

**EXPLORING JUDO MANAGEMENT:
A TWO-DECADES' BIBLIOMETRIC LITERATURE
REVIEW OF THE THEMES, TRENDS AND GAPS USING
SCOPUS DATA**

**A DZSÚDÓMENEZSMENT FELTÉRKÉPEZÉSE:
A TÉMÁK, TRENDEK ÉS HIÁNYTERÜLETEK KÉT
ÉVTIZEDES BIBLIOMETRIKUS IRODALMI
ÁTTEKINTÉSE A SCOPUS-ADATBÁZIS ALAPJÁN**

HANNOUN Omar

Keywords: *Judo Management, Sports Governance, Bibliometric Analysis, Systematic Literature Review, Sports Management, Judo Organizations, Research Trends*

Kulcsszavak: *Judomenedzsment, Sportirányítás, Bibliometriai elemzés, Szisztemikus irodalmi áttekintés, Sportmenedzsment, Judo szervezetek, Kutatási irányzatok*

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ABSTRACT

This study presents a bibliometric analysis of Judo management research over the past two decades (2004–2024) using Scopus data. Employing Systematic Literature Network Analysis (SLNA), it identifies key trends, themes, and research gaps in the field. The findings reveal a growing scholarly interest in Judo management, with Europe leading research output, followed by Asia and North America. Dominant themes include sport governance, athlete performance, commercialization, and ethics, while underexplored areas involve digitalization, leadership strategies, and sustainable athlete management. The study highlights the multidisciplinary nature of Judo research, integrating insights from sports science, business, and ethics. By mapping the evolving landscape, this review provides valuable insights for researchers, policymakers, and practitioners seeking to enhance Judo's governance and management practices. Future research should explore technological advancements, performance-driven decision-making, and global governance challenges in Judo.

ABSZTRAKT

A tanulmány a dzsúdómenedzsmenttel kapcsolatos kutatások bibliometrikus elemzését mutatja be a 2004 és 2024 közötti időszakra vonatkozóan, a Scopus-adatbázis adataira támaszkodva. A szisztematikus irodalmi hálózatelemzés (Systematic Literature Network Analysis – SLNA) módszerével feltárja a szakterület főbb trendjeit, visszatérő témáit, valamint azonosítja a kutatási hiányosságokat.

Az eredmények szerint a dzsúdómenedzsment iránti tudományos érdeklődés egyre élénkebb, különösen Európában, amely vezető szerepet tölt be a publikációs aktivitásban, megelőzve Ázsiát és Észak-Amerikát. A domináns kutatási irányok közé tartozik a sportirányítás, a sportolói teljesítmény, a dzsúdó kereskedelmi aspektusai és az etikai kérdések. Ezzel szemben kevés figyelem irányul a digitalizációra, a vezetési stratégiákra és a fenntartható sportolói életpálya-menedzsmentre.

A tanulmány rámutat arra is, hogy a dzsúdóval kapcsolatos kutatások erőteljesen interdiszciplinárisak: a sporttudomány, az üzleti menedzsment és az etika határterületein mozognak. A kutatási irányok feltérképezésével a vizsgálat értékes támpontot kínál kutatók,

döntéshozók és gyakorlati szakemberek számára, akik a dzsúdó irányítási és menedzsmentgyakorlatait kívánják továbbfejleszteni.

A jövőbeli kutatások szempontjából kiemelt jelentőségű lehet a technológiai fejlődés hatásainak vizsgálata, a teljesítményalapú döntéshozatali mechanizmusok elemzése, valamint a globális sportirányítás kihívásainak mélyebb feltárása a dzsúdó kontextusában.

INTRODUCTION

Judo, as both a martial art and an Olympic sport, operates within a dynamic and multifaceted organizational environment that extends beyond physical competition. Originating from Japan, the sport has been practiced globally and has developed sophisticated governance structures to support its growth and ensure its continued relevance on the international stage (Franchini et al., 2013; Kano, 2008). These structures manage both the recreational and competitive aspects of Judo, addressing the challenges of maintaining organizational integrity and operational efficiency in a rapidly changing sports landscape (Sterkowicz, 2011; Green & Houlihan, 2006).

