

Research Network of Publications on Sports and Economics*

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Abstract

In recent years, sports have transcended being just an entertainment industry and have started to have a significant impact on the global economy. This transformation, along with the increase in the economic effects of sports, demonstrates the rapid rise in research conducted in the field of sports economics. The aim of this study is to examine the research network of publications related to sports and economics available in the Web of Science (WoS) database. In the study, bibliometric analysis is conducted using tools such as VOSviewer, Bibliometrix R and Sankey diagrams to identify authors, international collaborations, citation trends and thematic developments. The data was obtained from the WoS database in November 2024 and a total of 739 publications between 1971 and 2024 were analyzed. The first study on this topic was conducted in 1971 and since then, research in the field of sports economics has shown significant development. The findings reveal that sports economics research is increasingly becoming more interdisciplinary. It has been observed that studies in this field interact with various areas such as tourism, management and digital technology. The study highlights a noticeable shift toward new topics, such as virtual reality, digital fan engagement and sustainability. The integration of sports economics with communication technologies, particularly through metaverse platforms, presents new opportunities and challenges. The way data obtained from metaverse environments can be integrated into sports-related economic analyses stands out as a promising direction for future research. Future research could focus more on sports economics in developing countries. This study provides a comprehensive review by mapping the relationship between sports and economics over a span of several decades and offers an important reference for interdisciplinary research in this field.

Keywords: Bibliometrics, Economics, Sport economics, Web of science

Spor ve Ekonomi Üzerine Yapılan Yayınların Araştırma Ağı

Özet

Son yıllarda spor, sadece bir eğlence endüstrisi olmanın ötesine geçerek küresel ekonomi üzerinde önemli bir etki yaratmaktadır. Bu dönüşüm, sporun ekonomik etkilerindeki artışla birlikte, spor ekonomisi alanında yapılan araştırmaların hızla arttığını göstermektedir. Bu çalışmanın amacı, Web of Science (WoS) veritabanında yer alan spor ve ekonomi ile ilgili yayınların araştırma ağını incelemektir. Çalışmada, yazarlar, uluslararası işbirlikleri, alıntı eğilimleri ve tematik gelişmeleri belirlemek amacıyla VOSviewer, Bibliometrix R ve Sankey diyagramları gibi araçlar kullanılarak bibliyometrik analiz yapılmıştır. Veriler, 2024 yılı Kasım ayında WoS veritabanından alınmış olup, 1971-2024 yılları arasında toplamda 739 yayın analiz edilmiştir. Konuyla ilgili ilk çalışma ise 1971 yılında yapılmış olup, o günden bugüne kadar spor ekonomisi alanındaki araştırmalar önemli bir gelişim göstermiştir. Bulgular, spor ekonomisi araştırmalarının giderek daha fazla disiplinlerarası bir yapı kazandığını ortaya koymaktadır. Bu alandaki çalışmaların, turizm, yönetim ve dijital teknoloji gibi farklı alanlarla etkileşim içinde olduğu gözlemlenmiştir. Çalışma, sanal gerçeklik, dijital taraftar etkileşimi ve sürdürülebilirlik gibi yeni konulara doğru belirgin bir kayış olduğunu vurgulamaktadır. Spor ekonomisi ile iletişim teknolojilerinin birleşimi, özellikle metaverse platformları üzerinden, yeni fırsatlar ve zorluklar sunmaktadır. Metaverse ortamlarından elde edilen verilerin, sporla ilgili ekonomik analizlere nasıl entegre edilebileceği, gelecekteki araştırmalar için umut verici bir yön olarak öne çıkmaktadır. Gelecekteki araştırmalar, gelişmekte olan ülkelerde spor ekonomisine daha fazla odaklanabilir. Bu çalışma, spor ve ekonomi arasındaki ilişkiyi beş on yıllık bir zaman diliminde haritalayarak kapsamlı bir inceleme sunmakta ve bu alanda yapılacak disiplinlerarası araştırmalar için önemli bir referans sağlamaktadır.

Anahtar Kelimeler: Bibliyometri, Ekonomi, Spor ekonomisi, Web of science

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INTRODUCTION

Sports are activities in which physical and mental competition takes place within certain rules (Yılmaz, 2023a). It involves the development of technical, tactical, physical, physiological, mental and psychological elements (Yılmaz, 2023b; Yılmaz and Daşkesen, 2024). Sports economics, as an applied discipline, focuses on data driven decision making in areas such as financial planning, resource management and human resource development to enhance the efficiency of sports organizations (Ahat, 2024). Given this perspective, the sports economy has become a significant contributor to national economic growth, with increasing attention to the economic impact of international sports events hosted in countries like Turkey (Yılmaz, 2024). Sports economics not only analyzes the financial outcomes of sports activities but also constructs theoretical frameworks to improve organizational effectiveness (Kaya, 2018). In this context, it bridges the gap between the theoretical domains of economics and sports sciences by assessing regulatory outcomes and institutional impacts (Cerrahoğlu, 2016). The relationship between sports and economics represents a multidisciplinary field that is gaining importance. Sports has become a sector that provides far-reaching economic effects, beyond being just an activity where individuals demonstrate their physical and mental capacities. Sports economics stands out as an area that not only provides economic growth but also increases social welfare (Xudong, 2010). Mass media and digital platforms have expanded the economic potential of sports, especially football, by increasing audience reach and commercial revenues via broadcasting, sponsorships and digital interactions (Aydın & Kurudirek, 2025). Football's global popularity and commercialization have intensified the importance of players' psychological endurance alongside physical performance, influencing club success and economic returns (Çakıcı et al., 2023; Çankaya et al., 2020; Sabaha et al., 2022). Additionally, sports contribute to social and cultural development by reinforcing societal values within local and national strategies (Jedel and Antonowicz, 2018).

