

Mapping the landscape of sports law: a bibliometric analysis

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ABSTRACT

The aim of this study was to examine the research field of sports law through bibliometric techniques, highlighting thematic trends, subject focus, and the progression of legal discourse. The study highlights the evolution of sports law into an interdisciplinary domain that intersects governance, health, human rights, and arbitration. The study utilizes bibliometric analysis, drawing on data from the Scopus database spanning 1983 to 2025. VOSviewer facilitates co-occurrence, clustering, and network analysis. It delineates publication patterns, leading countries, major subject areas, and keyword interrelationships to provide a systematic assessment of the field's development. There has been a significant increase in publications since 2010, peaking in 2021 and 2024. The United States and the United Kingdom are the primary contributors, with Social Sciences accounting for the largest share of publications. Four principal thematic clusters emerge: arbitration and fundamental rights, athlete welfare, regulatory governance, and legal issues related to doping and equity. Keyword analysis identifies "sports law" as the central keyword, together with terms such as arbitration, anti-doping, and human rights. The findings aid policymakers, legal scholars, and sports organizations in understanding research trends, supporting informed policymaking, and addressing issues related to doping, discrimination, and athlete rights. This is one of the few comprehensive bibliometric analyses in sports law, connecting academic knowledge with practical legal and societal needs.

KEYWORDS

Arbitration; Doping; Bibliometric Analysis; Interdisciplinary Legal Research; Sports Law

1. INTRODUCTION

Law plays a fundamental role in the sports industry by providing a regulatory framework that promotes fairness, governance, and consistency among stakeholders. As sport has evolved into a global social, economic, and entertainment phenomenon, its legal dimension has become increasingly complex, requiring specialized regulatory mechanisms and legal scholarship. Legal philosophers and theorists have frequently employed sports analogies to explain legal concepts. H.L.A. Hart notably used examples from games and sports to critique alternative perspectives on the nature of law and to explain his own legal theory. In his critique of Austin's command theory of law, Hart referred to the scoring rules of games to demonstrate why nullification under power-conferring rules cannot be equated with punishment under duty-imposing rules (Hart, 2012). Furthermore, "they maintain a reflective critical perspective on this behavioral pattern, considering it a benchmark for all participants in the game." Sport and law share several common challenges, including determining when behaviour should be regulated through formal legal rules rather than informal social norms, deciding when rules should prevail over standards, defining the degree of discretion granted to adjudicators, and establishing appropriate limits on that discretion. Both fields must also address epistemic uncertainty and the discrepancies that often arise between "the law in the books" and "the law in action." Consequently, legal research contributes to a better understanding of the common dynamics that characterize both law and sport.

Academic research in sports law has become increasingly important because it addresses the legal and regulatory challenges associated with modern sport and supports the development of public policy. Scientific production in this field has expanded considerably during the last two decades, reflecting the growing complexity and interdisciplinary nature of sports law. The discipline increasingly intersects with medicine (Mann, Dubnov-Raz et al., 2013), sports arbitration (Mazzucco & Findlay, 2023), and human rights, leading to a continuous expansion of research. Sports operate within a distinct legal environment governed not only by national legislation but also by the regulations established by sports organizations. This autonomous legal framework is shaped by national and international legislation, sports arbitration bodies, and judicial decisions, creating a unique legal order that continues to evolve in response to emerging societal and sporting challenges.

Sports law encompasses a broad spectrum of legal issues, including governance, regulatory frameworks, athletes' rights, contractual relationships, anti-doping regulations, discrimination, and human rights. As sport continues to expand at both national and international levels, research has increasingly focused on these interconnected issues. Sharma & Bansal (2023) emphasized the need

for dedicated sports legislation consistent with constitutional and international principles to promote fairness and equality in sport (Loland, 2010). Contemporary challenges include doping, athlete health and welfare, gender discrimination, and governance issues (Miossi & Prewitt-White, 2021). Research has also examined the evaluation of sports judges as a mechanism for promoting fairness and equality within sporting competitions.

