Article

Sustainability and Tourism Competitiveness in Protected Areas: State of Art and Future Lines of Research

Nuria Rodríguez-López *, M. Isabel Diéguez-Castrillón* and Ana Gueimonde-Canto

Business Organization and Marketing Department, Business Administration and Tourism School, University of Vigo, 32004 Ourense, Spain; idieguez@uvigo.es (M.I.D.-C.); agueimonde@uvigo.es (A.G.-C.)

* Correspondence: nrl@uvigo.es; Tel.: +34-988-368-744

Received: 18 October 2019; Accepted: 7 November 2019; Published: 8 November 2019

Abstract: The sustainability approach applied to tourism has been taking shape as a dominant paradigm in tourism research, as well as becoming a requirement to achieve tourism competitiveness. This paper focuses specifically on the application of both concepts to protected areas, as tourist destinations. A bibliometric approach is adopted to provide information about the patterns and trends in the accumulation of knowledge related to this field, as well as to map its social, conceptual, and intellectual structure. Both evaluative and relational techniques are used to analyse the papers published until August 2019 and collected in the Web of Science (WoS) and Scopus databases. The results indicate that the research field has experienced significant growth in the last decade, with institutions of the USA and Australia as stimuli of scientific progress in this field. This study finds eight thematic clusters, although there is subject dispersion within each cluster, linked to the emerging and multidisciplinary nature of the field. Based on the working lines open, the study also identifies possible future approaches, linked to the incorporation of the perspectives and objectives of the different stakeholders, and the development of indicators to monitor and control dimensions of interest.

Keywords: bibliometric; competitiveness; protected areas; tourism; sustainability

1. Introduction

When a long-term, dynamic vision of tourist destinations and their competitiveness is adopted, or when the negative effects of tourism on the territories where it is developed and on their local communities are recognized, sustainability is an approach which is nearly always present, either explicitly or implicitly [1,2].

Likewise, it also underlies the definitions of destination competitiveness, which by consensus, have been accepted as comprehensive and of a broad scope [3–9]. Their notions refer to competing in the market with sufficient success as to generate profitability under the double restriction of minimizing social costs and protecting the environment.

There has been concern about developing tourism models for destinations that are consistent with this vision, such as ecotourism [10–12], or green tourism [13], since the 90s. However, over the years there have been critical voices with this vision of sustainable tourism restricted to tourism practices that are granted eco, or green, or other similar labels (responsible, alternative, soft or circular, for example) and it is argued that any form of tourism can and should be sustainable [14,15]. Along this path, there is a trend of studies that strive for mass tourism compatible with sustainability [16–19].

As a stimulus to the evolution and prominence of the concept of sustainability in the scientific field, this topic is established as a philosophy in the political field and has been adopted as a predominant vision
since 1987, the year in which the so-called “Brundtland Report” was presented [20], which develops the concept around three dimensions: Economic growth, social inclusion, and environmental balance, and based on the World Conservation Strategy of 1980 [21]. Therefore, the operationalization of sustainability, as a philosophical–political concept, is done by linking it to territories and their conservation.

Hence, progress is being made towards the application of the concept of sustainability to tourism, understood as an activity developed in specific territories and on which policies and actions must be applied locally in order to enhance sustainable development. This step was taken following the approval by the UN, in 1992, of Agenda 21, and in the sequence of its application to different sectors, including tourism [22]. Finally, transferring the philosophy of sustainable development to protected areas, which are understood as tourist destinations, was a predictable and necessary step. Protected areas are very specific territories, with very particular characteristics that require a conservation approach, and in the tourism market they are seen as increasingly attractive tourist destinations. Hence, in 1995 the European Charter for Sustainable Tourism in Protected Areas was approved [23].

Despite the increasing attention shown towards the topic of sustainability in tourist destinations, and despite its unquestionable recognition at political and philosophical levels, and although the advance in knowledge is evident, recent works [24–27] state that there is still much to be investigated, studied in depth, and understood.

In the first place, progress still needs to be made based on the recognition that sustainability is a valuable philosophical issue towards the process that leads to the achievement of the target of achieving tourism development, which is subject to the principles of sustainability. There has been great concern about the development of sustainable tourism in the literature developed on the subject. Most of the scientific studies are aimed at studying specific tourist practices, or case studies, in the context of sustainable tourism [28,29]. However, the application of the sustainability philosophy to tourism, the search for tourism planning, and management based on sustainability, the cross-cutting approach of sustainability in all types of tourism activities, and pursuing competitiveness based on management and sustainable practices are aspects that in our view should be addressed in greater depth.

Secondly, over time, specifically since the beginning of the application of the concept of sustainability to tourism, the importance of operationalizing the concept in appropriate situations (ranging from both nature-based tourism to mass tourism) has been shown. It has also been emphasised that sustainability is not achievable within the same parameters in all situations, but the implementation of sustainability depends on the social and territorial context [30]. In this regard, currently another insufficiently explored approach is the application of sustainability to specific destinations, with differentiated and characteristic profiles, as in the case of protected areas.

Thus, the aim of this paper is to know the state-of-art in research that considers the sustainability approach in connection with tourism competitiveness in the context of protected areas. The analysis was performed following a bibliometric methodology and led by six research questions:

RQ1. What pattern and trend is followed by knowledge accumulation on sustainability and tourism competitiveness in protected areas?
RQ2. What is the impact of the knowledge generated?
RQ3. What is the social structure of this field of knowledge? Where is knowledge generated, in which countries, in which institutions, and what are the international relationships between those knowledge generating centres?
RQ4. What is the conceptual structure of the field? What are the main topics addressed by researchers?
RQ5. What is the intellectual structure of the field? What are the open lines of research, the emerging research areas, and the possible future approaches?
RQ6. Does research in sustainability and tourism competitiveness in protected areas follow the guidelines of research in sustainable tourism?

The contribution of this paper is threefold. First, the current study analyses the academic literature on sustainability and applies it to management through the concept of competitiveness. Second,
this paper addresses the analysis in protected areas, a type of unique destination, characterized by a special fragility or vulnerability, both in terms of its natural and territorial resources and its socioeconomic development. Third, from a methodological perspective, the authors resort to different bibliographic databases to select the documents to be analysed, increasing the reliability of the results; moreover, they apply a broad set of bibliometric techniques and tools with the purpose of strengthening the validity of the results.

The work is structured in six sections. In the second section, we review two specific aspects of the previous literature that support this present study: (1) Related to the application of sustainability to the management of tourist destinations, the construct created successfully and with a broad influence is “Sustainable tourism”; its broad impact has led to it being the object of several bibliometric analyses; the first subsection of the second section deals with reviewing these analyses; (2) the second part of the literature review considers the theoretical development of protected areas and the assessment of their competitiveness as tourist destinations. In the third section, the strategy for searching papers and the bibliometric analysis methodology that followed are discussed. The fourth section presents the results obtained from applying evaluative and relational techniques. In the fifth section, the thematic groups that have been addressed are discussed, as well as aspects less dealt with in the literature. Finally, the main conclusions are highlighted in the sixth section together with an outline of the limitations of the study and future lines of research that arise from the analysis conducted.

2. Background

2.1. Bibliometric Analysis on Tourism Sustainability

After a decade of the concept of sustainability being linked to development, in 1999 Richard W. Butler made the first review of the state of the art on sustainable tourism. At that time, there were a series of limitations in the literature: It was focused on sustainable tourism in contrast to a deeper approach that would consist of analysing and developing tourism under the sustainability philosophy and special emphasis was placed on the environmental dimension, avoiding other dimensions such as social or physical dimensions—present already in the Brundtland report. In addition, it was focused on its operationalization in small-scale destinations, hardly exploited by the tourism industry, avoiding mainly mass tourism contexts, or traditional tourism sites or urban tourism [31].

The main problem at the end of the 20th century seemed to lie in the definition of the meaning of the sustainable tourism term in a consensual way for the various stakeholders in tourism. Butler [31] showed his pessimism in this regard by considering it unlikely that there would be a single universally applicable definition, due to so many different stakeholders: The tourism industry, conservationists, politicians, and tourists. In relation to this, and also because it was necessary to calculate the medium- and long-term effects, at that time the absence of valid indicators to measure the results was shown. In this sense, it was maintained that “given that the term sustainable development did not enter the lexicon until 1987, it was still too soon to say if anything created since then is truly sustainable or not” [31].

A decade after the work of Butler, Buckley [24] recorded over 5000 articles on sustainable tourism published between 1990 and 2012, establishing the prevalence of sustainable tourism as a research topic. Buckley [24] agreed with Butler [31] on that “there is now a sizeable body of literature on this subject, which is growing rapidly”; but that a great amount of research still remains to be undertaken.

Subsequently, mainly throughout the second decade of the 21st century, a number of analyses that adopt a bibliometric approach on the Sustainable Tourism Research subject were conducted. Some of them examine the content of one of the reference journals which already appeared in the papers of Buckley and Butler, the Journal of Sustainable Tourism. This is the case of the work of Lu and Nepal [28], who reviewed the articles of this publication in the period 1993–2007. Mauleón-Méndez et al. [32] analysed what was published between the years 2003–2017 and Quian et al. [33] took the period 2008–2017 as a reference. Ruhanen et al. [29] seek to broaden the field of analysis, and in the
25 years after the Brundtland report (period 1987–2015), they review what is published in four leading journals in the field of tourism: Annals of Tourism Research (ATR), Journal of Sustainable Tourism (JOST), Journal of Travel Research (JTR), and Tourism Management (TM).

Other reviews are even more inclusive, addressing a broader body of publications. This is the case of Niñerola et al. [26] and Yoopetch y Nimsai [34] that analyse the contributions collected in Scopus from the end of the last century until 2018, and Schoolman et al. [35] that do the same with those of Scopus and Web of Science (WoS) for the period 1996–2009.

Recently, bibliometric reviews with approaches close to ours, have analysed the scientific production on sustainability in specific destinations (sensitive areas) [36] or have highlighted the economic and management dimensions, specifically the connection between sustainability, income, and employment growth [25].

All these papers conduct quantitative analyses of the academic literature on the topic in order to measure scientific progress in the field, using techniques such as analysis of citations, co-citations or networking, and content analysis. Their aim is to help configure the state of the art related to the term sustainable tourism.

The results identify the evolution in the scientific literature on sustainable tourism from “definitional and conceptual” papers to papers focused on testing and applying theory through empirical research [29] and an exponential growth of research related to this field. The interdisciplinarity of the topic with three areas is also considered: Economic, environmental science, and social science [34,35], and three schools of thought, the first one focused on the management and development of sustainable tourism, the second one that addresses the environment and in general the impacts (positive and negative) of tourism, and thirdly, studies aimed at the perception and participation of stakeholders [34].

Faced by one of the limitations highlighted by Butler in his seminal review of the state of the art: The predominance of studies on the environmental dimension of sustainability over other dimensions [31], Schoolman et al., already in 2012, found that although this dimension continues to be the one that collects the greatest number of articles, the economic dimension emerges as the one that grew the most in the number of published articles, and papers focused on both the economic and social dimensions have a more focused orientation towards interdisciplinarity [35]. Along the same lines, Niñerola et al. [26] identify sustainability as a strategic approach for businesses and tourist destinations. The growing and high interdisciplinary vocation is also identified by Garrigós-Simón [25] who observe that the most cited papers adopt an ecological and relational perspective, although relating it to problems of the economic, management or planning, geography, or society field. However, the environmental dimension has recently acquired a renewed prominence, associated with the concern about climate change. This topic emerges with increasing interest in the most recent papers [24,26,29,33].

At the end of the 20th century, faced with the predominance of studies focused on specific types of tourism (in small-scale destinations, with an eco- or nature-based approach), the turn of the century is accompanied by appeals to analyse sustainable tourism based on other approaches (management, for example Garrigos-Simon et al. [25]) or towards its development in a sustainable way in other wider territories or in mass tourism [28,29,37]. Therefore, it seems that progress wants to be made from the search for specific types of tourism considered sustainable tourism, towards the development of tourism activity from the perspective of sustainability, adopting the perspective proposed in this work, and that Butler demanded at the end of the 20th century.