The increase in the economic impact of sports has led to a rapid increase in research in the field of sports economics. The analysis of the relationship between sports and economics has become an important area of research in terms of economic analysis and academic studies and this field has increasingly acquired an interdisciplinary (Andalibi et al., 2024; Dong, 2022; Indelicato, 2025; Karapidakis et al., 2022; Liu and Ren, 2024; Wang and Hall, 2025) structure. This study aims to examine the evolution of academic research in the field of sports economics and the upward trend in this field. This rapid development and interdisciplinary nature of sports economics has made biometric analyses an important tool for understanding current trends in this field. The term "bibliometrics" was first introduced by Alan Pritchard in 1969. Pritchard defined bibliometrics as the application of mathematical and statistical methods to the study of written communication processes in order to shed light on the development and reality of a discipline (Lawani, 1981). Pioneering bibliometric studies actually date back to the early 1900s. In 1917, Cole and Eales became one of the first researchers to conduct a bibliometric analysis of the current developments in the field by analyzing works on the history of comparative anatomy published between 1550 and 1860 (Okubo, 1997). Bibliometric studies, which are a frequently used method in the field of social sciences, aim to examine the relationships between published articles, authors and journals by conducting quantitative analysis of scientific literature (Zeren and Kaya, 2020). Several

bibliometric studies have examined the development of sports economics; however, most are limited by temporal or geographical scope and lack comprehensive integration between sport and economics. Núñez-Pomar et al. (2019) analyzed scientific output from 1993 to 2011, highlighting collaboration networks and the increasing presence of sports economics in academia. Pérez et al. (2024) investigated the positive economic effects of sport on growth in Colombia, focusing on job creation, investment attraction and local incentives. Virguez et al. (2024) emphasized the role of human talent management and strategic decision-making in promoting endogenous economic growth within the sports industry. Salgado-Barandela et al. (2017) traced the evolution of research on the economic impact of sport between 1984 and 2013, revealing an expanded scope that includes the management of events, facilities and franchises. Santos and García (2011) conducted a bibliometric analysis of sports economics research indexed in the SSCI from 1956 to 2009, confirming the field's rapid growth and increasing visibility in both specialized and general journals. These studies reveal the expanding and dynamic nature of sports economics; however, they are often sector-specific and managerial in focus, lacking a comprehensive bibliometric evaluation of academic production in the field. Moreover, most existing research lacks a global perspective and fails to fully map the thematic diversity, collaboration networks and intellectual structures within sports economics. Addressing these gaps, the present study provides a comprehensive and up to date bibliometric mapping that integrates various subfields, identifies key research trends and thematic clusters, thus contributing to a more detailed and holistic understanding of the discipline. The literature indicates that while interdisciplinary interactions in sports economics have increased, there is still a scarcity of bibliometric analyses specifically examining the relationship between sport and economics. This study fills that gap by analyzing academic publications from 1971 onward, focusing on research trends, collaboration networks and thematic concentrations, thereby enhancing academic insight into this rapidly evolving field. The interdisciplinary nature of the research, involving fields such as tourism, management and digital technology, highlights the growing impact of sports economics. However, questions remain regarding which dimensions of this growth have gained momentum, which topics have shown more development and what future expectations are. Although the current literature addresses various aspects of sports economics, most studies remain local or sector-specific and lack a global mapping of thematic diversity, collaboration networks and intellectual structures. In this context, bibliometric analyses offer valuable opportunities to identify general trends, key themes and collaboration networks within sports economics.

METHOD

Research Design

The main aim of this study is to comprehensively present the research network of publications in the fields of sports and economics published in the Web of Science (WoS) database. In this context, the development of the economic dimensions of sport and the shaping of the literature have been examined using bibliometric analysis methods. The originality of this study lies in providing a comprehensive analysis of the evolving aspects of sports economics and highlighting how the interdisciplinary relationship between sport and economics has developed. Additionally, the uniqueness of this study is found in its ability to offer significant insights that will contribute to a deeper understanding of the relationship between sport and economics and provide a foundation that will guide future research directions. This research aims to provide information on the current state of the literature in the field of sports economics and offer valuable insights into the future trends of research in this area. The originality of the study stems from the fact that it provides a comprehensive analysis of the evolving aspects of sports economics. Bibliometric analysis allows the quantitative structure of the literature to be revealed through various metrics such as the annual distribution of publications, citation counts, keyword matches, collaboration networks between authors and cross country publication relations (Sun et al., 2025). Therefore, the bibliometric analysis method is the most widely applied approach to analyze research topics by following the knowledge anatomy of a research field (Goyal and Kumar, 2021; Li et al., 2017). Science mapping with bibliometric methods offers a different perspective on the field. It can analyze any type of study as long as connections among studies exist in the corpus of analyzed studies (Zupic and Cater, 2015). The importance of such relational analyses increases in areas with an interdisciplinary structure such as sports and economics.

Data Collection

The data used in this research were obtained from the Web of Science (WoS) Core Collection database. Web of Science is a widely preferred data source for such studies due to its broad interdisciplinary coverage, high indexing quality and compatibility with bibliometric analysis. On November 13, 2024, the Advanced search module guide (TI) field was queried as follows;

TI=(sport*) AND TI=(economic*) OR TI=(Sport* Economic*) This search formula includes the root terms “sport” and “economic” and aims to filter publications that contain both terms in their titles. The asterisk (*) symbol allows the inclusion of plural and variant forms of these terms, enabling a broader and more inclusive search (Doğru and Khinikadze, 2024; Stuart, 2018). As a result of this query, 739 publications were retrieved and included in the analysis.

Analysis of Data

With the emergence of various bibliometric software, this approach has become vital for analyzing large datasets in specific knowledge areas, revealing research evolution and identifying emerging directions (Geng et al., 2025; Pessin et al., 2022; Zupic and Cater, 2015).

The main bibliometric tools and software used in this study are Bibliometrix R, Sankey and VOSviewer. The selection of these tools is based on their ability to offer different analysis techniques and their capacity to allow for an in-depth examination of the literature review (Zhao et al., 2024). Bibliometrix R, this package was preferred for general bibliometric indicators. It was used to analyze indicators such as annual production, citation counts and author productivity. Bibliometrix R enables fast and efficient execution of these analyses, allowing for statistical analysis on large datasets (Ahn et al., 2024; Patil et al., 2025). VOSviewer was preferred for visualizing keyword networks, analyzing collaborations between countries and visualizing citation relationships. The use of this software is particularly important in revealing the temporal evolution of keywords in the literature and the relationships between keywords (Liu et al., 2025; Perianes-Rodriguez et al., 2016; Van Eck and Waltman, 2017). Using VOSviewer software, a country-based citation analysis was performed in line with the criteria of at least 1 publication and 1 citation in order to determine the citation networks, as in the relevant literature (Ay et al., 2024; Dirik et al., 2023; Özyigit, 2024) and the relevant network map was created. In addition, the countries and keywords of the co-authors were analyzed and the keywords and countries with the most connections were determined based on the criteria of at least 1 publication and a network map was created accordingly. Sankey Diagrams; This software was used for visualizing categorical distributions in the literature. Sankey diagrams clearly illustrate the distribution of publications across WoS categories and languages, allowing for a better understanding of trends and connections among the research. The Sankey diagram excels at visualizing the movement and distribution of resources across different stages, providing a clear and intuitive understanding of how entities transition through various phases (Korutla, 2025; Otto et al., 2022).

