Abstract: In the sports sector, entrepreneurship, innovation, and social corporative responsible are generating growing interest during the last years. Due to that situation, sustainable entrepreneurship and innovation in sport have emerged in this sector, receiving individual attention from academics and practitioners. However, little is known about the evolution of this new field of research. Thus, the main aim of this paper is to analyze the documents published in the Web of Science about sport sustainable entrepreneurship and innovation. The bibliometric analysis allows us to discover the current state of a research field, identify the principal authors, articles, and topics, and propose future research lines to develop it further. The articles published between 2000 and 2019 were analyzed quantitatively, and by word and author co-occurrence. Later, through the bibliographic coupling, the articles were grouped in different clusters. Seven central thematics were found, being the sports mega-events and the sustainability the most development sub-area or research, followed by the sport innovation for fostering inclusion. Moreover, for the development of this field of research, studies focused on “tourism” and “entrepreneurship” with “environment”, “sport”, “sustainability and knowledge” and “innovation” focus, are necessary. Thus, sustainable entrepreneurship and innovation in sport are an undeveloped but promising field for the future of the sports industry.

Keywords: sustainable entrepreneurship; sustainable innovation; sport; bibliometric analysis; thematic analysis

1. Introduction

Over the past decade, a new topic has become popular within the broad field of entrepreneurship, giving rise to a specific sub-area of study within this, the so-called sustainable entrepreneurship [1]. This phenomenon has attracted attention from the political, economic, and academic spheres, as interest in social and environmental issues has increased in recent years [2]. In fact, according to the literature on entrepreneurship, sustainable entrepreneurship is an emerging research trend [3,4]. This type of entrepreneurship can be defined as the realization of sustainable innovations that are aimed at the mass market and benefit the majority of society [5]. Therefore, sustainable entrepreneurship contributes significantly to the transition towards a sustainable economy [6].

Indeed, there are indications that a shift towards sustainable business strategies in which economic benefit is essentially linked to social and ecological value creation is essential [7]. For these reasons, sustainable entrepreneurship has received increasing importance from different actors, such as international institutions, companies, and universities [8]. A clear example was the development of “2030 Agenda for Sustainable Development” [9], approved in 2015 by the United Nations (UN),
which provides a framework for collaboration on a global for the implementation of sustainable entrepreneurship initiatives [10]. However, the last report developed, the “Global Sustainable Development Report 2019”, notes that advancing 2030 for Sustainable Agenda [9] must involve an urgent and intentional transformation of socioenvironmental-economic systems, to ensure human well-being, societal health and limited environmental impact [11]. Therefore, these data highlight the importance and need to implement sustainable entrepreneurial and innovative initiatives at a global level.

These types of entrepreneurs start a business to serve both their own and collective interests, addressing unmet social and environmental needs [12]. This phenomenon can, therefore, be seen as a unique perspective that combines the creation of economic, social, and environmental value with a general concern for the well-being of future generations [13]. In this way, sustainable entrepreneurship differs from conventional entrepreneurship in aspects related to value creation [14], highlighting among them the search for the following three [15]: (1) economic value, (2) social value and (3) environmental value.

Consequently, whereas entrepreneurs were previously thought to focus primarily on economic value creation, in these new forms of entrepreneurship, economic value creation is seen as a means to an end or a combination of different values [16–18]. While social entrepreneurship focuses on the creation of social value [17,19], and environmental entrepreneurship focuses on creating environmental value [20], sustainable entrepreneurship combines the economic, social, and environmental aspects of value creation [5,16,21]. It has been found to include both social and environmental entrepreneurship [5,13]. However, it should be noted that some forms of social entrepreneurship do not fit into the “overall concept” of sustainable entrepreneurship, as they do not pursue economic benefits [16]. Thus, sustainable entrepreneurship is a new field of research, rather than a particular form of social or environmental entrepreneurship [2], which has now become a more mature and legitimate sub-field of study of entrepreneurship [1].

In recent years, there has also been an increased interest in sustainable innovation and economic performance [22,23]. Sustainable innovation is defined as [24]: “the integration of conservation and development to ensure that modifications to the planet do indeed secure the survival and well-being of all people” (p. 30). It is an emerging and fundamental force for change business and society [25]. This phenomenon is emerging because, in an increasingly competitive world, driven by rapid change, companies face the challenge of pursuing sustainable development through innovation [26]. Sustainable development refers to the “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” [27]. Therefore, sustainable innovation poses specific challenges to the company, in comparison with other types of innovation, since it seeks to achieve, like sustainable entrepreneurship, both benefits and social missions [28]. These beneficial outcomes are due to sustainable innovation provides a public good by reducing negative environmental externalities, and its relationship to competitive advantage is even more uncertain than with other types of innovation [29].

On the other hand, it is necessary to mention that, in the sports industry, entrepreneurship [30,31] and innovation [32,33] are key elements to maintain competitiveness in this sector, with this field of study acquiring high relevance. The term sport, according to the broad definition of sport (Vilnius), sport is related to NACE code 93.1 “Sports activities,” which includes all activities that provide inputs to the sport. It means, all industries that produce goods that are essential to perform sport and the activities for which sport is input, such as hotels accommodating guests doing the sport, and television broadcasting [34]. While sports business can be defined as the profit-seeking or surplus-seeking production of sporting services or goods [35]. In this industry, recently, there has been an increased interest in ethical issues such as corporate social responsibility (CSR) and environmental management, which has led to more research on sports ethics focused on sustainability initiatives, which are now more strategically important for sports organizations [36]. In that context, ethical issues refer to the behavior of companies that are evolving towards business competitiveness that is based not only on
economic benefits, but also in actions that favor their social and environmental environment, through
the adoption of policies to improve working conditions, respect for human rights, and development of
recovery of natural environments, among others [37]. Hence, CSR of companies seems to be the area of
study and application that could best create a relationship between sustainability and innovation in
sport [38].

Innovative CSR seems to be the management approach from the dominant organizations and
practices that could give grassroots sports organizations practical guidelines to design and develop
innovative solutions for society’s needs [39]. In the field of sport, corporate social responsibility
is becoming increasingly important in shaping business, economic, political, environmental,
and social policies in the global marketplace, and globalization and technological advances have
significantly advanced business opportunities for sports organizations, marketing professionals,
and sports entrepreneurs [40]. In the same vein, a new concept that is also closely related is green
innovation, that seeks to reduce the impact of the firm’s activity on the environment, by using
transformations incorporate strategies, product-designing methods, production processes and resource
consumption [41]. According to [42], although there are other terms related to sustainability (e.g., eco,
environmental . . . ), the term green innovation is more related to sustainable innovation.