2.2. Competitiveness and Sustainability of Protected Area Tourist Destinations

The competitiveness of tourist destinations has traditionally been analysed from the point of view of supply and reduced to its economic dimension: The competitiveness of the destination is linked to the competitiveness of its companies [38–40]. Thus, tourism competitiveness is interpreted in the same way as business competitiveness: Destinations will be considered competitive if they maintain their market position with regard to their competitors [6,41,42]. If we focus on protected
area destinations, there are several studies that analyse them from the perspective of their ability to attract visitors [43–47].

However, authors such as Ritchie and Crouch [9] and Craigwell [48] point out that in addition to the economic dimension, destination competitiveness models must take into account other factors, such as environmental, social, cultural, political, and technological factors.

A large number of authors link the competitiveness of a destination with the achievement of the well-being of the local population, socio-economic prosperity, and/or the improvement of the living standards of residents [3–5,9,39,49–52]. Thus, going beyond a simplistic view that exclusively considers the economic impacts of tourism, the change in the following are confirmed: In the living conditions that tourism generates in the local community [53,54], in community resources, in infrastructures [55,56]. These circumstances influence the residents’ Quality of Life [53,57]. From another perspective, the papers of Andereck et al. [58], Andereck and Nyaupane [59], Carmichael [60], Cummins [61], or Ridderstaat et al. [62] suggest that the Quality of Life of residents has an impact on the competitiveness of destinations through their greater or lesser kindness, friendliness or hospitality towards tourists, as well as through their training and skills provided to establish a relationship with tourists. Note that in many destinations the host community itself becomes a tourist attraction. Lastly, recent studies on protected territories or with characteristics of special fragility or vulnerability also prove that residents’ Quality of Life, and the patterns of behaviour that are derived from it, constitute essential supporting elements for the tourist development of the destination [63–65].

In a new transition from the notion of destination competitiveness from a dynamic and long-term approach (explicitly recognizing both the positive and negative effects of tourism at an economic, environmental, and social level), the concept of tourism sustainability is becoming increasingly relevant [66]. This approach recovers an interpretation already underlying several seminal definitions of destination competitiveness. Crouch and Ritchie [50] appeal to sustainable competitiveness, Ritchie and Crouch [9] refer to competing by “preserving the natural capital of the destination for future generations”, Buhalis [5] refers to having to “include the sustainability of local resources for ensuring the maintenance of long-term success, as well as the achievement of equitable returns-on-resources utilized”. That is to say, competing successfully generating profitability, but with the lowest social costs and protecting the environment [4,8]. It is understood that competitiveness implies achieving sustainability [9,66–69].

Specifically, tourism development models in protected areas face the difficult balance between the search for economic results and the satisfaction of the interests of visitors and residents and the minimization of negative impacts [70,71]. In this regard, the implementation of management strategies based on sustainability is emphasised, taking the consideration of economic, societal, and environmental aspects as an essential condition [67,70,72–74].

Nevertheless, the concept of competitiveness linked to sustainability continues to be a matter of discussion. There is a line of research dealing with the complexity to fit the three aspects together and to design policies that simultaneously achieve optimal levels in the three dimensions. This discussion is emphasised due to the Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development (see for example, [75–78]).

Sharing the broad vision of destination competitiveness, we believe that there is the need to strengthen the body of knowledge that analyses the competitiveness of protected area destinations from the perspective of the philosophy of sustainability. The aim of this work is to analyse how this body is configured.
3. Research Methodology

3.1. Literature Retrieval

The first step to perform a bibliometric analysis lies in the systematic search and careful selection of the works to be analysed. The different decisions taken throughout this process condition the validity, relevance, and reliability of the analysis [79].

The search was carried out in the two largest online databases of scientific research literature: Web of Science (WoS) and Scopus. The inclusion of these two databases allows for a high coverage in the identification of studies on the subject under analysis, since both databases differ substantially in their coverage [80,81]. Compared to other papers that only use one database, or even only review what is published in a journal, a greater variety and breadth of results is sought, in order to reduce the possibility of bias and increase the validity of the analysis. Given the different coverage of the sources, the results of the analysis could vary if we used one database instead of another, or a specific journal or another [82]; this fact affects the consistency and reproducibility of the research. The use of two databases results in a greater reliability of the bibliometric analysis.

The validity of the results is also determined by the decisions taken in the document selection phase. In this regard, special effort should be made to define query terms that accurately represent the field examined [83]. In this paper we select all the documents, which appear in the databases and were published until August 2019, containing four sets of terms simultaneously: 1) “protected area *” or “national park *” or “natural monument *” or “natural feature *” or “habitat management area *” or “species management area *” or “protected landscape *” or “protected seascape *” or “protected area * with sustainable use of natural resources” or nature-based, 2) “sustainability” or “environment preservation” or “competitiveness”, 3) “tourism”, and 4) “destination”. The use of the character * ensured that the terms were searched both in the singular and plural form.

In order to pin down all those papers focused on protected areas, in the first set of terms, we included the generic name protected area, six categories of protected areas according to the International Union for Conservation of Nature (IUCN) [84], and nature-based. With regards to the categories of protected areas proposed by the IUCN, we include all the terms from Ib to VI categories (we exclude Ia category, called Strict Nature Reserve), because tourism and recreation is one of their objectives [85], and they are compatible with ecotourism practice, either “hard” or “soft” [70,86]. The query term “nature-based” was also included due to the fact that most nature-based tourism destinations are located in protected areas [70,87,88], and at the same time, the majority of political and management measures designed for protected areas fall within the so-called nature-based solutions [89]. There are numerous papers on protected areas that adopt this approach (see for example [90] and [91]).

As for the second set of terms, several clarifications must be made. Firstly, we have chosen “sustainability” as the search term rather than “sustainable” because this search enabled us to reach papers that are within the sustainability science [35] and whose conception of the subject under study is as appropriate as possible, as proposed by Butler [31], transferring the philosophy of sustainability to tourism, not restricting the development of tourism products that have the sustainable label. The fact is that the popularization of the term “sustainable tourism” has resulted in it being used too often as a mere commercial label for tourism products developed in the natural environment. As pointed out by King and Stewart [92]; Kruger [93]; Ross and Wall [94] or Wall [95], it is a sectoral viewpoint, when the philosophy of sustainability is a holistic and multifactorial approach.

Secondly, we include “environment preservation” as a search term, since it is a predominant approach in papers on sustainability. While it is the consensus that sustainability is based on three pillars, which encompass the preservation of environmental resources, the social community, and the local economy [67,69,96], we did not want to leave out literature focused exclusively on the environmental dimension, as we recognize its centrality in the case of protected areas.

Thirdly, the terms “sustainability” and “competitiveness” have been linked in the search conducted through the boolean operator OR, instead of AND. The objective was to include those papers that
analyse sustainability in protected areas with an approach clearly oriented towards making it compatible
with achieving competitiveness, even though they do not mention this word in the document, as well as
those others oriented towards competitiveness, clearly linked with the sustainability approach,
although without explicitly citing this second word.

The initial review of papers consisted of a simple search that linked the term tourism with
generic protected areas, each of the six categories of protected areas according to IUCN, as well as
with nature-based. This analysis shows the importance of tourism in these spaces (Table 1). In fact,
improvement in communications and the cost of travel has led to tourism growing tremendously in
all destinations in general and in particular, in natural areas that require protection. In these areas,
good tourism management focused on economic sustainability, but also social and environmental
sustainability becomes relevant.

Table 1. Initial search results across Web of Science (WoS) and Scopus.

| Syntax                                                                 | WoS | Scopus |
|------------------------------------------------------------------------|-----|--------|
| "protected area **" AND tourism                                        | 1688| 2239   |
| ("wilderness area **" or "national park **" or "natural monument **" or
  "natural feature **" or "habitat management area **" or "species management
  area **" or "protected landscape **" or "protected seascape **" or "protected
  area * with sustainable use of natural resources") AND tourism          | 2099| 2699   |
| nature-based AND tourism                                               | 814 | 1062   |

The combination of these words with “sustainability”, “environment preservation” or
“competitiveness” and with “destination”, resulted in 143 records in Scopus and 120 in WoS. A first
screening of those documents was carried out, which led us to eliminate 32 duplicate documents in the
two databases.

The next step to ensure the validity of the analysis was a second screening in order to keep
only valid documents. According to Zupic and Čater [83], even if an extremely careful search is
performed, studies that are not within the scope of the review are generally found in the database
obtained. These inappropriate documents influence the results of the bibliometric analysis, introduce
outliers in the cited references and reduce the validity of the results. Subsequently, in the present
study, those documents that did not comply with the established eligibility criteria were deleted.
To perform this filtering, the abstracts of the documents were carefully reviewed and those papers
whose topics really did not respond to the object of analysis of this work were deleted (linking
competitiveness and sustainability in the tourism activity in protected areas). The final sample was
made up of 205 documents. The documents included are article, book chapter, review, book review,
and proceedings paper.

It was necessary to standardize the information in the records of both databases due to differences
in content between WoS and Scopus records. This task was carried out in two stages: First manually,
fields were filled out and sorted so that all records contained the same information and in the
second stage automatic searches and replacements were made to ensure that the keywords, countries,
and names of the institutions were written identically.

Work title, source document title (mainly journals), publication date, authors and their affiliation,
abstract, author keywords, index keywords, and citation count were analysed, and all scientific
documents were included without any filter by type of document or subject area.

3.2. Bibliometric Analysis

The aim of a bibliometric approach is to evaluate and monitor the progress of a discipline through
data sorting, using physical published units or bibliographic units of that field of knowledge (author
affiliations, citations, keywords, subjects discussed, etc.) [97,98]. The use of bibliometric methodologies will enable the visualization of trends and patterns holistically [99], as well as to map the social, conceptual and intellectual structure [83,100] of the literature that links the competitiveness of the protected area tourist destination with sustainability.

This paper uses a wide range of bibliometric techniques to represent the bibliographic data under study. The categorization of techniques between evaluative and relational techniques is followed [101,102]. Evaluative techniques allow us to assess the impact of a field of knowledge [103] through measurements of its production and productivity, using for example, the number of publications, authors, institutions or citations. Relational techniques study in depth the relationships established between published research, but have hardly been used in bibliometric work in the field of tourism [100]. However, they are tools with broad potential. They allow us to identify, for example, subsets of the knowledge that makes up topical areas, clusters of researchers or institutions, thus enabling, among others, to indicate which are the consolidated topical areas, which are emerging, and from there to identify the absent topical areas, which should be studied more thoroughly, and also point out reference researchers or institutions.

Regarding evaluative techniques, we performed the temporal evolution of the number of articles and analysis of the distribution of papers by journals to learn what is the pattern and trend of accumulation of knowledge, citation analysis to identify the influence capacity of the knowledge generated, analysis of geographical areas, and institutions of origin of the authors to discover if there is any geographical pattern in this field of knowledge or if knowledge is accumulated in some specific way throughout the world, analysis of entries of keywords and the most commonly used terms to identify subject themes. The figures and tables of the evaluative indicators were made with Excel.

Two bibliometric analysis programs, VOSviewer (Nees Jan van Eck and Ludo Waltman, Leiden University’s Centre for Science and Technology Studies (CWTS), Leiden, The Netherlands) and CiteSpace (Chaomei Chen, Drexel University, Philadelphia, United States), have been used to generate and help visualize the results of relational techniques. These programs collect bibliographic material and create maps of relationships within the field of knowledge, in terms of bibliographic coupling, co-authorship, and co-occurrence of keywords.

First, we selected VOSviewer [104] because of the simplicity and clarity of the graphs it generates [105], to then focus on the social structure (collaboration between institutions and countries, analysis of networks of citations and authorships) and on the conceptual structure (maps by co-occurrence of words and keywords) of the field of knowledge. It should be noted that this program does not have preprocessing modules so it was necessary to debug records manually using computer tools.