Research Questions and Scope of Analysis

In the study, 20 comprehensive research questions were created in order to address the structural features of the literature in a multidimensional manner.

What is the total number of publications on sports and economics and how does this number increase over time? How does the annual scientific production of publications on sports and economics change? What is the annual average number of citations of publications on sports and economics? In which WoS (Web of Science) categories are publications on sports and economics more commonly found? In which WoS indexes are publications on sports and economics most commonly published? In which languages are sports and economics publications published? What is the three-field plot distribution of publications on sports and economics? Which countries cooperate the most in their publications on sports and economics? Which countries cite the most research on sport and economics? How do publications on sports and economics show a distribution on the global map of international collaborations? Which countries have the highest number of corresponding author positions in the authorship process in research on sport and economics? Which common keywords are most commonly used in publications on sport economics? What is the reference spectrum of the sources in publications on sport economics? In line with Lotka's Law, which authors produce more publications in sport economics research? How have keywords in sports economics publications evolved over time? With the Keywords Plus analysis, which themes are prominent in the sport economics literature? What are the keywords preferred by authors in sports economics publications?

Which key themes are reflected in the titles of sport economics research? Which themes appear most frequently in the abstracts of research on sport economics? In which Subject Categories is the research on sport and economics distributed?

The research questions posed within the scope of this study pave the way for a more in-depth analysis of bibliometric data in the field of sports and economics. The questions in question aim to systematically reveal in which directions this interdisciplinary field has developed, how the collaboration and citation structures in the literature have been shaped and in which areas thematic concentrations are concentrated. To examine the structural characteristics of the literature from a multidimensional perspective, analyses were conducted on publication counts, production trends, citation analysis, distribution by language and WoS categories, most productive countries, authors and institutions, international collaboration networks, keyword co-occurrences and their evolution, thematic mapping, author productivity based on Lotka's law and content analyses based on title and abstract themes. These analyses provided not only quantitative indicators but also thematic and content depth, enabling a clearer understanding of interdisciplinary knowledge flow and the intellectual structure of the field. Consequently, this study, which comprehensively maps the interactions between sports and economics, offers the opportunity to evaluate academic output in the field within a multidimensional framework, shedding light on the current state and providing guiding insights for future research.

Limitations of the Bibliometric Method

Like any scientific method, bibliometric analyses also have certain limitations. Firstly, the use of only the Web of Science (WoS) database in this study may have resulted in the exclusion of relevant publications that are not indexed in WoS. Another limitation is that the data was collected as of November 13, 2024; therefore, studies published after this date could not be included in the analysis. Additionally, restricting the literature search to title fields alone may have led to the omission of relevant studies published under different titles. Moreover, the use of only English search terms has resulted in a prioritization of publications written in English.

However, it is important to note that this search strategy comes with certain limitations. While the terms "sport" and "economic" cover a wide range of literature, significant studies from specific sub disciplines may fall outside this filter. As a result, research examining the sociological, legal, or cultural dimensions the sociological, legal, or cultural dimensions of sport that does not explicitly include these two terms in the title may have been excluded from the analysis. Nevertheless, this was a conscious methodological decision, as the primary focus of this study is on publications that directly address the economic dimensions of sport. Acknowledging this limitation, future bibliometric studies may employ a broader set of keywords to conduct more extensive and inclusive analyses. Despite these limitations, the methodology adopted in this study provides a solid foundation in terms of its alignment with the research objectives, systematic approach and analytical depth. Future comparative bibliometric analyses that include multiple databases may help mitigate the current limitations.

RESULTS

The findings presented in this section allow us to deeply examine the dynamics and trends of research in the field of sports economics. The data obtained contribute to the existing literature and aim to establish a solid foundation for future research in this field.

Table 1 provides the main information of the studies titled sports and economy.

Table 1. Main Information

General information on data	Results	General information on data	Results
Main information about data:		Document types:	
Timespan	1971:2024	Article	364
Sources (Journals, Books, etc)	419	Article; book chapter	47
Documents	739	Article; early access	10
Annual Growth Rate %	6.69	Article; proceedings paper	7
Document Average Age	12.1	Article; retracted publication	3
Average citations per doc	10.14	Book	14
References	15432	Book review	103
Document contents:		Discussion	1
Keywords Plus (ID)	690	Editorial material	46
Author's Keywords (DE)	1407	Editorial material; book chapter	17
Authors:		Editorial material; early access	1
Authors	1330	Meeting abstract	14
Authors of single-authored docs	255	News item	5
Authors collaboration:		Note	1
Single-authored docs	337	Proceedings paper	88
Co-authors per doc	2.25	Retraction	1
International co-authorships %	12.72	Review	17

Table 1 was prepared in the R Program based Bibliometrix program using the WoS database. Table 1 summarizes 739 publications in sports economics from 1971 to 2024 across 419 sources, citing 15,432 references and reflecting thematic and interdisciplinary diversity. The average authorship of 2.25 and a 12.72% international collaboration rate indicate prevalent, albeit modest, cooperative research. Document types are diverse, predominantly research articles, with sustained scholarly relevance evidenced by an average document age of 12.1 years and 10.14 citations per publication. These metrics demonstrate both the quantitative expansion and qualitative maturation of the field. Figure 1 presents annual scientific production values as in the Özbilek (2024) study and average citation trends as in the Yıldız (2024) study.

