

Bibliometric Analysis of Sport Entrepreneurship Literature: The Case of Web of Science

Spor Girişimciliği Literatürünün Bibliyometrik Analizi: Web of Science Örneği

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ABSTRACT

Sport entrepreneurship is the sport dimension of entrepreneurship and research on the concept has increased in recent years. The aim of this research is to provide a general perspective on sports entrepreneurship, to draw attention to the importance of the subject and to generate ideas for further research. For this purpose, bibliometric analysis technique was used in the research. In this context, 494 publications on sport entrepreneurship in the WoS database were examined under 7 headings (advanced search, cited references, co-author analysis, common word analysis, citation analysis, bibliometric matching analysis, co-citation analysis). These titles were analyzed in a total of 32 parameters and analyzed bibliometrically with Sankey diagram, VOSviewer, MapChart and Wordclouds programs. When the researches on sports entrepreneurship were examined, it was determined that the most publications were made in 2020 and the most citations were made in 2021, and the title, keyword, abstract, research area and WoS categories specified in the publications were related to each other. In this context, it has been seen that the basis of the structure in the relevant literature is sports, entrepreneurship, management, business and innovation. Although bibliometric studies have been conducted in the field of entrepreneurship in national literature, bibliometric analysis of sports entrepreneurship has not been carried out in a comprehensive manner, the number of studies in the international literature is low, and the use of more parameters and more data in this research than the studies conducted in the international literature reveals the importance and originality of the research.

Keywords: Sport, Entrepreneurship, Sport Entrepreneurship, Bibliometric Analysis, WoS

ÖZ

Spor girişimciliği, girişimciliğin spor boyutu olup, kavram ile ilgili araştırmaların son yıllarda artış gösterdiği görülmektedir. Bu araştırmanın amacı, spor girişimciliğine genel bir bakış açısı kazandırmak, konunun önemine dikkati çekmek ve daha sonraki araştırmalar için fikir üretmektir. Bu amaç doğrultusunda araştırmada bibliyometrik analiz tekniği kullanılmıştır. Bu kapsamda WoS veri tabanında spor girişimciliğini ele alan 494 yayın 7 başlık (gelişmiş arama, alıntılanan referanslar, ortak yazar analizi, ortak kelime analizi, atıf analizi, bibliyometrik eşleştirme analizi, ortak atıf analizi) altında incelenmiştir. Bu başlıklar toplam 32 parametrede incelenerek Sankey diyagramı, VOSviewer, MapChart ve Wordclouds programları ile bibliyometrik açıdan çözümlenmiştir. Spor girişimciliği ile ilgili araştırmalar incelendiğinde en fazla yayının 2020 yılında en fazla atıfın ise 2021 yılında yapıldığı, yayınlarda belirtilen başlık, anahtar kelime, özet, araştırma alanına ve WoS kategorilerinin birbirleriyle ilişkili durumda oldukları belirlenmiştir. Bu kapsamda ilgili literatürdeki yapının temelini spor, girişimcilik, yönetim, işletme ve inovasyon oluşturduğu görülmüştür. Ulusal literatürde girişimcilik alanında bibliyometrik araştırmaların yapılmasına rağmen spor girişimciliğinin geniş kapsamlı olarak bibliyometrik analizinin gerçekleştirilmemesi, uluslararası literatürde araştırma sayısının az olması ve bu araştırmada uluslararası alanda yapılan araştırmalardan daha fazla parametre ve daha fazla verinin kullanılması araştırmanın önemini ve özgünlüğünü ortaya koymaktadır.

Anahtar Kelimeler: Spor, Girişimcilik, Spor Girişimciliği, Bibliyometrik Analiz, WoS

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Introduction

Sport entrepreneurship, which is a new and rapidly developing interdisciplinary research field today, is a very important phenomenon that should be supported in all countries, and it is also one of the current themes that attracts the attention of researchers (Şeşen & Basım, 2012, p. 21; Sánchez Franco et al., 2023, p. 648). While sport, which affects individuals directly or indirectly, is a social phenomenon that can always sustain the society, entrepreneurship is the process of recognising and evaluating an opportunity and taking action to benefit from the opportunity. Therefore, it can be said that sport is a phenomenon that has always managed to attract the attention of society on how entrepreneurship is experienced. In this context, sport entrepreneurship is a type of entrepreneurship that enables more researchers to understand how entrepreneurship is seen and perceived in organisations, enhancing the entrepreneurship literature and offering a promising economic development strategy (Dağlı Ekmekçi & İrmiş, 2013, p. 636-638). Hammerschmidt et al. (2022, p. 7) defined sport entrepreneurship as *“the identification and exploitation of opportunities to create new value through sport”*. According to Ratten (2010, p. 560) a sport entrepreneur is a person who manages and organises a sport venture and accepts risk in the venture process. Hammerschmidt et al. (2023, p. 11) analysed the development of sport entrepreneurship in three sub-periods. The first is the time period 2000-2011, which is the beginning of the field of sport entrepreneurship and innovation, and the main theme of this period is entrepreneurship. The second is the 2012-2020 time period, which is the development and evolution of the research field, and the themes of this period are primarily innovation, technology, sports entrepreneurship, entrepreneurial orientation and social entrepreneurship. The third is the 2021-2022 time period, when the sports entrepreneurship literature started to gain conceptual clarity, and the themes of this period are innovation, sports entrepreneurship, COVID-19 and economic performance, especially entrepreneurship. These themes indicate key areas for new research. Based on this inference, a research is planned to examine the literature on sports entrepreneurship, and in this research, it is aimed to provide an overview of sports entrepreneurship with bibliometric analysis technique, to draw attention to the importance of the subject and to generate ideas for further research. In this context, although studies such as Şeşen and Basım (2012), Karabulut and Doğan (2019), Tükel et al. (2020), Şahin et al. (2021), Öner et al. (2023) have been conducted in the field of entrepreneurship in sports in the national literature, it has been determined that there is no comprehensive bibliometric analysis research focused on the concept of sports entrepreneurship in the national literature. On the other hand, there are few studies on entrepreneurship in sport in the international literature, including, Escamilla-Fajardo et al. (2020), González-Serrano et al. (2020b), González-Serrano et al. (2020a), Pellegrini et al. (2020), Cardella et al. (2021), Lara-Bocanegra et al. (2022), Hammerschmidt et al. (2023), Sánchez Franco et al. (2023). This result shows that the number of studies in the international literature is limited. Therefore, this research, which aims to provide a general perspective on sports entrepreneurship, is considered to be important in terms of revealing its difference and originality from the national and international literature both by not limiting the scans such as language, genre, theme, Web of Science (WoS) category, unlike the existing literature, and by analysing the data obtained in terms of bibliometric analysis in 7 titles and 32 parameters, including advanced search, cited references, co-author analysis, common word analysis, citation analysis, bibliometric matching analysis, and co-citation analysis.

Methods

It was deemed appropriate to use the bibliometric analysis technique as a method to determine the bibliometric profile of the researches published by examining the sport entrepreneurship literature in the WoS database. According to De Bellis (2009), bibliometric analysis is a scientific as well as computer-aided analysis technique that can identify the underlying research or authors and their relationships, covering all publications related to a particular topic or field (Han et al., 2020, p. 2). In this context, TS= Topic and SO= Publication titles options were preferred in the advanced search section. On 04.03.2024, 494 publications were reached in each query by making an online query to the publications containing the expression of sports entrepreneurship in the title, abstract and author keywords and SO=Publication titles as described below without any time restriction.