This research stems from my current academic pursuit: I am preparing my thesis on the examination of sport organization management, with a particular focus on Judo organizations. As a result, this topic holds both personal and scholarly significance. On the one hand, it directly contributes to the development of my own understanding and academic expertise in sport management. On the other hand, by mapping the literature, trends, and gaps in Judo management research over the past two decades, this study offers insights that can enrich the broader academic discourse in sport governance and organizational studies.

As Judo continues to evolve into a globally known sport, the organizational landscape surrounding it has become increasingly complex. This complexity stems from internal dynamics within clubs and federations and external influences from international governing bodies such as the International Judo Federation (IJF). These organizations play a critical role in adapting to the pressures of

commercialization, globalization, and professionalization while maintaining effective management practices (Parry, 2019; Palmer, 2013). The rise of professionalism in Judo has introduced new challenges, such as balancing traditional martial arts structures with modern sports business practices, including sponsorships, media partnerships, and financial sustainability (Robinson, 2016; Andreff, 2008).

The organizational evolution of Judo necessitates a multilayered framework to support its global operations. Unlike traditional martial arts practiced in localized settings, Judo's international reach has required the establishment of governance models that address both strategic and administrative demands. This includes aligning national and regional federations with global bodies like the IJF to streamline competition, training, and regulatory oversight (Hill & Green, 2018; Nakajima, 2011). Managing these layers effectively is essential to ensuring that Judo remains accessible at grassroots levels while meeting the requirements of elite, international competitions.

The foregoing notwithstanding, the complexities of Judo management are evident in both internal governance and external partnerships. Internally, issues such as leadership structures, resource allocation, and decision-making processes are critical concerns for Judo clubs and federations (Sterkowicz, 2011; Kellett, 2007). Externally, the sport's interaction with broader sports governance organizations and its efforts to remain competitive in a globalized sports industry highlight the need for strategic management practices (Palmer, 2013; Green & Houlihan, 2006). While effective management strategies of the sport are vital for Judo and helps address the challenges posed by commercial pressures, such as sponsorship negotiations, athlete management, and media engagement, research on the management of Judo organizations remains relatively fragmented. As some studies examine the operational frameworks of clubs and federations—focusing on leadership, decision-making, and resource management (Jones, 2015; Brousse, 2003), others explore the challenges of managing Judo at a global scale,

particularly in adapting to commercialization and professionalization (Palmer, 2013; Andreff, 2008). There is also only a small body of research investigating the role of international governance institutions like the IJF in coordinating and regulating Judo activities across diverse cultural and organizational contexts (Robinson, 2016; Suzuki, 2014).

Accordingly, given the increasing complexity of Judo's organizational environment in recent academic discourse, it is critical to map the conversations surrounding its management structures. Consequently, this study employs a bibliometric approach to analyze existing literature indexed in the Scopus database, focusing on publications from 2004 to 2024. By examining citation patterns, geographical trends, document types, and key themes, this review addresses the following research questions:

- Which years of publication, geographical regions, subject areas, document types, and authors have been the most impactful in Judo management research?
- What are the dominant themes and keywords in the existing literature on this topic?
- What gaps exist in the study of Judo's organizational management, and how can future research address them?

This bibliometric analysis aims to provide a comprehensive overview of the academic landscape; identifying key trends and research gaps in Judo management. It seeks to contribute to ongoing discussions about the operational challenges and strategies in Judo organizations and to offer valuable insights for scholarly work, policy and for practitioners alike. Thus, by exploring the intersection of Judo and management, this research sheds light on how the sport's governance structures are adapting to the demands of modern sports management practices.

MATERIALS AND METHODS

Source of Data, Software, and Analysis Process

This bibliometric analysis draws from the *Scopus* database, a rich, widely-recognized catalogue of peer-reviewed literature. Particularly, the Scopus database was chosen due to its comprehensive coverage of top-ranked academic journals and extensive research interests in sports management and ethics. The data analysis was carried out using the *VOSviewer* tool (version 1.6.20) and *MsExcel 365* to map research trends and relationships.