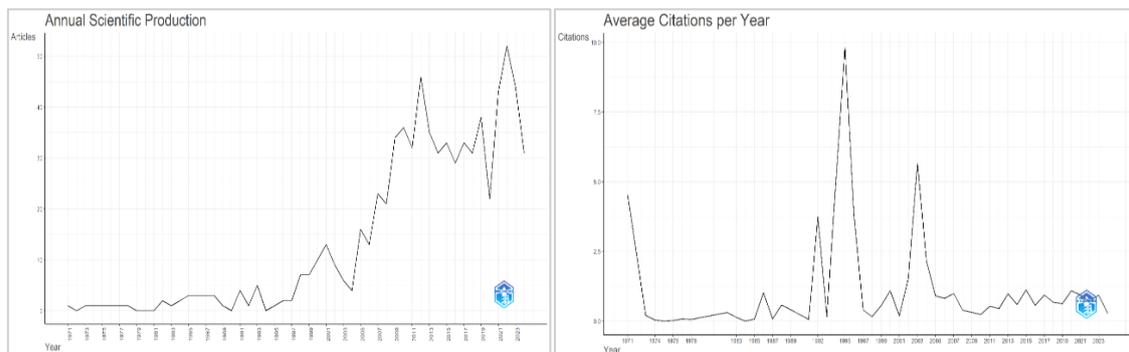


Figure 1. Annual scientific production and average citations per year

Figure 1 was prepared in the R Program-based Bibliometrix program using the WoS database. Figure 1 depicts the growth of academic output in sports economics from 1971 to

2024. After minimal publications before the 1990s, output steadily increased from the late 1990s, peaking at 52 studies in 2022. The sustained interest in 2023–2024 likely reflects heightened focus on sports’ economic aspects amid global events like the COVID-19 pandemic. Citation trends align with publication growth; early works, though fewer, received high citations, whereas recent studies show lower averages due to limited citation time. Overall, this indicates significant expansion in both research productivity and disciplinary recognition, confirming the field’s growing interdisciplinary relevance. These results align with Yıldız (2024). With Sankey diagrams, processes are visualized and communication can be explored (Kumar et al., 2021) and the intellectual relationships of a domain can be observed (Aydınoglu et al., 2023). At this point, in Figure 2, the publication language, WoS index and WoS category of the studies titled sports and economics are shown through Sankey diagrams.

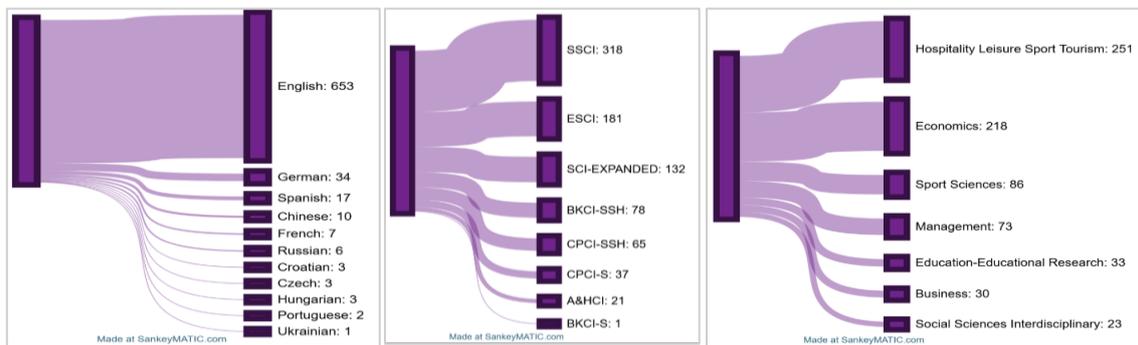


Figure 2. Sankey diagram

Figure 2 was prepared in Sankey Diagram using the WoS database.

Figure 2 demonstrates that sports economics research is predominantly published in English (n: 653), with fewer contributions in German, Spanish and Chinese. Publications are mainly indexed in SSCI (n: 318), ESCI (n: 181) and SCI-Expanded (n: 132), indicating growing recognition in high-impact databases. Most studies fall under “Hospitality Leisure Sport Tourism” (n: 251) and “Economics” (n: 218), reflecting the field’s interdisciplinary character. Additional representation in “Sport Sciences,” “Management,” and “Education” further illustrates its thematic diversity, while categories like “Business” and “Social Sciences Interdisciplinary” highlight the expanding scope of sports economics research. These findings are consistent with Esmer (2025). Three field plot map was created as in the study of Özüşen and Şimşek (2023). According to the researchers, the length of the boxes and the thickness of the connection lines show the strength of the relationship. Figure 3 shows the Three-Field Plot distribution of studies titled sports and economy.

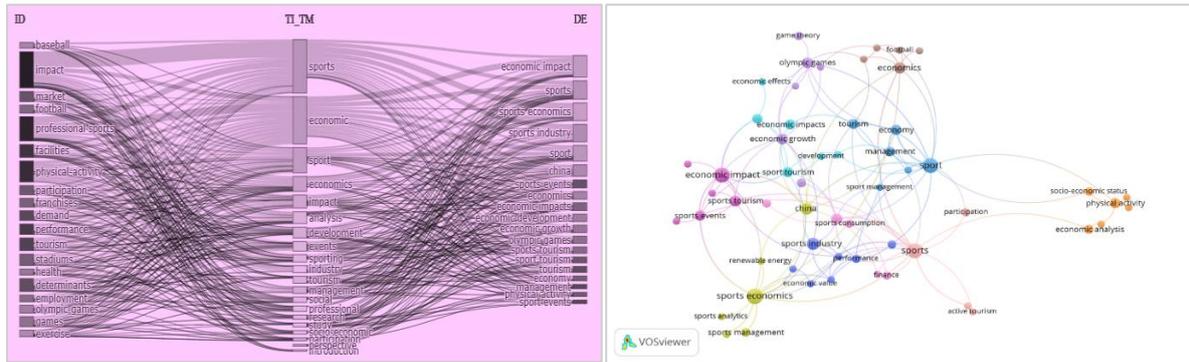


Figure 3. Three-field plot and common words

Figure 3 was prepared in the VOSviewer and R Program-based Bibliometrix program using the WoS database.

