

STATE OF THE ART ON THE QUALITY OF SPORTING EVENTS IN THE LAST DECADE 2010-2020

Estado del arte de la calidad de los eventos deportivos en la última década 2010-2020

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ABSTRACT: In the sporting events sector, aspects such as satisfaction, service quality, loyalty or the impact generated by sporting events on the locality of the event are generating a growing interest in recent years. Due to this situation, this sector has received special attention from academics and practitioners. However, little is known about the evolution of this field of research. Therefore, the main objective of this paper is to analyse the papers published in the Web of Science on sport events. The biometric analysis allows you to explore the state of the art in your research field and to suggest future lines of research, identifying main authors, articles and topics. Articles published between 2000 and 2020 were analysed quantitatively, and by co-occurrence of words and authors. Subsequently, through bibliographic linking, the articles were grouped into different clusters. Five central themes were found, with satisfaction and service quality being the most developed areas.

KEY WORDS: quality, sporting events, bibliometric analysis.

RESUMEN: En el sector de los eventos deportivos, aspectos como la satisfacción, la calidad del servicio, la fidelidad o el impacto generado por los eventos deportivos en la localidad del evento están generando un interés creciente en los últimos años. Debido a esta situación, este sector ha recibido una atención especial por parte de académicos y profesionales. Sin embargo, se conoce poco sobre la evolución de este campo de investigación. Por ello, el objetivo principal de este trabajo es analizar los artículos publicados en la Web of Science sobre eventos deportivos. El análisis bibliométrico permite explorar el estado del arte en su campo de investigación y sugerir futuras líneas de investigación, identificando los principales autores, artículos y temas. Los artículos publicados entre 2000 y 2020 fueron analizados cuantitativamente y por co-ocurrencia de palabras y autores. Posteriormente, a través de la vinculación bibliográfica, se agruparon los artículos en diferentes clusters. Se encontraron cinco temas centrales, siendo la satisfacción y la calidad del servicio las áreas más desarrolladas

PALABRAS CLAVE: calidad, eventos deportivos, análisis bibliométrico.

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1. Introduction

Nowadays, the organisation of sport events has become one of the main fields of sport economics (López-Carril, Añó-Sanz & Villamón-Herrera, 2019; Martínez-Cevallos, 2020). In particular, major sporting events are used as a means of economic and tourism promotion by host countries, allowing them to boost their sport policies. The impact of these events directly affects the inhabitants of the host cities, not only at the time of the event, but also before and after the event (Balduck, Maes & Buelens, 2011). Research on sport events has historically focused on the analysis of the economic impacts that these events have had on society (González-García, Parra-Camacho, Calabuig & Añó-Sanz, 2016), this is because the organisations in charge of managing the event use these evaluations as justification for holding the event (Kim & Petrick, 2005).

The analysis of the impacts has led to a treatment of the information to which various variables have been added in an attempt to provide a better understanding of the impacts of this type of event. Variables such as those related to greater satisfaction (Gregori, Martínez-Cevallos & Aguado-Berenguer, 2020; Vegara-Ferri, Angosto-Sánchez & Parra-Camacho, 2020), perceived value (García-Pascual, Molina García & Mundina, 2019), service quality (Molina-García & González-García, 2018; Vegara-Ferri, Carboneros & Angosto, 2021) or loyalty (Alguacil, Parra-Camacho & Mundina, 2019) are beginning to provide more information with the aim of developing an appropriate strategy when designing and managing sporting events successfully.

Bibliometric analyses allow us to contextualise and evaluate scientific production in a specific area of knowledge. However, there are some recent bibliometric analyses on sport management (Ciomaga, 2013), on sport tourism and sustainability (Jiménez-García, Ruiz-Chico, Peña-Sánchez & López-Sánchez, 2020) or on sport entrepreneurship and innovation (González-Serrano, Añó-Sanz & González-García, 2020) that have shown that these are fields of study that have grown a lot in recent years. Therefore, it is the interest and main objective of this study to carry out a bibliometric analysis of articles published in the Web of Science related to sporting events and their relationship with variables such as service quality, perceived value, satisfaction, loyalty and word of mouth. It is interesting to carry out this type of analysis, since, within the field of sporting events, the field of aspects such as service quality or satisfaction has experienced significant growth that has coincided with the boost that the sports sector has undergone in recent decades (Ratten & Thkral, 2020). This situation has generated more research on sport events, which are now more strategically important for the organisations in charge of their organisation and management. Thus, this paper, through a bibliometric analysis, aims to discover the current state of this research area. Therefore, the following research questions will guide the design of the study:

RQ1- What is the evolution of articles published on sporting events over time?

