per 100 residents.	ETIS
SC6		Intensity of tourism	Monitoring the tourist intensity in each tourist area.	ETIS
SC7		Density of tourism	Monitoring the tourist density with the local community.	ETIS
SC8		Occupancy rate	The company accounts for and provides its occupancy rate to tourist entities.	ETIS
SC9	Accessibility	% of rooms accessible for people with disabilities	The company is concerned about people with motor difficulties and has a room rate for this type of tourist.	ETIS
SC10	Effects of tourism on the community	Exploitation	The company has implemented a policy against commercial exploitation, mainly of children and adolescents, including sexual exploitation.	Green Globe
SC11		Respect local communities	A code of conduct for activities in local communities has been developed, with consent and in collaboration with the community.	Green Globe
SC12		Capacity of financial services	The tourist destination has adequate financial services.	WTO
SC13	Conservation of cultural heritage	Code of conduct	The company follows established guidelines or a code of behavior for visits to culturally or historically sensitive sites to minimize visitor impact and maximize pleasure.	Green Globe
SC14		Historical artifacts	Historical and archaeological artifacts are not sold, traded, or displayed except as permitted by law.	Green Globe
SC15		Protection of historic sites	The business contributes to the protection of historic, archaeological, cultural, and	Green Globe

			spiritually important properties and sites, and does not prevent access to them by local residents.	
SC16		Intensity of asset use	The company uses elements of local art, architecture or cultural heritage in its operations, design, decoration, food, or shops; respecting the intellectual property rights of local communities.	WTO Green Globe
SC17	Quality of life	Level of satisfaction with community life	The company contributes to an increase in overall satisfaction among the community and is satisfied with community life in general.	WTO
SC18		Protection of employees	International or national legal protection of employees is respected, and employees receive a decent wage.	Green Globe
SC19		Basic services	The company's activities do not compromise the provision of basic services such as water, energy, or sanitation to surrounding communities.	Green Globe
SC20		Effects on disposable income	Evaluation of the impact that the tourism sector has on the rental sector and changes in the value of rents.	WTO

Table 2: Social dimension indicators  
Source: Own elaboration

Table 3 shows the eight indicators for the sustainable management dimension. Two areas have been identified: (i) management system; and (ii) local planning. The role that an integrated management system offers the company in different areas such as marketing, communication, health, and safety is explored in the management system. In local planning, sustainable planning, design, and construction processes are addressed. All indicators have been extracted exclusively in the Green Globe framework because this is the only model that considers the sustainable management dimension.

ID	Domain	Indicator	Criterion	Model
SM1	Management system	Sustainability management system	The company has implemented a long-term sustainability management system that is appropriate to its reality and scale, and takes into account environmental, socio-cultural, quality, health, and safety issues.	Green Globe
SM2		Local compliance	The business complies with all relevant international or local laws and regulations (including, but not limited to, health, safety, labor, and environmental aspects).	Green Globe
SM3		Accuracy of promotional campaigns	The promotional materials are accurate and complete and do not promise more than can be delivered by the company.	Green Globe
SM4		Interpretation	Information and interpretation of the natural environment, local culture, and cultural heritage are provided to customers, in addition to explaining the appropriate behavior when visiting natural areas, living cultures, and cultural heritage sites.	Green Globe
SM5		Communication strategy	The company has implemented a comprehensive communication strategy to inform visitors and guests about its policies, and programs of sustainable initiatives.	Green Globe
SM6		Health and safety	The business ensures compliance with all relevant health and safety measures to ensure the wellbeing of its customers, employees, and the local community.	Green Globe
SM7	Local planning	Design and construction - compliance with legal requirements	Comply with local legislation on land acquisition and land rights, as well as local zoning and requirements of protected areas or property.	Green Globe
SM8		Sustainable design and construction of buildings and infrastructure	Adoption of locally appropriate principles of sustainable construction and design, respecting the natural and cultural environment.	Green Globe

Table 3: Sustainable management dimension indicators

Source: Own elaboration

Table 4 shows the 25 indicators for the environmental dimension. A total of eight domains have been identified: (i) environmental management; (ii) energy management; (iii) solid waste management; (iv) water management; (v) protection of the natural ecosystem; (vi) impact on the environment; (vii) conservation of biodiversity and landscapes; and (viii) resource conservation. Environmental management seeks to understand the importance given by companies to environmental issues. It follows the management of energy, solid waste, and water that are key elements of environmental processes. Also noteworthy are areas related to the protection of the natural ecosystem and the conservation of biodiversity and landscapes, which are essential elements in tourism to preserve local fauna and flora. Finally, in the field of resource conservation, the importance of the role of ecological products, and the reduction of disposable goods is explored.

ID	Domain	Indicator	Criterion	Model
EN1	Environmental management	Carbon footprint	Greenhouse gas emissions from all sources controlled by the company are measured and procedures are implemented to reduce and compensate them as a way to minimize climate change.	ETIS Green Globe
EN2		Number of beaches with blue flag	Certification of the quality of beaches by monitoring the number of blue flag beaches of a given destination.	ETIS
EN3		% of businesses offering environmental training to employees	Staff receive periodic training on their role in managing environmental, socio-cultural, health, and safety practices.	ETIS Green Globe
EN4		Expenditure on the environment	Budget for environmental protection.	ETIS
EN5		% of certified facilities	Identification of establishments with environmental certifications.	ETIS
EN6	Energy management	Energy consumption	Energy consumption should be measured, the sources indicated and measures to reduce overall consumption should be adopted, encouraging the use of renewable energy.	ETIS Green Globe
EN7		% of facilities with energy reduction targets	Monitoring of facilities that implement measures and actions to reduce energy consumption.	ETIS
EN8		Solid waste	Waste Management	A solid waste management plan