Figure 3 reveals the centrality of key terms such as economy, sports and economic impact, underscoring the intrinsic relationship between the sports sector and economic systems. These terms reflect the financial dimensions of sports, including market dynamics, fiscal contributions and macroeconomic influence. The proximity of concepts such as sports economics, sports tourism and sports management highlights the sector’s managerial and tourism related dimensions, particularly the role of sporting events in regional and national economic development. Terms like professional sports, performance and facilities further expand the scope toward organizational structures and operational efficiency within the sports industry. The clustering of terms such as tourism, franchises and market points to the commercialization of sport, emphasizing franchise based business models and the economic potential of sports related travel. Additionally, references to the Olympic Games, physical activity and socio economic dimensions illustrate how major international events contribute to global economic activity and generate widespread socio economic benefits. It is found that the studies on sports and economy are items (n: 61), clusters (n: 12), links (n: 130), total link strength (n: 155). According to the total link strength values, the most prominent keywords are “sports” (n: 25), “sport” (n: 23) and “sports economics” (n: 18), which demonstrate the central focus of the research. These terms represent the foundational concepts within the intersection of sports and economics, emphasizing the broad scope of research within this domain. Other frequently occurring keywords include “economic impact” (n: 14), “economic development” (n: 12) and “olympic games” (n: 11), which highlight the significant areas of inquiry regarding the influence of sports on the economy, as well as the specific role of major international sporting events, such as the Olympics, in shaping economic policies and growth. Further, keywords like “economics” (n: 10), “economic growth” (n: 9) and “sport tourism” (n: 9) reflect the increasing recognition of the economic potential of sports as an industry, particularly in terms of tourism and national economic development. The term “tourism” (n: 9) appears as another key area of research, demonstrating the connection between sports events and the tourism sector’s contribution to economic outcomes. In addition, “physical culture” (n: 8), “economy” (n: 7) and “management” (n: 7) point to the broader social and managerial dimensions of sports economics, suggesting that researchers are increasingly considering the societal impact of sports participation, as well as the organizational and administrative aspects that govern the sports industry. This analysis highlights the

multifaceted nature of sports and economics research, revealing the diverse and interconnected areas of inquiry that shape the academic landscape of this field.

Figure 4 shows the citation network map by country, as in the study of Zhang et al. (2024) and the network map by co-author countries, as in the study of Liu et al. (2025). As in the study of Özüşen and Şimşek (2023), it shows the world map of cooperation of countries. According to the researchers, the red lines in the world cooperation map indicate strong relationships. Figure 4 also shows the distribution of studies according to the countries of the relevant authors, as in the study of Esen (2023).

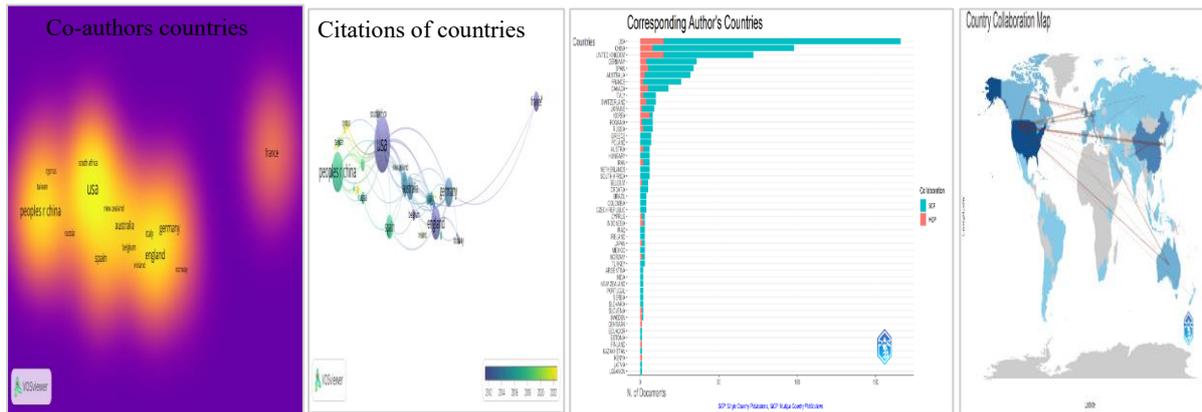


Figure 4. Analysis of According to Countries

Figure 4 was prepared in the VOSviewer and R Program-based Bibliometrix program using the WoS database.

Figure 4 presents a bibliometric analysis of sports economics research, revealing 49 items, 11 clusters, 108 links and a total link strength of 162 for publications. The most prolific countries based on link strength include the USA, China, England, Germany and Canada. Citation analysis further indicates that studies from the USA, England and Australia receive the highest citations, followed by Germany, Canada, Spain, China, Italy, France and South Korea. These results highlight the dominant role of North American and European countries in sports economics research. Figure 4 highlights international collaboration trends in sports and economics research. The United States leads with strong partnerships, especially with Canada, the UK, Germany and Australia. Canada and China also maintain extensive networks, with China collaborating widely in Asia and beyond. European countries (Germany, UK, France, Spain) and some Asian nations (Korea, Iran, Saudi Arabia) show active cooperation, while smaller countries participate less frequently. South America and Africa contribute modestly. The US has the highest output (166 publications), followed by China (n:98) and the UK (n: 72), with varying shares of multicountry collaborations. Figure 5 shows the Reference Spectroscopy distribution as in the study of Yesilbas et al. (2025) and the writer productivity according to Lotka's Law as in Moustafa (2024).

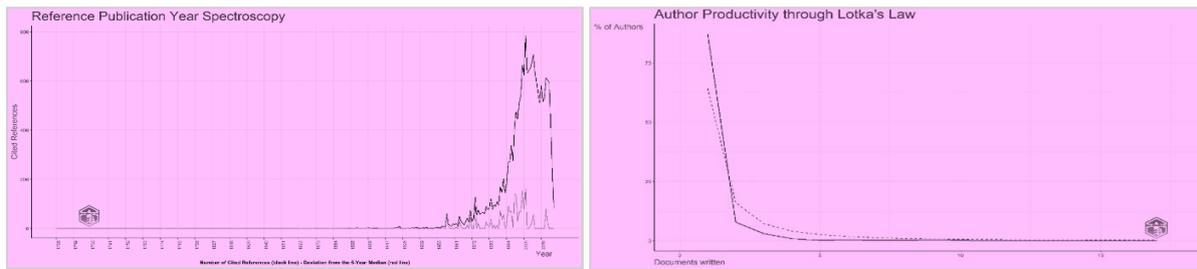


Figure 5. Reference spectroscopy and lotka’s law

Figure 5 was prepared in the R Program-based Bibliometrix program using the WoS database.