RQ2- Which authors have published the largest number of articles related to sporting events and which has been the most cited?

RQ3- Which countries, academic journals and institutions have published the most on the topic of sport events and what is the impact factor of these journals?

RQ4- What co-authorship networks, networks of cooperation between countries, co-citations and co-words study sport events?

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

The structure of the article is organised as follows. Firstly, the methodology is presented, detailing the bibliometric methodological techniques and the software used in this study. Next, the results are presented using bibliometric tables and maps. Next, the results are discussed and, finally, the conclusions, implications for future research and limitations of this study are presented.

2. Method

2.1. Data collection

Bibliometric analysis uses bibliographic indicators to analyse the most critical literature in a specific field of research (Santos, Uriona-Maldonado & Santos, 2011). This study analyses all published articles indexed in the Web of Science Core Collection™ (SSCI, SCI-Expanded) on sporting events. Only Web of Science (WoS) publications were considered, as it is considered the most accepted database for the collection and analysis of scientific articles (Van Nunen, Li, Reniers, & Ponnet, 2018).

An advanced search was performed in the topic search field, referring to the title, abstract or keywords of the documents. The topic field was selected because the vast majority of bibliographic studies have used it (Calabuig, González-Serrano, Alonso Dos-Santos & Gómez-Tafalla, 2020; Thananusul, 2019), and it was considered more appropriate than others because the most relevant words of the article's topic are placed in these sections. Therefore, the search string used in the topic field was (((sporting events OR sporting events OR sport* event*) AND ("service quality" OR "perceived value" OR "satisfaction" OR "word of mouth" OR "loyalty"))). The search was conducted on 12 May 2021. It is crucial to present the date of document collection because the database is constantly changing and being updated (Liu, Tang, Gu, & Hu, 2015).

The study was limited to research articles only, including original papers and reviews, excluding editorials, book reviews, conference proceedings, letters, editorials and news and bibliographic articles. The search was limited to 2020 with no language limitation. The initial search retrieved 420 documents up to 2020. All these articles were then read to select the final articles. This procedure was followed to discard those articles that were not on the topic under study (eligibility). The authors adopted the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) approach (Moher, Liberat, Tetzlaff, & Altman, 2009) to review and select papers for the literature search.

After this procedure, 369 documents remained in the final review database. Finally, these selected articles were downloaded in plain text with data on the year of publication,

authors, author affiliation, title, abstract, journal, subject area, references and number of citations.

2.2. Bibliometric analysis

After having the data in plain text, duplicate and unrecognised records were identified and homogenised. Thus, the total number of articles was reviewed to avoid duplications and errors and to find missing data for some records (institutions, countries and year of publication). Subsequently, the analysis was carried out in two different stages.

First, HistCite (version 10.12) was used to sort the collected data by authors, years, countries, journals and references cited. This software presents the information in an orderly and detailed manner. Thus, basic bibliometric analyses such as number of articles per year, number of articles per author, number of articles per journal and number of articles per country were performed. However, Hitscite does not only show quantitative indicators, but also quality indicators: Total Global Citation Score (TGCS) and TLGCS (Local Global Citation Scores). For this reason, both quantitative and quality indicators have been taken into account in this work. The Total Global Citation Score (TGCS) refers to the total number of citations received by the articles selected in the analysis carried out throughout WOS. The Total Local Citation Score (LCS), on the other hand, represents the number of citations in the WOS received only by the articles selected in the specific analysis carried out.