	management	Plan - plan, reduce, reuse, and recycle	is implemented, with quantitative targets to minimize waste that is not reused or recycled.	Globe
EN9		% of facilities separating different types of waste	Evaluation and monitoring of tourist establishments that perform the distribution and separation of the various types of waste.	ETIS
EN10		% of solid waste allocated to tourism	Assessment of the impact that the tourism sector has on solid waste.	ETIS
EN11	Water management	Reduction of water consumption	Water consumption should be measured, the sources indicated and measures to reduce overall consumption should be adopted.	WTO Green Globe
EN12		Water treatment	Wastewater is treated efficiently and reused whenever possible.	WTO Green Globe
EN13		% of companies using recycled water	The company implements measures to increase recycled water.	ETIS
EN14		% of controlled and good quality bathing water	Monitoring the percentage of good quality water or controlled destination.	ETIS
EN15	Protection of the natural ecosystem	Protection of valuable natural assets	The business contributes to supporting biodiversity conservation, including support for natural protected areas and high biodiversity value areas.	WTO
EN16	Impact on the environment	Harmful substances	The use of harmful substances, including pesticides, paints, swimming pool disinfectants and cleaning materials, is minimized; replaced, where available, by safe products; and all use of chemicals is properly managed.	Green Globe
EN17		Noise pollution	The company implements practices to reduce noise pollution.	WTO Green Globe
EN18		Conservation of the landscape	Interactions with the environment should not have adverse effects on the viability of maintaining and conserving the surrounding environment.	WTO
EN19		Intensity of land use	Monitoring the impact that the tourist has on the land.	WTO
EN20		Impact of the road network	Assessment of the impact of the road network on the environment	WTO
EN21	Conservation of biodiversity and landscapes	Conservation of biodiversity	The business contributes to supporting biodiversity conservation, including support	Green Globe

EN22		Interaction with wild animals	for natural protected areas and areas of high biodiversity value. Interactions with wildlife should not have adverse effects on the viability of populations in nature; and any disturbance of natural ecosystems is minimized, rehabilitated, and there is a compensatory contribution to conservation management.	Green Globe
EN23		Landscaping	The company uses native species for landscaping and restoration and takes steps to prevent the introduction of invasive exotic species.	Green Globe
EN24	Resource conservation	Purchasing policy	The purchasing policy favors ecological products for building materials, capital goods, food, and consumables.	Green Globe
EN25		Consumer goods	The purchase of disposable goods and consumables is measured, and the company actively seeks ways to reduce its use.	Green Globe

Table 4: Environmental dimension indicators  
Source: Own elaboration

## **4. RESULTS AND DISCUSSION**

### ***4.1) ECONOMIC DIMENSION***

Table 5 presents the analysis of indicators regarding the economic dimension. Each indicator has an 'id' and a potential 'AID', which indicates the interconnection with other indicators; the impact is analyzed in two different hospitality entities: hostels (HT) and country houses (CH); and a brief description of the interpretation of each indicator is also provided. Out of the 20 indicators collected on the economic dimension, 11 were considered to have high or very high importance for Portuguese hospitality SMEs (see Table 5). The indicators of this dimension are linked to occupation rates, tourist satisfaction, and job quality. The occupancy rate has been one of the main indicators traditionally used in the analysis of hospitality sector performance. Tourist satisfaction is also a key element when it comes to focusing on quality. It is in this way that customer satisfaction is considered one of the main criteria in determining the quality that is offered to the customer by products and services (Khan, Yusoff and Kakar, 2017). It is also seen as an essential objective in

all sectors of the market because it is assumed that satisfied customers buy back the product/service and are more likely to develop loyalty to a tourist destination (Chenini & Touaiti, 2018). The quality of employment, from the dual perspective of workers' qualifications and local employment, are key elements in ensuring the digitalization and the involvement of local communities in tourism. This approach is seen by Giampiccoli and Saayman (2018) as a way of enabling local communities to develop in areas of high tourist attractiveness and, through this, to foster greater homogenization of economic growth in a country. In small local communities, where country houses are typically located, this is a key element for the sustainable development of these establishments. Finally, there are two indicators (i.e., EC5 and EC10) in which significant divergences in the importance of these indicators for HTs and CHs emerge (i.e., more than two levels of difference in the Likert scale). The preferred location of HTs in urban centers makes the tourism offer much more diversified. A good transport network is essential for the mobility of tourists, where the use of their own means of transport is not advisable. On the contrary, the location of the HTs in rural areas makes their weight in the local economy a preponderant function because it is fundamental means for the promotion of local products and culture.