Recent studies have expanded the scope of sports law by examining sports diplomacy (Ilevbare & McPherson, 2025; Murray, 2012), the phenomenon of sports washing (Bergkvist & Skeiseid, 2024), and the protection of human rights in international sport. Similarly, Lubelska-Sazanów (2025) investigated the legal challenges surrounding animal welfare in equestrian sports by comparing international, European Union, and national legal frameworks, while Douglas et al. (2022) questioned whether equestrian sports should continue to benefit from exemptions related to animal welfare legislation.

Gender equality has also emerged as a major research topic within sports law. Previous studies have examined persistent inequalities affecting female athletes, including disparities in remuneration, media representation, and career opportunities (Nogueira et al., 2018). These studies highlight the importance of both international and national legal frameworks in reducing discrimination and strengthening sports governance. Sport simultaneously reflects social progress towards gender equality and exposes the inequalities that still persist (María Pérez Gázquez & Barquero-Ruiz, 2024). Although important advances have been achieved, professional athletes continue to encounter significant legal and institutional barriers. In this regard, the legal instruments regulating the collective rights of professional athletes frequently differ according to gender (Gómez, & Alfaro, 2020), demonstrating the continuing need for legal reform and policy development.

Bibliometric analysis provides a systematic and objective approach for examining the structure and evolution of scientific research. By applying techniques such as bibliographic coupling, keyword co-occurrence, and network analysis (Klarin, 2024), bibliometric studies enable the identification of influential authors, institutions, thematic clusters, and emerging research trends. Furthermore, bibliometric visualization facilitates the interpretation of collaboration networks and thematic relationships, providing valuable insights into the scientific structure and dynamics of sports law research (Kitchin & Howe, 2013).

Despite the growing body of literature on sports law, no comprehensive bibliometric assessment has systematically examined the evolution, thematic structure, and publication patterns of

this field. Therefore, the aim of this study is to map the scientific landscape of sports law through a bibliometric analysis of publications indexed in the Scopus database between 1983 and 2025, identifying publication trends, leading countries, major subject areas, and the principal thematic clusters that characterize this evolving field.

2. METHODS

2.1. Study Design and Data Source

This study employed a bibliometric research design to examine the evolution and intellectual structure of sports law research. Bibliometric analysis provides a quantitative approach for evaluating scientific production, identifying publication trends, research hotspots, and thematic developments, as well as exploring relationships among publications, countries, subject areas, and keywords.

The bibliographic data were retrieved from the Scopus database, which was selected because of its broad multidisciplinary coverage, high-quality indexing of peer-reviewed literature, and compatibility with bibliometric analysis software. Scopus is widely recognized as one of the principal databases for conducting bibliometric studies due to its extensive citation coverage and standardized bibliographic metadata.

2.2. Search Strategy and Data Collection

The literature search was conducted in the Scopus database and included publications indexed between 1983 and 2025. The search strategy was based on the following query:

TITLE-ABS-KEY ("sports law")

This search retrieved documents containing the term *sports law* in the title, abstract, or author keywords. Only documents indexed in Scopus within the study period were considered. The complete bibliographic records, including authors, affiliations, titles, abstracts, keywords, publication year, source titles, subject areas, document types, and citation information, were exported in CSV format for subsequent analysis.

2.3. Bibliometric Analysis

The bibliometric analysis was performed using VOSviewer (version 1.6.20), a software package specifically developed for constructing and visualizing bibliometric networks. VOSviewer was used to perform keyword co-occurrence analysis, clustering, and network visualization, allowing the identification of the main thematic structures within sports law research.

In addition, descriptive bibliometric indicators were calculated to examine annual publication trends, country productivity, subject area distribution, document types, and keyword occurrence. The generated maps were interpreted to identify research hotspots, thematic clusters, and the evolution of the scientific literature in sports law.