Next, R studio v.3.4.1 software with the R bibliometrix package (Aria & Cucurullo, 2017) was used to prepare the data for analysing the co-authorship networks. Also, cross-country collaboration networks, co-keyword and thematic analysis were performed using the same software. The data were imported into R Studio and converted into a bibliographic data framework. Bibliometrix covers the entire workflow, while the other software only implements a part of it (Dervis, 2019). Thus, this software was used to analyse the basic information of the search string performed, the cross-country collaboration index, the map of cross-country collaborations, the authors' word cloud and the analysis of strategic diagrams. The strategy diagrams based on the joint word analysis allow the identification of the main research topics and emerging research topics in this specific field of research. In addition, more and more studies are investigating the development of emerging research fields to detect relevant topics for delimiting research areas by using different techniques, such as bibliographic linkage, co-word analysis or historiographic analysis (Chen & Guan, 2011). Thus, thirdly, co-word network analysis and bibliographic linkage and thematic analysis were used. Keyword co-occurrence was used to analyse the most prevalent and emerging themes within the knowledge base of sustainable entrepreneurship (McCain, 1990). A literature linkage analysis was also conducted to identify the different clusters. Bibliographic linkage measures the similarity between two articles by identifying the number of references they have in common. Moreover, the number of references cited in the articles does not change over time. Therefore, this analysis, in comparison to co-occurrence analysis, is not influenced by the time at which it is performed (Bartolacci, Caputo, & Soverchia, 2020). For this reason, it

is advantageous to use it for systematic literature reviews (Calabuig, González-Serrano, Alonso Dos-Santos & Gómez-Tafalla, 2020). 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 a colour.

3. Results

The search in the WOS database has retrieved, after reviewing all the documents, a total of 353 articles published in 144 journals, by 907 authors from 42 different countries. The average number of citations per document is 19.41. In terms of keywords, a total of 929 keywords and 1099 author keywords were found. Finally, according to the number of authors per paper is around 2.46, with a collaboration index of 2.61. This information can be seen in Table 1.

Table 1. Main information about data

Journals	144
Articles	353
Average years from publication	5,3
Average citations per documents	19,41
Average citations per year per document	2,79
References	3413
Documents contents	
Keywords Plus (ID)	929
Author's Keywords (DE)	1099
Authors	
Authors	907
Authors of single-authored documents	30
Authors of multi-authored documents	877
Authors collaborations	
Countries	42
Single-authored documents	33
Documents per Author	0,41
Authors per Document	2,46
Co-Authors per Documents	3,25
Collaboration Index	2,61

3.1. Basic Indicators

This first section of results presents the basic indicators. Thus, the evolution of papers and citations per year, the number of papers and citations per author, per institution and per country, and the journals are presented. Finally, the evolution of the authors' keywords according to the years of publication.

3.1.1. Years

The number of articles published on this subject has increased over the years. In 2000, there was only one publication in total. In just 20 years, there has been a considerable

increase in the number of publications on this topic. A turning point is observed in 2015 (32), and 2020 stands out as the year with the highest number of published articles (70). According to the number of citations, articles written in 2015 have had the highest number of citations (877), followed by 2011 and 2013. Figure 1 shows their evolution:



Figure 1. Evolution of the number of articles and reviews published over the years and the number of global citations (2000-2020).

3.1.2. Authors

A total of 907 researchers have published at least one article on the subject. However, the researchers with the highest number of publications were Funk (18) and Jordan (11). Next, authors Calabuig and Kim have published a total of nine articles. The results are shown in Table 2.

Table 2. Authors with the highest number of publications.

Author	Nb	h index	PY	Institution	LCS	GCS	GCS/Nb
Funk DC	18	67	1998	Temple University	93	668	7,18
Jordan JS	11	25	2007	Temple University	67	333	4,97
Calabuig F	9	27	2008	University of Valencia	22	122	5,54
Kim SK	9	8	2011	Dongguk University	15	79	5,27
Byon KK	8	21	2010	Indiana University	11	104	9,45
Kim M	8	12	2016	Texas A&M University	11	123	11,18
Ko YJ	8	39	2007	University of Florida	61	226	3,70
Yoshida M	8	22	2011	Hosei University	90	424	4,71
907 authors	-	-	-	-	-	-	-

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 who have received the highest number of citations in their research are Funk (GCS=688) and Yoshida (GCS=1424). Then Kaplanidou (GCS=393), Jordan (GCS=333) and James (GCS=300) have more than 300 citations in the overall number of their publications related to sport events. However, as far as the h-index of the authors is concerned, Funk stands out with an h-index of 67, starting his publications in 1998. More detailed information on these researchers can be found in Table 3.