ID	AID	Impact		Model
		HT	CH	
EC1	N/A	Very High	Very High	For Portuguese hospitality SMEs, monitoring the number of nights through the various tools becomes crucial for their development.
EC2	N/A	Low	Medium	Seasonality is a high impact factor for hospitality SMEs, as seasonal jobs are predominant, particularly in small cities and villages.
EC3	EC2	Low	Medium	Monitoring instability between supply and demand in periods of lower tourism demand is key to managing the cash flow.
EC4	EC2	Low	Medium	Due to the specificities of some tourist activities (e.g., snow sports), the closure of companies in periods of lower activity becomes a strategic decision.
EC5	N/A	High	Low	Customer access to tourist establishments and sites is important, but is part of a country's macro transport policy. SMEs have little autonomy and capacity to change this paradigm. However, for HT, its impact may be greater since the touristic activity is focused on urban areas.
EC6	N/A	Very	Very	This is a relevant macroeconomic indicator, but it is not

		Low	Low	monitored by SMEs.
EC7	EC1	High	High	Relevant and complementary indicator to EC1 that helps hospitality SMEs to forecast revenues.
EC8	EC7	High	High	Indicator complementary to the EC7 and providing more accurate indications of business performance.
EC9	EC7 EC8	High	High	Indicator relevant to measure the average stay of tourists.
EC10	N/A	Low	High	The sale of local products and the preservation of local history can be organized using partnerships. The sale of regional products is a way to increase the competitiveness of less developed rural regions.
EC11	N/A	Low	Medium	Fairtrade is a relevant element from the perspective of sustainability, but it is not specific to hospitality SMEs. Nevertheless, its importance is greater for CH due to the lesser diversity of local commerce.
EC12	N/A	Low	Low	Macroeconomic indicator with little involvement of SMEs, although a strong tourism sector is an element that enhances the development of the hospitality sector.
EC13	N/A	Low	Low	An indirect indicator that can give some references about the expenses made by tourists.
EC14	N/A	Low	Medium	The development of the social community is a very relevant element for the municipalities, but whose responsibility is shared between the local authorities and companies in the region. For CHs, this indicator is more relevant due to its role in the development of the regional economic fabric.
EC15	N/A	Very High	Very High	A high level of tourist satisfaction is a key element for the economic activity of hospitality SMEs.
EC16	EC15	Medium	High	The loyalty level is an element resulting from EC15, which is important for the sustainability of tourism operations. Due to the lower offer of CHs beds, this is a more relevant indicator for them.
EC17	N/A	High	High	The generation of new jobs in the economy is a concern that is not exclusive to SMEs.
EC18	EC17	Medium	Medium	Equitable employment is a national goal for all players.
EC19	EC17 EC18	Medium	Medium	In addition to being equitable, the qualification of workers should be promoted. This can be a key element, as skilled workers contribute to the digitalization of hospitality SMEs.
EC20	EC17	Medium	High	Local employment is a key element in the promotion of local tourist destinations. Knowing the local culture is a relevant asset and contributes to the satisfaction of tourists and, consequently, to their loyalty.

Table 5: Evaluation of economic dimension  
Source: Own elaboration

## 4.2) SOCIAL DIMENSION

Only six out of the 20 indicators of the social dimension are considered to have high relevance for Portuguese hospitality SMEs (see Table 6). Here, we also find in the importance of tourist satisfaction and occupation rates from the social perspective. According to ETIS and Green Globe, these two indicators assume the double social and economic perspective. The intensity of heritage usage and the protection of historical sites emerges as a strategic factor that should be considered by Portuguese hospitality SMEs. The preservation of the history of each region is a factor of great attractiveness for tourists and should be preserved. The historical heritage, mainly buildings and monuments, are highly sought after by tourists in Portugal (Remoaldo, Ribeiro, Vareiro and Santos, 2014). From a conceptual perspective, Ismagilova, Safiullin and Gafurov (2015) state that tourism has a strong relationship with cultural heritage and occurs with more intensity in the historical centers of cities. This situation is particularly relevant for a hostel located in the historic zone of Porto. This happens because the city itself constitutes a tourist resource, not needing visitors to enter museums or other visiting spaces. Tourism in the city takes place simply through tours of urban areas where the landscape itself reinforces the cultural attractions. Finally, only the SC20 indicator shows significant differences in its relevance to HTs and CHs. The increase in the value of rents has kept people away from living in the centers of large cities, which, according to Mendonça, Viana, Figueiredo and Henriques (2017), discourages tourism in these places. People in the historic centers, mostly belonging to the lower-middle class, are in a very vulnerable situation when their housing contracts are not renewed. This situation tends to generate situations of conflict between residents and tourists and, in the medium term, will affect the attractiveness of these places. This situation is particularly visible in the large cities of Lisbon and Porto.

ID	AID	Impact		Model
		HT	CH	
SC1	N/A	Very High	Very High	Very relevant indicator for hospitality SMEs to define and adapt to their target audience.
SC2	SC1	Very High	Very High	Indicator very important for hospitality SMEs that establish a close relationship with their customers.
SC3	N/A	Low	Medium	This is a factor that will only be within the scope of the government authorities. However, its impact is higher in smaller communities.