A Systematic Literature Network Analysis (SLNA) approach was adopted to examine the research landscape surrounding ethics in Judo and its organizational environment. This approach helps to scientifically select and review the current state of literature in order to understand the key themes and trends in research. The SLNA strategy integrates Systematic Literature Review (SLR) methods with Bibliometric Network Analysis and Visualization (BNAV). The SLR was conducted first to scope and identify relevant publications, which were then analyzed through BNAV. As a widely adopted approach for mapping literature trends, themes and gaps, the SLNA was preferred in this study due to its ability to rigorously identify research gaps, assess relationships among studies, and reveal key authors and emerging topics retrieval Plan Using the Systematic Literature Review Process.

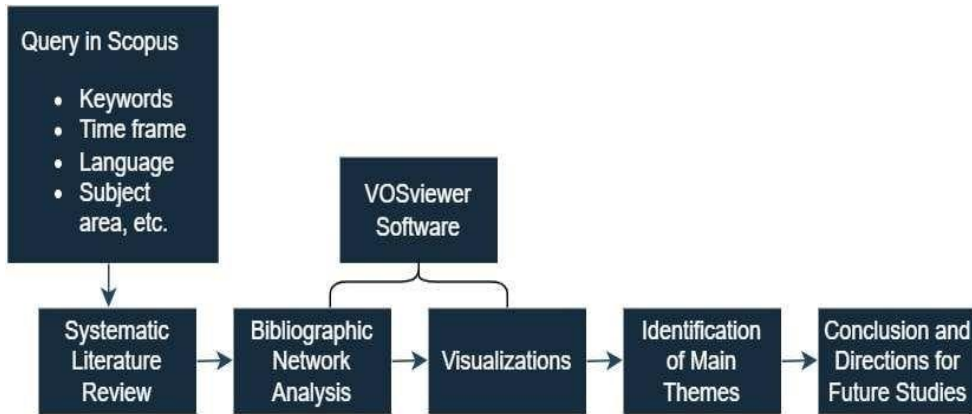


Figure 1. Illustration of the SLNA methodology.

Source: (Dzage & Szabados, 2024).

The literature review process began with the formulation of a search query designed to capture studies related to "Judo" and "Management". The query targeted titles, abstracts, and keywords of scientific publications in the Scopus database over the period from 2004 to 2024. Only peer-reviewed journal articles, conference papers, and book chapters published in English and French were considered. The following query was used:

TITLE-ABS-KEY (TITLE-ABS-KEY (judo) AND TITLE-ABS-KEY (management)) AND PUBYEAR > 2003 AND PUBYEAR < 2025 AND (LIMIT-TO (LANGUAGE, "English") OR LIMIT-TO (LANGUAGE, "French"))

This initial search produced 95 hits. After further refinements — such as focusing on specific subject areas (e.g., sports management, ethics, and governance), this number reduced to 83 publications. There was also a further filtering search by publication type and language which yielded 80 and 79 hits respectively. A final filter excluded duplicates and non-relevant studies, leaving 76 publications for analysis. This process is summarized in *Figure 2* below:

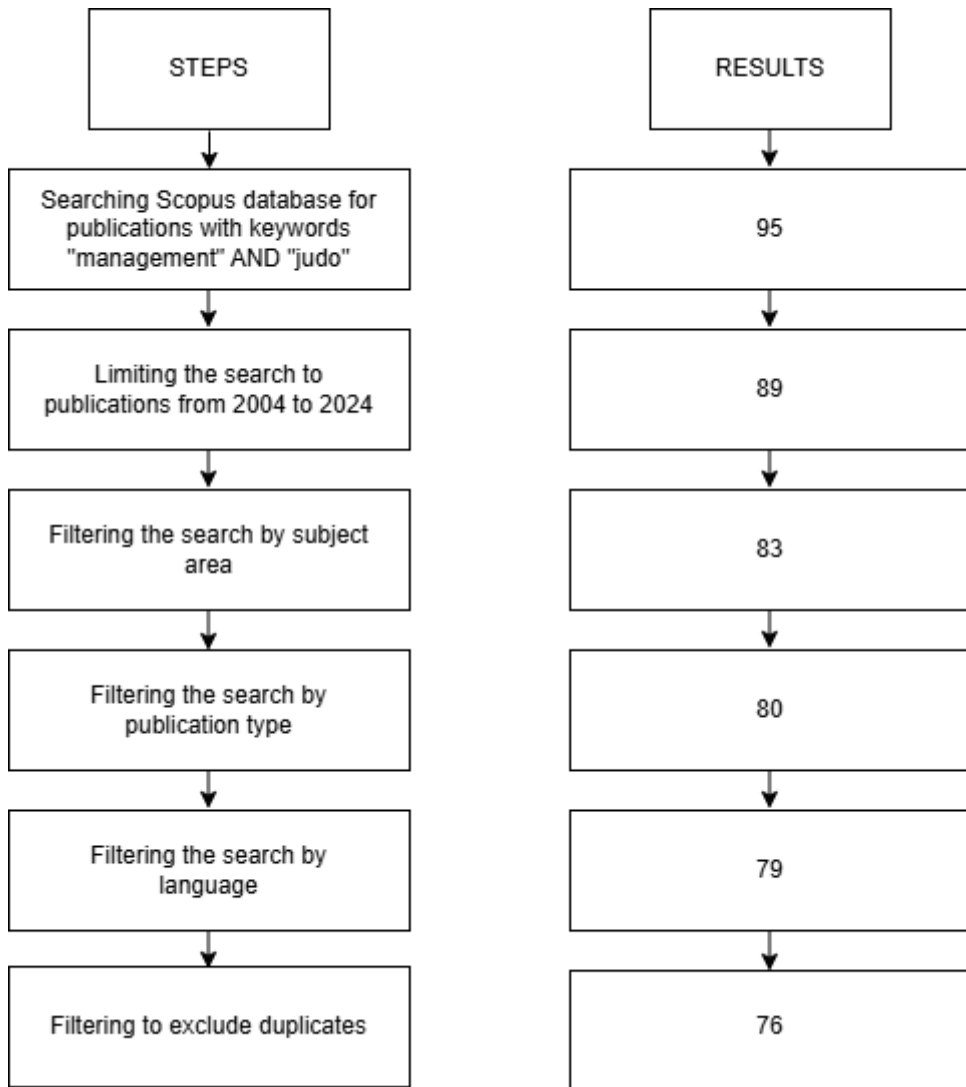


Figure 2. Illustration of the Systematic Literature Review Process.

Source: Authors (2024).

RESULTS AND DISCUSSION

The information regarding the year of publication, geographical distribution of the publications, subject areas, document types and document authors as gathered from the Scopus database and in connection with this study's keywords is presented in bar charts.

Research Growth Trends

Publications by Year

The distribution of publications reveals a gradual increase in scholarly interest in this field over time; and with a significant peak in the last year. The highest output occurred in 2024 with 14 publications, reflecting a notable surge in academic attention to the intersection of judo and management. This was followed by nine publications in 2021 and seven in both 2018 and 2022. Between 2005 and 2012, the number of publications remained relatively low, averaging two to three publications per year. However, from 2016 onwards, a steady but erratic growth trend is observed, suggesting mounting interests in integrating the principles of judo with management and organizational studies. This pattern may align with the increasing recognition of interdisciplinary approaches that apply traditional martial arts philosophies, such as adaptability, strategic thinking, and resilience, to contemporary management practices. *Figure 3* below illustrates the annual distribution of publications on Judo and Management.

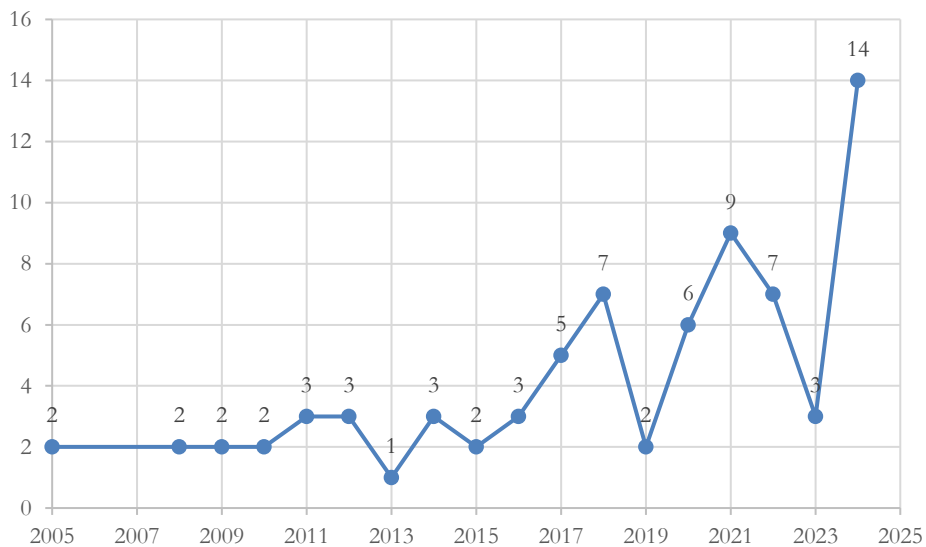


Figure 3. Number of publications by year.