2.4. Data Analysis

Descriptive statistics were used to summarize the bibliometric characteristics of the retrieved publications. The analysis focused on annual scientific production, geographical distribution of publications, subject areas, document types, and keyword co-occurrence networks. The resulting bibliometric indicators and visualizations were interpreted to describe the development, thematic evolution, and intellectual structure of sports law research.

3. RESULTS AND DISCUSSION

The development of sports law has followed a similar trajectory, gaining increasing importance due to the growing challenges associated with governance, commercialization, and legal disputes within the sports sector (Anderson, 2010). The emergence of legal frameworks addressing doping, contractual obligations, and athletes' rights underscores the need for the continued development of this field. Moreover, globalization has influenced sports law, requiring more standardized legal frameworks and dispute resolution mechanisms (McLeish, 2020).

Figure 1 illustrates the annual number of articles published from 2014 to 2024. The trend shows a steady increase in the number of publications, reaching a peak of 41 documents in the Scopus database in 2024. Research output in this field increased noticeably from 2016 onwards, although some fluctuations were observed during the study period. The years 2017, 2021, and 2022 showed substantial growth in the number of publications, whereas 2014, 2015, and 2016 recorded the lowest publication counts. This pattern may indicate a growing academic interest in sports law and its associated legal and regulatory issues over time.