SC4	SC1 SC2	Medium	Medium	Companies in this segment do not monitor this factor as critical to the development of their business, although it is an essential element for the attractiveness of that destination.
SC5	N/A	Low	Low	The accounting for the number of beds is not specific to SMEs and is carried out by national and local authorities. However, it is indicative of the tourist pressure of each region.
SC6	SC5	Medium	Low	A strong tourism intensity may be revealed as an indicator with negative impacts on tourism sustainability. Its impact in large urban centers tends to be greater.
SC7	SC6	Medium	Low	The analysis of tourism density has an interpretation identical to SC6.
SC8	N/A	High	High	The occupancy rate is a very important element with social and economic impact. However, it does not give information about the quality of this tourism.
SC9	N/A	Medium	Medium	Accessibility is an element of growing importance, but not specific to hospitality SMEs.
SC10	N/A	Medium	Medium	The relevance of this indicator is transversal to all sectors of activity.
SC11	SC10	Medium	High	Respect for local communities is a key factor and strategy for the success of a business, which becomes more relevant in a rural context.
SC12	N/A	Low	Medium	The existence of financial services is an integral element of local development policy. However, it is less relevant in urban centers where there is a greater offer of financial services.
SC13	SC11	Medium	High	The relationship with the environment involved is fundamental for tourist activities and the preservation of the unique characteristics of each location.
SC14	N/A	Low	Low	Compliance with the law in this area is a legal obligation, but not specific to hospitality SMEs.
SC15	SC14	Low	Low	The relationship with the local population is fundamental to the sustainability of the company's tourism operations.
SC16	SC11 SC13 SC15	Low	Low	Respect for heritage preservation is a central and complementary element of the SC11, SC13, and SC15 indicators.
SC17	N/A	Medium	Medium	Increasing the quality of life is a contribution of all companies.
SC18	SC17	Medium	Medium	Hospitality SMEs must make an ethical commitment to respect the quality of life of their employees.
SC19	N/A	Medium	Medium	Respect for the environment and the good relationship with other communities and companies contribute to the existence of a healthy environment for business activity.
SC20	N/A	High	Low	The increase in the value of rents is a relevant element that has excluded local communities from the historic city centers. The tourist experience in these places is conditioned and limited and increases touristic pressure. It is a challenge that must be essentially seen in the political dimension.

Table 6: Evaluation of social dimension  
Source: Own elaboration

### 4.3) SUSTAINABLE MANAGEMENT DIMENSION

Two of the eight indicators collected for the sustainable management dimension are quite relevant for Portuguese hospitality SMEs (see Table 7). In this dimension, the importance of communication strategies and the interpretation of the territory is highlighted. The promotion of tourism is fundamental given the growing importance of tourism in the Portuguese economy, having been one of the main drivers of economic growth in recent years (Bento, 2016). Furthermore, Postma, Cavagnaro and Spruyt (2017) state that tourism plays a very important role in the sustainability of many places. In this context, high growth of tourism activity has emerged in Portugal, which started with the urban areas located on the coast, but, in recent years, has expanded to rural areas. Consequently, there is an increasing interest in investing in this activity, which adds the main features to the cultural, social, and political scenario. The interpretation of the territory is another element that stands out so that the visitor is able to perceive the historical context of the visits to each place. As Portugal is an extremely rich country with architecture from different historical periods, the interpretation of tourism is a fundamental factor for the sustainability of tourism. There is no indicator with significant differences between HTs and CHs, except slightly higher importance of the SM4 indicator since the cultural context tends to be a more determining factor in the differentiation of hospitality SMEs in CHs.

ID	AID	Impact		Model
		HT	CH	
SM1	N/A	Medium	Medium	It is a determining factor in enabling the business to gain long-term value; however, most SMEs have no plans in place.
SM2	N/A	Low	Low	Portugal has legislation and companies are obliged to comply with it. However, it is a legal compliance and not a strategic factor.
SM3	N/A	Very High	Very High	Managing customer expectations is crucial to the sustainability of the business. Its correct management contributes decisively to the increase of customer loyalty.
SM4	N/A	Medium	High	The conformity of the business and its articulation with the local natural and cultural environment is a determining factor for the differentiation of hospitality SMEs.
SM5	SM4	Medium	Medium	The communication policy is a fundamental factor that leads to the materialization of other indicators like SM3.
SM6	N/A	Medium	Medium	Health and safety are two key elements, but not specific to the activity of an SME.

SM7	N/A	Low	Low	There is legislation in this area that SMEs must comply with and implement.
SM8	SM7	Low	Low	The adoption of sustainable construction and design principles are part of the legislation.

Table 7: Evaluation of sustainable management dimension  
Source: Own elaboration

#### **4.4) ENVIRONMENTAL DIMENSION**

In the environmental dimension, only two relevant indicators for Portuguese hospitality SMEs (e.g., high and very high impact) have emerged (see Table 8). Indicators related to environmental management, energy management, environmental waste management, water management, and environmental and resource protection are relevant. This is the dimension where a greater diversity of indicators can be found. There are specific elements that stand out in Portugal. The number of blue flag beaches has been a very important element in the promotion of Portuguese beaches as one of the best in Europe and has stimulated the growth of other associated activities (Klein & Dodds, 2018). This information is relevant for attracting tourists to the hospitality sector. Portugal has also been one of the countries in Europe that has stood out in terms of renewable energies. In 2019, 18% of the energy consumed in the European Union was from renewable sources (Patrício, 2020). However, this percentage is even more important in Portugal and represents 30.3% (Patrício, 2020). Portugal's geographical position is advantageous for energy from natural sources to be used. Therefore, both hostels and country houses must support energy consumption from renewable sources. However, and despite the importance given to the conservation of biodiversity and the adoption of more sustainable ecological products, these are not elements with a relevant impact on the hospitality sector. However, its impact should not be negligible from the perspective of national and local public policies, because Portugal is quite vulnerable to climate change. Finally, the main differences in assessing the relative importance of these indicators for HTs and CHs are only visible in the EN15 indicator. Teshome, Shita and Abebe (2020) state that biodiversity is a factor contributing to the development of sustainable tourism, as species and ecosystem diversity attract tourists and promote economic growth. Consequently, a well-managed tourism sector can help reduce threats to wildlife and maintain biodiversity. According to

Coelho (2020), the nine most sustainable destinations in Portugal are located in rural areas, which brings out the role of CHs in hosting these tourists.