Figure 5 illustrates citation trends in sports economics, with peaks in 2006 (786 citations), 2010 (676 citations) and 2011 (708 citations), indicating periods of increased academic interest. A decline after 2020 may reflect reduced recent output or citation delays. Productivity analysis reveals most authors (n: 1159) published a single study, while a minority produced multiple works, consistent with typical patterns in the field. Figure 6 shows the summary distribution of studies in the subject categories of sports and economics and the frequency distribution of words over time.

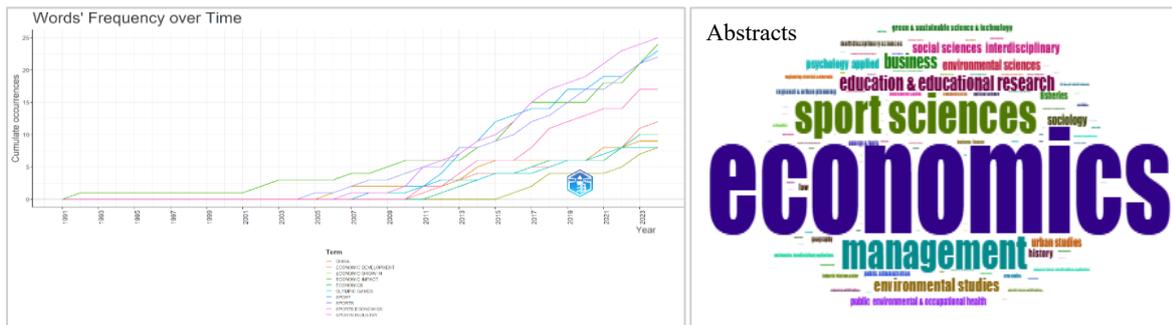


Figure 6. Words frequency over time and subject categories

Figure 6 was prepared in the R Program-based Bibliometrix program using the WoS database.

Figure 6 reveals key research trends in sports economics over time. Since the early 2000s, terms like sports economics have steadily increased, indicating growing academic interest. The prominence of “economic impact”, “sports industry” rose notably in the 2010s, reflecting more studies on sport’s economic size and effects. From 2013, research expanded to include the broader industrial impact of sports. Terms such as “Economic Development”, “Economic Growth” also gained traction, linking sport to wider economic progress. Additionally, the “Olympic Games” emerged as a frequent focus, especially regarding their economic influence on host countries, including development, infrastructure and tourism. These studies span diverse fields, including hospitality, economics, sports sciences, management, education, business, social sciences, sustainability and multidisciplinary sciences. Also it was found that the studies in the field of sports and economics were used in the Subject Categories such as “hospitality entertainment sports and tourism”, “economics”, “sports sciences”, “management”, “education and educational research”, “business”, “social

sciences interdisciplinary”, “green and sustainable science and technology”, “multidisciplinary sciences”. As in Dönbak (2020), Figure 7 shows the keywords plus and author’s keywords the distribution of studies on sports and economy.

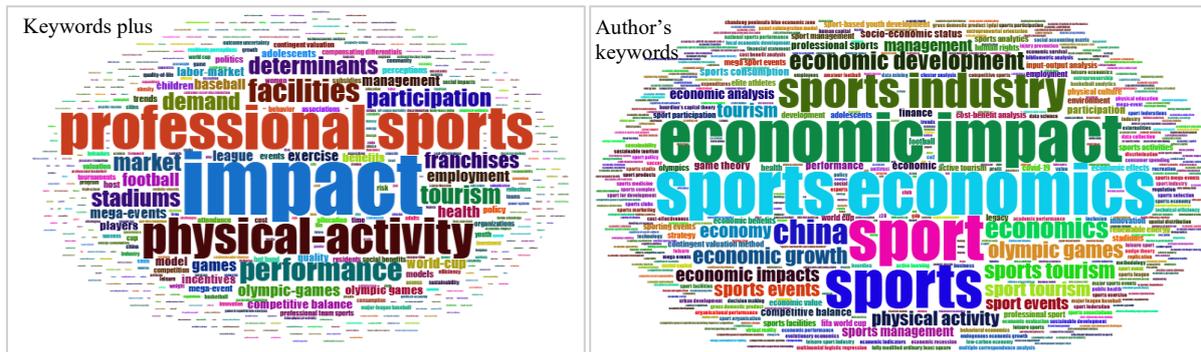


Figure 7. Keywords plus and author’s keywords

Figure 7 was prepared in the R Program-based Bibliometrix program using the WoS database.

In Figure 7, it was found that the keywords of the studies in the field of sports and economy were “impact”, “professional sports”, “physical activity”, “economic impact”, “political economy”, “technoeconomic analysis”, “socioeconomic environment”, “socioeconomic status” and words such as “tourism”, “market”, “stadium”, “facilities”, “market”, “stadiums”, “franchise”, “employment”, “Olympic games”, “mega events”, “competitive balance”. It was found that words such as “sports economy”, “economic impact”, “economy”, “economic development”, “economic growth”, “economic impacts”, “economic analysis”, “economic”, “socio-economic status”, “economic benefits”, “economic impacts”, “economic value”, “elite athletes”, “employment”, “behavioral economics”, “economic evaluation”, “economic indicators”, “economic performance”, “economic stagnation”, “endogenous economic growth”, “evolutionary economics”, “local economic development”, “sports marketing”, “technology”, “virtual reality”, “sports industry” were used in the author's keywords of studies titled sports and economy. Figure 8 shows the titles and abstracts distribution of studies titled sports and economy.