- TS=(«sport* and entrepreneurship» or «entrepreneurship in sport*» or «sport* entrepreneurship» or «entrepreneurship and «sport*»»),

- TS=(sport* and entrepreneurship or entrepreneurship in sport* or sport* entrepreneurship)

- (((((TS=(sport*)) and TS=(entrepreneurship)) or TS=(entrepreneurship in sport*)) or TS=(sport* entrepreneurship)) or TS=(entrepreneurship)) and TS=(Sport*))
- TS=(«sport* and entrepreneurship» or «entrepreneurship in sport*» or «sport* entrepreneurship» or «entrepreneurship» and «Sport*») or SO =(«sport* and entrepreneurship» or «entrepreneurship in sport*» or «sport* entrepreneurship» or «entrepreneurship» and «Sport*»)
- TS= (entrepreneurship in sport* or sport* entrepreneurship) or SO=(sport* and entrepreneurship)
- TS= (entrepreneurship in sport* or sport* entrepreneurship)
- TS=(sport* entrepreneurship)
- TS=(sport* and entrepreneurship)

Graphics, Sankey diagram, VOSviewer, MapChart and Wordclouds programs were used to visualise a total of 494 publications obtained after screening. Figure 1 shows the 7 headings and 32 parameters for which answers were sought in the research

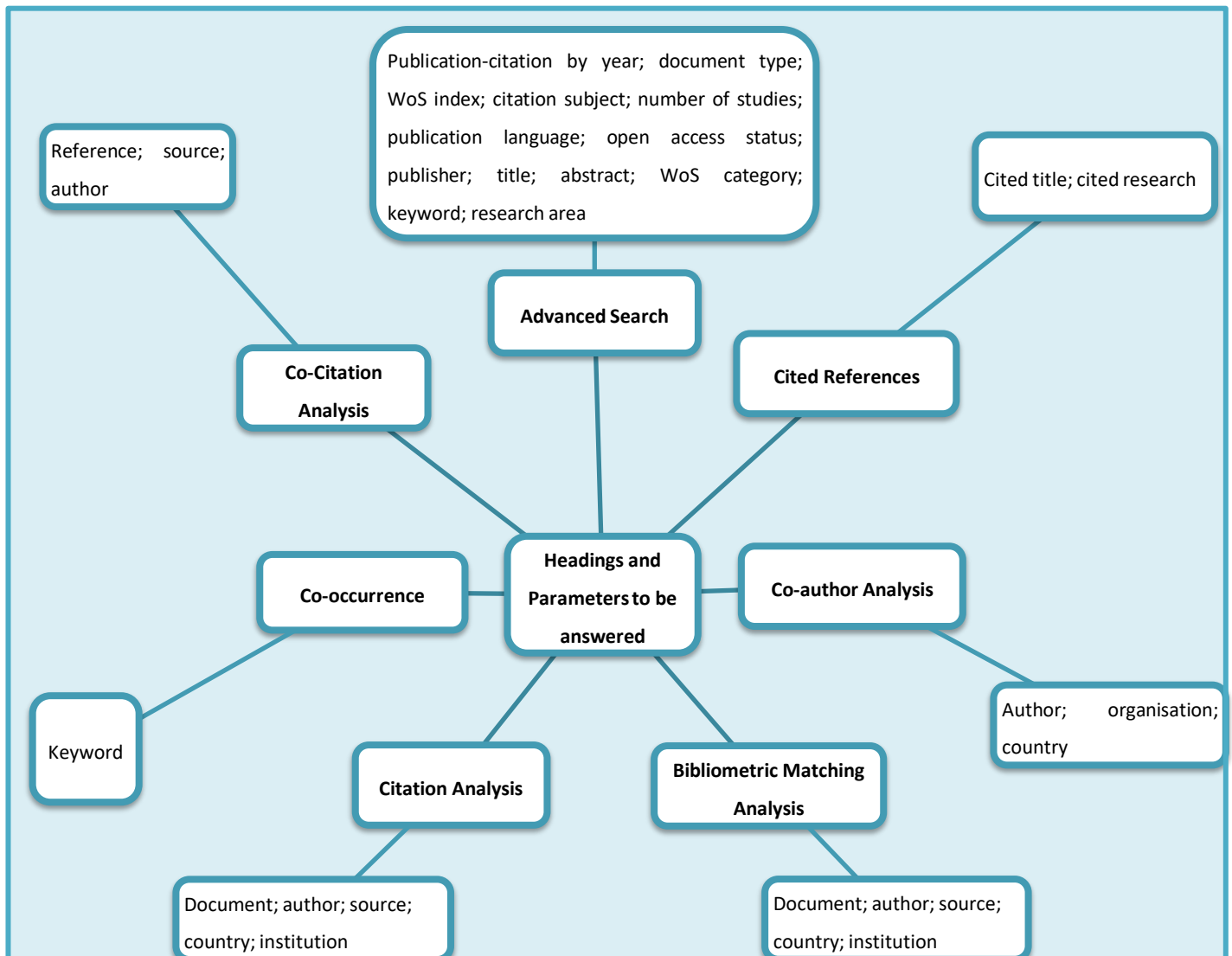


Figure 1. Topics and Parameters to be Answered in the Research

Results

This section presents the results from advanced search, cited references, co-author analysis, common word analysis, citation analysis, bibliometric matching analysis and co-citation analysis.

Results from the advanced search

The title, keyword, abstract, research area and WoS category of the publications related to sports entrepreneurship in the WoS database are visualised in the word cloud and their distribution according to publication-citations, document types, WoS index, citation topics, science network categories, publication language, open access status and publishers are given in Figure 2 and Figure 3.



Figure 2. Distribution of Sport Entrepreneurship Research by Number and Word Clouds

When the word cloud in Figure 2 is analyzed, it is seen that the words “sports”, “entrepreneurship”, “management”, “business”, “innovation”, “education”, “social”, “development”, “society”, “economy” and “technology” are mostly used in the studies. It can be said that these results are in line with the results of Hammerschmidt et al. (2023). This result shows that sport entrepreneurship research titles in the WoS database are in parallel with keywords, abstract, research area and WoS category.