ID	AID	Impact		Model
		HT	CH	
EN1	N/A	Low	Low	Controlling greenhouse gas emissions is the responsibility of all economic actors and not specific of the hospitality sector.
EN2	N/A	Medium	Medium	The quality of the beaches has been a key element in attracting tourists to the sea and river beaches. However, its impact is dependent on the company's location.
EN3	N/A	Very High	Very High	The training of people should be seen as a priority by hospitality SMEs, regardless of the type of hospitality business since the interaction between employees and customers is essential to ensure customer loyalty.
EN4	N/A	Low	Low	The budget for environmental protection is an important element, but not fundamental for hospitality SMEs to have sustainable environmental practices.
EN5	N/A	Medium	Medium	Environmental certification is an element that is increasingly valued by tourists and may prove to be a relevant attractiveness factor.
EN6	N/A	Medium	Medium	The efficient use of energy and the adoption of renewable energy is an important element for energy sustainability.
EN7	EN6	Medium	Medium	Monitoring energy consumption is a key element for the EN6 indicator to be applied.
EN8	N/A	Medium	Medium	Minimizing waste may be a strategic objective.
EN9	EN8	Medium	Medium	Waste separation is also a complementary element that ensures the implementation of EN8.
EN10	EN8	Medium	Medium	Although comparative analysis with other sectors is relevant, it should be assumed as a concern of national and local political actors.
EN11	N/A	Medium	Medium	Reducing water consumption is also a strategic element that must be incorporated together with indicators for energy management and solid waste management.
EN12	N/A	Medium	Medium	Wastewater treatment is a process that, although relevant, may not be financially affordable by all SMEs.
EN13	EN12	Low	Low	This element must be analyzed in conjunction with EN12.
EN14	EN2	Medium	Medium	Together with EN2, this is a strategic element for the activities of tourism SMEs in Portugal given the immense coastline.
EN15	N/A	Low	High	Ensuring biodiversity is fundamental to activities carried out in nature. In rural tourism, this is an important factor to ensure sustainability.
EN16	N/A	Low	Low	This is a relevant element, but not specific to SMEs.
EN17	N/A	Low	Low	Noise pollution becomes relevant only in the context of places with high tourist pressure, such as urban environments. However, it isn't the main concern of the hospitality sector.
EN18	N/A	Low	Low	Landscape conservation is a key element for all SMEs and not specific to the hospitality sector.

EN19	N/A	Very Low	Very Low	This monitoring is carried out by national and local actors.
EN20	EN19	Very Low	Very Low	Its impact on SMEs is similar to EN19.
EN21	EN15 EN18	Low	Low	Fundamental element and complementary to EN15 and EN18, which include the dimensions of natural assets.
EN22	N/A	Very Low	Low	The interaction with wildlife is particularly relevant in very specific areas that are not easily found in Portugal, but may be more easily found in rural areas.
EN23	N/A	Very Low	Very Low	Portugal is a country that has no history of challenges posed by the introduction of invasive exotic species from other geographical areas.
EN24	N/A	Medium	Medium	The favoring of ecological products is fundamental to the implementation of a sustainability policy.
EN25	N/A	Medium	Medium	SMEs should also contribute to reducing the purchase of disposable and non-recyclable goods.

Table 8: Evaluation of environmental dimension  
Source: Own elaboration

## **5. CONCLUSIONS**

Sustainable tourism recognizes the need to value the environmental and socio-cultural dimensions as a tool for producing changes with long-term effects. It also considers the desire to maximize and distribute economic benefits among the receiving community, as well as the need for visitor and host community satisfaction. Sustainable management is guided by the idea of harmonizing social, environmental, and economic aspects. Sustainable tourism development not only implies the conservation of the natural and cultural resources of the destination and the minimization of possible negative impacts, but also intends to offer a mechanism for the destination to become a qualitative reference for visitors.

This study focused its analysis on Portuguese hospitality SMEs and identified a total of 21 critical indicators (i.e., classified as being of high or very high importance) for the sustainability of these businesses. These indicators were grouped according to economic, social, sustainable management, and environmental dimensions. Among these indicators are the occupancy rate, tourist satisfaction, job quality, local community involvement, heritage use intensity, heritage interpretation, communication strategies, and environmental management and protection. The indicators and their relative importance, as distinctly considered in the two empirical cases concerning hostels and country houses, were also identified.

This study offers both theoretical and practical contributions. In the conceptual dimension, it offers a framework for analyzing the sustainable performance of Portuguese SMEs in the hospitality sector. This framework represents a significant theoretical advance by offering a model that considers the specificities of the Portuguese SMEs and also the unique challenges posed by the hospitality sector, as the ETI, WTO, and Green Globe frameworks tend to be difficult to implement and accomplish. In the practical dimension, this information is very relevant for the Portuguese SMEs to develop their activities in the field of sustainable activity and to raise the growth of tourism in Portugal, which has been the main sector of the country's economic recovery. The aim is to base the competitive advantage of the Portuguese hospitality sector on the principles of sustainability, the diversified offer, and the valorization of its distinctive and innovative characteristics, putting people at the center of their strategy. This study can also be easily adapted and used in the context of other countries, given the specificities of the tourism sector of each region.