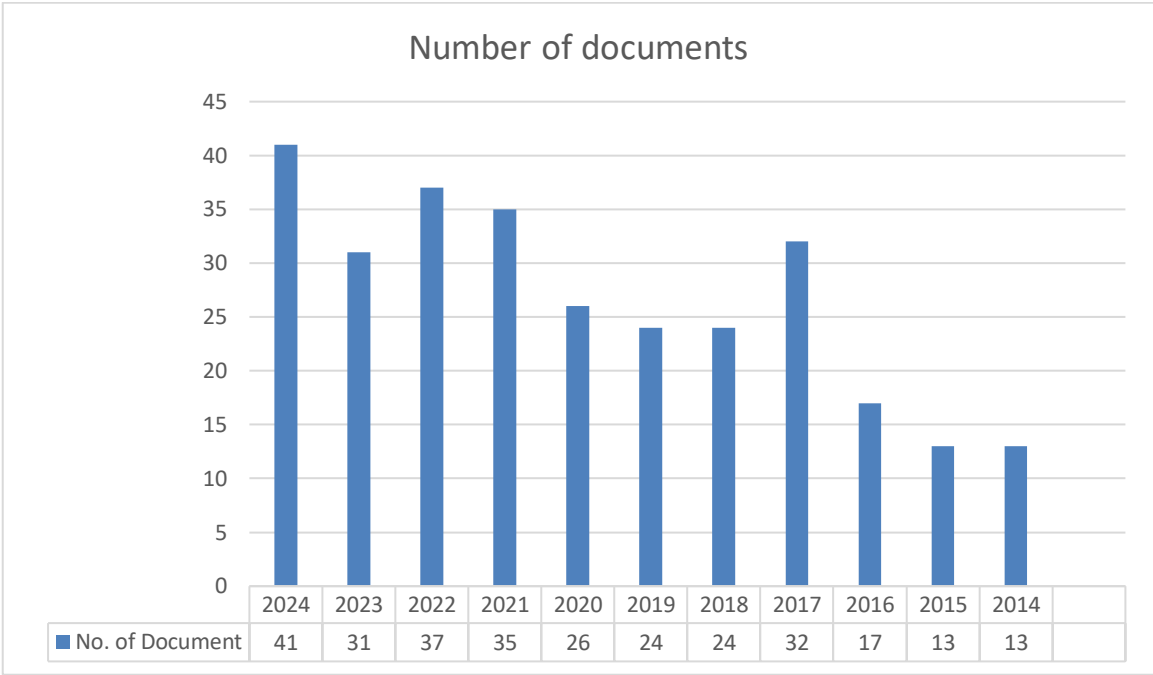


Figure 1. Annual publications on sports law

The development of legal frameworks in sports law has been significantly influenced by the commercialization and globalization of sport, particularly in countries with high research output, such as the United States and the United Kingdom. Sports law has played a major role in addressing complex issues such as athlete contracts, arbitration clauses, anti-doping regulations, and intellectual property rights, requiring substantial academic contributions to the field. The United States has been a leader in the development of sports law, exemplified by significant cases and legislation, including the establishment of the Court of Arbitration for Sport (CAS) and the implementation of anti-doping regulations, which have contributed to a substantial body of legal precedents and regulatory frameworks (Smith & Stewart, 2019). The United Kingdom has also made significant contributions through its leadership in sports governance, particularly in football, with organizations such as the Premier League contributing to the development of legal frameworks for player transfers and broadcasting rights, thereby increasing research output in this area (Brown & Miller, 2022). During this period, the Russian Federation likely experienced an increase in sports law-related publications due to its hosting of major events such as the 2014 Sochi Winter Olympics and the 2018 FIFA World Cup, which required extensive legal preparations, anti-doping regulations, and international agreements (Garcia & Weber, 2023). Conversely, countries with lower research output, such as Germany, may rely more heavily on international frameworks established by the International

Olympic Committee (IOC) or broader European Union legislation, resulting in fewer domestic publications (Lee & Kim, 2020).

Figure 2 depicts the distribution of publications across ten countries, highlighting notable differences in research output that may reflect variations in legal frameworks, academic interest, and other contextual factors.