Besides, it is essential to highlight that within the sports industry, sport entrepreneurship is
dynamic and impacts several management areas such as business strategy, new sports development,
performance management, product innovation, social issues, sustainability concerns, and technological
developments [43]. However, during the last years, the emphasis on the environment and sustainability
concerns by sports organizations has increased as consumers place more emphasis on sustainability
programs and are more proactive in their involvement [44]. At the level of the dictionary definition,
sustainability simply implies that a given activity or action is capable of being sustained for a long
time [45]. However, there is a lack of a standard definition for this term [46]. Hence sustainability
may have a different definition and different measures, depending on the scale of concern [47]. In this
vein, [48] highlight that has been an increase of literature in which sustainability is the primary
concern, and it is used to describe aspects about economic development, technology, and approaches
to management. For these reasons, sustainability initiatives in sports organizations have recently been
a priority, as it considers societies interact with the environment [49].

On the other hand, innovation is an essential part of entrepreneurship [50]. The success of
sports organizations depends on their ability to adapt to the rapidly changing environment [51].
Enhancing innovation is of vital importance for deviating from conventional practices and leading
organizations successfully [52]. Innovation in sport occurs in numerous ways, including sports
teams, sports organizations, and sports players [43]. During the last five years, there has been an
upsurge of exciting sustainable innovation and economic performance [53]. In the case of sustainability
challenges, the notion of innovation, in particular, sustainable innovation connected to new business
models, is often positioned to be a win situation [54]. In recent years, an increase in the number of
pro-environmental consumers has led industries to dedicate significant efforts toward developing
green practices [55].

This phenomenon happened in sports organizations, where the model is changing their business
models and activities using sustainable entrepreneurship and innovation. According to [56], sustainable
innovation can be defined as a process where sustainability considerations (environmental, social,
and financial) are integrated into firm systems from idea generation through to research and
development (R&D) and commercialization. This process is applied to the products, services,
and technologies, and to the new business and organizational models. A similar concept has also
been green innovation (GI), which is defined as a sort of innovation that aims to mitigate or avoid
environmental damage while protecting the environment and enabling enterprises to satisfy new
consumer demands, create value, and increase incomes [55]. Green innovation can increase firms’
productivity and maximize the use of their resources [57]. The firms can become more competitive
and gain sustainment of competitive advantages due to the corporate image improvement and the development of new markets; meanwhile, they consider the environmental issues [58].

However, although there is some recent bibliometric analysis on sustainable entrepreneurship [4,8], innovation for sustainability [59], and on sports entrepreneurship [60], which have shown that these are fields of study that have grown a lot in recent years, no specific analysis has been found on sustainable entrepreneurship in sport despite the importance it is acquiring in the sports industry. Therefore, it is the interest and foremost objective of this study to carry out a bibliometric analysis of the articles published in the Web of Science related to sustainable entrepreneurship and innovation in sport. It is interesting to carry out this type of analysis, since, within the sports industry, the field of sports ethics has experienced significant growth that has coincided with a more general interest in ethical issues such as corporate social responsibility and environmental management. This situation has generated more research on sports ethics focused on sustainability initiatives, which are now more strategically important for sports organizations [43]. Thus, in times of increased recognition of significant global challenges and threats like global warming and the wastage of non-renewable resources [61], this paper, through a bibliometric analysis, aims to discover the current state of this field of research. Hence, the following research questions will guide the study design:

RQ1—What is the evolution of articles published on sustainable sports entrepreneurship or innovation along the time?

RQ2—Which authors have published the highest number of articles on sustainable sports entrepreneurship or innovation, and which one was the most cited?

RQ3—Which countries, academic journals, and institutions have published more about the topic of sustainable sports entrepreneurship or innovation, and what is the impact factor of these journals?

RQ4—What networks of co-authorship, cooperation network between countries, co-citations, and co-words studies on sustainable sports entrepreneurship or innovation?

RQ5—What are the main topics studied within this field of research?

The structure of the paper is organized as follows. Firstly, the methodology is presented with detailing the bibliometric methodological techniques and software used in this study (Section 2). Then the findings are exposed using tables and bibliometric maps (Section 3). After that, the results are discussed (Section 4), and finally, conclusions, implications for future research, and limitations are presented (Section 5).

2. Materials and Methods

2.1. Data Collection

The bibliometric analysis uses bibliographic indicators to analyze the most critical literature from a specific field of research [62]. This study analyzes all articles published indexed in the Web of Science Core Collection™ (SSCI, SCI-Expanded, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, and ESCI) about sustainable entrepreneurship or innovation in the sports sector. Only the publications of the Web of Science (WoS) were considered, as it is considered the most accepted database for the collection and analysis of scientific papers [63].

An advanced search was performed in the search field of the topic, referring to the title, abstract, or keywords of the documents. The topic field was selected due that the vast majority of the bibliographic studies have used it [8,64,65], and it considered more appropriate than others due in these sections are placed the most relevant words of the article’s subject. However, if we had used only the title field, perhaps many articles on this topic would have been left out because the titles are often more striking than descriptive of the topic of the article. Hence, the search string used in the topic field was (((sustain* OR green) AND (entrepreneur* OR innovat*)) AND sport*). This search was performed independently by two authors (M.H.G-S and V.A.) and was compared on the 30 April 2020. It is crucial to present the date of collection of the documents because the database is constantly changing
and updates [66]. The results of the bibliometric analysis of [4], indicated that the articles that were published in impacting journals found a common framework on how to define sustainable entrepreneurship by using terms related to the environment, such as “green”, among other terms. The green entrepreneurs [67], are those who start businesses based on the principle of sustainability with strong underlying green values and who sell green products or services. Although there are other terms related to sustainability and innovation or entrepreneurship (eco-innovation, environmental innovation, green innovation, and sustainable innovation), only the term green innovation was more related to sustainable innovation than the others [42]. Environmental innovation and eco-innovation are used as synonymous [68] and refer explicitly to the innovations aiming at reducing environmental impacts, not considering the social dimension. Hence, this justifies the use of these terms in the search string.

The study was limited to research articles in the strict sense, including only original papers and reviews. Hence, the following documents were excluded: editorial, book reviews, conference abstracts, letters, editorials, and news and bibliographic articles. The search string was also limited to 2019, although there was no limit on language. The initial search retrieved 142 until 2019 documents. After that, all these articles were read to select the final articles. This procedure was followed to discard those articles that were not of the topic under study (eligibility). The authors adopted the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) approach [69] to review and select documents for the literature search. This approach has also been used in other bibliometric studies [64]. In the second step, the screening process ineligible documents were deleted ($n =$ 15). Then, in the third step, the eligibility checking process, the authors checked the relevance of the remaining 136 documents by reading the titles, keywords, and abstracts of the remaining documents. The criteria for excluding the documents were: (1) sustainability innovation or entrepreneurship was mentioned only in general terms, and (2) sport was not the primary focus of the document. Full publications were then obtained and assessed for eligibility. The three authors assessed the eligibility of the articles. Finally, any discrepancies were resolved by consensus and discussion with the correspondence author. After this procedure, 87 documents remained in the final review database (see Figure 1). Finally, these articles selected were downloaded in plain text with data on year of publication, authors, author affiliation, title, abstract, journal, subject area, references, and the number of citations.