The main limitation of this study is the qualitative approach carried out, which explores the relevance of sustainability indicators considering the specificities of SMEs in the hospitality sector, but which does not provide an empirical assessment and comparative evaluation of the relevance of these indicators considering multiple companies working in the same field. In this sense, this work should be perceived as a starting point in the analysis of the relevance of sustainability indicators in the SMEs hospitality sector. Therefore, and as future work, we intend to develop a quantitative study that allows empirically to collect data from hospitality SMEs to assess the current state of implementation of sustainability indicators within Portuguese hospitality SMEs and explore the relative importance of each indicator. This approach can be materialized through a mixed-method approach in which the sustainability indicators collected in this study can be used as elements to explore their quantitative relevance considering also the characteristics of the hospitality sector, which is made up of highly diversified companies and in which the product-service mix is valued.

## References

- Alameeri, A.; Ajmal, M.M.; Hussain, M.; Helo, P. Sustainable management practices in UAE hotels. *International Journal of Culture, Tourism and Hospitality Research*, Vol. 12, No. 4, 2018, pp. 440-466.
- Alshuqaiqi, A.; Omar, S.I. Causes and Implication of Seasonality in Tourism. *Journal of Advanced Research in Dynamical and Control Systems*, Vol. 11, No. 4, 2019, pp. 1480-1486.
- Barisic, P.; Maric, I. The Role of Management as a Strategic Tourism Guideline: Case of Croatia. *International Journal of Business and Management Studies*, Vol. 1, No. 2, 2012, pp. 423-431.
- Bella, G. Estimating the tourism induced environmental Kuznets curve in France. *Journal of Sustainable Tourism*, Vol. 26, No. 12, 2018, pp. 2043-2052.
- Bento, J.P. Tourism and economic growth in Portugal: an empirical investigation of causal links. *Tourism & Management Studies*, Vol. 12, No. 1, 2016, pp. 164-171.
- Bible, D.S.; Chikeleze, M.C. Leadership in Sustainability a Case Study: Green Globe Certification and Financing and the Impact on a Multifamily Property's Rate of Return. *Journal of Sustainable Real Estate*, Vol. 10, No. 1, 2018, pp. 109-134.
- Carneiro, M.J.; Breda, Z.; Cordeiro, C. Sports tourism development and destination sustainability: the case of the coastal area of the Aveiro region, Portugal. *Journal of Sport & Tourism*, Vol. 20, No. 3-4, 2016, pp. 305-334.
- Chenini, A.; Touaiti, M. Building Destination Loyalty Using Tourist Satisfaction and Destination Image: A Holistic Conceptual Framework. *Journal of Tourism, Heritage & Services Marketing*, Vol. 4, No. 2, 2018, pp. 37-43.

Coelho, A. *Os 9 destinos mais sustentáveis de Portugal*. EscapadaRural, 2020. Retrieved from <https://www.escapadarural.pt/blog/os-9-destinos-mais-sustentaveis-de-portugal/> [accessed 8 November 2020].

European Commission (EC). *European Tourism Indicators System for sustainable destination management*, 2017. Retrieved from [https://ec.europa.eu/growth/sectors/tourism/offer/sustainable/indicators\\_en](https://ec.europa.eu/growth/sectors/tourism/offer/sustainable/indicators_en) [accessed 27 July 2020].

Edgell, D.L. *Managing Sustainable Tourism*. Abingdon, UK: Routledge, 2019.

European Environment Agency (EEA). *Healthy environment is a must for sustainable economy and equitable society*, 2020. Retrieved from <https://www.eea.europa.eu/articles/healthy-environment-is-a-must> [accessed 6 August 2020].

Eliason, A. Using the WTO to Facilitate the Paris Agreement: A Tripartite Approach. *Sixth Biennial Global Conference*, 2018. Retrieved from [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3209858](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3209858) [accessed 4 October 2020].

Estevão, C.; Nunes, S.; Ferreira, J.; Fernandes, C. Tourism sector competitiveness in Portugal: applying Porter's Diamond. *Tourism & Management Studies*, Vol. 14, No. 1, 2018, pp. 30-44.

Farinha, F.; Oliveira, M.J.; Silva, E.M.; Lança, R.; Pinheiro, M.D.; Miguel, C. Selection Process of Sustainable Indicators for the Algarve Region – OBSERVE Project. *Sustainability*, Vol. 11, No. 2, 2019, pp. 1-24.

Ferreira, L.M. Portugal é o segundo país da UE onde as pequenas empresas têm maior peso. *Economia Online*, 2019. Retrieved from <https://eco.sapo.pt/2019/11/25/portugal-e-o-segundo-pais-da-ue-onde-as-pequenas-empresas-tem-maior-peso/> [accessed 6 August 2020].

Giampiccoli, A.; Saayman, M. Community-based tourism development model and community participation. *African Journal of Hospitality Tourism and Leisure*, Vol. 7, No. 4, 2018, pp. 1-27.

Gkoumas, A. Evaluating a standard for sustainable tourism through the lenses of local industry. *Heliyon*, Vol. 5, No. 11, 2019, pp. 1-12.

Green Globe. *Standard Criteria and Indicators*. Green Globe, 2020. Retrieved from <https://greenglobe.com/standard/> [accessed 11 August 2020].

Guo, Y.; Jiang, J.; Li, S. A Sustainable Tourism Policy Research Review. *Sustainability*, Vol. 11, No. 11, 2019, pp. 1-16.

Hall, C.M. Tourism and biodiversity: more significant than climate change? *Journal of Heritage Tourism*, Vol. 5, No. 4, 2010, pp. 253-266.

Instituto de Apoio às Pequenas e Médias Empresas e à Inovação (IAPMEI). *A Economia em Síntese*, 2017. Retrieved from [https://www.iapmei.pt/Paginas/EconomiaemSintese\\_28042017.aspx](https://www.iapmei.pt/Paginas/EconomiaemSintese_28042017.aspx) [accessed 6 August 2020].