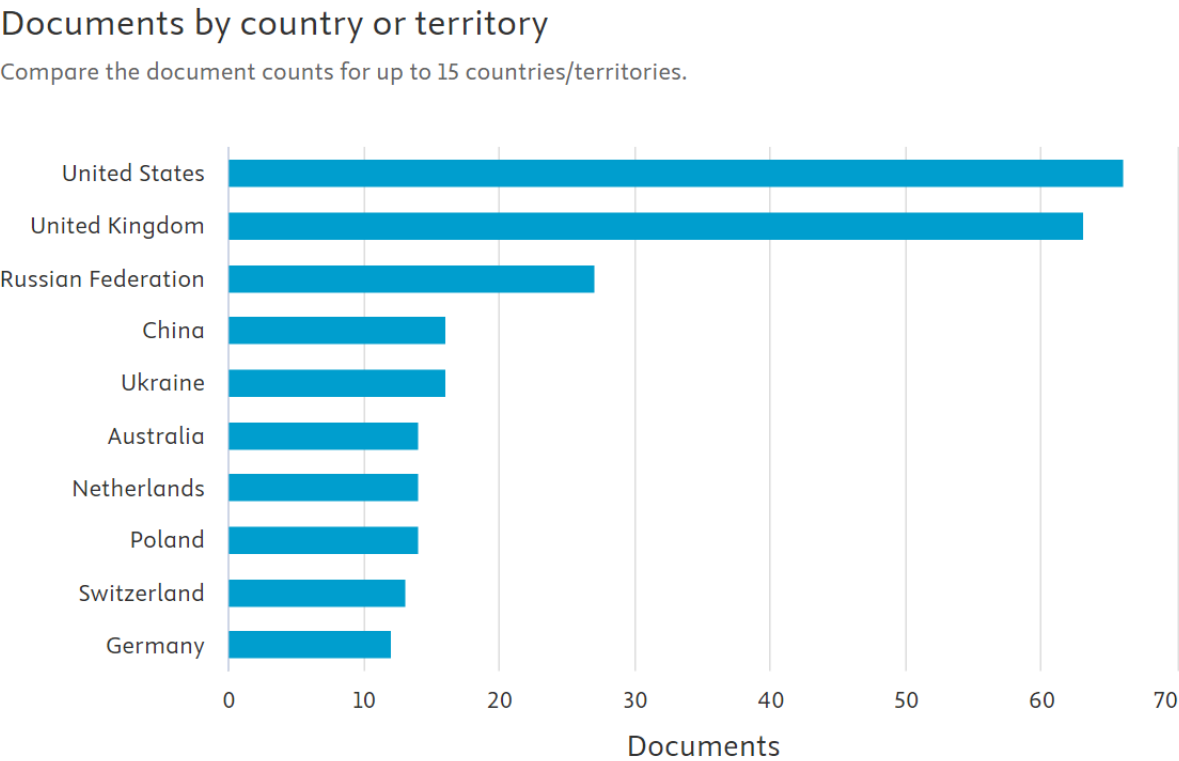


Figure 2. Country-wise distribution of publications

The United States has the highest number of publications, approaching 70, followed by the United Kingdom with approximately 65. The Russian Federation ranks third with more than 40 publications, while China and Ukraine occupy the fourth and fifth positions with approximately 25 and 20 publications, respectively. Other countries, including Australia, the Netherlands, Poland, Switzerland, and Germany, have also made notable contributions, each with around 20 publications. The United States and the United Kingdom dominate this research field, largely due to their well-established legal frameworks, extensive academic research in sports law, and significant influence on international legal developments (Johnson & Taylor, 2021). The high research output of the three leading countries—the United States, the United Kingdom, and the Russian Federation—may be attributed to specific historical, political, and legal developments during the study period. The

literature indicates that the United States has emerged as a centre for legal innovation, particularly in intellectual property and sports law, driven by its large economy and litigious culture, resulting in an extensive body of legal scholarship and case law (Brown & Miller, 2022). The United Kingdom, renowned for its long-standing common law tradition and its position as a global financial centre, has produced a substantial body of regulatory and academic literature, particularly in the fields of international trade and sports governance (Smith & Stewart, 2019). The Russian Federation's high research output may be attributed to its emphasis on state-led legal reforms and international diplomacy, particularly in relation to major sporting events such as the Olympic Games, which required extensive legal documentation during the study period (Garcia & Weber, 2023).

Figure 3 illustrates the distribution of publications across different subject areas, with Social Sciences accounting for 52.7%, followed by Health Professions (11.3%) and Medicine (9.6%). Other fields, including Business, Management and Accounting (7.7%), Economics, Econometrics and Finance (4.6%), Arts and Humanities (3.6%), Computer Science (1.4%), Psychology (1.3%), Decision Sciences (1.1%), and Engineering (1.1%), represent smaller proportions, while the "Other" category accounts for 5.7%. The predominance of the Social Sciences suggests that most publications in this field are associated with disciplines such as law, sociology, and political science, which generally produce qualitative and text-based research (Johnson & Taylor, 2021). This pattern may be attributed to the extensive legal and regulatory documentation required for issues such as contracts, governance, and dispute resolution, which are commonly examined through legal texts, case studies, and academic publications (Smith & Stewart, 2019). The prominence of the Social Sciences also reflects the interdisciplinary nature of sports law, which frequently intersects with sociology and ethics, particularly in relation to issues such as doping and athletes' rights, resulting in a greater emphasis on qualitative and text-based research than on empirical or technical studies (Brown & Miller, 2022).