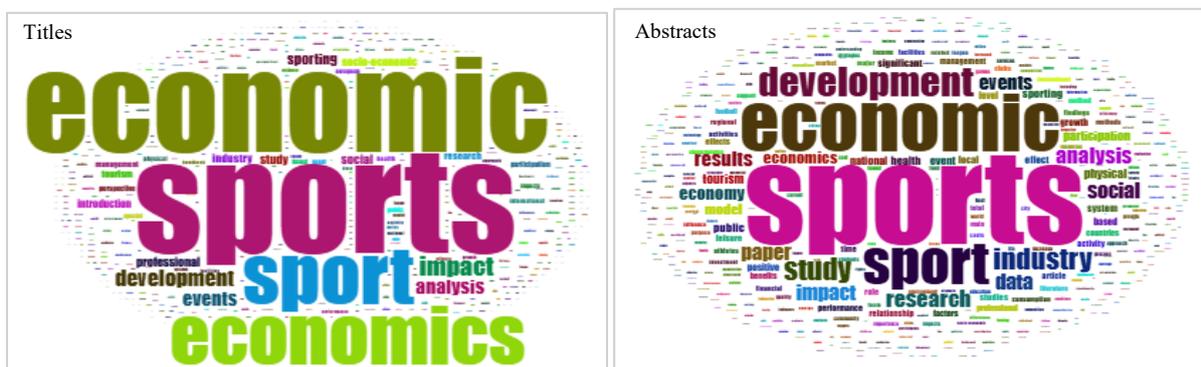


Figure 8. Titles abstracts

Figure 8 was prepared in the R Program-based Bibliometrix program using the WoS database.

In Figure 8, it was found that words such as “sport”, “sports”, “economic”, “economy”,

“socio-economic”, “economic analysis”, “economic impact”, “economically”, “development”, “tourism”, “international”, “event”, “growth”, “politics”, “stadiums”, “activities”, “competitive”, “mega events”, “media”, “market”, “sustainable”, “athletes”, “competition”, “Olympics”, “sports economy” were used in the studies titled sports and economy. It was found that words such as “sports”, “economic”, “socio-economic”, “non-economic”, “growth”, “athletes”, “market”, “international”, “e-sports”, “stadium”, “sportswear”, “eco-sports”, “mega-sports”, “industry”, “leisure”, “countries”, “professional”, “facilities”, “clubs”, “financial”, “football”, “costs”, “investment”, “strategies”, “games”, “teams”, “services”, “technology”, “maximize” were used in the summaries of studies titled sports and economy.

DISCUSSION AND CONCLUSION

In this study, scientific studies on sports and economics are analyzed through bibliometric analysis and comprehensive data on trends and international collaborations in the field are presented. The annual scientific production values examined within the scope of the study indicate the increasing interest in the field of sports and economics. The peak of scientific production, especially in 2022, 2012 and 2023, suggests that research interest in sports and economics increased during these periods, which is consistent with previous trends observed by Pérez et al., (2024). The increasing number of publications is in line with the increasing global interest in the economic aspects of sports, especially in the last decade. These results show that studies in the field of sports and economics constitute a large scientific network and that researchers have produced a significant amount of literature in this field. In addition, it was concluded that annual citation values reached their highest level in 1995. This shows that sport economics studies had a significant impact in the early years. However, this impact declined in the following years. This decline may be due to factors such as economic crises, global financial uncertainties and a narrower focus on research areas in sport economics (Aydın & Aydın, 2024a). It also indicates that academic interest in the topic has declined to some extent and that more research is needed in this area. These fluctuations by year can be attributed to changes in global economic conditions, as suggested by Santos and García (2011), where periods of economic uncertainty often lead to a reduced focus on the sport economy. Further exploration of the reasons behind these differences would provide a more detailed understanding of the evolution of the field.

According to Web of Science categories, most sport and economics studies are published under “Hospitality Leisure Sport Tourism,” “Economics,” and “Sport Sciences,” highlighting that sport economics extends beyond financial impacts to include tourism, management and sport sciences. This underscores the need for more comprehensive, interdisciplinary approaches, focusing on the multifaceted economic, social, cultural and environmental aspects of sport (Aydın & Aydın, 2024b; Boulé & Mason, 2019; Mascarenhas et al., 2024; Melikh et al., 2019; Pérez et al., 2022; Salgado Barandela et al., 2023). Based on the study by Aydın & Kurudirek (2025), it is suggested that sports clubs should strengthen their digital engagement strategies by taking into account the digital reflections of fan loyalty behaviors such as sports team evangelism. In doing so, they can enhance their brand value

and develop new revenue models. Considering that such interactions may significantly contribute to the sports economy, fan behaviors should be evaluated more comprehensively through economy based analyses. Considering the reflections of fan loyalty behaviors such as sports team evangelism on digital media, it has been suggested that clubs should strengthen their digital interaction strategies; thus, they can increase their brand value and develop new revenue models. Considering that such interactions are an important element that can contribute to the sports economy, fan behaviors should be evaluated more comprehensively with economic based analyses. Common keywords like “sport,” “sport economics,” “economic impact,” and “Olympic Games” indicate research focus on sport’s economic impact, major events and economic development (Aydın & Aydın, 2024c). While most authors publish single studies, a minority produce multiple works, suggesting broader researcher participation is needed to enrich the field (Pérez et al., 2024). The rise of terms related to socio-economic development and mega-events reflects growing interest in sport’s social, cultural and economic dimensions (Mascarenhas et al., 2024). Additionally, keywords such as “professional sport,” “tourism,” and “socio-economic environment” confirm the multidisciplinary nature of sport economics (Boulé & Mason, 2019). Emerging topics like “sports marketing,” “economic value,” and “virtual reality” indicate expanding research into industry, marketing and technology (Melikh et al., 2019), while “e-sports” and “eco-friendly sports” signal attention to future trends and sustainability (Salgado Barandela et al., 2023). Compared to earlier studies with narrower time frames and data sources (García, 2011; Núñez-Pomar et al., 2019; Pérez et al., 2024), this study’s broad coverage (1971–2024) and use of Web of Science offer a comprehensive historical perspective. Methodologically, it integrates bibliometric analysis with visualization and network tools (VOSviewer, Bibliometrix R, Sankey), providing a more holistic approach than prior works relying mainly on bibliometric mapping and citation metrics. This allows detailed examination of global trends, collaborations and keyword evolution. While previous literature focuses on economic growth, event benefits and talent management (Salgado-Barandela et al., 2017; Santos & García, 2011; Virguez et al., 2024), this study stresses the importance of expanding sport economics research to include social, cultural and environmental impacts, in line with recent interdisciplinary calls (Kamenecka-Usova et al., 2024; Min et al., 2024; Widianingsih et al., 2023). Integrating diverse perspectives is essential to advance the field beyond traditional financial analyses towards a sustainable and socially aware framework.