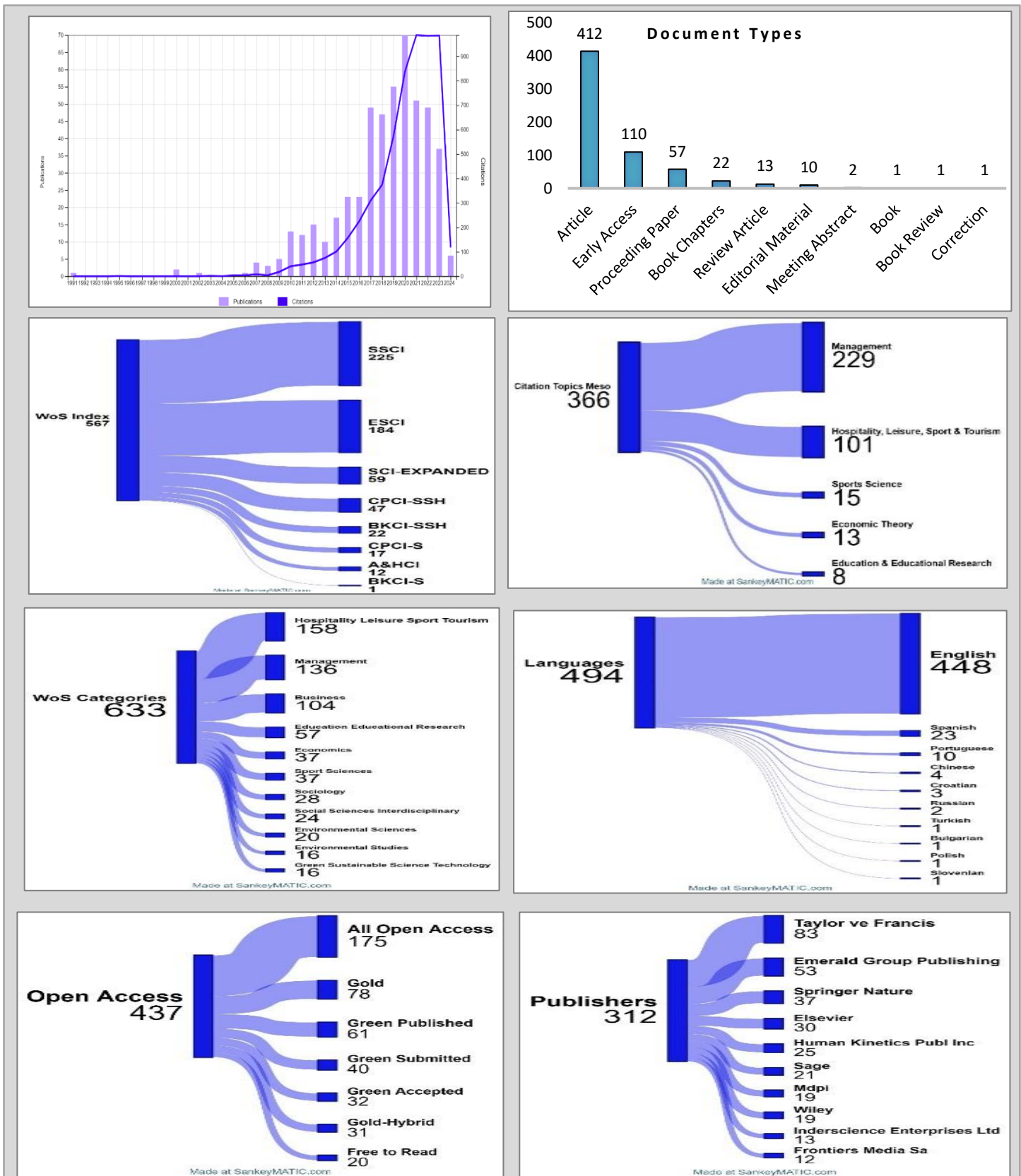


Figure 3. Distribution of Sports Entrepreneurship Research by Key Variables

When the publication-citation distribution by years is examined in the data in Figure 3; it is seen that the highest number of publications was made in 2020 (70 publications), followed by 2019 (55 publications), 2021 (51 publications), 2017 (49 publications), 2022 (49 publications), 2018 (47 publications) and 2023 (37 publications), respectively. It is noteworthy that

the highest number of citations was made in 2021 (986 citations), followed by 2023 (984 citations), 2022 (983 citations), 2020 (837 citations), 2019 (573 citations), 2018 (374 citations) and 2017 (310 citations). Although the first research on sports entrepreneurship was conducted in 1991 (1 publication-0 citations), the most publications were made in 2020 (70 publications-837 citations) and the most citations were made in 2021 (51 publications-986 citations). However, it is noteworthy that although there were no research and citations on sports entrepreneurship in 1992-1999, 2001 and 2004, there were no research and citations in 2003 (0 publications-2 citations) and 2005 (0 publications-5 citations). This means that researches conducted in 1991, 2000 and 2002 were cited in 2003 and 2005. When the distribution of the researches according to document types is analyzed; it is seen that most of the researches are published in the type of "article (410 publications)" followed by "early access (110 publications)", "proceeding paper (57 publications)" and "book chapters (22 publications)" respectively. When the studies were analyzed according to WoS index, it was determined that the highest number of studies were published in SSCI (225 publications), followed by ESCI (184 publications), SCI-EXPANDED (59 publications), CPCI-SSH (47 publications). A total of 494 studies were indexed in 567 indexes. This reveals that the studies were indexed in more than 1 index. Examples of citation topics in the order of most to least are as follows; "management (229 publications)", "hospitality, leisure, sport & tourism (101 publications)", "sports science (13 publications)", "economic theory (13 publications)", "education & educational research (8 publications)". When the categories of science networks are analyzed, it is seen that the highest number of studies were published in "hospitality leisure sport tourism (158 publications)" followed by "management (136 publications)" and "business (104 publications)". It was revealed that the publications in which a total of 494 studies were published were prepared in more than 1 science network categories. This result reveals that the topics of sport entrepreneurship citations in the WoS database are in line with the science network categories and that sport entrepreneurship is researched in the interdisciplinary field. When the studies are analyzed according to the language of publication; it is seen that the most studies were published in English (448 publications), followed by Spanish (23 publications) and Portuguese (10 publications), respectively. It can be said that this result is in parallel with the fact that the publication language of WoS is English. It was determined that the open access status was All Open Access with 175 publications, followed by Gold with 78 publications and Green Published with 61 publications. When the publishers of the researches are analyzed, it is seen that the highest number of research publishers is Taylor&Francis (83 publications), followed by Emerald Group Publishing (53 publications); Springer Nature (37 publications); Elsevier (30 publications).

Results from the cited references section

The results (cited title and cited work) of the top 10 cited research titles related to sport entrepreneurship in the WoS database are given in Table 1.

Table 1
Top 10 Cited Titles and Cited Works on Sports Entrepreneurship

	Cited Author	Cited Work	Title	Year	Citing Articles
Cited Title	Hall, C. M.	The Sociological Review	Urban entrepreneurship, corporate interests and sports mega-events: The thin policies of competitiveness within the hard outcomes of neoliberalism	2006	254
	Ratten, V.	International Entrepreneurship and Management Journal	Sport-based entrepreneurship: towards a new theory of entrepreneurship and sport management	2011	139
	Hayhurst, L. M. C.	Gender, Place & Culture	The 'Girl Effect' and martial arts: Social entrepreneurship and sport, gender and development in Uganda	2014	94
	Ratten, V.	International Journal of Entrepreneurial Behavior & Research	Coronavirus disease (COVID-19) and sport entrepreneurship	2020	74
	Ratten, V.	Journal of Management & Organization	Developing a theory of sport-based entrepreneurship	2010	70
	González-Serrano, Jones, P.; Llanos-Contrera, O.	Sport in Society	An overview of sport entrepreneurship field: a bibliometric analysis of the articles published in the Web of Science	2019	67

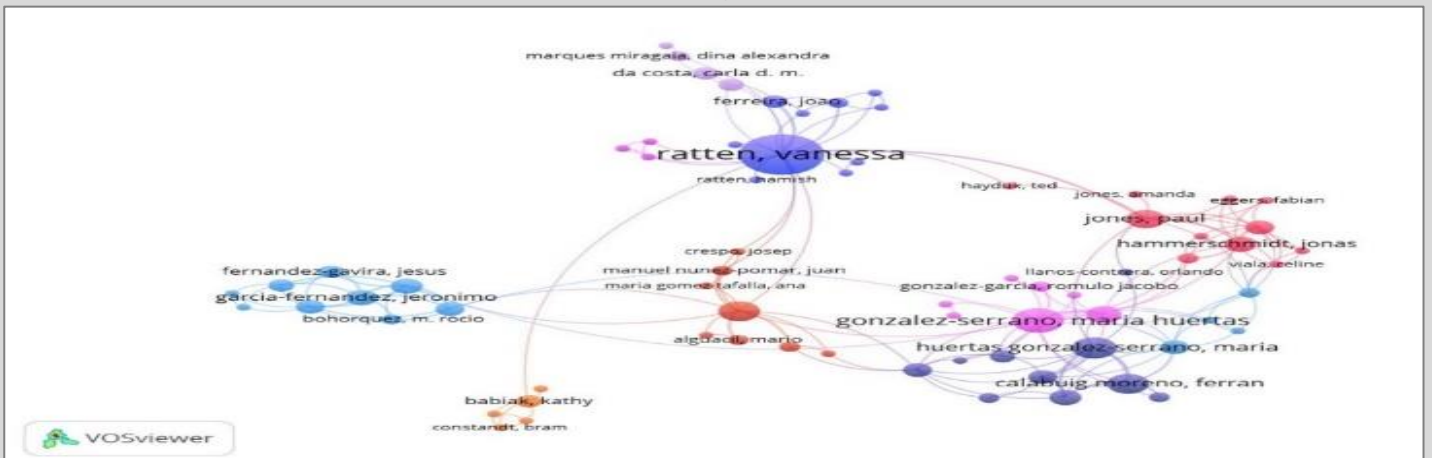
	Ratten, V.	International Journal of Entrepreneurial Venturing	Sport entrepreneurship: challenges and directions for future research	2012	55
	Bjärsholm, D.	Journal Of Sport Management	Sport and social entrepreneurship: A review of a concept in progress	2017	50
	Hammerschmidt, J.; Durst, S.; Kraus, S.; Puumalainen, K.	Technological Forecasting and Social Change	Professional football clubs and empirical evidence from the COVID-19 crisis: Time for sport entrepreneurship?	2021	47
	Miragaia, D.A.M.; Ferreira, J.; Ratten, V.	International Journal of Sport Policy And Politics	Corporate social responsibility and social entrepreneurship: drivers of sports sponsorship policy	2017	45
Cited Work	Ratten, V.	Sport Entrepreneursh	The future for sport entrepreneurship	2018	5
	Ratten, V.	Sport Entrepreneurship: An Economic, Social and Sustainability Perspective	Sport data analytics and social media: A process of digital transformation	2020	2
	Ratten, V.	Sport Startups: New Advances in Entrepreneurship	Digital Transformation in Sport and Social Media	2020	2
	Ratten, V.	Sport Entrepreneurship	Sport entrepreneurship education and policy	2018	2
	Porter, Dilwyn	Sport And Entrepreneurship	Opportunistic, parasitic, strategic, symbiotic: Entrepreneurship and the business of sport	2020	1
	Ratten, V.; Nanere, M.	Sport Entrepreneursh	Sport Entrepreneurship and Entrepreneurial Ecosystems	2020	1
	Ratten, V.; Thukral, E.	Sport Entrepreneursh	Sport entrepreneurship education	2020	1
	Ratten, V.; Thukral, E.	Sport Entrepreneursh	Sport entrepreneurship education	2020	1
	Ratten, V.	Sport Startups: New Advances in Entrepreneurship	Accelerators as knowledge providers	2020	1
	Ratten, V.	Sport Startups: New Advances in Entrepreneurship	Football ecosystems and innovation	2020	1