Documents by subject area

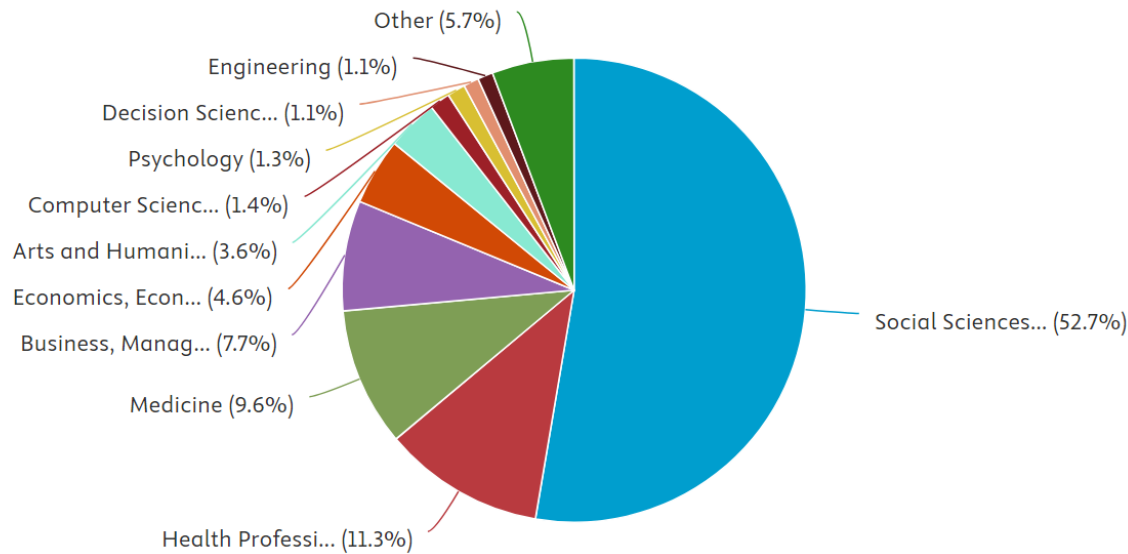


Figure 3. Distribution of publications by subject area

The substantial representation of Health Professions (11.3%) and Medicine (9.6%) underscores the importance of research related to sports medicine and athlete health, both of which are integral to sports law. These publications are likely to include medical reports, clinical studies, and policy guidelines, reflecting the need to address health-related legal issues such as anti-doping regulations, injury management, and athlete welfare (Garcia & Weber, 2023). The global emphasis on anti-doping, particularly following high-profile incidents at events such as the Olympic Games, has increased the production of medical and legal literature to ensure compliance with international standards established by the World Anti-Doping Agency (WADA) (Lee & Kim, 2020). In addition, legal issues related to health in sport, including liability for injuries and the implementation of health protocols, have contributed to the development of detailed medico-legal reports and guidelines that frequently combine scientific evidence with legal analysis (Brown & Miller, 2022). The predominance of text-based publications in these areas, rather than visual or multimedia formats, reflects the need for accurate, legally robust documentation that can support dispute resolution and policy development within the sports industry (Smith & Stewart, 2019).

Figure 4 shows that research articles account for 62.5% of the publications, whereas review articles represent a smaller, yet still notable, 3.3% of the dataset, highlighting their importance in synthesizing existing knowledge and providing comprehensive overviews of research trends.