When comparing this study with the related literature, it is observed that this research focuses on current and comprehensive factors such as open access, diversity of publication languages and WoS indexes. In contrast, the literature mainly addresses more limited topics such as the economic effects of sport, sports event management and human talent management in sports. In terms of thematic depth, this study examines the economic relationships in sport not only through econometric data but also through social and structural analyses such as collaborations between authors, relations between countries and thematic trends. The existing literature generally adopts a narrower perspective, focusing on economic impacts or theoretical analyses related to sports management. In this context, the study analyzes the current status and global trends of sport economics research within a broader methodological framework, detailing interdisciplinary interactions, author networks and cross-country collaborations. This approach offers a more comprehensive and in-depth perspective compared to other studies in

the literature. The findings show an increasing integration of sport economics with fields such as tourism, management and sport sciences, thereby expanding the scope of economic analysis. This interdisciplinary approach can guide policymakers in developing comprehensive sport policies that address economic, social and cultural dimensions. The rise of e-sports and digital media presents new opportunities for policy development, especially in developing countries where sport economics is under researched (Jedel & Burchard, 2021). Additionally, the increase in open access publications facilitates wider dissemination of findings, strengthens global collaborations and encourages more research from underrepresented regions. The integration of sport economics with social, cultural and digital dimensions requires clubs to create economic impact not only through on-field success but also through their brand value (Chen et al., 2025; Della Spina, 2025; Lu et al., 2024). In this context, visual identity elements such as club logos have become a strategic tool in generating economic value. Effective logo strategies enhance both the cultural and economic capital of clubs, contributing to their long-term economic sustainability. Therefore, it is recommended that logo and brand identity elements receive greater attention in the sport economics literature (Aydın & Aydın, 2024c). In the past, the study of sports economics has often focused on narrower topics such as the economic impact of professional sports leagues, the Olympic Games and the financial viability of major sporting events (Nauright, 2004). However, recent trends show that the field is expanding to encompass broader issues such as the social and cultural impacts of sport (Gemar, 2024; Hawzen et al., 2024). The narrow focus on financial metrics is shifting towards more holistic approaches that include social, environmental and cultural dimensions. This shift reflects a growing recognition of the multidimensional role that sport plays in society and the economy. Further research in this direction could help to understand the full scope of sport's impact, not only in terms of financial returns but also in terms of social welfare and community development. Especially in a dynamic field like sports economics, bibliometric analyses offer a powerful tool for understanding the rapidly evolving nature of academic production and collaborations among researchers. These analyses not only provide numerical data on scientific publications but also allow for the examination of the thematic aspects of research, the distribution of sources and international collaborations.

The increasing popularity of new topics such as virtual reality, digital fan interaction and sustainability shows the future trends of sports economics and the areas in which developments in this field are likely to concentrate. The current sports economics literature stands out as a field where bibliometric analyses make a significant contribution. However, there is still a need for comprehensive bibliometric studies that explore the relationships between sports and economics in greater depth and examine these relationships alongside academic production in a holistic manner. This study takes an important step in filling this gap and mapping the sports economics literature in a more comprehensive way. It is concluded that in the future, research in the field of sports economics should take on a more interdisciplinary structure and its interactions with different fields should be examined more deeply. Investments to increase athletes' empathy levels and strengthen their psychological resilience can positively affect not only sports performance but also the economic value of clubs and their sustainability in competitive markets. In the future, clubs' investments in the psychological health and emotional intelligence of athletes will both increase harmony within the team and contribute to revenue growth by strengthening brand loyalty and fan interaction. In this context, investments

in psychological support and training programs for club management can play a critical role in terms of both sports success and economic growth in the long term. This interpretation was reached in line with the data and analyses of the Önal and Aydın (2024) study.

As a result, it has been revealed that beyond the physiological and psychological effects of sports, the role of these activities on the economy has also been examined. Therefore, the contributions of sports to social health and quality of life can have a positive effect on economic development in the long term. Studies in the field of sports and economics have increased significantly in recent years. However, increasing research in this field, especially in developing countries, will contribute to the formation of a more comprehensive sports economics literature at the global level. The dissemination of open access publications will ensure that information reaches a wider audience and that research in this field becomes more visible. Research in the field of sports and economics has gained great momentum in recent years and an interdisciplinary perspective has been developed. However, more collaboration in this field, especially contributions from different geographies and disciplines, can further enrich this field. The fact that the majority of studies are related to fields such as economics, sports sciences and tourism shows that sports economics is a multifaceted field and that research in this field should be addressed from a broader perspective. In addition, including topics such as new sports industries and digitalization in research focuses will allow us to learn more about the future of sports economics. New developments such as e-sports, environmentally friendly sports and virtual reality offer new research opportunities in this field. It is recommended that open access studies be expanded and international collaborations be increased in order to further deepen the literature in this field. Researchers from different disciplines in sports and economics should be encouraged to collaborate. Researchers should be provided with training programs on artificial intelligence and sports economics and should be informed about innovations in these areas. The combination of sports economics and communication technologies with the metaverse may create many new opportunities and challenges. In this context, ways to produce more effective content for sports and economics in Metaverse technology should be investigated and how data collected in the metaverse environment can be integrated into the sports economy should be emphasized. Ethical issues and security concerns in the field of sports economics should be taken into account in metaverse platforms and solutions to these problems should be developed. In addition, studies should be conducted on how information technologies can develop new content formats that will contribute to the sports economy in the metaverse environment. Finally, the effects of the metaverse on sports economics and communication technologies should be examined comprehensively and the potential results of these interactions should be evaluated.

Conflict of Interest: The authors declare that there are no personal or financial conflicts of interest related to this study.

Authors Contribution Statement: Study design was conducted by OY and ŞD; data analysis was performed by OY and ŞD; manuscript preparation was carried out by OY and ŞD; and data collection was undertaken by OY and ŞD.

Ethical Approval: As the data used in this study were obtained from the Web of Science (WoS) database, ethics committee approval is not required.

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