Source: Own research

Most Productive Geographic Locations

The geographic distribution of publications reveals that Europe dominates with 49 publications, reflecting a strong academic interest in the intersection of judo and management. Asia follows with 14 publications, underscoring the cultural and philosophical roots of judo originating from Japan. North America contributes 15 publications, driven largely by research outputs from the United States and Canada, and signals a growing recognition of judo's application in management and organizational contexts. South America, Africa, and Oceania each contribute smaller numbers, with 7, 3, and 3 publications, respectively. South America's contributions may reflect a developing interest in sports management, while Africa and Oceania have room for further exploration of these themes. The undefined category, with 2 publications, likely arises from incomplete geographic data in the Scopus database.

Europe's dominance in this field can be attributed to the integration of judo principles within ethical and organizational frameworks prevalent in European sports governance. Similarly, Asia's contributions highlight the enduring influence of traditional Japanese martial arts philosophies in shaping modern management principles. North America's participation reflects an emerging interdisciplinary focus on sports, ethics, and leadership. Ultimately, this geographic distribution suggests that, while Europe and Asia are established leaders in this research area, there is significant potential for expanding studies in underrepresented regions such as Africa, Oceania, and South America. *Figure 4* provides a detailed breakdown of the publications by continent.

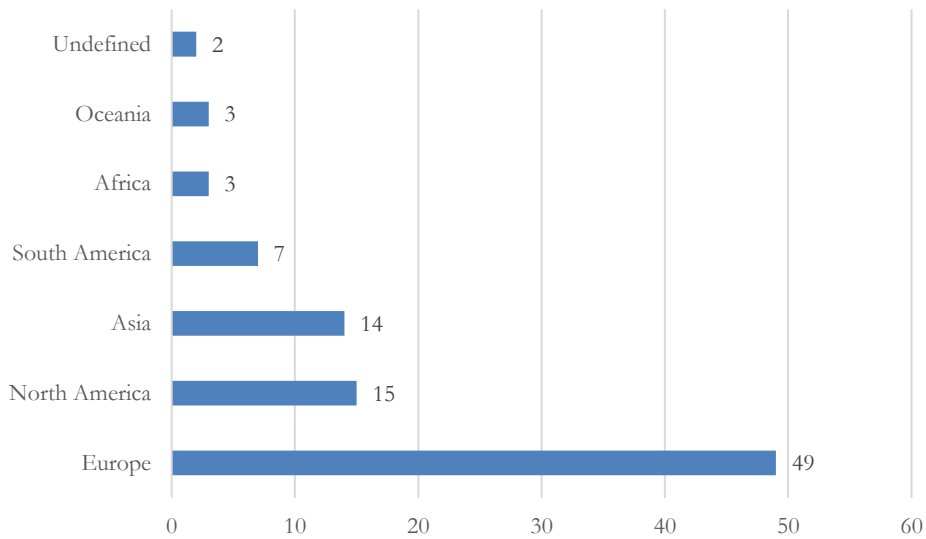


Figure 4. Publications by continent.

Source: Own research

Central Subject Areas

The analysis of subject areas reveals the dominance of the natural and social sciences. From the data, it was observed that 53% of the publications relate to the subject area of Medicine, with topics centered on health, injury prevention, and rehabilitation within the context of Judo. A further 34% of the publications were in Health Professions, focusing on the application of Judo in physical therapy and related health interventions. Additionally, 17% of the publications fall under Social Sciences, exploring the societal and cultural impact of Judo practices — with 11% of the publications pertaining to Business, Management, and Accounting literature (and addressing themes such as leadership, organizational strategy, and the application of Judo principles in management). Finally, the less-represented areas include Nursing (7%) and Psychology (5%), which examine the mental and emotional benefits of Judo. These findings highlight the multidisciplinary nature of Judo research, emphasizing its influence across

medical, social, and managerial disciplines. A detailed summary of the distribution by subject area is presented in *Figure 5*.