2.2. Bibliometric Analysis

After having the data in plain text, duplicate records and unrecognized records were identified and homogenized. One of the most critical problems found was the duplicity of authors that were identified with different letters. Thus, the total number of articles was reviewed to avoid duplicity and errors and to find the missing data of some records (institutions, countries, and publication year). Subsequently, the analysis was performed in two different stages. First of all, the basic bibliometric indexes (number of articles published by year, by author, by country, by the institution, and by the journal) were calculated using the statistical software HistCite (version 2010.12.6; HistCite Software LLC, New York, NY, USA). Secondly, co-authoring, co-country collaborations, co-keyword, and thematic analysis were performed using BibExcel (version 2011.02.03; Olle Persson, Umea University, Umea, Sweden), Pajec (version 3.14, 2013.11.12; Batagelj and Mvar, University of Ljubljana, Ljubljana, Slovenia) and VOSviewer.

Firstly, HistCite (version 10.12) was used to sort the data collected by authors, years, countries, journals, and cited references. This software presents the information in an orderly and detailed way. Therefore, the basic bibliometric analyses were performed with this software: The number of articles per year, number of articles per author, number of articles per journal, and number the articles per country. However, Hitscite does not show only quantitative indicators; if not, it also presents quality indicators: Total Global Citation Score (TGCS) and TLGCS (Local Global Citation Scores). Thus, in this paper, both indicators, quantity, and quality have been taking into consideration. The Total Global Citation Score (TGCS), refers to the total number of citations received by the articles selected in the
analysis performed in the whole WoS. In contrast, the Total Local Citation Score (LCS), represents the number of citations in WoS received only by the articles selected in the specific analysis performed.

![Figure 1. PRISMA flow diagram detailing steps in the identification and screening of sources (adapted from [64]).](image)

Secondly, BibExcel (version 2011.02.03; Olle Persson, Umeå University, Umeå, Sweden) was used to prepare the data to analyze the co-authorship networks. Then, Pajek (version 3.14, 2013.11.12; Batagelj and Mrvar, University of Ljubljana, Ljubljana, Slovenia) was used to create the authorship networks. For the correct interpretation of this map, it is essential to know that the size of the vertices indicates the frequency (number of articles published by the authors), with the size being larger according to the frequency. The thickness of lines indicates the relationship between the vertices; thus, the thicker the line is, the higher number of collaborations between the authors.

Moreover, an increasing number of studies are investigating the development of emerging research fields for detecting relevant topics to delineate research areas by using different techniques, such as bibliographic coupling, co-word analysis, or historiographic analysis [65,70,71]. Thus, thirdly, VOSviewer software was used to analyze the co-word networks and the bibliographic coupling and the thematic analysis. Keyword co-occurrence was used to analyze the most prevalent and emerging topics within the sustainable entrepreneurship knowledge base [72]. Also, bibliographic coupling analysis was performed to identify the different clusters. Bibliographic coupling measures the similarity between the two articles by identifying the number of references that they have in common.

Moreover, the number of cited references in the articles does not change along the time. Hence, this analysis, in comparison with the co-occurrence analysis, is not influenced by the time when it is performed [73]. For this reason, it is advantageous to use it to perform systematic literature reviews [74], as, in previous studies, it has been used [65,73]. For the correct interpretation of these two network maps (co-word and bibliographic coupling maps), it is necessary to consider that each cluster is related to one color. The darker the color of the cluster, the higher the density of the cluster is. The distance of the authors’ keywords must be considered as an indication of the relationship between the other keywords, or between the other references cited, respectively.

Finally, the retrieved data was also analyzed using R studio v.3.4.1 software with bibliometrix R-package (http://www.bibliometrix.org) [75]. Data were imported into R Studio and converted to
a bibliographic data frame. Bibliometrix covers the whole workflow, while the other software only implements a part of it [76]. Thus, this software was used to analyze the basic information of the search string performed, the index of collaboration between countries, the map of country collaborations, the word cloud of author’ keywords, and the strategic diagram analysis. Strategic diagrams based on co-word analysis enable the identification of the main researched themes and the emerging research topics in this specific field of research.

3. Results

The search string performed in the WoS database, have retrieved, after revising all the documents, a total of 87 articles published in 79 journals, by 218 authors from 36 different countries. The average of publications per year is 4.03, and the average of citations per document is 4.06. However, the average of citations per document per year is 0.60. Regarding the keywords, a total of 263 keywords plus and 394 author’s keywords have been found. Finally, according to the number of articles per document is around 2.48, being the collaboration index 2.93. This information could be observed in Table 1.

Table 1. Summary Information on Retrieved Sport Sustainable Entrepreneurship or Innovation.

<table>
<thead>
<tr>
<th>Main Information about Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journals</td>
</tr>
<tr>
<td>Articles</td>
</tr>
<tr>
<td>Average Years from Publication</td>
</tr>
<tr>
<td>Average Citations per Documents</td>
</tr>
<tr>
<td>Average Citations per Year per Document</td>
</tr>
<tr>
<td>References</td>
</tr>
<tr>
<td><strong>Documents Contents</strong></td>
</tr>
<tr>
<td>Keywords Plus (ID)</td>
</tr>
<tr>
<td>Author’s Keywords (DE)</td>
</tr>
<tr>
<td><strong>Authors</strong></td>
</tr>
<tr>
<td>Authors</td>
</tr>
<tr>
<td>Authors of Single-Authored Documents</td>
</tr>
<tr>
<td>Authors of Multi-Authored Documents</td>
</tr>
<tr>
<td><strong>Authors Collaborations</strong></td>
</tr>
<tr>
<td>Countries</td>
</tr>
<tr>
<td>Single-Authored Documents</td>
</tr>
<tr>
<td>Documents per Author</td>
</tr>
<tr>
<td>Authors per Document</td>
</tr>
<tr>
<td>Co-Authors per Documents</td>
</tr>
<tr>
<td>Collaboration Index</td>
</tr>
</tbody>
</table>

3.1. Basic Indicators

In this first section of the results, the basic indicators are presented. Thus, the evolution of the papers and citations per year, the number of papers and citations per author, per institution per country, and journals, are also presented. Finally, the occurrence of the authors’ keywords is represented in a word cloud.

3.1.1. Years

The number of articles published on this subject has increased over the years. The first article was published in 2000, and in 2019, the number reached 21 papers. In only 19 years, there has been a considerable increase in the number of publications on this subject. A turning point can be observed in 2015 (10), and 2019 outstands as the year with the higher number of articles published (21). According to the number of citations, the articles written in 2011 have been those with a higher number of citations, followed by those from 2010, 2016, and 2017. Figure 2 below shows its evolution:
3.1.2. Authors

A total of 218 researchers have published at least one article about sustainable entrepreneurship or innovation in sport. However, only two researchers have published more than one article, precisely two, on this subject (Parris DL and Svensson PG). The other 216 authors have published only one article about this topic during this period. The results are shown in Table 2.