When Table 1 is examined, it is seen that the most cited author is Hall, C.M. and Ratten, V., and when the cited research is examined, it is seen that the most cited author is Ratten, V. again.

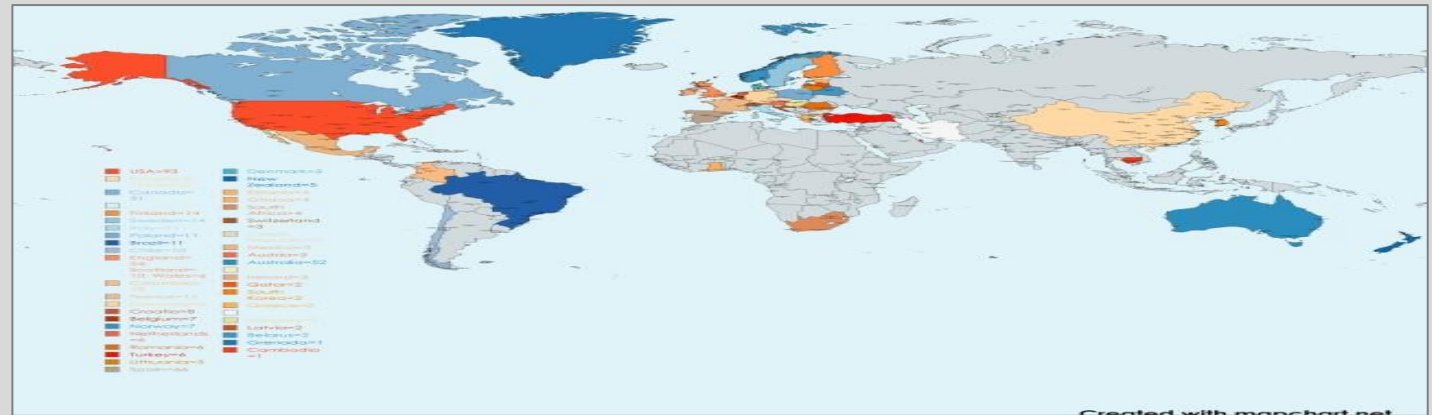
Co-author analysis

In this section, a co-author network map was created according to authors, institutions and countries as shown in Figure 4.

Co-authorship/Authors



Co-authorship/Organizations



Co-authorship/Countries

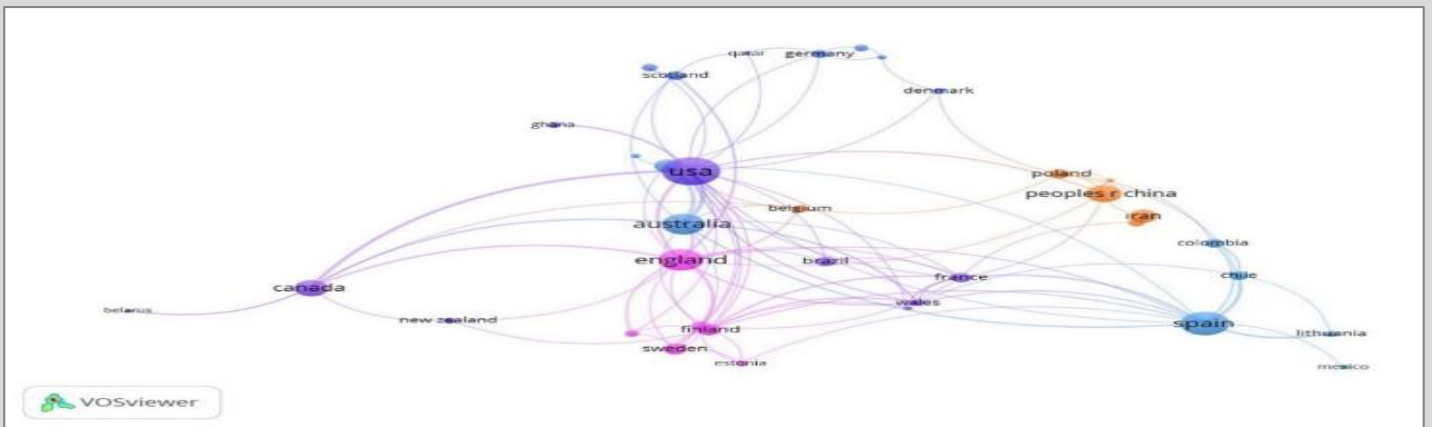


Figure 4. Coauthor Network Map of Sports Entrepreneurship

In order to create a map of the co-author network in the field of sports entrepreneurship as shown in Figure 4, the minimum number of articles was determined as 1 and the minimum number of citations as 5 based on Gürel (2022) research. This helped both to eliminate authors with few citations and to identify the social connections of authors who work together and are pioneers in their field. In this context, the co-author network map consists of 71 nodes, 10 clusters, 172 links and 228 total link strengths. According to the total link strength values, the most influential author collaboration is Ratten V. (33 publications-852 citations-26 total link strength), followed by Gonzalez-Serrano M. H. (a) (12 publications-78 citations-26 total link strength), Gonzalez-Serrano M. H. (b) (9 publications-128 citations-18 total link strength), Grimaldi-Puyana, M. (5 publications-21 citations-17 total link strength), Jones P. (7 publications-225 citations-16 total link strength). Ratten V. (33 publications-852 citations) was the co-author who conducted the most research, followed by Gonzalez-Serrano M.H.a (12 publications-78 citations); Gonzalez-Serrano M. H.(b) (9 publications-128 citations), Escamilla-Fajardo P. (8 publications- 69 citations), Calabuig Moreno F. (8 publications- 64 citations).

In order to create a map of the co-author network according to the institutions to which sport entrepreneurship authors are affiliated, the minimum number of articles was determined as 2 based on Koç (2023) research. In this context, the co-author network map according to institutions consists of 73 nodes, 12 clusters, 112 links and 148 total link strengths. According to the total link strength values, the most effective institutional co-author collaboration is Univ Valencia (40 publications-371 citations-332 total link strength), followed by La Trobe Univ (24 publications-433 citations-11 total link strength), Louisiana State Univ (9 publications-223 citations-10 total link strength), Swansea Univ (5 publications-153 citations-9 total link strength), Texas Tech Univ (7 publications-105 citations-9 total link strength), Univ Catolica Santisima Concepcion (6 publications- 83 citations-9 total link strength), Univ Stirling (7 publications-105 citations-9 total link strength). Univ Valencia (40 publications-371 citations), followed by La Trobe Univ (24 publications-433 citations), Univ Beira Interior (14 publications-260 citations), Louisiana State Univ (9 publications-223 citations), Univ Seville (9 publications-35 citations).