Table 3. Authors with the highest number of citations.

Author	GCS	Institution	h index	PY
Funk DC	668	Temple University	67	1998
Yoshida M	424	Hosei University	22	2011
Kaplanidou K	393	University of Florida	38	2009
Jordan JS	333	Temple University	25	2007
James JD	300	Florida State University	37	2003

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

Figure 2 shows the production of the most prolific authors in terms of number of publications. Funk begins with the first publication related to the subject of the search in 2006, with the last publication being compiled in 2020. As for the next author with the highest number of publications (11), Jordan began his publications in 2011 and has been contributing until the present day.

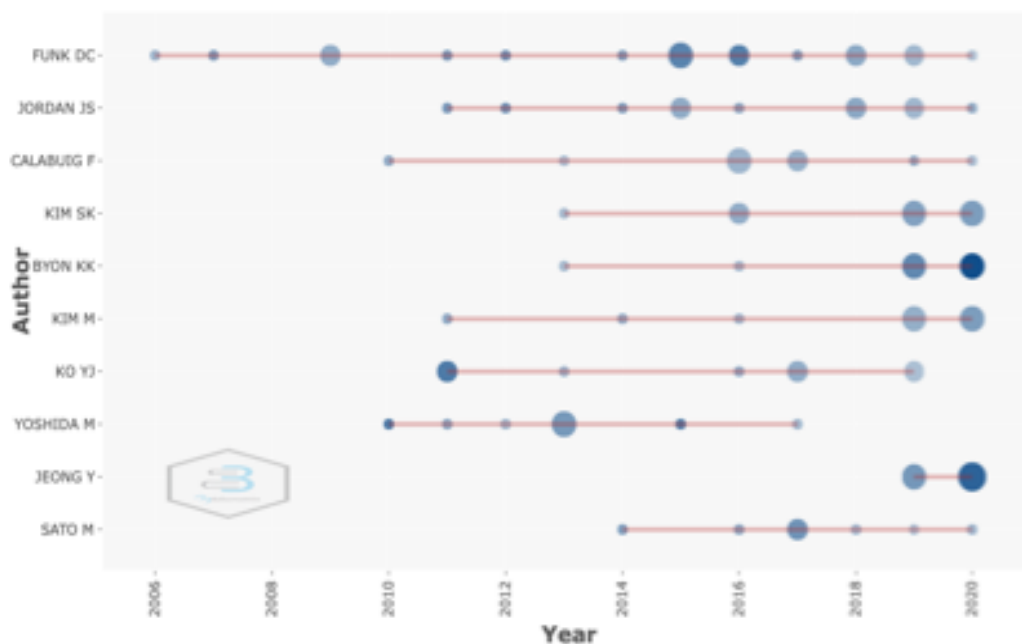


Figure 2. Production of authors according to year of publication

3.1.3. Institutions

It can be seen that both Temple University and Griffith University have published a total of 19 and 17 papers respectively. However, the latter has a higher overall citations/publications ratio, with a score of 11.46. The institution with the highest coefficient among the eight with the highest number of publications is Indiana University with a coefficient of 28.83.

Table 4. Publications by institutions.