Ismagilova, G.; Safiullin, L.; Gafurov, I. Using Historical Heritage as a Factor in Tourism Development. *Procedia – Social and Behavioral Sciences*, Vol. 188, 2015, pp. 157-162.

Khan, F.; Yusoff, R.M.; Kakar, P. Impact of service quality and customer satisfaction on tourism industry. *Journal of Advanced Research in Social and Behavioural Sciences*, Vol. 6, No. 2, 2017, pp. 146-155.

Khuntia, N.; Mishra, J.M. Economic and Environmental Aspects of Sustainable Tourism Development – A Conceptual Study. *Atna Journal of Tourism Studies*, Vol. 9, No. 1, 2014, pp. 15-28.

Klein, L.; Dodds, R. Blue Flag beach certification: an environmental management tool or tourism promotional tool? *Tourism Recreation Research*, Vol. 43, No. 1, 2018, pp. 39-51.

Kristjánisdóttir, K.R.; Ólafsdóttir, R.; Ragnarsdóttir, K.V. Reviewing integrated sustainability indicators for tourism. *Journal of Sustainable Tourism*, Vol. 26, No. 4, 2018, pp. 583-599.

Liberato, P.M.; Alén-González, E.; Liberato, D.F. Digital Technology in a Smart Tourist Destination: The Case of Porto. *Journal of Urban Technology*, Vol. 25, No. 1, 2018, pp. 75-97.

Martini, U.; Buffa, F. Marketing for Sustainable Tourism. *Sustainability*, Vol. 12, 2020, pp. 1-6.

Massukado, M.S. Comparative analysis of qualitative investigation strategies: possibilities for research in tourism. *Turismo e Sociedade*, Vol. 1, No. 1, 2008, pp. 9-27.

Matias, F.; Baptista, C.; Salsa, L. Estrutura do capital das PME da indústria transformadora portuguesa: uma análise com dados em painel. *Tourism & Management Studies*, Vol. 11, No. 2, 2015, pp. 120-129.

McLoughlin, E.; Hanrahan, J.; Duddy, A.M.; Duffy, S. European Tourism Indicator System for Sustainable Destination Management in County Donegal Ireland. *European Journal of Tourism Research*, Vol. 20, 2018, pp. 78-91.

Mendonça, B; Viana, G.; Figueiredo, J.; Henriques, M. *Que Lisboa é esta?* Expresso, 2017. Retrieved from <https://expresso.pt/sociedade/2017-09-16-Que-Lisboa-e-esta> [accessed 8 November 2020].

Mowforth, M.; Munt, I. *Tourism and Sustainability*. Abingdon, UK: Routledge, 2015.

Mutana, S.; Mukwada, G. An Exploratory Assessment of Significant Tourism Sustainability Indicators for a Montane-Based Route in the Drakensberg Mountains. *Sustainability*, Vol. 9, No. 7, 2017, pp. 1-16.

Ninerola, A.; Sánchez-Rebull, M.V.; Hernández-Lara, A.B. Tourism Research on Sustainability: A Bibliometric Analysis. *Sustainability*, Vol. 11, No. 5, 2019, pp. 1-17.

Organisation for Economic Co-operation and Development (OECD). *Small and Medium-sized Enterprises (SMEs)*, 2005. Retrieved from <https://stats.oecd.org/glossary/detail.asp?ID=3123> [accessed 27 July 2020].

Oliveira, A.B. *Portugal é líder europeu na inovação das PME e está entre os mais fortes da EU*. *Jornal de Negócios*, 2020. Retrieved from <https://www.jornaldenegocios.pt/empresas/detalhe/portugal-e-lider-europeu-na-inovacao-das-pme-e-esta-entre-os-mais-fortes-da-ue>

Oliveira, T. *Portugal tem de “atrair mais e qualificar mais”*. *Expresso*, 2019. Retrieved from <https://expresso.pt/economia/2019-11-18-Portugal-tem-de-atrair-mais-e-qualificar-mais> [accessed 18 August 2020].

Patrício, I. *Portugal a menos de um ponto percentual de atingir meta para energia renovável*. *Economia Online*, 2020. Retrieved from <https://eco.sapo.pt/2020/01/23/portugal-a-menos-de-um-ponto-percentual-de-atingir-meta-para-energia-renovavel/> [accessed 18 August 2020].

Postma, A.; Cavagnaro, E.; Spruyt, E. Sustainable tourism 2040. *Journal of Tourism Futures*, Vol. 3, No. 1, 2017, pp. 13-22.

Postma, A.; Schmuecker, D. Understanding and overcoming negative impacts of tourism in city destinations: conceptual model and strategic framework. *Journal of Tourism Futures*, Vol. 3, No. 2, 2017, pp. 144-156.

Queirós, A.; Faria, D.; Almeida, F. Strengths and Limitation of Qualitative and Quantitative Research Methods. *European Journal of Education Studies*, Vol. 3, No. 9, 2017, pp. 369-387.

Ramukumba, T.; Mmbengwa, V.M.; Mwamayi, K.A.; Groenewald, J.A. Analysis of the socio-economic impacts of tourism for emerging tourism entrepreneurs: The case of George municipality in the Western Cape Province, South Africa. *Journal of Hospitality Management and Tourism*, Vol. 3, No. 3, 2012, pp. 39-45.