Documents by type

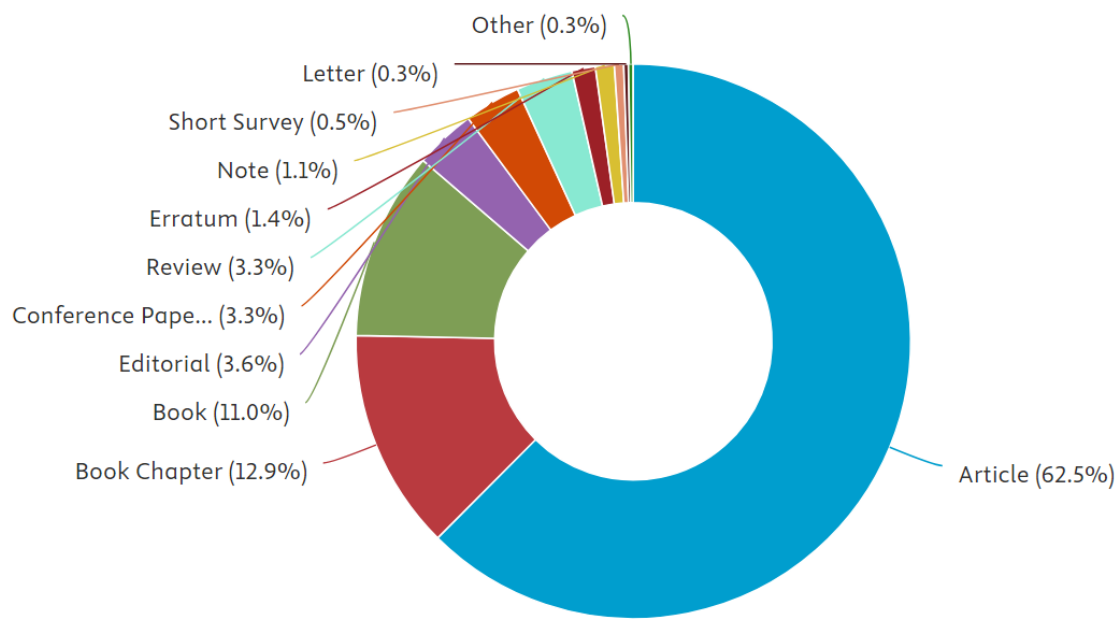


Figure 4. Distribution of publications by document type

A systematic evaluation of machine learning applications in healthcare highlighted significant challenges (Smith & Brown, 2023), while another study examined global climate change adaptation strategies and identified important policy gaps (Nguyen & Patel, 2022). Similarly, an analysis of the development of renewable energy technologies highlighted trends in innovation (Garcia & Lee, 2024). Although review articles constitute a smaller proportion than book chapters (12.9%) and books (11.0%), they play an important role in synthesizing knowledge across disciplines. Other document types, including editorials (3.6%) and conference papers (3.3%), contribute to the diversity of the scientific literature, whereas errata (1.4%), notes (1.1%), short surveys (0.5%), letters (0.3%), and other document types (0.3%) serve more specialized purposes.

The VOSviewer network visualization (Figure 5 and Table 1) illustrates the interrelationships among keywords in sports law research, positioning "sports law" as the central node and highlighting its central role within the discipline.