Next, CiteSpace has allowed us to explore in greater depth the intellectual structure of the field of study, that is, to investigate the subfields of knowledge or different lines of work that are formed, their level of maturity, their permanence in time or novelty, as well as the main authors of each line. CiteSpace stood out due to its ability to preprocess data files and identify bibliometric networks [105,106], and, above all, due to the possibility of performing temporal analysis, showing how bibliometric networks evolve over time [104].

4. Results

The results are presented following the sequence of the first five research questions proposed in the first section. Research questions 1 and 2 are explored throughout Section 4.1. The social, conceptual, and intellectual structure of the field (research questions 3, 4, and 5) are analysed throughout the different subsections of Section 4.2. As a cross-cutting question to answer (research question 6), we asked ourselves whether research in sustainability and tourism competitiveness in protected areas followed the guidelines of research in sustainable tourism. The analysis of this sixth question will be carried out throughout the conclusions, where we compared our results with those of previous studies in the generic field of sustainable tourism.
4.1. Patterns, Trend, and Influence of the Generated Knowledge

There is a desire to identify how and where knowledge is accumulated over time. The “how” refers to the amount of knowledge and the evolution of productivity (in terms of number of publications) over time. The “where” is specified in the supports used to carry out the research activity. At the same time, there is the need to know the quality of knowledge, understood as the impact generated by the citations received.

The evolution in the number of papers published from 1996 to 2018 shows a positive trend during the period, especially in the last decade of the period (Figure 1). The year 2019 is not shown due to the fact that, at the moment of the study (August 2019), those data were not representative. It is noteworthy that the contributions made since 2015 account for more than half of all the work (53.7%), which demonstrates the strength of this thematic area, at the same time as the exponential growth of the literature on sustainable tourism [29].

The distribution of the number of citations received shows a significant concentration of citations between the years 2010–2016. The reduction in the number of citations of the last three years could be a consequence of the shorter time of exhibiting the paper, so it must be taken cautiously.

The breakdown of journals and repositories of conference proceedings in which the papers have been published shows that almost half of the contributions (48%) have been made in journals that have only published a single paper on the topic, while the rest are distributed among the 27 journals in which at least two papers have been published. The Journal of Sustainable Tourism (Figure 2) stands out both in terms of number of contributions and citations. The 22 articles published in this journal account for 11% of the total and account for 24% of all citations (Table 2). Therefore, we find a significant fragmentation of the contributions that are published in journals.
The distribution of the number of citations received shows a significant concentration of citations between the years 2010–2016. The reduction in the number of citations of the last three years could be a consequence of the shorter time of exhibiting the paper, so it must be taken cautiously.

The breakdown of journals and repositories of conference proceedings in which the papers have been published shows that almost half of the contributions (48%) have been made in journals that have only published a single paper on the topic, while the rest are distributed among the 27 journals in which at least two papers have been published. The Journal of Sustainable Tourism (Figure 2) stands out both in terms of number of contributions and citations. The 22 articles published in this journal account for 11% of the total and account for 24% of all citations (Table 2). Therefore, we find a significant fragmentation of the contributions that are published in journals.

Figure 2. Top journals per number of papers.

Table 2. Publishing journals with more than one contribution.

| Source                                                   | Number of Publications | Number of Citations | % of Citations |
|----------------------------------------------------------|------------------------|---------------------|----------------|
| Journal of Sustainable Tourism                          | 22                     | 513                 | 24             |
| Tourism Management                                       | 6                      | 294                 | 14             |
| Sustainability                                           | 5                      | 13                  | 1              |
| Current Issues in Tourism                                | 4                      | 64                  | 3              |
| Journal of Ecotourism                                    | 4                      | 59                  | 3              |
| Tourism Recreation Research                              | 4                      | 21                  | 1              |
| African Journal of Hospitality, Tourism and Leisure      | 4                      | 1                   | 0              |
| Anais Brasileiros de Estudos Turisticos                  | 3                      | 1                   | 0              |
| International Journal of Sustainable Development        | 3                      | 3                   | 0              |
| Journal of Cleaner Production                            | 3                      | 44                  | 2              |
| Tourism Planning and Development                         | 3                      | 8                   | 3              |
| WIT Transactions on Ecology and the Environment          | 3                      | 2                   | 0              |
| Asia Pacific Journal of Tourism Research                 | 3                      | 5                   | 0              |
| Ecotourism: Management, Development and Impact           | 3                      | 1                   | 0              |
| Environmental Management                                 | 2                      | 23                  | 1              |
| International Journal of Culture, Tourism, and Hospitality Research | 2                  | 2                   | 0              |
| Journal of Destination Marketing & Management            | 2                      | 13                  | 1              |
| Journal of Environmental Management                      | 2                      | 45                  | 2              |
| Journal of Mountain Science                              | 2                      | 4                   | 0              |
| Journal of Travel Research                               | 2                      | 79                  | 4              |
| Journal of Vacation Marketing                            | 2                      | 2                   | 0              |
| Natur und Landschaft                                     | 2                      | 1                   | 0              |
| Scandinavian Journal of Hospitality and Tourism          | 2                      | 2                   | 0              |
| Tourism Analysis                                         | 2                      | 8                   | 0              |
| Tourism and Hospitality Research                         | 2                      | 3                   | 0              |
| Tourism Geographies                                      | 2                      | 89                  | 4              |
| Tourism Management Perspectives                          | 2                      | 33                  | 2              |
| Total                                                    | 96                     | 1351                | 65             |
The distribution by areas of affiliation of the journals that have more than one contribution on the topic shows that the areas of management and social science are predominant, far from environmental science, being the areas of energy, earth and planetary, and engineering the minority (Figure 3).

![Figure 3. Affiliation of areas of journals with more than one contribution.](image-url)

4.2. Knowledge Structure

4.2.1. Social Structure

In addition to the review of papers by source, the current relationships between institutions and geographical locations have been studied through a co-authorship analysis and a coupling analysis regarding institutions and countries of origin of the authors.

The co-authorship analysis allows us to evaluate the relationships between affiliations, showing the institutions and geographical areas where there is a greater concentration of knowledge in the subject under study. It allows us to identify patterns of collaboration and communication between geographical areas and institutions, and shows the most influential in the research field [105,107]. Regarding the coupling analysis, it highlights sets of entities in which a common knowledge base is used. For this, it groups documents according to the citations that are used for preparing each paper and which therefore, identifies the area and concepts analysed, that is, the intellectual base used [106].

VOSviewer software was used in both types of analysis, which allows us to obtain a clear visualization of existing relationships. To collect the largest number of entities and relationships between them, a threshold of two documents per institution and per country was selected. Thus, of 284 organizations and 61 existing countries, 35 organizations and 36 countries meet the threshold.

With regard to the co-authorship analysis, relationships between institutions are barely shown (Table 3 and Figure 4). The largest group of organizations is made up of four organizations and is the one with the highest link strength; these organizations are: Hong Kong Polytechnic University of China, Sun Yat Sen University of China, University of Canterbury of New Zealand, and University of Waterloo of Canada.

The rest of the groups are formed by pairs of universities. The one with the most documents is the one that contains the University of Oulu of Finland and the Colorado State University of the United States, with four and three documents, respectively. The rest of the groups are: The Griffith University of Australia and the Lincoln University of New Zealand, the Curtin University and the Murdoch University of Australia, the Victoria University and the University of Sydney of Australia, and the Universiti Malaysia Sarawak and the Universiti Sains Malaysia of Malaysia. Table 3 shows the
groups identified, the geographical location, the number of documents, and the total link strength associated to each institution.

**Table 3. Collaboration between universities (co-authorship groups).**

| Organization                          | Geographical Location | Number of Documents | Total Link Strength |
|---------------------------------------|-----------------------|---------------------|---------------------|
| Hong Kong Polytechnic University      | China                 | 2                   | 2                   |
| University of Canterbury              | New Zealand           | 2                   | 2                   |
| Sun Yat Sen University                | China                 | 2                   | 1                   |
| University of Waterloo                | Canada                | 2                   | 1                   |
| University of Oulu                    | Finland               | 4                   | 1                   |
| Colorado State University             | United States         | 3                   | 1                   |
| Lincoln University                   | New Zealand           | 2                   | 2                   |
| Griffith University                   | Australia             | 4                   | 1                   |
| Curtin University                     | Australia             | 3                   | 1                   |
| Murdoch University                    | Australia             | 2                   | 1                   |
| Victoria University                   | Australia             | 3                   | 1                   |
| University of Sydney                  | Australia             | 2                   | 1                   |
| Universiti Malaysia Sarawak           | Malaysia              | 3                   | 1                   |
| Universiti Sains Malaysia             | Malaysia              | 2                   | 1                   |

Figure 4 shows the distribution of the main institutions. The size of the circles represents the importance of the institutions by amount of documents, the colour indicates the average publication per year, and the grey circle the existence of a cluster or group of organizations linked to each other.

The oldest papers correspond to the Australian National University and Texas A&M University, while the university groups are among the organizations with the most up-to-date papers. In this way, a positive evolution towards collaboration between universities is shown.

![Institutions with two or more documents published.](image)

In terms of countries, of the 36 that meet the threshold of two documents, only 23 have relationships among each other. Figure 5 shows the importance of each country by number of documents; the colour indicates the average publications per year, the thickness of the lines, the total link strength, and the grey circle the existing clusters between countries.

![Institutions with two or more documents published.](image)
The United States and Australia are the countries that dominate research in natural spaces and also where most of the oldest papers come from. The difference regarding analysis by institutions, in which universities in Finland and South Africa appeared among the most important, is due to the number of institutions in each country working on the sustainability of protected areas. Thus, those countries with more universities obtain better results in terms of published scientific production.

With regard to clustering, five clusters are configured. In all of them, except in Turkey–Portugal, countries with papers published in different time periods are mixed; in addition, the central position of the clusters is highlighted, led by Australia and United States (the cluster around United States links with Brazil, Ecuador and Colombia, and with Turkey; and the cluster around Australia links with China and New Zealand). In this way, the existence of two geographical motor zones in the development of sustainable tourism in protected areas is observed, which are the United States and Australia, and it is also seen how this field of research has been evolving and expanding into other geographical areas.

Once the formation of groups of researchers is analysed, the bibliographic coupling analysis allows us to study further the presence of common areas of knowledge in institutions and geographical areas. As for the institutions, with the same threshold of two documents per institution, 34 organizations with relationships are obtained (Texas A&M University is not related to any other).

Figure 6 shows the existing relationships. The size of the circles corresponds to the quantity of documents of each institution, the colour indicates the average number of publications per year and the grey circles the cluster grouping. The clusters formed, largely coincide with the temporal classification of documents. First, a cluster is formed with most of the organizations in which this field of study originated. It includes institutions such as the University of Oulu of Finland, Colorado State University of the United States, and Australian National University. Secondly, the clusters led by Griffith University of Australia and Shih Chien University of Taiwan are located. Thirdly, the clusters led by the University of Johannesburg of South Africa and the University of Canterbury of New Zealand stand out, with papers published in the last five years. Finally, the cluster led by the Universiti Malaysia Sarawak of Malaysia, collects the most recent papers.
This relationship between the working groups and the periods of publication is in line with the existence of "founding" universities or initiators of research in sustainable tourism in protected areas and the expansion of this subject towards other organizations through successive links with the leading organizations in addressing the subject.

Figure 7 shows the existing relationships between geographical areas. The size of the circles corresponds to the quantity of documents of each area, the colour indicates the average number of publications per year and the grey circles the cluster grouping. The graph by geographical areas shows the United States and Australia as reference countries in the development of research. It also highlights that while the United States cluster integrates European countries, that in turn, relate to European countries of other clusters, the Australian cluster is configured with countries with more diverse profiles and fundamentally, Asian countries and Eastern European countries.

The association of countries in the coupling analysis differs from that obtained in co-authorship. Although the thematic areas are associated with geographical proximity, the associations between authors show a more uneven pattern, possibly due to the search for experts in certain types of analysis or the existence of international exchange programmes aimed at the development of certain areas and the creation of new relationships.
4.2.2. Conceptual Structure

To study the lines of research and groups of topics addressed in depth, a co-word analysis was conducted. The co-word analysis studies the conceptual structure of a research field through the most important words and keywords of the documents [106,108], with the purpose of identifying knowledge groups, trends of knowledge, and where to expand in the future [109,110]. This analysis is based on the premise that keywords reflect the research hotspots in a discipline field [105,107] and that they are adequate to define the content of a paper [111].