Institution	Country	Nb	LCS	GCS	GCS/Nb
Temple University	USA	19	86	488	5,67
Griffith University	AUS	17	52	596	11,46
Universidad De Valencia	SPA	15	22	127	5,77
University of Florida	USA	14	119	638	5,36
Florida State University	USA	12	96	393	4,09
University of Georgia	USA	11	9	124	13,78
Indiana University	USA	9	6	173	28,83
Shanghai University Sport	CHI	9	12	74	6,17
489 institutions	-	-	-	-	-

Note: Nb-number of articles; LCS-Local Citation Score; GCS-Global Citation Score

3.1.4. Countries

Researchers from a total of 42 countries have published at least one article on this research topic. The country that published the most articles was the United States (114), followed by China (32), South Korea (31), Germany and Spain (24), Australia (22) and the United Kingdom (20). Among the other countries, researchers from Japan and Canada have published more than 10 articles. All other countries have published less than 5 articles. Secondly, regarding the countries that have received the highest number of citations in the entire WOS, the USA stands out in first place (GCS = 3059), followed by Australia (GCS = 617), and in third place by Germany (GCS = 415).



Figure 3. Number of articles published by country

3.1.5. Journals

A total of 144 journals have published at least one article on this topic (see Table 5). Of all these journals, there are a total of six journals that have published more than ten articles on this topic. Thus, the journal with the highest number of published articles is the "Journal of Sport Management" and "International Journal of Sports Marketing", with 32 articles. The journal "Sport Management Review" has published a total of 25 articles. Among all of them, the journals that have received the most citations overall are "Journal of Sport Management" with 933 citations, followed by "Journal of Business Research" with 556 citations.

Table 5. Journals by the number of publications and citations received (LCS and GCS) and Impact Factor (JCR).

Journal	Nb	LCS	GCS	GCS/Nb	JCR (2020)
Journal of Sport Management	32	177	933	29,16	3,691
International Journal of Sports Marketing and Sponsorship	32	46	268	8,37	2,938
Sport Management Review	25	63	514	20,56	6,577
Sustainability	16	0	58	3,62	3,251
European Sport Management Quarterly	14	31	290	20,71	4,000
Sport Marketing Quarterly	11	16	109	9,91	0,860
Journal of Business Research	8	32	556	69,5	7,550
South African Journal for Research in Sport Physical...	8	2	10	1,25	0,422
Asia Pacific Journal of Marketing and Logistics	7	14	113	16,14	3,979
Journal of Travel & Tourism Marketing	7	10	104	14,85	7,564
Tourism Management	7	36	417	59,57	10,967
32 journals	-	-	-	-	-

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.

3.1.6. Most common keywords

The most common and important keywords used by the authors over time are shown in figure 4. It can be seen that the term "satisfaction" has been the most searched for, with a clear upward trend since 2010. Also noteworthy is the evolution of the term "service quality" in recent years, with a substantial increase in searches from 2014 onwards. As a third search term, "sporting event" has shown an upward trend since 2008, without being as exponential as the terms mentioned above.