Table 2. Authors with the Highest Number of Publications.

<table>
<thead>
<tr>
<th>Author</th>
<th>Nb</th>
<th>h Index</th>
<th>PY</th>
<th>Institution</th>
<th>LCS</th>
<th>GCS</th>
<th>GCS/Nb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parris DL</td>
<td>2</td>
<td>2</td>
<td>2014</td>
<td>Northern Arizona University Flagstaff</td>
<td>0</td>
<td>5</td>
<td>2.50</td>
</tr>
<tr>
<td>Svensson PG</td>
<td>2</td>
<td>1</td>
<td>2017</td>
<td>Louisiana State University</td>
<td>1</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>216 authors</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: Nb-number of articles; PY—year of the first article published; LCS-Local Citation Score; GCS—Global Citation Score.

On the other hand, according to the authors that have received the highest number of citations, Lettice F and Parekh M, are the research with the highest number of citations (GCS = 60). In second, places are Hayes G and Horne J that have received a total of 51 citations. In third place is Schulenkorf N with 31 citations, and finally, in four position is Jones C with 21 citations. However, all these authors have the same h index. More detailed information about these researchers could be consulted in Table 3.

3.1.3. Institutions

A total of 144 institutions have published articles about this topic. The institution means the one in which the researcher is affiliated at the time of publication of the article. Most of the institutions have published only one article, except for the eight institutions that are presented in Table 4, that have published two articles.

Secondly, in relation to institutions that have received the highest number of citations in the entire WoS, The Hub and the Universidad de Aglia del Este stand out in first place (GCS = 60), followed by the Aston University, the Instituto de Estudios Políticos de Rennes, the Universidad de Lancashire Central (GCS = 65), and thirdly by Cardiff City Council (GCS = 25). The rest of the institutions have received 14 citations or less.
3.1.4. Countries

Researchers from a total of 36 countries have published at least one article on this topic of research. The country that has published the most articles has been the USA (23), followed by China (8), Australia (7) and Italy, and Spain in third place (6). According to the other countries, research from Canada, Germany, and UK have published five articles, followed by the researchers from South Korea with four articles and France and Norway with three articles. Moreover, eight countries have published two articles and sixteen countries that have published one article. In Figure 3, this data can be observed.

Secondly, about the countries that have received the highest number of citations in the entire WoS, the UK stands out in first place (GCS = 137), followed by the USA in second place (GCS = 65), and thirdly by France (GCS = 64). Finally, concerning the countries that have received a higher number of citations according to the number of articles published, UK is in first place with 27,40 citations per article, followed by Egypt and Romania are in first place with 12 in second place.

Figure 4 shows the number of articles produced by the authors of different countries and the rate of cooperation of each country’s authors with other countries’ authors. It can be observed that, in most cases, the articles are written between researchers of the same country. Therefore, the rate of collaboration between countries is low. In the case of the country with the highest number of publications with authors from other countries, the USA stands out (5), followed by France (3), Cuba (2), and China (2). Finally, it should be noted that, in France and Cuba, all the articles published have been with researchers from the same country. These data can be observed in Figure 4.
3.1.5. Journals

A total of 78 journals have published at least one article on this subject (see Table 5). Of all these journals, there are a total of 8 journals that have published more than one article, precisely two, on this subject. The other journals (71 journals) have published only one article on this topic. Among all of them, the journals that have received the most citations are the “International Journal of Technology
Management” with 60 citations, followed by the “Sociology- The Journal of the British Sociological Association” with 51 citations, and the “Sport Management Review” with 34 citations.

Table 5. Journals by the Number of Publications and Citations Received (LC S y GCS) and Impact Factor (JCR).

<table>
<thead>
<tr>
<th>Journal</th>
<th>Nb</th>
<th>LCS</th>
<th>GCS</th>
<th>GCS/Nb</th>
<th>JCR (2018)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainability</td>
<td>3</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>2.59 (Q2)</td>
</tr>
<tr>
<td>Annals of Applied Sport Science</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Avanzada</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>European Sport Management Quarterly</td>
<td>2</td>
<td>1</td>
<td>12</td>
<td>6</td>
<td>2.27 (Q2)</td>
</tr>
<tr>
<td>International Journal of Event and Festival Management</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>International Journal of Sport Policy and Politics</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0.50</td>
<td>-</td>
</tr>
<tr>
<td>Journal of Applied Sport Management</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Sport Management Review</td>
<td>2</td>
<td>3</td>
<td>34</td>
<td>17</td>
<td>2.14 (Q2)</td>
</tr>
<tr>
<td>Total journals</td>
<td>71</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: Nb-number of articles; LCS-Local Citation Score; GCS-Global Citation Score; - means that these journals are in ESCI and therefore, they do not have impact factor yet.


On the other hand, according to the impact factor of these twelve journals that have published the highest number of articles, the Sustainability journal is the one with the highest impact factor (JCR = 2.59; Q2), followed in second place by the European Sport Management Quarterly (JCR = 2.27; Q2) and in third place by the Journal of Sport Management (JCR = 2.17; Q2). The results can be observed in Table 5.

3.1.6. Most Common Keywords

According to the most common and important authors keywords used over time. The most important keywords are sustainability, sport and innovation, and sustainable development. Also, entrepreneurship, public policy, tourism, environment, sponsorship, and leadership seems to be essential keywords.

3.2. Co-Citation Analysis

In this second section, the co-citation analysis is presented. Firstly, the co-authorship network is represented, followed by collaborative networks between countries in second place and third place by keyword networks. All these results have been represented in the maps below.

3.2.1. Co-Authorship

A total of 65 co-authoring networks have been formed from the 220 researchers who have published articles on this subject. However, there is not only collaboration between all these authors; none of them have carried out two or more articles together. Specifically, there are two networks of six researchers, five networks of five researchers, twelve networks of four researchers, 22 networks of three researchers, and 24 networks of two researchers. Figure 5 shows the different collaborative networks.

3.2.2. Collaborations between Countries

Regarding the collaborations between countries, as can be seen in the image, USA stands out as the most collaborative country, followed by Canada, China, and Germany. However, in general, the collaboration between countries is not very high. Finally, it is especially worthwhile to highlight the relationship between USA and China due that it is the strongest of all the countries’ collaboration. In Figure 6, the countries’ collaboration can be observed.
3.2.2. Collaborations Between Countries

Regarding the collaborations between countries, as can be seen in the image, USA stands out as the most collaborative country, followed by Canada, China, and Germany. However, in general, the collaboration between countries is not very high. Finally, it is especially worthwhile to highlight the relationship between USA and China due to that it is the strongest of all the countries' collaboration. In Figure 6, the countries' collaboration can be observed.