In this work, the topic has been analysed through the keywords mentioned by the authors and those selected by the databases. The total starting number of keywords was 1144. Given the large number of words, the minimum number of occurrences of a keyword was set to five, resulting in 52 keywords that meet the threshold. As for the keywords identified by the authors, there are 627 keywords of which 16 meet the threshold. As for the keywords assigned by the databases, of 651 keywords, 38 meet the threshold. Table 4 lists the 16 main keywords indicated by the authors, assigned by the databases and the totals.

Table 4. The 16 most popular words.

| Keywords from Authors and Databases Aggregated | Keywords from Authors | Keywords from Databases |
|------------------------------------------------|-----------------------|-------------------------|
| Keyword                                      | Occurrences           | Keyword-Authors Occurrences | Keyword-Index Occurrences |
| sustainability                              | 81                    | sustainability 36         | sustainability 51          |
| ecotourism                                   | 57                    | tourism 24                | ecotourism 49             |
| tourist destination                         | 47                    | nature-based tourism 22   | tourist destination 45     |
| tourism                                     | 40                    | sustainable tourism 21    | tourism development 29     |
| tourism development                         | 32                    | ecotourism 16             | tourism management 22      |
| sustainable tourism                         | 28                    | protected areas 14       | conservation 19           |
| sustainable development                     | 27                    | sustainable development 13| sustainable development 19 |
| nature-based tourism                        | 25                    | national parks 11        | tourism 19                |
| protected areas                             | 24                    | rural tourism 7          | protected area 16         |
| conservation                                | 23                    | conservation 6           | national-park 14          |
| tourism management                          | 23                    | destination competitiveness| 6    | national park 13          |
| protected area                              | 18                    | governance 6             | biodiversity 11           |
| national park                               | 15                    | malaysia 6               | management 11             |
| national-park                               | 14                    | carrying capacity 5      | protected areas 11        |
| management                                  | 13                    | competitiveness 5        | satisfaction 10           |
| national parks                              | 13                    | resilience 5             | australia 9               |

In the network of all the keywords shown by years, there is a change in the topics addressed (Figure 8). At the beginning of the analysed period, the following stand out: Tourism management, tourism development, tourism attraction, environmental management, environmental protection, tourist attraction, and the names of specific geographical areas. Between 2012 and 2014 the main words are: Sustainability, tourism, national parks, tourist destination, conservation, protected areas, stakeholders. As of 2016, the keywords are participation, national-park, satisfaction, destination image, place attachment, quality, rural tourism, destination competitiveness, perceptions, participation, China, governance, indicators. There has been an evolution from more general topics focused on tourism management or environmental management of natural areas, towards a more entrepreneurial vision concerned with competitiveness, tourist perception, the way(s) of managing the area, and the need to measure all these variables in order to achieve sustainability.
Regarding the analysis of the most used words, terms have been extracted from the titles and abstract fields. There are 5935 terms of which 122 meet the requirements of having at least 10 occurrences. Table 5 shows the 20 main words, excluding “study” that appears in first place with 213 occurrences. This list shows the importance of tourism and national parks as a tourism destination. Likewise, the word “impact” also appears in the top positions followed by terms such as “tourism development” and “model” that indicate the concern for the tourist management of a destination and for the search for models that allow for (sustainable) development of the destinations analysed.

Table 5. The 20 most used words.

| Term                | Occurrences |
|---------------------|-------------|
| 1 National Park     | 143         |
| 2 Tourist           | 138         |
| 3 Tourism Destination | 99       |
| 4 Impact            | 95          |
| 5 Park              | 83          |
| 6 Tourism Development | 79       |
| 7 Model             | 70          |
| 8 Concept           | 67          |
| 9 Industry          | 66          |
| 10 Ecotourism       | 65          |
| 11 Visitor          | 65          |
| 12 Capacity         | 61          |
| 13 Region           | 52          |
| 14 Country          | 51          |
| 15 Experience       | 49          |
| 16 Quality          | 44          |
| 17 Strategy         | 44          |
| 18 Indicator        | 43          |
| 19 Process          | 43          |
| 20 Satisfaction     | 43          |
4.2.3. Intellectual Structure: Network Analysis and Key Research Topics

Although the use of VOSviewer allows for an approximation in the knowledge structure of a research field, this program does not give an accurate result in the identification of groups [106]. Thus, in order to study the current topic structure in depth, the analysis was completed with the results of CiteSpace software that enables the development of bibliometric networks and temporal analysis.

To identify clusters the term frequency-inverse document frequency ranking algorithm (tf-idf) was selected in order to represent the most salient aspect of a cluster [112]. The clusters’ names are based on the keyword lists of articles that cited each cluster and adapted to show the main topic of each cluster better. Figure 9 shows the eight clusters identified, and the main terms and cited authors related to each cluster. The modularity is 0.5543 and the silhouette is 0.2865, indicating that, although the identification of different clusters is acceptable, each cluster is heterogeneous.

![Figure 9. Cluster identification, main keywords, and authors.](image)

Table A1 of the Appendix A shows the main citing papers and cited papers associated with each cluster, the silhouette of the cluster, and the average year of the papers included. The Coverage (Cov.) and Global Citation Score (GCS) were used for the selection of the citing papers included in this table, selecting the four papers with the highest value in each of these indicators. In the case of the cited papers, the three most frequently cited were collected; in case of a tie, the most recent year was chosen. All these indicators were obtained through Citespace. The individual silhouette of each cluster shows that the distribution of papers is acceptable. Although it is in line with the global value of this indicator, it is observed that the affiliation of some of the papers is not unique.

The subject dispersion within each cluster can be explained by the novelty of the thematic area in sustainable competitiveness of protected area tourist destination and by the multidisciplinary of...
the study area. The representation of topics in a strategic diagram confirms the low maturity of the subject (Figure 10). The strategic diagram was made with the SPSS statistical software based on the data generated by CiteSpace and this approach has been widely used in co-word analysis to determine the importance of the topics and their level of development, thus allowing for the detection of topics that although they are important, are still underdeveloped (see for example [108–110,113,114]).

Figure 10. Keywords strategic diagram.

When establishing the quadrants based on the averages of centrality and density [113], “national park” and “sustainability” are the most clearly located terms in the area of central and developed topics. More general terms such as “ecotourism”, “tourism”, “protected area”, “conservation”, “tourism destination” or “nature-based tourism” are also located in this area. However, most of the terms are located in the lower quadrants of the diagram corresponding to underdeveloped topics and especially in quadrant 3, associated with underdeveloped and emerging topics. In particular, “destination competitiveness”, “carrying capacity”, “stakeholder”, and “indicator” stand out in these areas.

Regarding the temporal evolution of the clusters (Figure 11), it is observed that the first clusters have an older annual average while the last ones are the most recent. The evolution is shown in detail in Figure 11. It shows that cluster 2 has the longest temporal trajectory, followed by zero and one. These groups are also the ones that address more generic topics related to the negative effects of tourism on the environment.
From cluster 3, more specific terms prevail regarding the assessment of tourism effects on natural areas, their particular characteristics, and the most appropriate management methods to favour destination competitiveness. These topics have been specifically addressed only in the last few years. In particular, the most recent groups are clusters 4 and 6, that deal with the study of sustainable tourism and national parks, in which the terms related to the enjoyment of natural areas by all stakeholders are highlighted, combined with the protection and sustainability of those areas.

Figure 11. Clusters temporal evolution.

5. Discussion

We delve into the analysis of the intellectual structure of the field of knowledge, based on the study of the main works included in each of the eight emergent clusters. The main discussions and findings, as well as indications about possible future approaches that are evidenced in each cluster, are shown.

5.1. Cluster 0: Destination Competitiveness

Cluster 0 refers to destination competitiveness. This group shows the importance of addressing destination competitiveness by taking into account the ecological, social, and economic dimensions. Regarding the ecological dimension, mention is made of the ecotourist and his/her satisfaction, stating that this satisfaction is affected by the value of the ecotourism site and by the knowledge and attitude of ecotourists towards ecotourism [115].

However, it has been highlighted that in some Protected Natural Areas the ecological dimension is less important, especially less than the economic one [116]; so, for example, aspects such as cooperation between destinations have hardly been analysed [117].

A balanced attention to resources, the community, and the economy is essential to achieve the sustainability of ecotourism [118]. In this sense, those papers that address social factors (welfare of the local population and community support) and economic factors (hospitality of residents, safety
and security, tourism infrastructure, accommodation, availability of diverse activities, value for money in shopping items, the quality of restaurants), become important as a basis for the analysis of competitiveness [119,120] and emerge as an unavoidable future line of research.

5.2. Cluster 1: Carrying Capacity

The work of cluster 1 is based on the importance of tourism as a factor of social and economic development, and focuses on analysing the negative effects of tourist flows, especially significant in frequently visited areas or natural attractions [121]. In this way, the concept of carrying capacity becomes important and regulation emerges as a key element, balancing flows and social and economic impact [122]. Likewise, the study of the need to know the perceptions of local inhabitants about predictable future changes has been proposed [123], and the willingness of the tourist to pay to preserve the area [124].

As derived from these papers, the need to design methodologies and indicators is highlighted [125], that enable the quantification of the impact of tourist flows on residents’ quality of life, the environment, cultural heritage, and the economy and climate change [126], so that the tourist activity can be developed in a balanced and sustainable way.

5.3. Cluster 2: Socio-Cultural Factors

The working group of cluster 2 is developed around the concept of community-based tourism and focuses especially on the perceptions of residents. In this sense, the importance of the local population being aware of the value of its social and natural resources, and that tourism can help its economic development is highlighted [127]. Thus, together with economic and environmental perceptions, socio-cultural factors and life satisfaction should be considered key elements to enhance tourism sustainability [119,128].

On the other hand, from tourists’ point of view, the negative effects are highlighted, either produced by the low awareness of tourists about their share of responsibility in preventing the negative impact of their activities [129], or due to the collateral effects of the tourist activity such as the dispersion of seeds of alien species derived from the movements of tourists [130].

In this environment, active tourism management allows the mitigation of the negative effects of tourists on the environment [130]. Ecolabels, certification programs [129], and Environmental Management Systems allow for the harmonisation of environmental protection with economic and social development [131].

5.4. Cluster 3: Tourism Planning and Communication

Cluster 3 addresses tourism as an evolving system [132], causing social and environmental changes [123]. These works focus on climate change, analysing the negative effects of tourism and the actions that can be taken to reduce them, both from the perspective of demand and supply. In the first case, the characteristics of the destination become important, highlighting seasonality, remoteness, and limited human and financial resources, as the main factors that increase the vulnerability levels of a destination [133]. From the point of view of demand, the attitude of tourists towards sustainability is analysed, studying in depth the tourist’s willingness to pay (WTP) for sustainability [134]. Bringing both perspectives together, the need to analyse the perception of diverse stakeholders is collected [135,136].

The main results indicate the usefulness of improving stakeholder communications in order to raise awareness about the negative economic effects caused by damage to natural areas [136]. In addition, the need to improve tourism development plans is also highlighted [123], including monitoring and control of changes [137] and actions that promote production and market diversification and strengthening capacities [133].
5.5. Cluster 4: Tourism Sustainability

The subject of cluster 4 revolves around the concept of tourist destination as a complex system formed by different dimensions and stakeholders [135,138]. The most commonly identified dimensions are sociocultural, economic, and ecological [139]. However, there has hardly been an in-depth study of the joint analysis of all the dimensions [140] and the consideration of the product’s life cycle or the environment [141].

With regard to stakeholders, the existence of different groups with various interests and the need to manage the destination are mentioned, taking into account these differences to favour the engagement of all of them [135,142]. In this line, it is emphasised that management and use regulation by the government must be in line with the needs of local stakeholders and resource users [143].