Using the MaPChart program, a map of the distribution of sports entrepreneurship research by country was created. In this context, it is seen that the countries with the highest number of researches are USA (93 publications), followed by Spain (66 publications), England (54 publications), Australia (52 publications). In order to create a map of the co-author network according to the countries where sport entrepreneurship authors are affiliated, the minimum number of articles was determined as 1 and the minimum number of citations as 5 based on Gürel (2022) research, which helped to identify the countries and country collaborations that play an active role in sport entrepreneurship. In this context, the co-author network map by country consists of 37 nodes, 8 clusters, 99 links and 171 total link strengths. According to the total linking power values, the most effective country co-author collaboration is USA (93 publications-1423 citations- 39 total linking power), followed by England (54 publications-686 citations-34 total linking power), Australia (52 publications-919 citations-32 total linking power), Spain (66 publications- 496 citations-30 total linking power), Finland (14 publications-410 citations-20 total linking power), France (11 publications- 556 citations-18 total linking power), Canada (31 publications-815 citations-17 total linking power). It was determined that USA (93 publications- 1423 citations) was the country with the highest number of co-authored studies, followed by Spain (66 publications- 496 citations), England (54 publications- 686 citations), Australia (52 publications- 919 citations), China (33 publications-78 citations), Canada (31 publications- 815 citations), Iran (22 publications-30 citations). All these results show a close parallelism with the total link strength values.

Co-occurrence keyword analysis

In this section, a keyword network map of sport entrepreneurship research was created as in Figure 5.

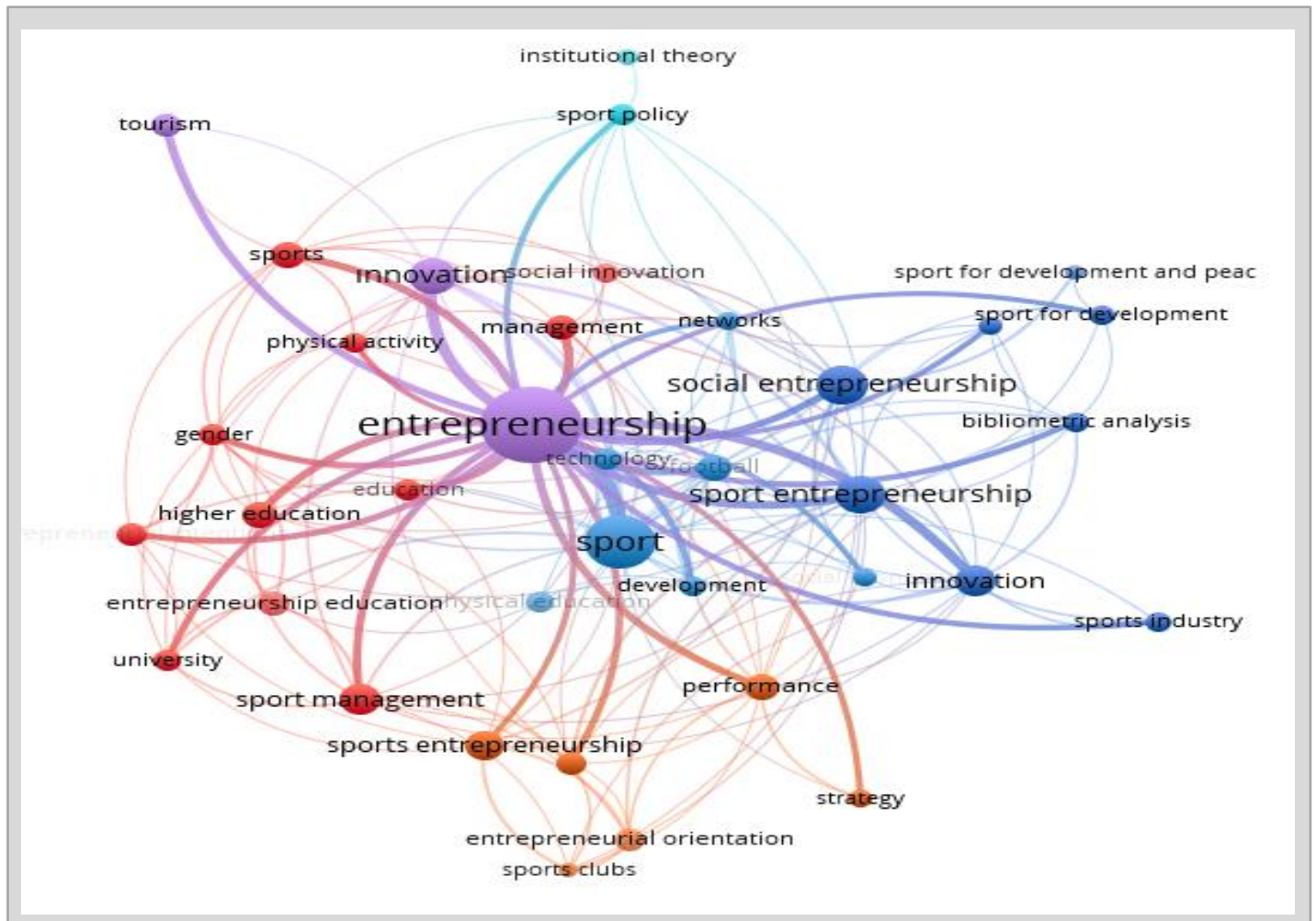


Figure 5. *Keyword Network Map of Sports Entrepreneurship*

In order to create a map of the keyword network of sport entrepreneurship research in Figure 5, the minimum number of words was determined as 5 based on Gürel (2022) research, which helped to determine the relationship status of the words in sport entrepreneurship with each other and to identify the links of frequently used keywords. In this context, the keyword network map consists of 37 nodes, 6 clusters, 172 links and 339 total link strengths. According to the total link strength values, it was seen that the most frequently used keyword was “entrepreneurship (116 publications-121 total link strength)”. It is seen that the most related keywords related to sport entrepreneurship are “entrepreneurship (116 publications)”, “sport (66 publications)”, “sport entrepreneurship (42 publications)” and “social entrepreneurship (29 publications)” respectively. This is in close parallel with the total link strength values.

Citation analysis

In this section, a citation network map of document, author, source, country and institution was created as shown in Figure 6.

In this context, in order to create a map of the author, source, country and institution citation network of sport entrepreneurship researches, the minimum number of articles was determined as 1 and the minimum number of citations as 5 based on Gürel (2022) research, and the minimum number of citations was determined as 2 to create a map of the document citation network.