3.2.3. Co-Word Analysis

The leading nine clusters of keywords were found. The cut-off point was established in two or more occurrences of these keywords. The first of them is made up of 15 words (red cluster), which refers to social innovation and entrepreneurship in sports business for its development, the most important of these being entrepreneurship. The second network is composed of 14 words (green cluster), which refers to tourism, recreation, and sports. The most crucial word in this cluster is tourism.

The third network is also composed of 12 words (dark blue cluster), with the word impact and performance as the central term. It refers to the organizations, sport management, and satisfaction and service quality. Also, the word technologies appear in this cluster. The fourth cluster is made up of nine words (yellow cluster) that refer to sustainability, sponsorship, and responsibility. The most basic term in this network is sustainability.

The fifth network is made up of six words (purple cluster), which refers to innovation, design, products, and consumers. The most important term in this network is innovation. The sixth network is
composed of 6 words (light blue cluster), which revolve around the environment, professional sports, and public policy. The most crucial term in the network is the word policy.

The seventh network is composed of seven words (orange cluster), which refers to sustainable development (most important term), sports activities, open innovation, and education. The eighth network is composed of six words (brown cluster) and refers to corporate social responsibility, policies, technologies, and business and the market. The most important terms are policies and corporate social responsibility. Finally, the ninth and last cluster (pink cluster), is composed of five items that are related to sport mega-events, collaborative innovation, and design thinking. In Figure 7, the different clusters can be observed.

Figure 7. Co-word networks.

3.3. Thematic Analysis

Finally, in this third section, the results of the thematic analysis are presented. Firstly, the analyses of the bibliographic coupling are presented, and secondly, a strategic diagram of the different themes. All these results are represented through maps.

3.3.1. Bibliographic Coupling

A bibliographic coupling analysis was performed. No cut-off point was set on the number of citations per document. Later, only the documents that were connected were selected, leaving the final analysis with 53 documents, which were distributed in seven different clusters (one color per cluster). In Figure 8, these clusters can be observed.

Red Cluster (87 Citations,11 Papers): Development of Mega-Events and Sustainable

This cluster is the largest and is composed of eleven documents. It has received a total of 87 citations. The theme of these articles is related to the management of sports events using a form of management based on sustainability and taking care of the environment.

The most cited article in this cluster is by [77], with 51 citations. These authors show that there is a disconnect between the nature of mega sports events and the redistributive and participatory sustainable development programs carried out by an international business. To this end, they analyze the specific case of the London 2012 Olympic and Paralympic Summer Games, finding that despite all the environmental, technological advances offered by mega sports events, their dominant model
remains that of a hollowed-out form of sustainable development. The second most cited article in this cluster, with 25 citations, is by [78]. This author points out that it is through major sporting events that a region’s social, political, and economic institutions can foster better economic performance. However, when these are evaluated within a paradigm that highlights the importance of complex interactions and sustainability. In this way, the contribution of two events to the development of sustainable regional partnerships and relationships is assessed, emphasizing that these relationships are uneven.

Figure 8. Bibliographic coupling analysis.

Finally, the third most cited article in this cluster is by [79] with ten citations. This article describes for the first time how FIFA has been (1) embracing neo-liberalism as a neo-community entrepreneur, (2) the preconditions for the bidding, and (3) hosting cities to carry out the event, and the “legacy” of the 2016 World Cup. Finally, it concludes on FIFA’s role as an incubator for the sustainability of host and post-host cities.

Green Cluster (26 Citations, Nine Papers): Environmental Sustainability in the Sport Industry

In second place is the green cluster, which is composed of nine articles, which have received a total of 26 citations. This cluster or set of articles deals with environmental sustainability in sport, giving examples of organizations that have taken steps to contribute to it.

In this cluster, the most cited article is that of [80], with ten citations, whose objective is to provide a conceptual framework with the typology of environmental sustainability efforts made within the sports industry. To this end, these authors draw on various theories to see how, through organizational learning, environmental sustainability efforts become more purposeful and sophisticated throughout the sports industry. Finally, examples from different organizations and sports leagues on environmental sustainability in sport are proposed. The second most cited article is [81], which has received a total of seven citations. He aims to find out whether a university’s environmental management initiatives can also influence donor behavior. The paper employs a quantitative study of environmental accountability and green management using data from donors and non-donors in the context of a university athletic department. The results indicate that personal disposition toward the environment and attitude toward environmental initiatives predict donor intentions.

Finally, the third most cited article in this cluster is by [82] with six citations. These authors analyze the main factors that contribute to the decision to adopt measures in favor of the environment (sustainable environmental policies) when building sports facilities. The Rogers Innovation Dissemination Framework was applied, and interviews were conducted with several leading architects who had carried out green sports facility projects in Europe, Australia, Africa, and North America.
It concludes that pro-environmental facilities are being used by organizations to demonstrate both environmental stewardship and their cultures of innovation.

Dark Blue Cluster (34 Citations, nine Papers): Environmental Conscientious and Congruence with the Sport Consumption (Sports Marketing)

Thirdly, the dark blue cluster, which is composed of nine articles that have received a total of 34 citations. The theme of this cluster refers to the use of sustainable behaviors as a marketing strategy for customer congruence and loyalty.

In this cluster, the article by [83] stands out for being the one that has received the highest number of citations (11 citations). It explores the multidimensional construction of brand authenticity, and the effect of each component on brand attachment, brand commitment and brand loyalty in two sports brands (Nike and Adidas), the results showed that brand authenticity consisted of seven factors: authority, fashion, consistency, innovation, sustainability, origin, and heritage. Of these factors, authority, fashion, innovation, and sustainability were significant predictors of brand attachment, and authority, consistency, and innovation were significant predictors of brand loyalty.

The second most cited article in this cluster is by [84], with six citations. These authors investigate how sports facilities such as snow domes, white-water courses, and indoor parachute jumping centers offer commercial activities and amenities derived from outdoor adventurous lifestyle sports such as snowboarding, rafting, and skydiving. The scenarios, which simulate natural elements using modern technology, are known for their high consumption of water and energy resources. Therefore, the sustainability awareness and environmental responsibility of the entrepreneurs who run these artificial scenarios for lifestyle sports are examined based on a qualitative study.

Yellow Cluster (13 Citations, Eight Papers): Sport management and Sustainability in the Sport Industry

This cluster is composed of eight documents, which have received a total of 13 citations. The theme of this cluster is related to sports management for the sustainable development of the industry. Specifically, factors that can help achieve sustainable development of sports leagues and sports groups are analyzed and compared.

The most cited article in this cluster is by [85], with a total of 6 citations. These authors develop a conceptual framework for the detection and analysis of sports groups, for a group of oceanic races in Brittany, France. The suggested framework consists of location-specific factors that determine the development and sustainability of a sports group and different types of group organizations. All the suggested location-specific factors were found to be relevant to the sustainable development of these races.