5.6. Cluster 5: Governance

Cluster 5 works focus on the governance system of protected natural areas in order to determine good management practices. The management systems of these areas must take into account their high risk of overexploitation, the diverse interests of the stakeholders involved in them and the economic impact of tourism activities [142–144]. The existence of interrelations between these factors seems a clear fact [118]. Cooperation between agents has also been proposed as a means to improve biodiversity conservation, social benefits, and economic viability [145]. However, most planning models are narrowly focused; a framework that encompasses the diverse perspectives, especially the effects on local residents, and the development of measures that allows for an improvement in local governance capacity is lacking [146].

5.7. Cluster 6: National Park

In cluster 6, special attention is given to nature-based sustainable tourism. Tourist activity deteriorates the natural resources of parks, especially surrounding the attractions [147], thus, the conservation part of the natural area has been considered linked to its economic impact in the majority of the works [148]. However, no clear effect of this deterioration on the perception of tourists was found [149], with the attachment to the destination and the tourists’ motivations being the main variables which are referred to in order to explain the behaviour of tourists, their perceptions, and their satisfaction. In this sense, the attachment to the destination favours participation in activities and reduces the intention to abandon the natural destination due to changes derived from climatic conditions [150]. Both positive and negative changes are perceived to a greater extent by the most motivated tourists, thus affecting their satisfaction to a greater extent [151].

On the other hand, as in other clusters, the existence of various stakeholders is mentioned, as well as the need to take them into account in the management of tourism in natural areas. Specifically, the lack of studies that address the perspective of national parks as resources for local people has been highlighted [148,152] and the negative effects that tourism activity can have on them [127].

5.8. Cluster 7: Special Featured Areas

The topic addressed in cluster 7 focuses on the uniqueness of the product offered at the destination, coming from being areas with exceptional natural characteristics. With the passage of time, adequate management of these areas is necessary to handle the continuous ecological challenges in order to maintain visitor value and satisfaction [153]. The satisfaction of the ecotourist depends on the site perceived value [115], and the value is modified by the more or less responsible behaviour of tourists [154].

On the other hand, the tourist’s expectations regarding the value that will be obtained will vary depending on the type of destination. In fact, consumers show different expectations regarding the desirable characteristics of the services offered depending on whether or not the destination is a natural area [155]. However, the differential characteristics of natural areas have hardly been analysed in the existing literature.
6. Conclusions and Direction for Future Research

To contribute to the sustainable tourism field, in this study we review the literature that analyses the competitiveness of tourist destinations from the perspective of sustainability in protected area territories. In the past, several studies carried out bibliometric reviews in the field of sustainable tourism [25,26,28,29,32,33], but without taking into account specific tourist destinations. These studies highlight the need for new bibliometric studies in more specific areas, where sustainability is aimed at specific destinations, such as protected areas. The sustainability approach linked to competitiveness in tourism destinations adopted in this review has not been studied in previous reviews of sustainable tourism. Thus, the perspective and approach adopted responds to the need raised to consider sustainability from specific scientific points of view such as management, economics, geography, engineering, biology, sociology, etc. Therefore, this work fills those gaps in existing reviews on sustainability in tourism.

There are many methodological contributions of this paper. In the first place, the review of the state of the art is carried out through the use of bibliometric techniques that allow us to achieve a greater objectivity in the analysis and greater breadth of the results than what we could achieve through the mere review of the literature, content analysis or meta-analysis [83,100].

In addition, two databases (Scopus and WoS) were used for maximum coverage. By using two databases, we intend to obtain a more inclusive result than most previous bibliometric reviews conducted on sustainable tourism, which are restricted to reviewing the publications of one journal in the tourism area, such as the Journal of Sustainable Tourism [28,32,33], or a small number of journals [29], or just one database (WoS or Scopus) [25,26,34–36]. In our paper, a joint use of the information of the two most widely covered databases, WoS and Scopus, allows us to obtain more complete results regarding the body of knowledge. It also makes visible the contributions made in sources such as emerging journals, and with a vision, which is not strictly of the tourism area.

We analyse the information by using both evaluative and relational techniques. We make extensive use of this second group of techniques (which are hardly explored in tourism [100]), since they allow us to obtain a deeper knowledge of the structure, configuration, and perspectives of the field. Another important methodological contribution of this paper lies in the use of two computer tools (VOSviewer and CiteSpace) that complement each other to obtain a broad representation of the networks that are formed in the field, which allows for a deep and varied interpretation of the results.

The mapping of the accumulated knowledge in the field which is the subject of our interest has revealed a growing interest in the topic over time, especially in the last decade and an important atomization of contributions, highlighting the Journal of Sustainable Tourism as a reference journal and main supporting medium. Our results are in line with those of Ruhanen et al. [29] and Niñerola et al. [26], who pointed out the significant and recent interest in analysing sustainable tourism in protected areas (the work in this subject area goes from representing 3% of all those papers that address sustainable tourism in 1988–1997 to 10% in 2008–2012).

Those countries which are identified at the same time as pioneers and the most productive are Australia and the United States, although the international nature of research is also considered in the contributions, reduced in quantity, of a large plurality of European, Asian, and African countries, coinciding this behaviour with the same pattern of geographical distribution of research that is also observed in the broad field of sustainable tourism [26,32,34].

From an academic perspective, the results show the multidimensionality of research, with Business Management and Social Science being the areas in which knowledge is concentrated, while environmental science and some other areas occupy a less predominant position. Therefore, we find for example in Qian et al. [33] and Sanchez and Cañizares et al. [36] that knowledge from natural sciences does not take the central position. Thus, the consideration of the comprehensive approach to sustainability adopted in this paper allows us to show that research in sustainability and competitiveness in protected areas has the widest audience in areas that in previous reviews of sustainable tourism such as the one by Schoolman et al. [35], were secondary compared to environment sciences.
The high atomization in research related to the sustainability of protected areas as tourist destinations, its novelty, and multi-disciplinarity explains the lack of relationships between institutions and authors, and the existence of heterogeneous thematic groups internally.

A core of researchers has not been found in the subject area, given the small number of publications per author. This may be a characteristic of the areas of knowledge specialized in specific destinations, given that Sanchez and Cañizares et al. [36] agreed on this same finding for research in sensitive areas. However, in our case, a positive evolution towards collaboration between universities is detected, being specific institutions, and not just geographical areas, as the fundamental entities through which scientific development is promoted. The United States and Australia emerge as primary geographical areas in the development of sustainable tourism in protected areas, as they have a greater number of universities, among which, in addition, there are the “founding” or initiating universities of this research topic. The expansion of this topic towards other organizations has been carried out through successive links with the leading organizations in addressing the topic.

Regarding the publication themes, the analysis of the evolution shows that they have moved from more general topics focused on tourism management or environmental management of natural areas, towards a more entrepreneurial vision concerned with competitiveness, the tourist’s perception, the way of managing the area and the need to measure all these variables to achieve sustainability.

The main research topics are those related to destination competitiveness, carrying capacity, socio-cultural factors, tourism planning and communication, tourism sustainability, governance, national park, and special featured areas. From the analysis of the topics and authors, it can be deduced that research in this subject area deals with what is considered the three traditional approaches of sustainability in tourism studies postulated by Saarinen [156], which represent different aspects of sustainability at a local level, the resource based tradition (carrying capacity, natural park, and nature-based tourism), community based tradition (governance), and activity-based tradition (destination competitiveness) with contributions from the different schools of thought raised by Yoopetch and Nimsai [34], the one focused on the management and development of sustainable tourism, which addresses the environment and in general the impacts (positive and negative) of tourism, and the one aimed at the perception and participation of stakeholders. In addition, the literature has also included topics that are considered emerging in sustainable tourism such as climate [25].

With regard to future lines of research, it is possible to identify five blocks. In the first place, there is still a lack of studies that jointly analyse the perspectives of natural conservation, the benefits to the local community, and the economic impact derived from tourist activity, in order for the results to obtain a balance between the different perspectives or dimensions of destinations.

Secondly, it is necessary to jointly assess the perspectives of the various stakeholders. Environmental conservation and tourist satisfaction is essential but the local community and the effects, both positive and negative, of tourism activities cannot be ignored. It is also important to consider national parks as resources for local people.

Thirdly, it is necessary to study further the development of methodologies, indicators, and measures that enable the monitoring and control of the changes in the three dimensions of the destination, so that they serve as guidance for the development of regulations, tourism development plans, and business strategies aimed at sustainability. In addition, a further study of the effects of ecolabels, certification programs, and Environmental Management Systems is advisable.

Fourthly, it would be desirable to study further the differential characteristics of natural areas that not only have exceptional exclusive resources, but also stakeholders with particular and differentiated objectives and expectations from the rest of destinations.

Finally, the results of our analysis do not show the existence of a clear body of knowledge that go in depth in the compatibility of the three pillars of sustainability (economic growth, social inclusion, and environmental protection) in protected areas. However, it has been emphasized that the recommendations and objectives derived from each pillar may be incompatible with each other, introducing bias or invalidating the proposal of general management rules [75–78]. In this line,
it is necessary to delve into the interaction that occurs between the factors derived from each pillar, assessing, in each case, the level of balance between those factors. The achievement of sustainability as an ideal situation is questioned and it is highlighted that a new line of research focused on the three pillars’ compatibility remains open.

This work has involved pausing to reflect on the progression of a field of knowledge in order to continue building and advancing in it and here lies our main objective and contribution. The results of the work allow us to understand the process of accumulation of knowledge in the field of sustainability, competitiveness, and protected areas and is useful for decision making by different stakeholders, both at the academic and practitioners’ level such as researchers, academics, publishers, and managers. This provides information on open lines and new directions in research that can strengthen the production of knowledge in the future and fill gaps in the understanding of the link between areas of sustainability, competitiveness of tourism destinations, and protected areas.

However, our work is not without its limitations. Firstly, this work presents some limitations derived from the bibliometric methodology used. Bibliometric methods have a great potential for quantitative confirmation and identification of subjective categories in published reviews and to introduce quantitative rigour in traditional literature reviews. However, they are based on the selection of a set of keywords that can cause confusion in the interpretation of results if a thorough complementary qualitative analysis is not performed. Thus, tacit knowledge of the literature is required to synthesize the results accurately and it is necessary to choose the words carefully so that the database returns a number of related entries that are not excessive and that are encompassing and related to the field. With regards to bibliometric software, it does not differentiate between citations of other authors and self-citations, which may distort the results of the co-citation analysis in some way. Researchers tend to cite their own papers, and it may happen that articles appear with a large number of citations, although these may be mostly self-cited. Future research may consider how to eliminate or control self-citations.

Furthermore, the type of bibliometric software determines the kind of results and their accuracy. To solve this feature we use several tools: VOSviewer allows us to show a first clear vision of the situation, Citespace enables detailed development of bibliometric networks and a temporal analysis, and the keywords strategic diagram allows us to identify the most relevant topics and their level of development. Although the use of several tools makes the results reliable, an extra effort of interpretation by analysts is required. Another limitation of the work is the exclusion of documents not written in English, which is likely to limit the goal to achieve the most comprehensive results possible.

As an agenda for future studies, we suggest a deeper analysis of the subareas identified as trends in this document. Although bibliometric analysis is necessary to understand the state of the art and the topics that need more research, this analysis should be the first step in the process to understand the existing knowledge. A content analysis that goes more deeply into the topics collected by each cluster arises as a recommended future line of research.

Author Contributions: Conceptualization, methodology, and writing, N.R.-L., M.I.D.-C., and A.G.-C.; Data curation and formal analysis, N.R.-L. and M.I.D.-C.; Supervision, A.G.-C.

Funding: This research was funded by Deputación de Ourense, grant number INOU 19-01B.

Acknowledgments: The authors are deeply grateful for useful comments and suggestions from the editor and three referees.