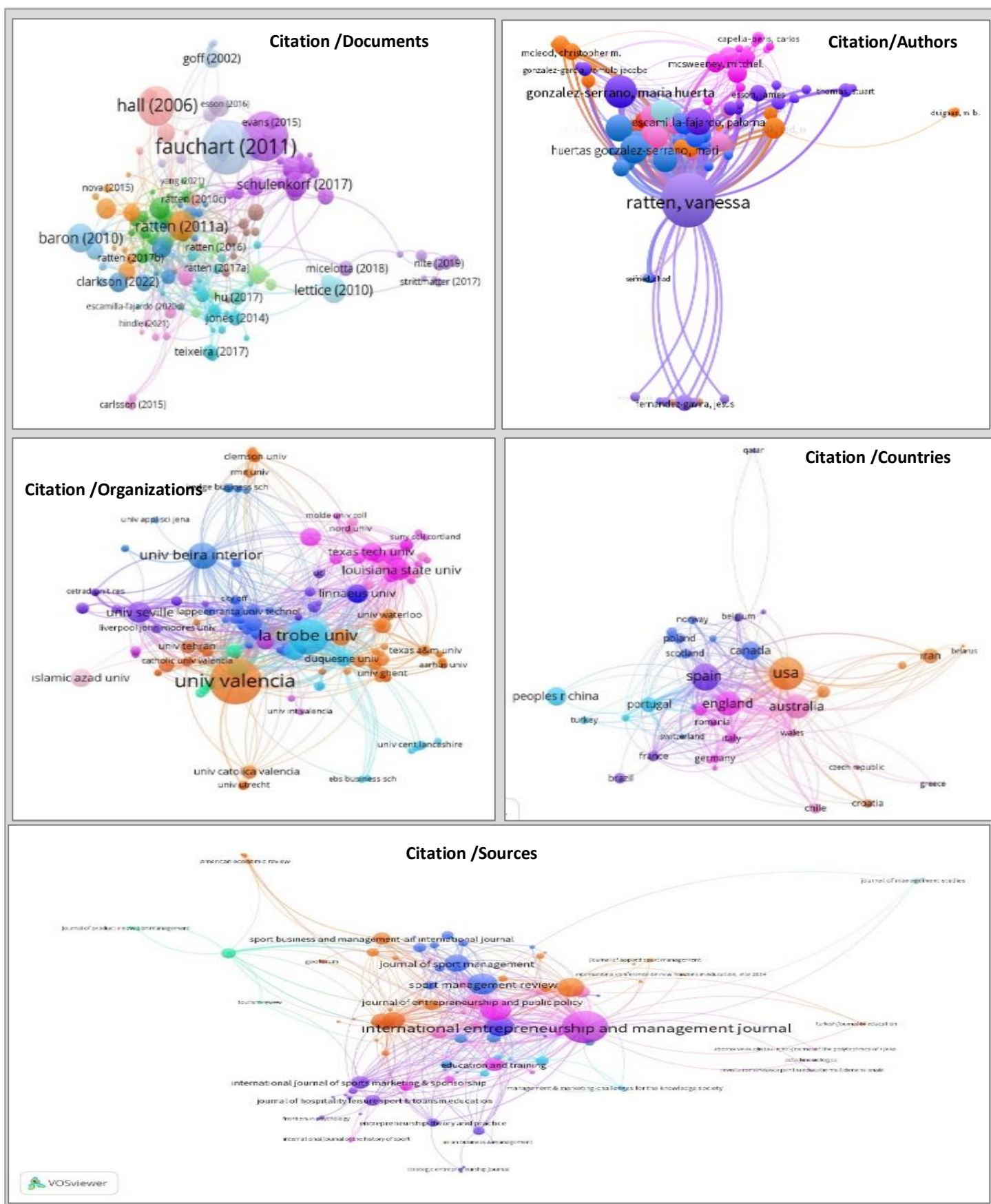


Figure 6. Citation Analysis Network Map of Sport Entrepreneurship

The document citation network map of sport entrepreneurship research in Figure 6 consists of 147 nodes, 15 clusters and 501 links. It is seen that the most document citation network related to sport entrepreneurship is realized by Fauchart-2011 (466 citations-1 link), followed by Kidd -2008 (392 citations-11 links), Hall-2006 (255 citations-9 links), Ratten-2011a (139 citations-55 links).

The author citation network map of sport entrepreneurship research consists of 271 nodes, 22 clusters, 2242 links and 4011 total link strength. It is also understood that the most influential authors in the field are Ratten, V. with 852 citations, followed by Fauchart, E. and Gruber, M. with 466 citations each. The institutional attribution network map of sport entrepreneurship research consists of 180 nodes, 18 clusters, 1230 links and 2254 total link strengths. According to the number of publications related to sports entrepreneurship, it was observed that the highest institutional citation network was realized by Univ Valencia (40 publications-371 citations-385 total link strength), followed by La Trobe Univ (24 publications-433 citations-342 total link strength) and Univ Beira Interior (14 publications-260 citations-141 total link strength).

This result is in close parallelism with the total link strength values. It was observed that the highest number of institutional citation networks related to sport entrepreneurship was realized by Conservatoire Natl Arts&Metiers; Ecole Polytech Fed Lausanne; Sch Business (466 citations-1 publication-3 total link strength each), followed by La Trobe Univ (433 citations-24 publications-342 total link strength) and Univ Toronto (392 citations-1 publication-20 total link strength).

The resource attribution network map of sport entrepreneurship research consists of 73 nodes, 16 clusters, 364 links and 764 total link strengths. According to the number of publications related to sports entrepreneurship, it is seen that the highest source citation network is realized by "Sport in Society (17 publications-545 citations-63 total link strength)", followed by "Sustainability (16 publications-142 citations-63 total link strength)" and "International Entrepreneurship and Management Journal (16 publications-460 citations-232 total link strength)".

It is seen that "Sport in Society (545 citations-17 publications-63 total link strength)" has the highest number of source citation network related to sport entrepreneurship, followed by "Academy of Management Journal (468 citations-2 publications-2 total link strength)" and International "Entrepreneurship and Management Journal (460 citations-16 publications-209 total link strength)".

The country citation network map of sport entrepreneurship research consists of 39 nodes, 9 clusters, 257 links and 1643 total link strength. However, it is seen that the most effective country collaboration is USA with 1423 citations, followed by Australia with 916 citations and Canada with 815 citations. In this context, it has been determined that all these results show a close parallelism according to the total link strength values and help to identify original researchers and publications in the field of sports entrepreneurship.

Bibliographic coupling analysis

In this section, a density map was created according to bibliometric mapping of documents, sources, authors, institutions and countries as in Figure 7.