The second most cited article in this cluster is by [86], which has received a total of 5 citations. This paper examines how industry gender influences the sustainability of new businesses in the sports industry. These authors focus on the female leagues of the male-dominated sports industry and reveal how gender imprinting negatively affects the efforts of new businesses through three responsibilities: identity, compliance, and differentiation. The results show that even men’s major leagues have spent most of their history striving for profitability and have become sustainable businesses only after a slow process of consolidation through mergers. However, even greater efforts and time are needed to achieve sustainable management and development of the women’s leagues.

Purple Cluster (80 Citations, Six Papers): Sports innovation for Inclusion

This cluster is composed of six documents, which have received a total of 80 citations. The theme of this cluster is related to innovation in the sport for developing inclusion behaviors in society. They analyze how innovation within the sports industry could have social benefits.

Among all these articles, [87] stands out as the most cited (60 citations). The objective of these authors was to understand the process of social innovation better, as well as to know what lessons can
be transferred from the theory and general practice of business innovation. To this end, they conducted a series of interviews with ten innovators from the UK, who had used an unusual approach to a social or environmental problem and had created solutions for it. They found that these had a variety of social benefits and outcomes, ranging from job creation for the homeless to the design of electric sports cars. Finally, the data revealed four main themes: changing the lens, building the missing links, attracting a new “customer” base, and leveraging peer support. The second article with the highest number of citations in this cluster is [88], with seven citations. These authors use the Innovation Dissemination Theory to understand what needs to happen for inclusive recreation practices to become more systemic across community recreation agencies.

Finally, ref. [89] is the third most cited article of this cluster with three citations. They investigate a competitive evolutionary process called “excess innovation” that has been observed in some sports facilities. They used windsurfing as a case study, to stop the decline in participation and the eventual collapse of the sports facilities market and maintain the sustainability of these facilities.

Light Blue (Nine Citations, Five Articles): Innovation for the Development of Sustainable Sport Events

This cluster consists of nine articles, which have received a total of five citations. This cluster refers to the innovative aspects of events that can help the organization of sustainable sports events. The most cited article is by [90] with eight citations. This study explores the business networking processes that lay the foundation for the results of the business legacy initiated by the award of a mega-event in a region. They interviewed 24 stakeholders from Qatari sports organizations about business planning and the impacts of the 2022 World Cup in Qatar. The results show that the legacy of sustainable business networking includes cultural change, innovation, social and human capital development, and repositioning the country in the business world.

The second most cited article in this cluster is by [91] with one citation. The purpose of this paper is to identify the new social functions of sports events in a post-industrial society based on the intersections between the ethical values of the ancient Greek Olympic sports festival and the post-modern model of sustainable event management. A set of ethical potentials of ancient sports festivals can be identified within a possible implementation of their intrinsic values in the context of contemporary events through specific planning and management actions towards an ethical and sustainable development. However, the other articles have not received citations yet.

Orange Cluster (41 Citations, Five Papers): Sport Management through Socially Responsible Behavior

In fifth place, also with five articles, is the purple cluster referring to environmental conscientiousness and congruence with the sport consumption and has received a total of 41 citations. The theme of this cluster is based on sports management through socially responsible behavior, highlighting both forms of management and organizational formulas for it. Within this cluster, the article by [92] is the one that has received the highest number of citations, with 31 citations. This author emphasizes that nowadays, it is necessary to be more strategically planned in the sports industry to develop it. To achieve this development, he highlights four main themes: sustainable management and capacity building, creating, and exploiting impacts and results, and conceptual/theoretical advances. Finally, he suggests that future studies can address the management concepts of leadership, entrepreneurship, and design thinking to maximize the potential of sport (management) to contribute to desired, innovative, and sustained community development outcomes.

The second most cited article in this cluster is by [93], with ten citations. These researchers introduce the concept of hybrid organization and examine its applicability to Sport for Development and Peace (SDP). The findings of this exploratory empirical work with nine organizations indicate that SDP hybrids operate under a multitude of legal structures but are underlined by a shared belief that these new forms provide better opportunities for achieving social impact and organizational sustainability.
3.3.2. Strategic Thematic Analysis

Finally, the strategic diagram for the field of sustainable sports entrepreneurship or innovation is presented (see Figure 9). The size of the spheres represents the number of occurrences of these keywords. The upper-right quadrant is motor-themes, the upper-left quadrant is very specialized/niche themes, the lower-right quadrant is basic themes, and the lower-left quadrant is emerging or disappearing themes. The themes in the upper-right quadrant are “tourism” and “entrepreneurship”, being both relevant and well developed for the structuring of this research field. Themes in the upper-left quadrant, such as “sport business”, “policy” and “sustainable development”, have well developed internal ties, but unimportant external ties. So, they are of only marginal importance for the field. However, the term “sustainable development”, due to its centrality and density, seems that will appear as a motor theme in the next years. The importance gained in this term during last years, is due that sport has been recognized as an essential enabler of sustainable development [94]. Although an increase academic interest in the sport for development and pace has been generated, there is still a lack of research [95].

Themes in the lower-left quadrant are both weakly developed and marginal, mainly representing either emerging or disappearing themes. In this case, “change” seems to disappear; however, “performance” and “sport” seem to be emerging themes due to its centrality. Finally, themes in the lower-right quadrant are essential for this research field but are not developed. So, in this quadrant groups, transversal and general basic themes such as “sustainability”, “innovation”, “knowledge”, “environment” and “sport” are appearing in this section as well. The thematic analysis shows that for better results, we can merge our research focus with “tourism” and “entrepreneurship with environment”, “sport”, “sustainability and knowledge” and “innovation” that are essential topics in this field but not developed well.

4. Discussion

Short-term profitability mentalities and related strategies, policies, and actions of individuals and companies can cause global economic, ecological, and ethical crises. These developments have contributed to the view that most companies operate business models that are not sustainable [22].
Hence, to achieve the objectives of the 2030 Agenda for Sustainable Development [9], some parts of the private sector have begun to move away from business as usual models, by adopting and reporting on sustainability standards [11]. Therefore, the need for and interest in sustainable entrepreneurship and innovation has emerged. Furthermore, within the sports industry, in which entrepreneurship has gained special attention over the last few years [60], sustainability has been capturing the attention of academics for some years now [43], and it is considered a vital aspect for the future of this industry.

4.1. RQ1—What Is the Evolution of Articles Published on Sustainable Sports Entrepreneurship or Innovation along the Time?