Conflicts of Interest: The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, or in the decision to publish the results.
## Appendix A

### Table A1. Main citing and cited papers per cluster.

| Cluster                                      | Citing Paper | Global Citation Score (GCS) | Coverage | Most Frequent Cited Paper in Recent Years |
|----------------------------------------------|--------------|------------------------------|----------|------------------------------------------|
| 0 Destination competitiveness               | [120]        | 19                           | 9        | Ritchie JRB, 2003, Competitive Destinat, V0, P0                                     |
| Silhouette 0.8                               | [117]        | 10                           | 2        | Deyer L, 2003, Current Issues In Tourism, V6, P369                                   |
| Mean (year) 2007                            | [118]        | 6                            | 2        | Enright MJ, 2004, Tourism Manage, V25, P777, Doi                                   |
|                                              | [119]        | 1                            | 5        | 10.1016/j.tourman.2004.06.008                                                     |
| 1 Carrying capacity                         | [122]        | 21                           | 3        | Andeneck KL, 2015, Ann Tourism Res, V32, P1056, Doi                                |
| Silhouette 0.662                             | [121]        | 14                           | 4        | 10.1016/j.anals.2011.03.006                                                         |
| Mean (year) 2007                            | [124]        | 13                           | 2        | 10.1016/s0909-3780020044-4                                                          |
|                                              | [126]        | 10                           | 5        | Mccool SF, 2001, Journal Of Sustainable Tourism, V9, P372                           |
|                                              | [123]        | 4                            | 11       | Butler RW, 1999, Tourism Geogr, V0, P0, Doi 10.1080/14616690908721291             |
|                                              | [125]        | 6                            | 7        |                                                                                   |
| 2 Socio-cultural factors                     | [128]        | 8                            | 4        | Okazaki E, 2008, J Sustain Tour, V16, P511, Doi 10.2167/loc0782.0                   |
| Silhouette 0.687                             | [131]        | 6                            | 2        | Nyaupane GP, 2011, Ann Tourism Res, V38, P1344, Doi                                |
| Mean (year) 2007                            | [129]        | 3                            | 2        | 10.1016/j.anals.2009.03.005                                                         |
|                                              | [119]        | 2                            | 4        | Nicholas LN, 2009, Ann Tourism Res, V36, P390, Doi                                 |
|                                              |              |                              | 1        |                                                                                   |
| 3 Tourism planning & communication           | [137]        | 25                           | 2        | Calgaro E, 2014, J Sustain Tour, V22, P341, Doi 10.1080/09695982.2013.826229       |
| Silhouette 0.624                             | [133]        | 8                            | 3        | Sarrasin B, 2013, Tourism Geogr, V15, P3, Doi 10.1080/14616688.2012.675512         |
| Mean (year) 2010                            | [136]        | 5                            | 6        | Calgaro E, 2014, J Sustain Tour, V22, P361, Doi 10.1080/09695982.2013.826231        |
|                                              | [134]        | 2                            | 3        | Newsome D, 2013, Aspec Tour, V38, P1                                               |
|                                              | [133]        | 1                            | 8        |                                                                                   |
| 4 Tourism sustainability                     | [136]        | 20                           | 1        | Jamal T, 2009, J Sustain Tour, V17, P169, Doi 10.1080/0969598020-495741             |
| Silhouette 0.696                             | [143]        | 10                           | 1        | Plummer R, 2009, J Sustain Tour, V17, P149, Doi 10.1080/0969598020339301            |
| Mean (year) 2010                            | [141]        | 3                            | 5        | Liu Z, 2003, Journal Of Sustainable Tourism, V11, P459                            |
|                                              | [142]        | 5                            | 5        |                                                                                   |
|                                              | [139]        | 0                            | 9        |                                                                                   |
| 5 Governance                                | [146]        | 86                           | 2        | Swarbrooke J, 1999, Sustainable Tourism, V0, P0                                    |
| Silhouette 0.718                             | [118]        | 6                            | 1        | Puhakka R, 2014, J Sustain Tour, V22, P480, Doi 10.1080/09695982.2013.839690        |
| Mean (year) 2011                            | [145]        | 5                            | 2        | Whitelaw PA, 2014, J Sustain Tour, V22, P584, Doi 10.1080/09695982.2013.873445      |
|                                              | [141]        | 3                            | 5        | Brenner L, 2012, Tijdschr Econ Soc Ge, V103, P1, Doi                               |
|                                              | [142]        | 0                            | 9        | 10.1111/j.1467-9663.2011.03671.x                                                   |
|                                              | [139]        | 0                            | 7        |                                                                                   |
| 6 National park                             | [147]        | 28                           | 2        | Kil N, 2012, J Sustain Tour, V20, P463, Doi 10.1080/09695982.2011.61508               |
| Silhouette 0.814                             | [148]        | 26                           | 4        | Pietla M, 2016, Tourism Geogr, V18, P258, Doi 10.1080/14616688.2016.1169313         |
| Mean (year) 2011                            | [149]        | 16                           | 1        | Halpenny EA, 2010, J Environ Psychol, V30, P49, Doi                                 |
|                                              |              | 6                            | 1        | 10.1016/j.jenvp.2010.04.006                                                        |
|                                              |              | 1                            | 4        | Yuksel A, 2010, Tourism Manage, V31, P274, Doi 10.1016/j.tourman.2009.03.007         |
|                                              |              | 0                            | 7        |                                                                                   |
| 7 Special featured areas                    | [155]        | 21                           | 2        | Lee TH, 2009, Leisure Sci, V31, P215, Doi 10.10149049002897787                     |
| Silhouette 0.882                             | [140]        | 10                           | 3        | Chiu YTH, 2014, Tourism Manage, V40, P231, Doi 10.1016/j.tourman.2013.06.013        |
| Mean (year) 2011                            | [155]        | 5                            | 9        |                                                                                   |
|                                              | [158]        | 3                            | 4        | Kim H, 2015, Tourism Manage, V46, P465, Doi 10.1016/j.tourman.2014.08.002           |
|                                              |              | 0                            | 9        | Prebensen NK, 2013, J Travel Res, V52, P253, Doi 10.1117/0472875124/1181            |

### References

1. Hall, C.M.; Lew, A.A. **Sustainable Tourism: A Geographical Perspective**; Hall, C.M., Lew, A.A., Eds.; Addison Wesley Longman: London, UK, 1998.
2. Priestley, G.K.; Edwards, J.A.; Coccossis, H. **Sustainable Tourism? European Experiences**; Priestley, G.K., Edwards, J.A., Coccossis, H., Eds.; CAB International: Oxford, NY, USA, 1996.
3. Bahar, O.; Kozak, M. Advancing destination competitiveness research: Comparison between tourists and service providers. *J. Travel Tour. Mark.* 2007, 22, 61–71. [CrossRef]
4. Bordas Rubies, E. Improving public-private sectors cooperation in tourism: A new paradigm for destinations. *Tour. Rev.* 2001, 56, 38–41. [CrossRef]
5. Buhalis, D. Marketing the competitive destination of the future. *Tour. Manag.* 2000, 21, 97–116. [CrossRef]
6. Hassan, S.S. Determinants of market competitiveness in an environmentally sustainable tourism industry. *J. Travel Res.* 2000, 38, 239–245. [CrossRef]
7. Heath, E. Towards a model to enhance Africa’s sustainable tourism competitiveness. J. Public Adm. 2002, 37, 327–353.
8. de Keyser, R.; Vanhove, N. The competitive situation of tourism in the Caribbean area: Methodological approach. Rev. Tour. 1994, 49, 19–22. [CrossRef]
9. Ritchie, J.R.B.; Crouch, G.I. The Competitive Destination: A Sustainable Tourism Perspective; CABI: Wallingford, Oxfordshire, UK, 2003; ISBN 978-0-85199-664-6.
10. Boo, E. Ecotourism: The Potentials and Pitfalls; World Wildlife Fund: Washington, DC, USA, 1990.
11. Lindberg, K.; Hawkins, D.E. Ecotourism: A Guide for Planners and Managers; The Ecotourism Society: North Bennington, VT, USA, 1993.
12. Wearing, S.; Neil, J. Ecotourism: Impacts, Potentials and Possibilities? Routledge: Oxford, NY, USA, 2009; ISBN 978-0-7506-6249-9.
13. Jones, A. Green tourism. Tour. Manag. 1987, 8, 354–356. [CrossRef]
14. Clarke, J. A framework of approaches to sustainable tourism. J. Sustain. Tour. 1997, 5, 224–233. [CrossRef]
15. Liu, Z. Sustainable tourism development: A critique. J. Sustain. Tour. 2003, 11, 459–475. [CrossRef]
16. Budeanu, A. Impacts and responsibilities for sustainable tourism: A tour operator’s perspective. J. Clean. Prod. 2003, 13, 89–97. [CrossRef]
17. Tepelus, C.M. Aiming for sustainability in the tour operating business. J. Clean. Prod. 2005, 13, 99–107. [CrossRef]
18. Weaver, D.B. Organic, incremental and induced paths to sustainable mass tourism convergence. Tour. Manag. 2012, 33, 1030–1037. [CrossRef]
19. Weaver, D.B. Asymmetrical dialectics of sustainable tourism: Toward enlightened mass tourism. J. Travel Res. 2014, 53, 131–140. [CrossRef]
20. Brundtland, G.H. Informe Brundtland; World Commission on Environment & Development (WCED): Oxford, NY, USA, 1987.
21. International Union for Conservation of Nature, & World Wildlife Fund. World Conservation Strategy: Living Resource Conservation for Sustainable Development; IUCN: Gland, Switzerland, 1980.
22. World Trade Organization. Agenda 21 for the Travel & Tourism Industry; Towards Environmentally Sustainable Development; WTO: Madrid, Spain, 1997; ISBN 978-92-844-0180-1.
23. Europarc Federation. European Charter for Sustainable Tourism in Protected Areas; Europarc Federation: Regensburg, Germany, 2010.
24. Buckley, R. Sustainable tourism: Research and reality. Ann. Tour. Res. 2012, 39, 528–546. [CrossRef]
25. Garrigos-Simon, F.; Narangajavana-Kaosiri, Y.; Lengua-Lengua, I. Tourism and sustainability: A bibliometric and visualization analysis. Sustainability 2018, 10, 1976. [CrossRef]
26. Niñerola, A.; Sánchez-Rebull, M.-V.; Hernández-Lara, A.-B. Tourism research on sustainability: A bibliometric analysis. Sustainability 2019, 11, 1377. [CrossRef]
27. Gössling, S.; Hall, C.M.; Ekström, F.; Engeset, A.B.; Aal, C. Transition management: A tool for implementing sustainable tourism scenarios? J. Sustain. Tour. 2012, 20, 899–916. [CrossRef]
28. Lu, J.; Nepal, S.K. Sustainable tourism research: An analysis of papers published in the journal of sustainable tourism. J. Sustain. Tour. 2009, 17, 5–16. [CrossRef]
29. Ruhansen, L.; Weiler, B.; Moyle, B.D.; McLennan, C.J. Trends and patterns in sustainable tourism research: A 25-year bibliometric analysis. J. Sustain. Tour. 2015, 23, 517–535. [CrossRef]
30. Torres-Delgado, A.; López Palomeque, F. The growth and spread of the concept of sustainable tourism: The contribution of institutional initiatives to tourism policy. Tour. Manag. Perspect. 2012, 4, 1–10. [CrossRef]
31. Butler, R.W. Sustainable tourism: A state-of-the-art review. Tour. Geogr. 1999, 1, 7–25. [CrossRef]
32. Mauleon-Mendez, E.; Genovart-Balaguer, J.; Merigó, J.; Mulet-Forteza, C. Sustainable tourism research towards twenty-five years of the journal of sustainable tourism. Adv. Hosp. Tour. Res. 2018, 6, 23–46.
33. Qian, J.; Shen, H.; Law, R. Research in sustainable tourism: A longitudinal study of articles between 2008 and 2017. Sustainability 2018, 10, 590. [CrossRef]
34. Yoopetch, C.; Nimsai, S. Science mapping the knowledge base on sustainable tourism development, 1990–2018. Sustainability 2019, 11, 3631. [CrossRef]
35. Schoolman, E.D.; Guest, J.S.; Bush, K.F.; Bell, A.R. How interdisciplinary is sustainability research? Analyzing the structure of an emerging scientific field. Sustain. Sci. 2012, 7, 67–80. [CrossRef]
36. Sánchez-Cañizares, S.; Castillo-Canalejo, A.; Cabeza-Ramírez, L. Sustainable tourism in sensitive areas: Bibliometric characterisation and content analysis of specialised literature. *Sustainability* 2018, 10, 1525. [CrossRef]
37. Bramwell, B.; Lane, B. Towards innovation in sustainable tourism research? *J. Sustain. Tour.* 2012, 20, 1–7. [CrossRef]
38. Claver-Cortés, E.; Molina-Azorín, J.F.; Pereira-Moliner, J. Competitiveness in mass tourism. *Ann. Tour. Res.* 2007, 34, 727–745. [CrossRef]
39. Dwyer, L.; Kim, C. Destination competitiveness: Determinants and indicators. *Curr. Issues Tour.* 2003, 6, 369–414. [CrossRef]
40. Rodríguez-Díaz, M.; Espino-Rodríguez, T.F. A model of strategic evaluation of a tourism destination based on internal and relational capabilities. *J. Travel Res.* 2008, 46, 368–380. [CrossRef]
41. D’Hauteserre, A.-M. Lessons in managed destination competitiveness: The case of Foxwoods Casino Resort. *Tour. Manag.* 2000, 21, 23–32. [CrossRef]
42. Hong, W.-C. Global competitiveness measurement for the tourism sector. *Curr. Issues Tour.* 2009, 12, 105–132. [CrossRef]
43. Arnberger, A.; Eder, R.; Allex, B.; Sterl, P.; Burns, R.C. Relationships between national-park affinity and attitudes towards protected area management of visitors to the Gesaeuse National Park, Austria. *For. Policy Econ.* 2012, 19, 48–55. [CrossRef]
44. Cordente-Rodríguez, M.; Mondejar-Jiménez, J.-A.; Villanueva-Álvaro, J.-J. Sustainability of nature: The power of the type of visitors. *Environ. Eng. Manag. J.* 2014, 13, 2437–2447. [CrossRef]
45. Deng, J.; King, B.; Bauer, T. Evaluating natural attractions for tourism. *Ann. Tour. Res.* 2002, 29, 422–438. [CrossRef]
46. Kruger, M.; Viljoen, A.; Saayman, M. Who visits the Kruger National Park, and why? Identifying target markets. *J. Travel Tour. Mark.* 2017, 34, 312–340. [CrossRef]
47. Reinius, S.W.; Fredman, P. Protected areas as attractions. *Ann. Tour. Res.* 2007, 34, 839–854. [CrossRef]
48. Craigwell, R. *Tourism Competitiveness in Small Island Developing States*; Research paper (No. 2007/19); UNU-WIDER: Helsinki, Finland, 2007.
49. Cho, D.-S. From national competitiveness to bloc and global competitiveness. *Compet. Rev. Int. Bus. J.* 1998, 8, 11–23. [CrossRef]
50. Crouch, G.I.; Ritchie, J.R.B. Tourism, competitiveness and societal prosperity. *J. Bus. Res.* 1999, 44, 137–152. [CrossRef]
51. Dwyer, L.; Mellor, R.; Livaïc, Z.; Edwards, D.; ChulWon, K. Attributes of destination competitiveness: A factor analysis. *Tour. Anal.* 2004, 9, 91–101. [CrossRef]
52. Kim, C.; Yön’guwön, T.K.C.; Wiw’onhoe, H.T.K.H. *A Model Development for Measuring Global Competitiveness of the Tourism Industry in the Asia-Pacific Region*; Korea Institute for International Economic Policy: Sejong, Korea, 2000.
53. Uysal, M.; Perdue, R.; Sirgy, M.J. *Handbook of Tourism and Quality-of-Life Research: Enhancing the Lives of Tourists and Residents of Host Communities*; Uysal, M., Perdue, R., Sirgy, M.J., Eds.; Springer: Dordrecht, The Netherlands, 2012; ISBN 978-94-007-2288-0.
54. Uysal, M.; Woo, E.; Singal, M. The tourist area life cycle (TALC) and its effect on the Quality-of-Life (QOL) of destination community. In *Handbook of Tourism and Quality-of-Life Research: Enhancing the Lives of Tourists and Residents of Host Communities*; Uysal, M., Perdue, R., Sirgy, M.J., Eds.; International Handbooks of Quality-of-Life; Springer: Dordrecht, The Netherlands, 2012; ISBN 978-94-007-2288-0.
55. Crouch, G.I.; Ritchie, J.B. Destination competitiveness and its implications for host-community QOL. In *Handbook of Tourism and Quality-of-Life Research: Enhancing the Lives of Tourists and Residents of Host Communities*; Uysal, M., Perdue, R., Sirgy, M.J., Eds.; Springer: Dordrecht, The Netherlands, 2012; pp. 491–513.
56. Pırnar, I.; Günlü, E. Destination management and quality-of-life. In *Handbook of Tourism and Quality-of-Life Research: Enhancing the Lives of Tourists and Residents of Host Communities*; Springer: Dordrecht, The Netherlands, 2012; pp. 529–545.
57. Uysal, M.; Sirgy, M.J.; Woo, E.; Kim, H. Quality of life (QOL) and well-being research in tourism. *Tour. Manag.* 2016, 53, 244–261. [CrossRef]
58. Andereck, K.L.; Valentine, K.M.; Vogt, C.A.; Knopf, R.C. A cross-cultural analysis of tourism and quality of life perceptions. *J. Sustain. Tour.* 2007, 15, 483–502. [CrossRef]
94. Thompson, A.; Massyn, P.J.; Pendry, J.; Pastorelli, J.