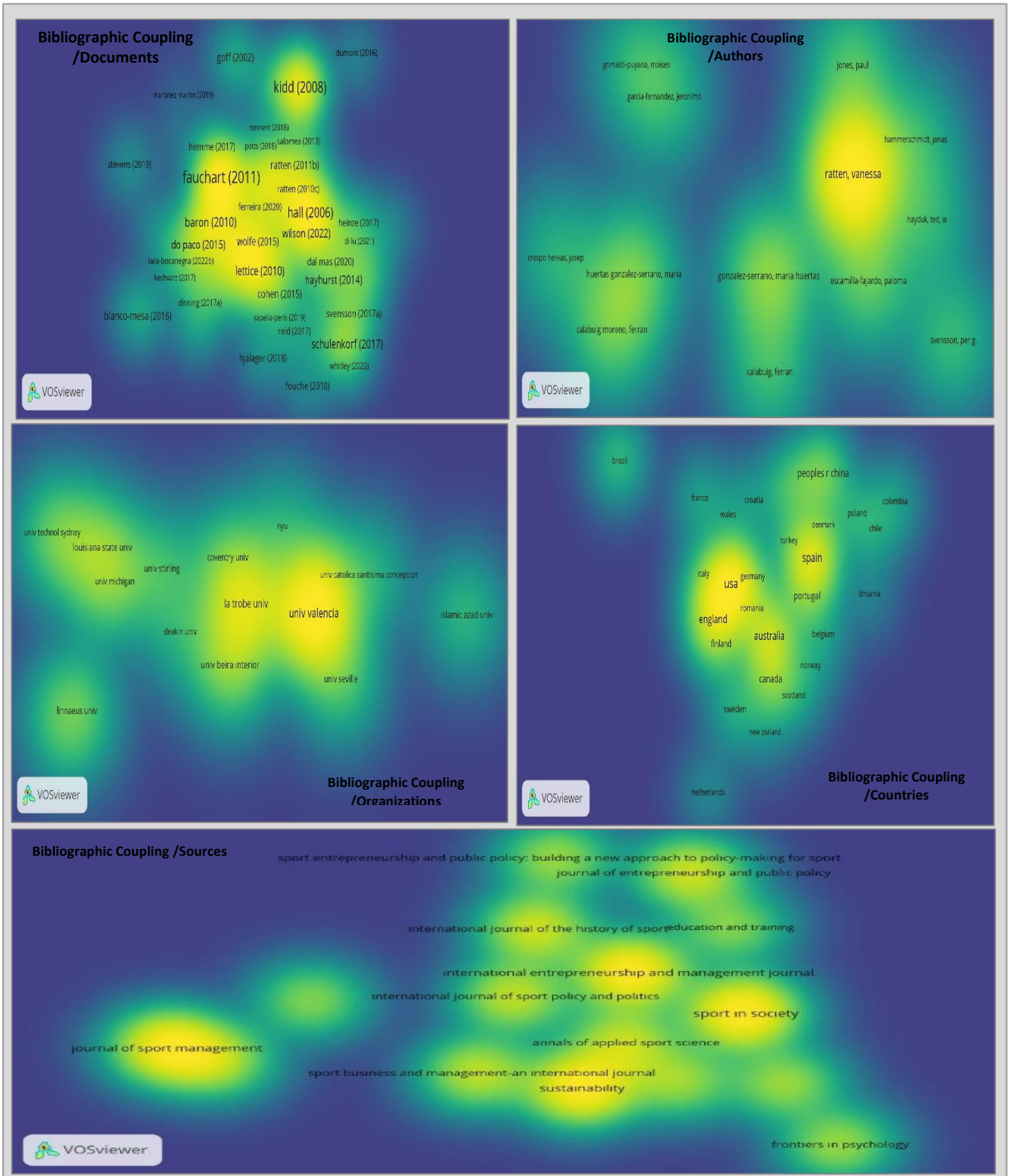


Figure 7. Density Map of Sport Entrepreneurship According to Bibliometric Coupling

In order to create a density map according to the bibliometric matching of the documents related to sports entrepreneurship in Figure 7, the minimum number of citations was set as 5 based on Arslan (2022) research, and the minimum number of articles was set as 5 and the minimum number of citations was set as 1 as in Bozdemir and Çivi (2019) research to create a density map according to the bibliometric matching of authors, sources, countries and institutions. In this context, in the research on sports entrepreneurship, Fauchart-2011, Kidd-2008, Hall-2006, Ratten -2011a, Baron-2010, Lettice-2010 and Schulenkorf-2017 documents on the basis of documents, Ratten V., Gonzalez- Serrano M. H., Calabuing-Moreno F. and Escamilla-Fajardo, P. as authors, Univ Valencia, La Trobe Univ, Univ Seville and Louisiana State Univ as institutions, USA, Spain, England, Australia, China and Canada as countries, and “Sport in Society” and “International Entrepreneurship and Management Journal, Sustainability” as sources.

Co-citation analysis

In this section, a co-citation network map of the cited references, sources and authors was created as shown in Figure 8.

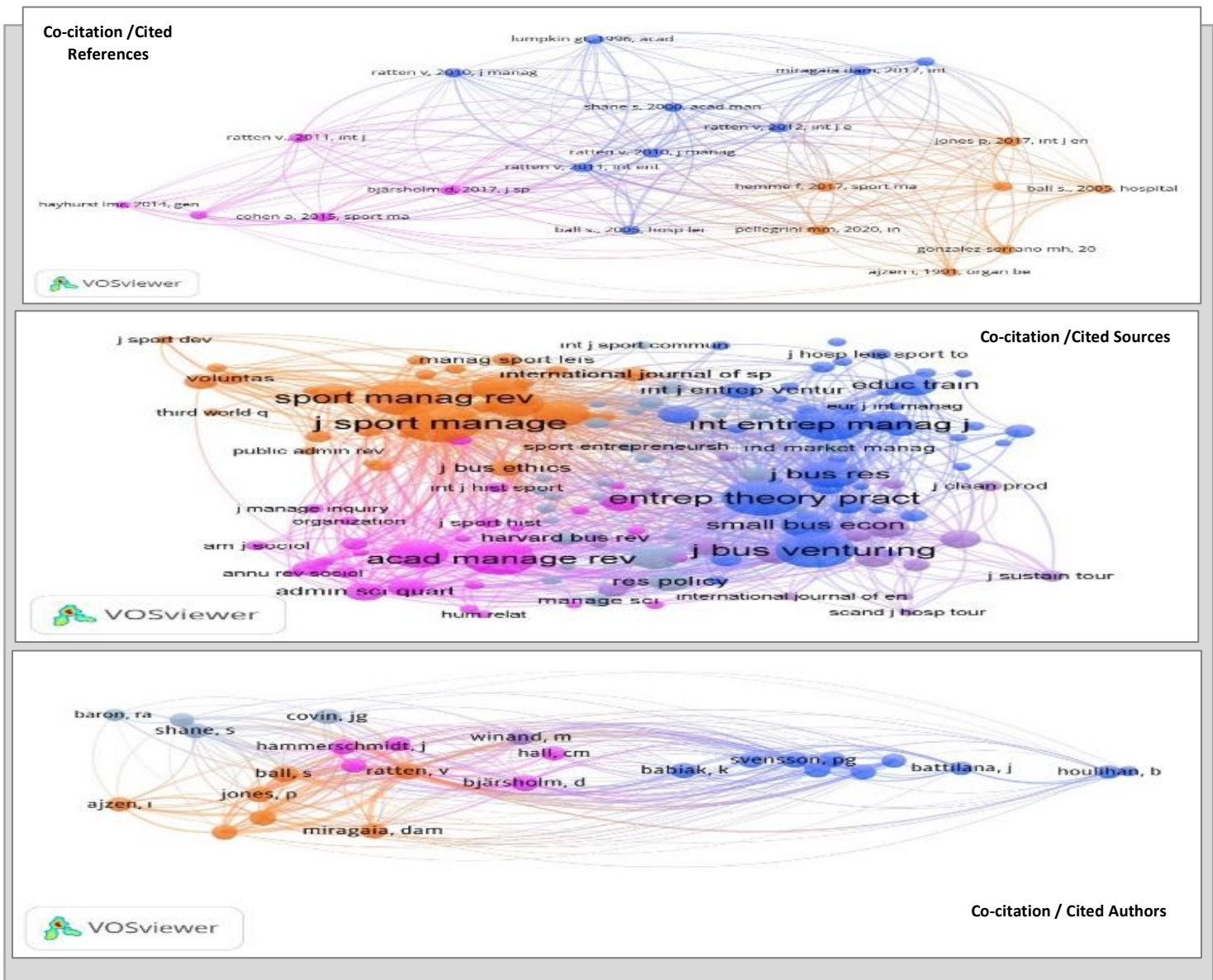


Figure 8. Co-Citation Analysis Network Map of Sports Entrepreneurship

In order to create a map of the co-citation network of the references cited to sport entrepreneurship research in Figure 8, the minimum number of citations was determined as 20, as in Bozdemir and Çivi (2019). In this context, the co-citation network map of the references consists of 21 nodes, 3 clusters, 189 links and 1207 total link strength. It is seen that Ratten

V. 2011 (96 citations-291 total link strength) is the most cited reference, followed by Ratten V. 2010 (57 citations-236 total link strength) and Ratten V. 2012 (47 citations-184 total link strength).

In order to create a map of the co-citation network of sources cited in sport entrepreneurship research, the minimum number of citations was set as 20, similar to Bozdemir and Çivi (2019). In this context, the common attribution network map of the resources consists of 155 nodes, 5 clusters, 9252 links and 176463 total link strength. It is understood that Journal of Sport Management (444 citations-16415 total link strength) is the most frequently cited source of co-citation, followed by Entrepreneurship Theory and Practice (388 citations-13989 total link strength), Journal of Business Venturing (379 citations-14675 total link strength) and Sport Management Review (371 citations-14646 total link strength).

In order to create a map of the co-citation network of authors cited in sport entrepreneurship research, the minimum number of citations was set as 30 as in Palaz et al. (2023). In this context, the authors' co-citation network map consists of 27 nodes, 5 clusters, 267 links and 6490 total link strength. The most cited authors in co-citations were Ratten V. (595 citations-3090 total link strength), followed by Svensson, P. (90 citations-899 total link strength) and Gonzalez-Serrano, M. H. (75 citations-834 total link strength). All these results were found to be in close parallel with the total connection power values.