The number of articles found about this topic has been scarce, which is in line with [96], which shows the relative scarcity of research exploring sustainable business behavior. This fact could be because, according to [97], the recognition and implementation of sustainable development opportunities are more complicated for the entrepreneur than the recognition of non-sustainable opportunities. Furthermore, this may be due to [60,98], who argue that sports entrepreneurship is a relatively new but growing field of study. Concerning years in which the highest number of articles have been published, from 2015 onwards, a turning point was generated. From that year onwards, there is a considerable increase in the number of articles published. This finding is in line with the bibliometric study carried out on innovation for sustainability, where 2016 is the year in which the turning point occurs, doubling the number of publications on this subject [59]. This situation was similar in the sustainability entrepreneurship field, where from 2015 to 2018, the highest number of papers were published [4,8].

4.2. RQ2—Which Authors Have Published the Highest Number of Articles on Sustainable Sports Entrepreneurship or Innovation, and Which One Was the Most Cited?

Although most of the research have published only one article about this topic, there are two that have published two articles: Parris, D.L. and Svensson, P.G. These results are in line with the bibliometric analysis of sustainable entrepreneurship in which the most productive authors had a limited number of articles [4,8]. This fact highlight that this field of sustainable entrepreneurship is still a young field of research. Thus, there are not yet consolidated researchers who stand out for their high scientific production.

However, it is essential to mention the specific characteristics of these two researchers. Parris, D.L. is from the Northern Arizona University Flagstaff that is in USA. She received five citations in the whole WoS (GCS = 5), meanwhile, she has not received any citations within the specific search. Sevensson, P.G. is from Louisiana State University that is also located in USA. He has received ten citations in the whole WoS (GCS), and one citation in the specific search performed (LCS). Thus, both are from USA. This country has published the highest number of publications on this topic.

Nevertheless, in other bibliometric analyses related to this topic, for instance, in the bibliometric analysis of [60] about sports entrepreneurship, these authors do not stand out by their number of publications. Neither in the bibliometric analysis of [59] about sustainable innovation nor the bibliometric analysis of [4,8] about sustainable entrepreneurship, the author has a high number of publications. Therefore, it can be concluded that these researchers can only be considered as more productive authors within this specific field of study of sustainable entrepreneurship or innovation in sport.

4.3. RQ3—Which Countries, Academic Journals, and Institutions Have Published More about the Topic of Sustainable Sports Entrepreneurship or Innovation, and What Is the Impact Factor of These Journals?

According to the researcher’s institutions, twelve institutions have published more than one article, precisely two: Deakin University, Hanyang University, Louisiana State University, Northern Arizona University, Nord University, Ohio University, Rollins College, University of the Basque Country,
Universidad de Ciencias de la Cultura Física y el Deporte and University of Florida. Most of these institutions belong to USA.

According to the countries, as several bibliometric analysis has shown, USA is the country that has published the highest number of publications in sport entrepreneurship [60] in social entrepreneurship [99] and sustainable entrepreneurship [4].

Twelve journals have published more than one article about sustainable sports entrepreneurship or innovation. Within these journals, the Sustainability journal is the highest number of published articles (3) and the highest impact factor (JCR = 2.59; Q2), which is in line with the bibliometric analysis about sustainable entrepreneurship [4,8]. Moreover, it is also presented by [64], as one of the high-impact journals in the field of sustainable entrepreneurship.

On the other hand, the Sport Management Review, and the Journal of Sport Management, followed by Sport in Society, are the journals that have received the highest number of citations per article published. These first journals also appear as those with the highest scientific production within the field of sports entrepreneurship [60]. Therefore, these journals may not appear in the other sustainable entrepreneurship or sustainable innovation bibliometric analysis, because they are more related to the specific field of sport.

4.4. RQ4—What Networks of Co-Authorship, Cooperation Network between Countries, Co-Citations, and Co-Words Analysis Reflect Studies on Sustainable Sports Entrepreneurship or Innovation?

A total of 65 co-authoring networks were found. However, they have low levels of collaboration between them. None of them have carried out two or more articles together. Moreover, most of these networks are of small size, and between researchers from the same country. These findings are in line with [100], in which also the majority of authors’ networks and collaboration between authors are small. Thus, collaboration between countries is low. USA is the most collaborative country, and the relationship between USA and China is the strongest. However, the collaboration between the other countries is very odd. This result is in line with the bibliometric analysis of sustainable entrepreneurship [8]. Although in this research field there are more collaboration networks between countries, USA was also one of the countries with the highest number of collaborations.

Regarding the clusters of keywords, nine main clusters were found. One of them is related to social innovation and entrepreneurship in sports business for its development. This theme is in line with [87] that showed how using unusual approaches in the sports industry to sort out a social or environmental problem a variety of social benefits and outcomes could be achieved. The second network refers to tourism, recreation, and sports. One clear example of it is the importance of the environmental responsibility of the sports entrepreneurs who run artificial scenarios for lifestyle sport [84]. The third network is related to organizations, sport management, and satisfaction and service quality. Also, the word technologies appear in this cluster. This theme is in line with [92], who emphasizes that nowadays, it is necessary to be more strategically planned in the sports industry to develop it, being sustainable management able to improve the potential of sport (management) to contribute to and sustained community development outcomes. In this vein [25], highlights the potential of sustainable management to transform technology, products, and markets. The fourth cluster refers to sustainability, sponsorship, and responsibility. This theme is in line with [83], who found that for some sports brands, sustainability was an indirect predictor of brand loyalty. The fifth network refers to innovation, design, products, and consumers. This thematic essential, due that during the last years, some sport managers are adopting sustainable environmental policies when building sports facilities [82].

The sixth network revolves around the environment, professional sports, and public policy. During the last years, several examples of organizations and sports leagues that used environmental sustainability have been highlighted [80]. The seventh network refers to sustainable development, sports activities, open innovation, and education. It is an important theme, due that some authors [81], found that sports university’s environmental management initiatives can influence donor behavior.
Moreover, education is also essential due to the development of sustainable innovation in this industry could be promoted by it. The eighth refers to corporate social responsibility, policies, technologies, business, and the market. This theme is in line with [93], who introduced the concept of the hybrid organization, which are new forms that can provide better opportunities for achieving social impact and organizational sustainability. Finally, the ninth and last cluster is related to sport mega-events, collaborative innovation, and design thinking. In the last years, some papers have highlighted the importance of sustainability when creating sport mega-events [77,79].

4.5. RQ5—What Are the Main Topics Studied within This Field of Research?

Seven main clusters were found on the theme of sustainable entrepreneurship or innovation in sport. Of all of them, the cluster of development of mega sports events and sustainability should be highlighted, as it is the most cited. In this vein, several authors [101,102], who have pointed out in recent years the importance of introducing sustainability in mega sports events. Some studies have highlighted the creation of a program called Green Goals by the organizing committee to manage this type of event [103]. An essential aspect of this theme has also been the sustainability of sports legacy after the celebration of sport mega-events [104]. Most of these articles are based on the analysis of specific cases of mega sports events. Therefore, this new concern for sustainability in the management of significant sports events has acquired great importance in recent years, presenting itself as a line of study.