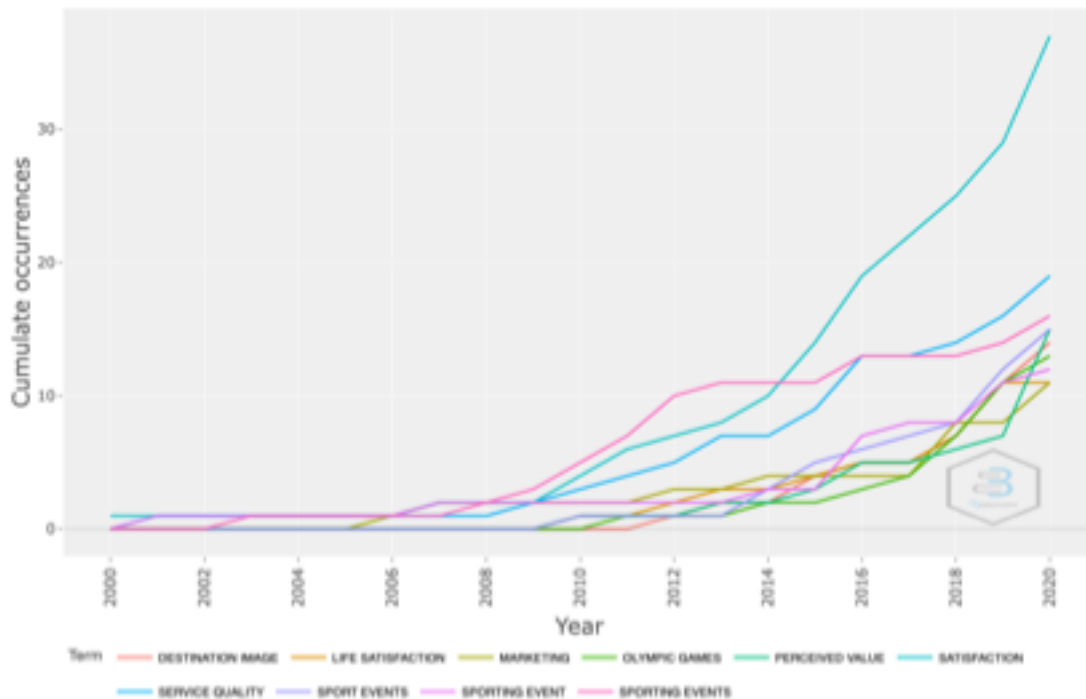


Figure 4. Evolution of keyword usage according to years of search.

3.2. Co-citation analysis

In this second section, the analysis of co-citations is presented. First, the co-authorship network, cross-country collaboration networks and keyword networks have been presented. All these results are represented in the maps below.

3.2.1. Co-authorship Networks

The 9 networks of co-authors among the 38 leading researchers, who have published joint articles on this topic, are presented. Also, for each of the networks, a cluster is presented using Louvain's algorithm. Specifically, there is a network of nine researchers whose most prominent author is Funk, a network of eight researchers whose most prominent author is Kim and a network of seven authors whose most prominent author is Calabuig. The remaining networks are composed of three authors or less. Figure 5 shows the different collaborative networks.

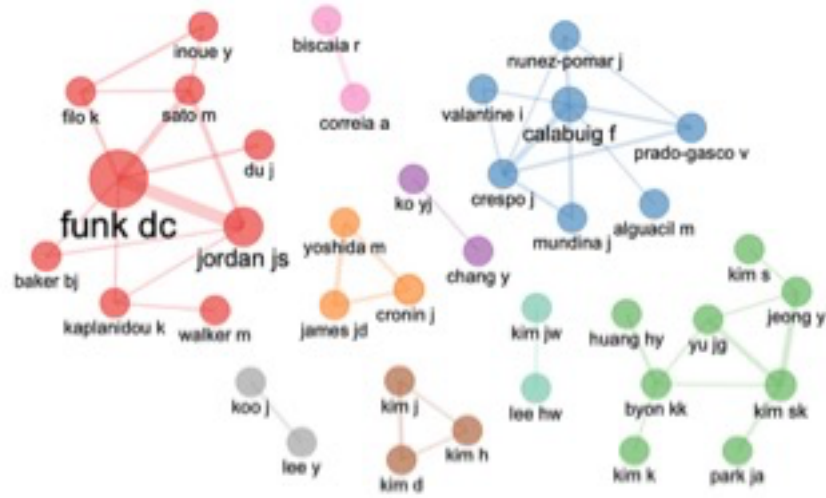


Figure 5. Co-authorship networks

3.2.2. Collaborations between countries

In terms of cross-country collaborations, as shown in Figure 6, the United States stands out as the most collaborative country, followed by Australia. It can be seen that the United States collaborates with several countries, although the collaboration networks between countries are triggered globally. Figure 6 shows the collaboration between countries.



Figure 6. Country Collaboration Networks

3.2.3. Co-word analysis

The three main clusters of keywords were found. The first one is composed of 13 words (red cluster), which refers to psychological issues such as satisfaction, perceptions, motivation, etc. The second network is composed of 24 words (blue cluster), which refers to service-related issues such as loyalty, customer satisfaction, service quality or service impact. The most important word in this cluster is loyalty. The third and last network consists of 13 words (green cluster), with the word sport as the central term. It refers to aspects related to physical activity and sport, participation, health, etc. Figure 8 shows the different clusters.