95. Eagles, P.F.; McCool, S.F.; Haynes, C.D.; Phillips, A.

96. Cummins, R.A. The domains of life satisfaction: An attempt to order chaos. *Soc. Indic. Res.* 2016, 38, 303–328. [CrossRef]

97. Booth, A.; Sutton, A.; Papaioannou, D. *Systematic Approaches to a Successful Literature Review*, 1st ed.; SAGE Publications Ltd.: Thousand Oaks, CA, USA, 2016; ISBN 978-0-85702-135-9.

98. Mongeon, P.; Paul-Hus, A. The journal coverage of Web of Science and Scopus: A comparative analysis. *J. Informetr.* 2015, 9, 101–122. [CrossRef]

99. Norris, M.; Oppenheim, C. Comparing alternatives to the web of science for coverage of the social sciences’ literature. *J. Informetr.* 2007, 1, 161–169. [CrossRef]

100. Ertz, M.; Leblanc-Proulx, S. Sustainability in the collaborative economy: A bibliometric analysis reveals emerging interest. *J. Clean. Prod.* 2018, 196, 1073–1085. [CrossRef]

101. Zupic, I.; Cater, T. Bibliometric methods in management and organization. *Organ. Res. Methods* 2015, 18, 429–472. [CrossRef]
84. Dudley, N. *Guidelines for Applying Protected Area Management Categories*; IUCN: Gland, Switzerland, 2008; ISBN 978-2-8317-1086-0.

85. IUCN. *Guidelines for Protected Area Management Categories*; IUCN-The World Conservation Union: Gland, Switzerland, 1994.

86. Lawton, L.J. Public protected areas. In *The Encyclopedia of Ecotourism*; Weaver, D.B., Ed.; CABI: Wallingford, UK, 2000; pp. 287–302. ISBN 978-0-85199-368-3.

87. ICEM [International Centre for Environmental Management]. *Vietnam National Report on Protected Areas and Development*; Review of Protected Areas and Development in the Lower Mekong River Region; Indooroopilly: Queensland, Australia, 2003; ISBN 0-975033-24-7.

88. Spenceley, A.; Kohl, J.; McArthur, S.; Myles, P.; Notarianni, M.; Paleczny, D.; Pickering, C.; Worboys, G. Visitor management. In *Protected Area Governance and Management*; Worboys, G.L., Lockwood, M., Kothari, A., Feary, S., Pulford, I., Eds.; ANU Press: Canberra, Australia, 2015; pp. 715–750.

89. Mandić, A. Nature-based solutions for sustainable tourism development in protected natural areas: A review. *Environ. Syst. Decis.* 2019, 39, 249–268. [CrossRef]

90. Adewumi, I.B.; Usui, R.; Funck, C. Perceptions of multiple stakeholders about environmental issues at a nature-based tourism destination: The case of Yakushima Island, Japan. *Environments* 2019, 6, 93. [CrossRef]

91. Chow, A.S.Y.; Ma, A.T.H.; Wong, G.K.L.; Cheung, L.T.O. The impacts of place attachment on environmentally responsible behavioral intention and satisfaction of Chinese nature-based tourists. *Sustainability* 2019, 11, 5585. [CrossRef]

92. King, D.A.; Stewart, W.P. Ecotourism and commodification: Protecting people and places. *Biodivers. Conserv.* 1996, 5, 293–305. [CrossRef]

93. Krüger, O. The role of ecotourism in conservation: Panacea or Pandora’s box? *Biodivers. Conserv.* 2005, 14, 579–600. [CrossRef]

94. Ross, S.; Wall, G. Ecotourism: Towards congruence between theory and practice. *Tour. Manag.* 1999, 20, 123–132. [CrossRef]

95. Wall, G. Is ecotourism sustainable? *Environ. Manag.* 1997, 21, 483–491. [CrossRef]

96. Young, M.D. *Sustainable Investment and Resource Use*; The Parthenon Publishing Group: Lanchashire, UK, 1992; ISBN 978-1-85070-381-5.

97. Broadus, R. Toward a definition of ‘bibliometrics’. *Scientometrics* 1987, 12, 373–379. [CrossRef]

98. Diodato, V.P.; Gellatly, P. Dictionary of Bibliometrics; Routledge: Oxford, UK, 2013.

99. Yu, L.; Wang, G.; Marcouiller, D.W. A scientometric review of pro-poor tourism research: Visualization and analysis. *Tour. Manag. Perspect.* 2019, 30, 75–88. [CrossRef]

100. Koseoglu, M.A.; Rahimi, R.; Okumus, F.; Liu, J. Bibliometric studies in tourism. *Ann. Tour. Res.* 2016, 61, 180–198. [CrossRef]

101. Borgman, C.L.; Furner, J. Scholarly communication and bibliometrics. *Annu. Rev. Inf. Sci. Technol.* 2002, 36, 2–72. [CrossRef]

102. Thelwall, M. Bibliometrics to webometrics. *J. Inf. Sci.* 2008, 34, 605–621. [CrossRef]

103. Benckendorff, P.; Zehrer, A. A network analysis of tourism research. *Ann. Tour. Res.* 2013, 43, 121–149. [CrossRef]

104. van Eck, N.J.; Waltman, L. Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics* 2010, 84, 523–538. [CrossRef]

105. Liao, H.; Tang, M.; Luo, L.; Li, C.; Chiclana, F.; Zeng, X.-J. A bibliometric analysis and visualization of medical big data research. *Sustainability* 2018, 10, 166. [CrossRef]

106. Cobo, M.J.; López-Herrera, A.G.; Herrera-Viedma, E.; Herrera, F. Science mapping software tools: Review, analysis, and cooperative study among tools. *J. Am. Soc. Inf. Sci. Technol.* 2011, 62, 1382–1402. [CrossRef]

107. Guo, Y.-M.; Huang, Z.-L.; Guo, J.; Li, H.; Guo, X.-R.; Nkeli, M.J. Bibliometric analysis on smart cities research. *Sustainability* 2019, 11, 3606. [CrossRef]

108. Liu, Y.; Li, H.; Goncalves, J.; Kostakos, V.; Xiao, B. Fragmentation or cohesion? Visualizing the process and consequences of information system diversity, 1993–2012. *Eur. J. Inf. Syst.* 2016, 25, 509–533. [CrossRef]

109. Hsu, W.-C.; Li, J.-H. Visualising and mapping the intellectual structure of medical big data. *J. Inf. Sci.* 2019, 45, 239–258. [CrossRef]