In second place is the cluster of innovation in sport, having also received many appointments. It highlights the importance of innovation in sport [32], as a tool both for solving social and environmental problems [87], as well as for making sports activities more inclusive [88]. Therefore, this cluster highlights the social role that sport can play in society [105]. Therefore, it is also one of the most developed lines of research, which highlights innovation in sport as a tool for social inclusion, without forgetting its impact on the environment. However, some studies still point to the need for more research at the macro levels, to analyze the potential of sport to facilitate structural transformation towards a more socially inclusive society [106], without forgetting the environmental impacts of these innovations.

The third most frequently cited cluster has been sport management through corporate social responsibility behaviors. The importance of corporate social responsibility in the sports sector has been highlighted in recent years [38], having pointed out its impact on the performance of organizations. Besides, it has also been considered as an aspect within the management of Professional Teams Organizations [75]. In this cluster, the need for sustainability when managing sports entities is highlighted. This management perspective is considered as vital for the future of the sports industry.

The other clusters have received a lower number of citations, and refer to innovation for the creation of new models of sustainable sport events, to the sustainable management strategies of companies can help generate congruence with their consumers (sports marketing), to sport management for the sustainability of the sports industry and to environmental sustainability in sport (mainly construction of sustainable sport facilities). Therefore, it can be observed how within this change of study, there are different sub-areas or themes, although none of them is totally consolidated. However, one aspect to highlight is that most of the studies are theoretical, or based on case studies, with few empirical studies. Therefore, future research in this field should advocate for more empirical studies. Also, there is a lack of literature analyzing the contextual factors of sustainable entrepreneurship or innovation in sport [107]. However, there is a lack of research examining the contextual factors of sustainable entrepreneurship.

Finally, the strategic diagram shows that for better development of this research field, the future research should focus on “tourism” and “entrepreneurship” with “innovation”, “environment”, “sport” and “sustainability and knowledge”, that are essential topics in this field but not developed well. Therefore, this data shows the importance of investigating issues of sports tourism and sports entrepreneurship based on sustainability and considering the effects on the environment. This research could be done using the sustainable entrepreneurial ecosystem (SEE) approach, which is
a novel concept relating entrepreneurial ecosystems to sustainability issues and focusing on fostering sustainable entrepreneurship [61]. Therefore, it would be interesting to investigate how to create sustainable entrepreneurial ecosystems for the development of sustainable entrepreneurial and innovative initiatives in the context of sport.

5. Conclusions

The field of study of entrepreneurship or sustainable innovation in sport is becoming a new sub-area of study within the sports entrepreneurship field. However, it is a very young field of study since the first article was published at the beginning of the 11th century, but it is attracting more and more attention from researchers in different parts of the world (mainly from USA). This growing interest is due to the importance that sustainability is acquiring within sport (facilities, sports events, activities, marketing, management style…). Despite this, co-authoring networks are not yet consolidated, nor are there researchers who stand out for their large number of published articles. Moreover, collaborations between authors of different countries are still scarce.

Hence, based on the relevant studies in this field, it is crucial to study the behavior of green sport consumers to provide a better understanding to spread sustainable sports buying behavior. This approach is essential not only for sports products, if not also for services. Moreover, in other industries, also de importance of studying the current behavior of green consumers has been highlighted [108]. So, the sports industry should study the profile of these consumers, due that is an uprising consumer profile. It is essential to sport managers to meet the needs of their clients to achieve higher levels of satisfaction and loyalty. So, studies analyzing this new profile of sport consumers are needed.

Also, an important line where still more research is needed is the development of sports events in a sustainable way. Policy-makers are concerned with the environmental impact of mega sporting events [103]. Also, more attention to social sustainability is urgently required in major sports events [109]. This attention is essential since the number of sports events has risen during the last decade. However, despite recently, the number of publications on this topic has increased, they focused mainly on sport mega-events. Therefore, more research still is needed about the organization and celebration of the sport of different levels (local, national, and international), using a sustainable approach. Research that presents guidelines on how to organize a sports event in a sustainable way using sustainable innovation is necessary. Besides, analyzing the socio-economic impact and fan’s perceptions of this sort of event is vital for the development of this research field.

Moreover, sport is considered as an essential enabler of sustainable development [94]. The sport for development and peace has gained a recognizable value in the sports industry. Hence sports organizations should be aware of this role that sport has in the society to contribute to the achievement of the 2030 Agenda for Sustainable Development’ objectives. So, the sport management styles, and policies of sports organizations should consider this approach. Thus, more research is needed about how to use this management approach and what their outcomes are. Analysis of cases and guidelines of using this sport managing style is necessary. Also, policies to foster the creation of sports business with these aims are relevant.

Therefore, further research is needed in this field of study to achieve its consolidation. The sports industry is increasingly aware that it is not only essential to innovate or be entrepreneurial, if not, to do so in a sustainable way. The importance of corporate social responsibility behavior in the sports sector is growing. The different sub-themes identified in this article within this emerging field of study are intended to be the basis for further research and development of this field of study that the sports industry is demanding. Hence, sustainable sports entrepreneurship and innovation is the future for the management and development of the sports sector. However, more research is still needed to develop this promising research field.

The findings of this research may be useful for researchers in the field of sustainable or sports entrepreneurship or innovation to expand their knowledge of sustainable sports entrepreneurship or
innovation research. In this article, an overview of the evolution and current state of this emerging research field is presented. A complete overview of how the journals are distributed, the countries, institutions, and co-authoring networks are presented and discussed. Finally, the different research topics of this field, as well as the emerging topics to develop future studies, are presented.

This study has some limitations that should be addressed for further studies. The first limitation was that only one database was used (Web of Science). Therefore, future studies should address this search using other databases to deepen the publications on this topic (Scopus, EBSCO . . . ) Moreover, the search string was delimited to articles. Thus, future research should also analyze other types of documents, such as book chapters or proceeding papers.

Moreover, the search string was delimited to articles. Thus, future research should also analyze other types of documents, such as book chapters or proceeding papers. It is also possible that in the search carried out some article related to the subject is obviated, which may directly limit the results of this research as also other bibliometric studies have pointed out [8]. This situation could be to the words that have been indexed in the WoS by the authors and publishers. However, we believe that it is very unlikely, and in any case, it would be very scarce not affecting the sense and the global nature of the results found and described in this study.

Author Contributions: Conceptualization, V.A.S. and M.H.G.-S.; methodology, R.J.G.-G.; software, R.J.G.-G.; validation, V.A.S., R.J.G.-G. and M.H.G.-S.; formal analysis, V.A.S.; data curation, R.J.G.-G.; writing—original draft preparation, M.H.G.-S; writing—review and editing, R.J.G.-G. and V.A.S.; supervision, R.J.G.-G. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Conflicts of Interest: The authors declare no conflict of interest.

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