Figure 7. Co-word networks

3.3. Thematic analysis

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

3.3.1. Bibliographic coupling

A bibliographic coupling analysis was carried out. Only documents that were connected were selected, limiting the analysis to 100 documents, finally exposing. From there, the results were distributed in five different clusters (one colour per cluster). These clusters can be seen in Figure 8.

Red cluster: Destination image

This group is the largest and consists of 15 documents. The subject of these papers is related to the image of the destination in relation to sporting events. Outstanding articles in this cluster, such as Vegara-Ferri, López Gullón, Valantine, Díaz Suarez and Angosto (2020), show that destination image has a significant influence on future intentions to attend sporting events, in this case on a small scale. Meanwhile, articles such as Moon,

Kim, Ko, Connaughton and Lee (2011) also highlight the influence that the perception of the quality of an event has on the consumer and its relationship with the image of the locality hosting the event.

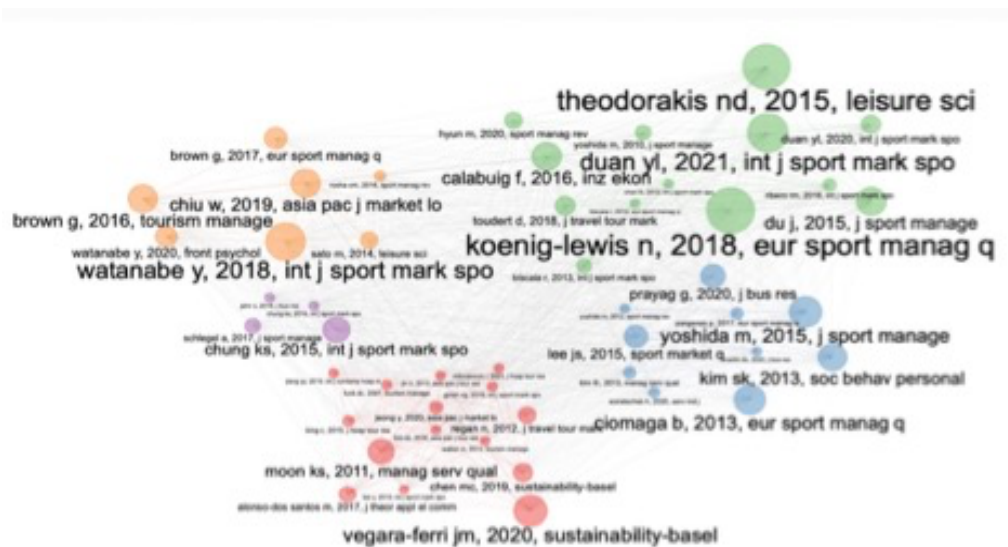


Figure 8. Bibliographic coupling analysis

Green Cluster: Service quality

This group is composed of 13 articles. The subject matter of these articles is related to the service quality of sporting events. The article by Koenig-Lewis, Asaad and Palmer (2018) analyses the service quality of spectators according to their interaction with each other. Also noteworthy is the article by Theodorakis, Kaplanidou and Karabaxoglou (2015) in which they focus their research on the effect that the service quality of a sporting event has on satisfaction and happiness among the participants of a recurring sporting event.

Blue cluster: Team identification

This cluster is composed of a total of 10 articles. The subject matter is related to the identification with the team of those attending sporting events. The work by Yoshida, Heere and Gordon (2015) stands out as a study that attempts to analyse, through attitudinal constructs, behavioural loyalty in the context of a sporting event. Meanwhile, studies such as Kim, Byon, Yu, Zhang and Kim (2013) aim to examine the relationship between spectators' social motivations and sport consumption behaviour in the context of a Formula 1 event.

Orange cluster: Physical activity and leisure

This group is made up of a total of seven articles. The subject matter is related to physical activity and leisure sport events. Watanabe, Cassandra, Aman and Zhang (2018) examine the influence of product characteristics, the quality of event development, fan identification and the image of the host city on the spectators of an international sporting event. In turn, work such as that of Brown, Smith and Assaker (2016) relates sport participation, evaluations, level and satisfaction with the venue of a major sporting event

to spectators' behavioural intentions, highlighting that, although tourism associated with hosting an event is beneficial, large-scale events such as the Olympic Games do not offer an experience that is associated with intentions to revisit the venue of the event.