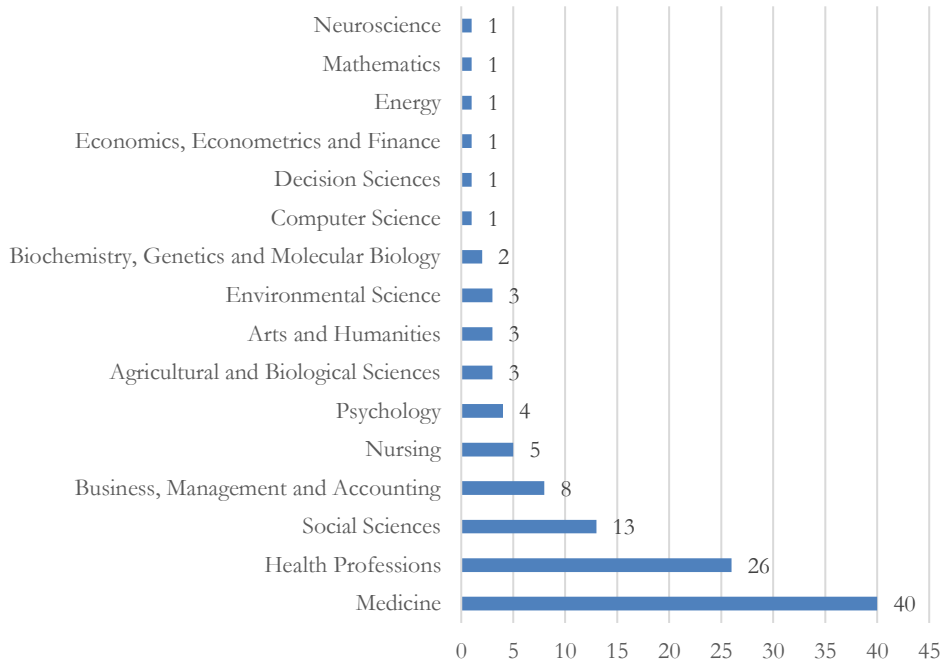


Figure 5: Distribution by subject area.

Source: Own research

Most Common Types of Publications

Of the 76 items included in this analysis, 83% are research articles, 9% are review papers, 3% are conference papers and 2% book chapters. The remaining document types, including errata, notes, and short surveys, each constituted 1% of the total. This distribution highlights research articles as the predominant type of publication, underscoring a strong emphasis on empirical studies in the context of Judo and management. The presence of review papers suggests an interest in synthesizing and evaluating existing knowledge, while the smaller proportion of conference papers indicates limited dissemination of findings in academic and professional gatherings. The minimal representation of book chapters and other

document types points to an untapped potential for deeper exploration in comprehensive works. *Figure 6* summarizes the distribution of publications by document type.

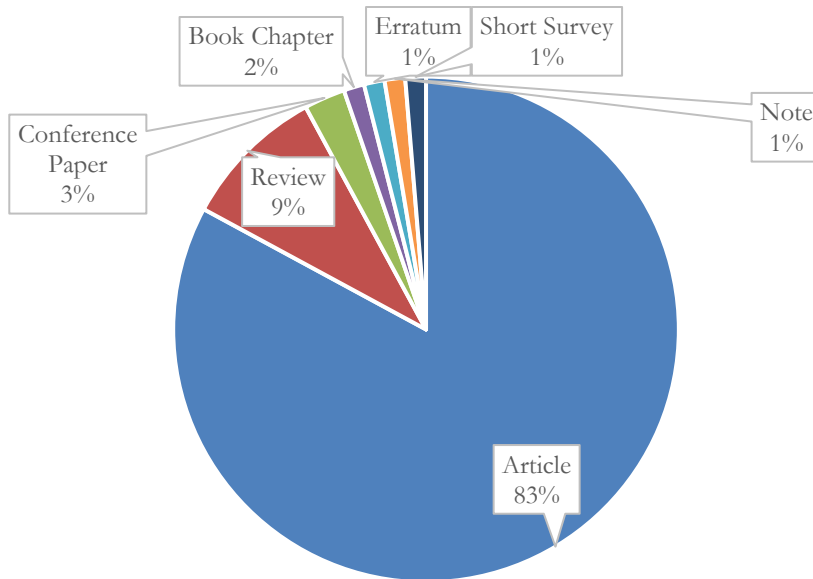


Figure 6. Distribution of publications by type.