110. Pang, R.; Zhang, X. Achieving environmental sustainability in manufacture: A 28-year bibliometric cartography of green manufacturing research. *J. Clean. Prod.* 2019, 233, 84–99. [CrossRef]
111. Ding, Y.; Chowdhury, G.G.; Foo, S. Bibliometric cartography of information retrieval research by using co-word analysis. *Inf. Process. Manag.* 2001, 37, 817–842. [CrossRef]

112. Chen, C.; Ibekwe-SanJuan, F.; Hou, J. The structure and dynamics of cocitation clusters: A multiple-perspective cocitation analysis. *J. Am. Soc. Inf. Sci. Technol.* 2010, 61, 1386–1409. [CrossRef]

113. Hu, J.; Zhang, Y. Research patterns and trends of recommendation system in China using co-word analysis. *Inf. Process. Manag.* 2015, 51, 329–339. [CrossRef]

114. Öviedo-García, M.A.; Castellanos-Verdugo, M.; Vega-Vázquez, M.; Orgaz-Agüera, F. The mediating roles of the overall perceived value of the ecotourism site and attitudes towards ecotourism in sustainability through the key relationship ecotourism knowledge-ecotourist satisfaction. *Int. J. Tour. Res.* 2017, 19, 203–213. [CrossRef]

115. Khasseh, A.A.; Soheili, F.; Moghaddam, H.S.; Chelak, A.M. Intellectual structure of knowledge in iMetrics: A co-word analysis. *Inf. Process. Manag.* 2017, 53, 705–720. [CrossRef]

116. Oviedo-García, M.A.; Castellanos-Verdugo, M.; Vega-Vázquez, M.; Orgaz-Agüera, F. The mediating roles of the overall perceived value of the ecotourism site and attitudes towards ecotourism in sustainability through the key relationship ecotourism knowledge-ecotourist satisfaction. *Int. J. Tour. Res.* 2017, 19, 203–213. [CrossRef]

117. Zemla, M. Inter-destination cooperation: Forms, facilitators and inhibitors—The case of Poland. *J. Destin. Mark. Manag.* 2014, 3, 241–252. [CrossRef]

118. Lo, M.-C.; Chin, C.-H.; Law, F.-Y. Tourists’ perspectives on hard and soft services toward rural tourism destination competitiveness: Community support as a moderator. *Tour. Hosp. Res.* 2019, 19, 139–157. [CrossRef]

119. Zhou, Y.; Maumbe, K.; Deng, J.; Selin, S.W. Resource-based destination competitiveness evaluation using a hybrid analytic hierarchy process (AHP): The case study of West Virginia. *Tour. Manag. Perspect.* 2015, 15, 72–80. [CrossRef]

120. Ponting, J.; O’Brien, D. Liberalizing Nirvana: An analysis of the consequences of common pool resource deregulation for the sustainability of Fiji’s surf tourism industry. *J. Sustain. Tour.* 2014, 22, 384–402. [CrossRef]

121. Navarro Jurado, E.; Tejada Tejada, M.; Almeida García, F.; Cabello González, J.; Cortés Macías, R.; Delgado Peña, J.; Fernández Gutiérrez, F.; Gutiérrez Fernández, G.; Luque Gallego, M.; Málvarez García, G.; et al. Carrying capacity assessment for tourist destinations. Methodology for the creation of synthetic indicators applied in a coastal area. *Tour. Manag.* 2012, 33, 1337–1346. [CrossRef]

122. Lee, T.H.; Jan, F.-H. Can community-based tourism contribute to sustainable development? Evidence from residents’ perceptions of the sustainability. *Tour. Manag.* 2019, 70, 368–380. [CrossRef]

123. Puhakka, R. Nature tourists’ concern for the environment and response to ecolabels in Oulanka National Park. *Nord. Geogr. Publ.* 2010, 39, 27–38.

124. Bouchard, E.H.; Little, L.E.; Miller, C.M.L.; Rundell, S.M.; Vlodaver, E.M.; Maciejewski, K. Undeclared baggage: Do tourists act as vectors for seed dispersal in fynbos protected areas? *Koedoe* 2015, 57, 1–9. [CrossRef]

125. Boley, B.B. To travel or not to travel? Both have implications for sustainable tourism. *Tour. Plan. Dev.* 2015, 12, 208–224. [CrossRef]

126. Zelenka, J.; Kacetl, J. The concept of carrying capacity in tourism. *Ann. Tour. Res.* 2014, 16, 641–654.

127. Bouchard, E.H.; Little, L.E.; Miller, C.M.L.; Rundell, S.M.; Vlodaver, E.M.; Maciejewski, K. Undeclared baggage: Do tourists act as vectors for seed dispersal in fynbos protected areas? *Koedoe* 2015, 57, 1–9. [CrossRef]

128. Bonechi, A.; Boragino, V.; Serrano-Bernardo, F.A.; Verità, S.; Rossúa-Campos, J.L. Environmental management policy in a coastal tourism municipality: The case study of Cervia (Italy). *Local Environ.* 2011, 16, 93–113. [CrossRef]

129. Bouchard, E.H.; Little, L.E.; Miller, C.M.L.; Rundell, S.M.; Vlodaver, E.M.; Maciejewski, K. Undeclared baggage: Do tourists act as vectors for seed dispersal in fynbos protected areas? *Koedoe* 2015, 57, 1–9. [CrossRef]

130. Ferreira, S.L. Balancing people and park: Towards a symbiotic relationship between Cape Town and Table Mountain National Park. *Curr. Issues Tour.* 2011, 14, 275–293. [CrossRef]

131. Bouchard, E.H.; Little, L.E.; Miller, C.M.L.; Rundell, S.M.; Vlodaver, E.M.; Maciejewski, K. Undeclared baggage: Do tourists act as vectors for seed dispersal in fynbos protected areas? *Koedoe* 2015, 57, 1–9. [CrossRef]

132. Peng, H.; Zhang, J.; Lu, L.; Tang, G.; Yan, B.; Xiao, X.; Han, Z. Eco-efficiency and its determinants at a tourism destination: A case study of Huangshan National Park, China. *Tour. Manag.* 2017, 60, 201–211. [CrossRef]
133. van der Veeken, S.; Calgaro, E.; Munk Klint, L.; Law, A.; Jiang, M.; de Lacy, T.; Dominy-Howes, D. Tourism destinations’ vulnerability to climate change: Nature-based tourism in Vava’u, the Kingdom of Tonga. *Tour. Hosp. Res.* **2016**, *16*, 50–71. [CrossRef]

134. López-Sánchez, Y.; Pulido-Fernández, J.I. Factors influencing the willingness to pay for sustainable tourism: A case of mass tourism destinations. *Int. J. Sustain. Dev. World Ecol.* **2017**, *24*, 262–275. [CrossRef]

135. Dimmock, K.; Musa, G. Scuba Diving Tourism System: A framework for collaborative management and sustainability. *Mar. Policy* **2015**, *54*, 52–58. [CrossRef]

136. Pyke, J.; De Lacy, T.; Law, A.; Jiang, M. Building small destination resilience to the impact of bushfire: A case study. *J. Hosp. Tour. Manag.* **2016**, *28*, 49–58. [CrossRef]

137. Gu, Y.; Du, J.; Tang, Y.; Qiao, X.; Bossard, C.; Deng, G. Challenges for sustainable tourism at the Jiuzhaigou World Natural Heritage site in western China. *Nat. Resour. Forum* **2016**, *629*, 31 of 32.

138. Rebollo, J.F.V.; Palomeque, F.L.; Gómez, M.M.; Clavé, S.A.; Valenti, J.V. *Análisis Territorial del Turismo: Una Nueva Geografía del Turismo*; Ariel: Barcelona, Spain, 1997; ISBN 978-84-344-3455-4.

139. Nyaupane, G.; Poudel, S.; Timothy, D. Assessing the sustainability of tourism systems: A social–ecological approach. *Tour. Rev. Int.* **2018**, *22*, 49–66. [CrossRef]

140. Blanco-Cerradelo, L.; Gueimonde-Canto, A.; Fraiz-Brea, J.A.; Dieguez-Castrillon, M.I. Dimensions of destination competitiveness: Analyses of protected areas in Spain. *J. Clean. Prod.* **2018**, *177*, 782–794. [CrossRef]

141. Daud, N.; Abdul Rahman, S. Tourist attitudes towards sustainable tourism: Empirical evidence from Malaysian National Park, Taman Negara. In *Proceedings of the IPEDR*, Hong Kong, China, 6–7 August 2011; pp. 254–258.

142. Islam, M.W.; Ruhanen, L.; Ritchie, B.W. Tourism governance in protected areas: Investigating the application of the adaptive co-management approach. *J. Sustain. Tour.* **2018**, *26*, 1890–1908. [CrossRef]

143. Mayer, M.; Brenner, L.; Schauss, B.; Stadler, C.; Arnegger, J.; Job, H. The nexus between governance and the economic impact of whale-watching. The case of the coastal lagoons in the El Vizcaíno Biosphere Reserve, Baja California, Mexico. *Ocean Coast. Manag.* **2018**, *162*, 46–59. [CrossRef]

144. Torres Hechavarría, L. Best practices in tourist destinations’ sustainable development assessment: A literature review. *Tur. Estud. Prácticas* **2017**, *5*, 149.

145. Pfueller, S.L.; Lee, D.; Laing, J. Tourism partnerships in protected areas: Exploring contributions to sustainability. *Environ. Manag.* **2011**, *48*, 734. [CrossRef]

146. Moscardo, G. Exploring social representations of tourism planning: Issues for governance. *J. Sustain. Tour.* **2011**, *19*, 423–436. [CrossRef]

147. D’Antonio, A.; Monz, C.; Newman, P.; Lawson, S.; Taff, D. Enhancing the utility of visitor impact assessment in parks and protected areas: A combined social–ecological approach. *J. Environ. Manag.* **2013**, *124*, 72–81. [CrossRef]

148. Puhakka, R. The nature of national parks-The changing discourses about nature conservation and tourism. *Terra* **2008**, *120*, 215–227.

149. Puhakka, R. Environmental concern and responsibility among nature tourists in oulanka PAN Park, Finland. *Scand. J. Hosp. Tour.* **2011**, *11*, 76–96. [CrossRef]

150. Wilkins, E.J.; de Urioste-Stone, S. Place attachment, recreational activities, and travel intent under changing climate conditions. *J. Sustain. Tour.* **2018**, *26*, 798–811. [CrossRef]

151. Prayag, G.; Suntikul, W.; Agyeiwaah, E. Domestic tourists to Elmina Castle, Ghana: Motivation, tourism impacts, place attachment, and satisfaction. *J. Sustain. Tour.* **2018**, *26*, 2053–2070. [CrossRef]

152. Puhakka, R. Increasing role of tourism in Finnish national parks. *Fenn. Int. J. Geogr.* **2008**, *186*, 47–58.

153. Ariya, G.; Sitati, N.; Wishitemi, B. Tourists’ perceived value of wildlife tourism product at Lake Nakuru National Park, Kenya. *Eur. J. Hosp. Tour. Recreat.* **2017**, *8*, 147–156. [CrossRef]

154. Han, J.H.; Lee, M.J.; Hwang, Y.S. Tourists’ environmentally responsible behavior in response to climate change and tourist experiences in nature-based tourism. *Sustainability* **2016**, *8*, 644. [CrossRef]

155. Line, N.D.; Hanks, L. The effects of environmental and luxury beliefs on intention to patronize green hotels: The moderating effect of destination image. *J. Sustain. Tour.* **2016**, *24*, 904–925. [CrossRef]

156. Saarinen, J. Traditions of sustainability in tourism studies. *Ann. Tour. Res.* **2006**, *33*, 1121–1140. [CrossRef]
157. Malik, M.I.; Bhat, M.S. Sustainability of tourism development in Kashmir—Is paradise lost? Tour. Manag. Perspect. 2015, 16, 11–21. [CrossRef]

158. Halpenny, E.A.; Kulczycki, C.; Moghimehfar, F. Factors effecting destination and event loyalty: Examining the sustainability of a recurrent small-scale running event at Banff National Park. J. Sport Tour. 2016, 20, 233–262. [CrossRef]

© 2019 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (http://creativecommons.org/licenses/by/4.0/).