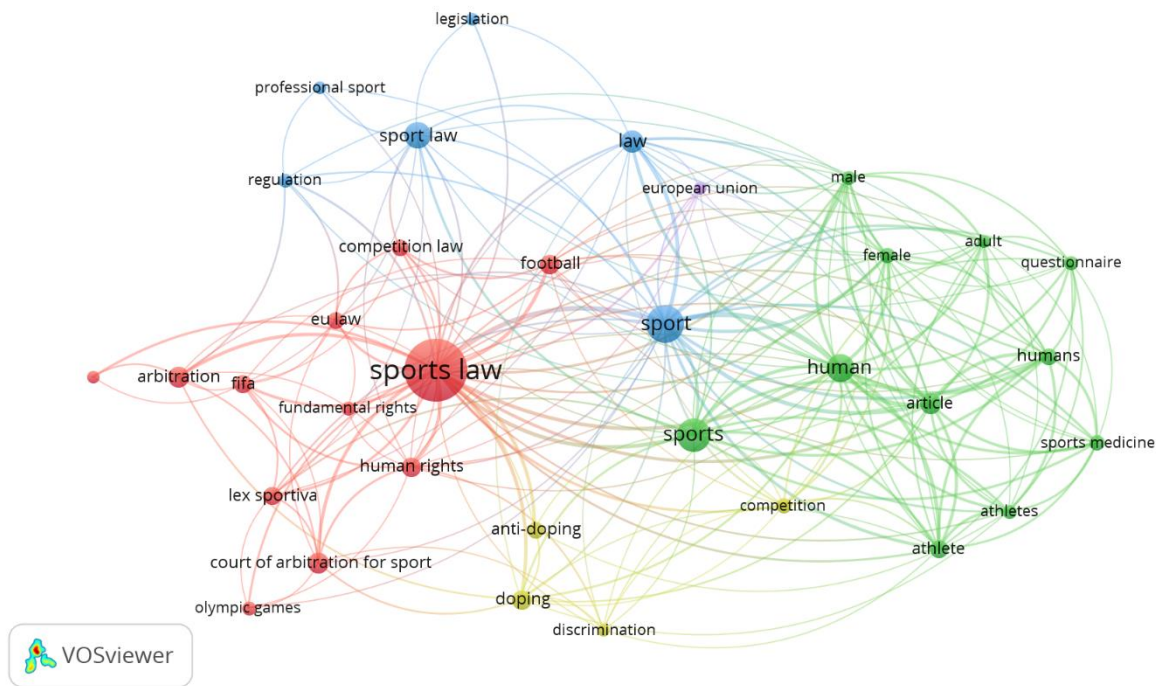


Figure 5. Keyword co-occurrence network generated using VOSviewer

Table 1. Keyword clusters identified through VOSviewer analysis

No.	Cluster	Keywords
1.	Cluster 1: Sport Law and Arbitration	Arbitration, competition law, court of arbitration, sports arbitration, fundamental rights and human rights.
2.	Cluster 2: Sports Medicine & Athlete Well-being	Humans, athletes, sports, sports medicine.
3.	Cluster 3: Sports Law & Governance	Law, legislation, professional sport, regulation and sport laws.
4.	Cluster 4: Legal Challenges in Doping & Sports Fairness	Anti-doping, competition, discrimination, doping.

The map, generated using VOSviewer, categorizes keywords into four color-coded clusters (red, green, blue, and yellow), each representing distinct but interconnected research themes. The red cluster, which includes terms such as "arbitration," "court of arbitration for sport," "lex sportiva," and "human rights," emphasizes legal frameworks and dispute resolution in sport, frequently associated with fundamental rights (Miller & Khan, 2023). The blue cluster, featuring keywords such as "sport," "law," "regulation," "professional sport," and "European Union," highlights the regulatory dimensions of sports governance, particularly within the European Union (Taylor & Evans, 2022).

The close relationship between these clusters reflects the central role of arbitration in enforcing legal and regulatory frameworks in professional sport. Legal disputes frequently concern regulatory compliance and rights-based issues, resulting in a strong interaction between sports governance and dispute resolution.

The green cluster, encompassing terms such as "human," "athlete," "sports medicine," and "anti-doping," highlights research related to athletes' rights, health, and anti-doping regulations. In contrast, the yellow cluster, which includes terms such as "doping" and "discrimination," addresses the ethical and legal challenges associated with fairness and equality (Chen & Lopez, 2024; Adams & Singh, 2021). The strong interconnections among the clusters, exemplified by the links between "sports law," "anti-doping," and "human rights," reflect the interdisciplinary nature of sports law research. These relationships demonstrate how anti-doping policies (green cluster) intersect with legal frameworks (red and blue clusters) to protect athletes' rights and promote fair competition, while also addressing discrimination (yellow cluster) arising from doping-related controversies. This interconnection exists because doping offences not only violate sports regulations but also raise human rights concerns, including privacy and equal treatment, thereby requiring legal mechanisms such as arbitration and integrating medical, ethical, and legal perspectives within sports law research.

4. CONCLUSIONS

This study analyzed publications on sports law indexed in the Scopus database using descriptive and bibliometric methods. VOSviewer was used to analyze and visualize the bibliometric data. Publications from 1983 to 2025 were included in the analysis. The findings describe annual publication trends, country-wise scientific production, journals with the highest publication output, authors with notable contributions, and institutions demonstrating significant research productivity in sports law. In addition, a keyword co-occurrence analysis was conducted to identify the main thematic clusters within the field.

A marked increase in publications was observed from 2010 onwards. One possible explanation is that sports law has increasingly intersected with fields such as labor law, contract law, antitrust law, and tort law, particularly in the United States (Mirsafian, Mirsoleimani, Afshari, & Akhavan, 2022). The field has also evolved as an independent legal discipline, accompanied by the emergence of player agents and greater media attention to legal issues in sport. Within Europe, the role of the European Union remains complementary to that of the Member States and sports governing bodies, as reflected in Article 6 TFEU. This institutional framework was further reinforced by the inaugural EU Sports Council, which convened in May 2010. Subsequently, sports law gained

further visibility in the academic literature during and after the COVID-19 pandemic, reflecting the growing need for legal frameworks to address issues arising from sport participation at both the national and international levels.

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CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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