Discussion

When all these situations are evaluated, it is seen that Gonzalez- Serrano M. H. and Ratten V. are pioneering researchers in the field of sports entrepreneurship and have significantly influenced the development of sports entrepreneurship. In parallel with this, it was observed that Univ Valencia and La Trobe Univ. stood out the most in the institutional analysis conducted within the scope of the research. This is thought to be due to the fact that Gonzalez- Serrano M. H. and Ratten V. are working at Univ Valencia and La Trobe Univ. However, it was noteworthy that the publication-citation distribution of the analyzed studies did not show an equal distribution. This shows that since there is not enough research in the field of sport entrepreneurship, existing research in the literature is cited more. However, the fact that the studies were mostly published in SSCI index, and that the title, keywords, abstract, research area, citation topics and science network categories of the studies were mostly focused on categories such as “management”, “hospitality, leisure, sport & tourism” revealed that sports entrepreneurship is researched in the field of social sciences. This situation has once again revealed the need to provide an interdisciplinary environment in order to conduct research that will fill the gap in the sport entrepreneurship literature. Within the scope of the research, it has been determined that sport entrepreneurship has been addressed in a limited number of studies. Within the scope of this research, in parallel with the literature, it was found that there is not enough research on sports entrepreneurship in the national and international literature and that this rate is at a low level. It is thought that this research will contribute to generating ideas for further research by drawing attention to the importance of the subject. Within the scope of this research, in which the relevant literature on bibliometric analysis of sports entrepreneurship was analyzed through a single database, data were analyzed through a single database in parallel with the literature. In this context, the data obtained from the WoS database constitute the limitation of this research. It has been determined that the relevant literature that performs bibliometric analysis of sport entrepreneurship has many limitations in terms of screening (language, type, theme, WoS category, etc.). Within the scope of this study, unlike the literature, there were no limitations in terms of language, genre, theme and WoS category. This contributed to the analysis of more data compared to the relevant literature. In this research, where bibliometric network mapping of sports entrepreneurship was carried out, 32 concepts were sought for answers and these concepts were presented by using graphics, Sankey diagram, VOSviewer, MapChart and Wordclouds programs, which contributed to make this research different from the relevant literature.

Conclusion and Recommendations

Sports entrepreneurship is the process of organizing sports resources to produce products, develop solutions and present them to people in order to meet people's sports needs and find solutions to sports-related problems. Therefore, sports entrepreneurship is the sports dimension of entrepreneurship and it is seen that research on sports entrepreneurship is increasing day by day. The aim of this research is to provide an overview of sport entrepreneurship, to draw attention to the importance of the concept and to generate ideas for further research. In this context, the conclusions reached based on the research results are as follows:

In the international literature review, few studies on bibliometric analysis of sport entrepreneurship were found. Some of

them (Escamilla-Fajardo et al., 2020; González-Serrano et al., 2020; González-Serrano et al., 2020a; Lara-Bocanegra et al. 2022, Hammerschmidt et al. 2023) WoS, while the others (Pellegrini et al., 2020; Cardella et al., 2021; Sánchez Franco et al., 2023) were prepared with data obtained from the Scopus database. In this context, it was determined that the topics of the researches conducted using the data obtained from the WoS database were “sustainable entrepreneurship and innovation in sports”, “entrepreneurship and innovation in football”, “entrepreneurship and intrapreneurship in sports” and “entrepreneurship, innovation and creativity in sports management”. It was observed that these studies were scanned with the keywords “sustainable, green, entrepreneurial, innovative, sport”, “football, innovation, entrepreneur”, “sport, innovation, creativity, entrepreneur”. In the researches conducted using the data obtained from the Scopus database, it was seen that the focus was on identifying popular topics in the fields of “sport and entrepreneurship”, “sport entrepreneurship”, “sport management”. It was observed that these studies were searched with the keywords “initiative” and “sport”. However, it has been determined that the studies conducted in WoS and Scopus databases have some limitations in terms of language, index, WoS categories, theme, and document type. It was determined that the studies that carried out bibliometric analysis on sports entrepreneurship were prepared between 2019-2023 in WoS and between 2020-2023 in Scopus. This result reveals that bibliometric analyses on sports entrepreneurship have become a matter of curiosity since 2019.

Within the scope of the research, bibliometric network mapping of 494 publications on sports entrepreneurship in the WoS database was carried out by searching for answers to 32 parameters. According to the results obtained from the advanced screening part, it was found that the first research on sports entrepreneurship was conducted in 1991. It was determined that the most publications on sports entrepreneurship were made in 2020 and the most citations were made in 2021. It is noteworthy that the number of citations has increased especially since 2009 and the number of publications has increased since 2017. This result revealed that the research on sports entrepreneurship in the international literature is linked to the fact that it started in 2019. At the same time, it was determined that the most research on sports entrepreneurship in the database was in the article category, the publications were indexed in the SSCI index, the publisher of the most research was Taylor & Francis, the most research was published in English, and the most open access status was All Open Access. This shows that there is a parallel between the fact that the language of publication of WoS is English and the published research is in English. At the same time, the fact that most of the research in the field of sports entrepreneurship is completely open access is an important factor that contributes to the current outlook in the literature. However, it was determined that the most cited topics and science network categories were “management” and “hospitality, entertainment, sports and tourism” in parallel with each other, and words such as “sports”, “entrepreneurship”, “management”, “business”, “innovation” were mostly used in the title, keyword, abstract, research area and WoS categories of the studies, It can be said that this result is in parallel with the results of Hammerschmidt et al. (2023). According to the results obtained from the cited references section, it was determined that the author of the most cited title related to sport entrepreneurship was Hall, C.M. and Ratten, V. The author of the most cited research was Ratten, V. According to the results obtained from the co-author analysis section, it was determined that the co-authors who conducted the most research were Ratten, V. The institutions that conducted the most research in co-authorship were Univ Valencia, and the country that conducted the most research in co-authorship was USA. According to the results obtained from the common word analysis part, it was concluded that the most related keywords related to sports entrepreneurship are “entrepreneurship”, “sport”, “sport entrepreneurship”, “social entrepreneurship”. It can be said that this result is in line with the results of Hammerschmidt et al. (2023). According to the results obtained from the citation analysis part, it was determined that the most document citation network related to sport entrepreneurship was realized by Fauchart E. 2011, the most influential authors were Ratten, V., the most institutional citation network was Univ Valencia, and the most resource citation network was realized by Sport in Society. At the same time, it was found that the most effective country collaboration in the country citation network of sport entrepreneurship research is USA. According to the results obtained from the Bibliographic Matching Analysis, it was determined that Fauchart-2011 document, Sport in Society source, Ratten V. author, Univ Valencia institution and USA country were intensely related. According to the results obtained from the co-citation analysis section, it was concluded that the most cited reference in co-citations was Ratten V. 2011, the most cited sources in co-citations were Journal of Sport Management and the most cited authors in co-citations were Ratten V.

All the results explained above have revealed the originality of this research in order to gain a general perspective on sports entrepreneurship. *As in Dertli and Dertli's (2023) research, this research once again reveals that the creation of interdisciplinary research environments has become more important than in previous periods. In future bibliometric studies on sport entrepreneurship, it is recommended that the data in Scopus and WoS databases should be handled together and*

multidisciplinary research should be carried out on the subject. As a separate suggestion, since most of the research on sports entrepreneurship is carried out in article type, it is important to carry out research in different types such as books and book chapters.

Etik Komite Onayı: Bu araştırma kapsamında elde edilen veriler WoS veri tabanından alınmış olup bu kapsamdaki verilerin etik kurul izni gerektirmemesi nedeniyle etik kurul onayı alınmamıştır.

Hakem Değerlendirmesi: Dış bağımsız.

Yazar Katkıları: Fikir- YE; Tasarım- YE; Denetleme- YE; Kaynaklar- YE ve ŞD; Veri Toplanması ve/veya İşlemesi ŞD; Analiz ve/ veya Yorum- ŞD; Literatür Taraması- YE ve ŞD; Yazıyı Yazan- YE ve ŞD; Eleştirel İnceleme- YE ve ŞD

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