Remoaldo, P.C.; Ribeiro, J.C.; Vareiro, L.; Santos, J.F. Tourists' perceptions of world heritage destinations: The case of Guimarães (Portugal). *Tourism and Hospitality Research*, Vol. 14, No. 4, 2014, pp. 206-218.

República Portuguesa. *Portugal é o 5º país com maior contributo do turismo para o PIB*. Secretaria-Geral da Economia, 2020. Retrieved from <https://www.sgeconomia.gov.pt/noticias/portugal-e-o-5-pais-com-mais-forte-contributo-do-turismo-para-o-pib.aspx> [accessed 27 July 2020].

Serrasqueiro, Z.; Matias, F.; Salsa, L. Determinants of capital structure: New evidence from Portuguese small firms. *Dos Algarves: A Multidisciplinary e-Journal*, Vol. 28, 2016, pp. 13-28.

Shen, S.; Sotiriadis, M.; Zhou, Q. Could Smart Tourists Be Sustainable and Responsible as Well? The Contribution of Social Networking Sites to Improving Their Sustainable and Responsible Behavior. *Sustainability*, Vol. 12, No. 4, 2020, pp. 1-21.

Song, H.; Li, G. Tourism demand modelling and forecasting - A review of Recent research. *Tourism Management*, Vol. 29, No. 2, 2008, pp. 203-220.

Sutawa, G.K. Issues on Bali Tourism Development and Community Empowerment to Support Sustainable Tourism Development. *Procedia Economics and Finance*, Vol. 4, 2012, pp. 413-422.

Tanguay, G.A.; Rajaonson, J.; Therrien, M.C. Sustainable tourism indicators: selection criteria for policy implementation and scientific recognition. *Journal of Sustainable Tourism*, Vol. 21, No. 6, 2013, pp. 862-879.

Tasaki, T.; Kameyama, Y. Sustainability Indicators: Are We Measuring What We Ought to Measure? *Global Environmental Research*, Vol. 19, No. 2, 2015, pp. 147-154.

Teshome, E.; Shita, F.; Abebe, F. Current community based ecotourism practices in Menz Guassa community conservation area, Ethiopia. *GeoJournal*, 2020, In Press.

Torres, V.G.; Moreno, L.R.; Fregoso, J.A. Assessment of sustainable tourism in Mexico. *Global Journal of Business Research*, Vol. 10, No. 3, 2016, pp. 21-33.

Torres-Delgado, A.; Saarinen, J. Using indicators to assess sustainable tourism development: a review. *Tourism Geographies*, Vol. 16, No. 1, 2014, pp. 31-47.

Tribe, J. Education for Ethical Tourism Action. *Journal of Sustainable Tourism*, Vol. 10, No. 4, 2002, pp. 309-324.

Tudorache, D.M.; Simon, T.; Frent, C.; Musteată-Pavel, M. Difficulties and Challenges in Applying the European Tourism Indicators System (ETIS) for Sustainable Tourist Destinations: The Case of Braşov County in the Romanian Carpathians. *Sustainability*, Vol. 9, No. 10, 2017, pp. 1-19.

Turismo de Portugal. *Portugal é o 12º país mais competitivo do mundo no ranking de competitividade do turismo do Fórum Económico Mundial*, 2019. Retrieved from <http://www.turismodeportugal.pt/pt/Noticias/Paginas/portugal-12-pais-mais-competitivo-mundo-ranking-competitividade-turismo-forum-economico-mundial.aspx> [accessed 27 July 2020].

Turismo de Portugal. *Turismo em Portugal – Visão Geral*, 2020a. Retrieved from [http://www.turismodeportugal.pt/pt/Turismo\\_Portugal/visao\\_geral/Paginas/default.aspx](http://www.turismodeportugal.pt/pt/Turismo_Portugal/visao_geral/Paginas/default.aspx) [accessed 27 July 2020].

Turismo de Portugal. *PME Excelência 2019 distingue 387 empresas do turismo*, 2020b. Retrieved from <http://business.turismodeportugal.pt/pt/noticias/Paginas/pme-excelencia-2019.aspx> [accessed 27 July 2020].

Vera, E.R. The WTO and Biofuels: The Possibility of Unilateral Sustainability Requirements. *Chicago Journal of International Law*, Vol. 8, No. 2, 2008, pp. 661-679.

Wang, R.; Liu, G.; Zhou, J.; Wang, J. Identifying the Critical Stakeholders for the Sustainable Development of Architectural heritage of Tourism: From the Perspective of China. *Sustainability*, Vol. 11, No. 6, 2019, pp. 1-20.

World Tourism Organization (UNWTO). *2017 is the international year of sustainable tourism for development*, 2017. Retrieved from <https://www.unwto.org/archive/global/press-release/2017-01-03/2017-international-year-sustainable-tourism-development> [accessed 27 July 2020].

World Tourism Organization (UNWTO). *Sustainable Development*, 2020a. Retrieved from <https://www.unwto.org/sustainable-development> [accessed 27 July 2020].

World Tourism Organization (UNWTO). *Tourism in the 2030 agenda*, 2020b. Retrieved from <https://www.unwto.org/tourism-in-2030-agenda> [accessed 29 July 2020].

World Travel & Tourism Council (WTTC). *Economic Impact Reports*, 2020. Retrieved from <https://wttc.org/Research/Economic-Impact> [accessed 27 July 2020].

Zaharia, I. Business Ethics and Sustainability on Tourism: Assessing the Offer, the Demand and the Innovations. *International Journal of Academic Research in Environment and Geography*, Vol. 1, No. 1, 2014, pp. 52-62.

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