Purple cluster: Satisfaction

Finally, the purple cluster is composed of a total of four papers related to satisfaction associated with sporting events. Of particular note is the work of Chung, Ryu, Green and Kang (2015) who in their study measure the effect of the senses on arousal, satisfaction and intention to revisit a motor sport event. They determined that senses such as smell had an effect on spectators' satisfaction with the event and their future intention to attend. Schlegel, Pfitznel and Koenigstorfer (2017) found that, in the celebration of a major sporting event, the perceived celebratory atmosphere in the city increases residents' subjective well-being.

3.3.2. Strategic thematic analysis

Finally, the strategy diagram for the field of sporting events is presented. The size of the spheres represents the number of occurrences of these keywords (see Figure 9). The upper right quadrant corresponds to driving topics, the upper left quadrant to niche/very specialised topics, the lower right quadrant to core topics and the lower left quadrant to emerging or disappearing topics.

The themes in the upper right quadrant are "sport events" and "Olympic games" or "life satisfaction" and "sport" both being relevant and "well developed for the structuring of this research field. The themes in the upper left quadrant, such as "consumer behaviour" and "team identification"; "residents" and "word of mouth"; "volunteer management" and "episodic volunteering", have well-developed internal links, but little relevant external links and are therefore only of marginal importance for the field.

The themes in the lower left quadrant are underdeveloped and marginal and represent mainly emerging or disappearing themes. In this case, terms such as "physical activity" and "social capital" are found. As for the terms "sponsorship" and "sports marketing", they seem to be emerging themes due to their centrality. Finally, the topics in the lower right quadrant are essential for this field of research but are still in development. Thus, cross-cutting and general basic themes such as "marketing" and "sports marketing" or "destination image" and "sport tourism" also appear in this quadrant. The basic themes related to "satisfaction" and "service quality" stand out for their value within this map.



Figure 9. Strategic diagram sports events

4. Conclusions

The results of this study show that the field of sporting events continues to attract the attention of researchers from different parts of the world. This interest is due to the importance that variables such as service quality, satisfaction with the event or the image of the locality have acquired in the field of sporting events. Proof of this is the existence of consolidated co-authorship networks, whose researchers stand out for their large number of published articles. Moreover, these collaborations are global, occurring in multiple institutions around the world. Therefore, from the relevant studies in this field, it is crucial to study the satisfaction and service quality of sport events to gain a better understanding, and in turn to promote the optimal development of these events.

Hence, the sport event industry should focus on consumer aspects of sport events. It is essential for sport managers to meet the needs and achieve higher levels of satisfaction. Furthermore, the field of sport events is an important line of research that has already been consolidated, but still needs to be further analysed in terms of its analysis and particular characteristics. Although the number of publications on this topic has increased recently, they are focused on mega sport events. Therefore, there is still a need for more research on the organisation and celebration of sport at different levels (local, national and international). Furthermore, analysing the socio-economic impact and fans' perceptions of such events is vital for the development of this field of research.

This article presents an overview of the evolution and current status of this research field. A comprehensive overview of the distribution of journals, countries, institutions and co-authorship networks is presented and discussed. Finally, the different research topics of this field are presented, as well as emerging themes for future studies. The findings of this

research may be useful for researchers in the field of sport events to broaden their knowledge.

This study has some limitations that should be addressed for future studies. The first limitation is 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...).

Furthermore, the search string was limited to articles. Therefore, future research should also analyse other types of documents, such as book chapters or proceedings. It is also possible that some articles related to the topic were omitted in the search performed, which may directly limit the results of this research as other bibliometric studies have also pointed out (Terán-Yépez, Marín-Carrillo, Del Pilar Casado-Belmonte & de las Mercedes Capobianco-Uriarte, 2020). This situation could be due to the words that have been indexed in WoS by the authors and editors. However, we believe it is very unlikely, and in any case, it would be very scarce and would not affect the sense and globality of the results found and described in this study.

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