Source: Own research

Most Prolific Authors

Based on the data analysis, several authors emerged as notable contributors in this interdisciplinary field. Among these, Franchini, E. stands out as the most prolific author, contributing three publications over the two-decades' analysis period. A group of authors, including Burnett, C., Frey, A., Fukuda, D.H., and Grimberg, J., have each contributed two publications. This group represents the core contributors driving research in this area. Additionally, a significant number of authors, such as Adcox, W.H., Aghajanyan, M., Ahlstrom, H., and Aksoy, T., have contributed a single publication. This pattern of authorship suggests that research

on Judo and management is distributed across various scholars rather than concentrated among a few prolific writers.

The dispersed authorship may reflect the transition towards an era of multidisciplinary research in this field, where contributions are made by researchers from diverse domains such as sports science, business, psychology, and organizational studies. This broad base of contributors highlights the potential for future growth through more focused collaborations and the establishment of dedicated research groups. Such efforts could deepen the exploration of Judo principles as may apply to management and organizational research and encourage more frequent contributions from a concentrated set of researchers. *Figure 7* breaks down the contributions of the most prolific authors in this area of research.

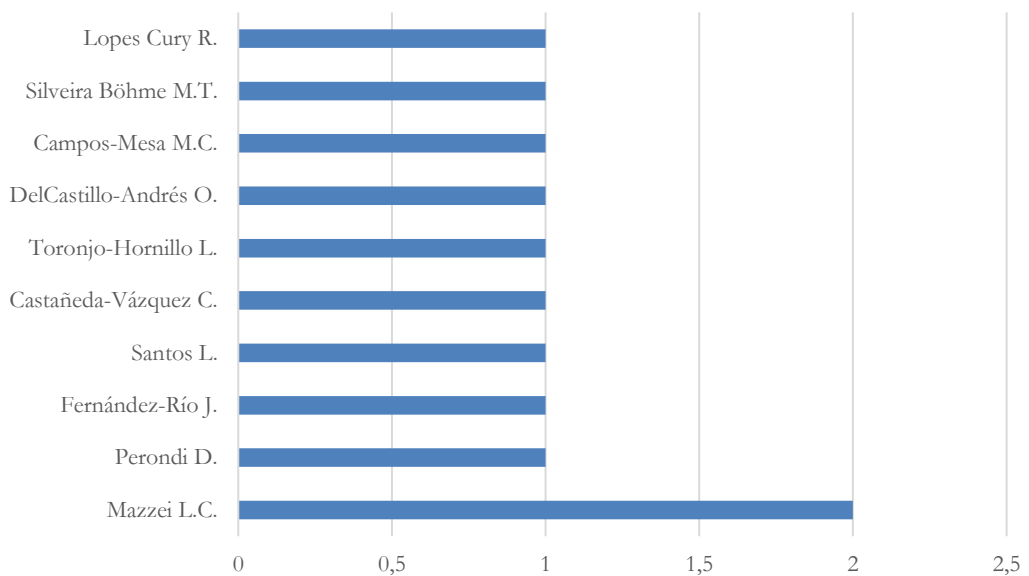


Figure 7. Contributions of the most prolific authors.

Source: Own research

Bibliometric Analysis

Bibliometric tools such as co-citation analysis, keyword co-occurrence analysis, and citation network analysis were used to map relationships between key

concepts, authors, and research areas. Accordingly, the *VOSviewer (version 1.6.20)* tool was employed to visualize these connections and identify clusters of related studies, enabling the creation of a knowledge map for consideration within Judo and its management-related scientific literature.

Author network visualization

As demonstrated by the illustration in *Figure 3*, the analysis used nodes, clusters and links to represent the existing networks between authors. Publications without any citations were excluded from this analysis. The author network from this analysis comprises 21 nodes, 4 clusters and 61 links. The nodes represent individual authors, publications and keywords, while clusters are collections of closely related publications grouped around common themes or keywords. The links also show the connections or relationships that exist between certain authors or keywords.

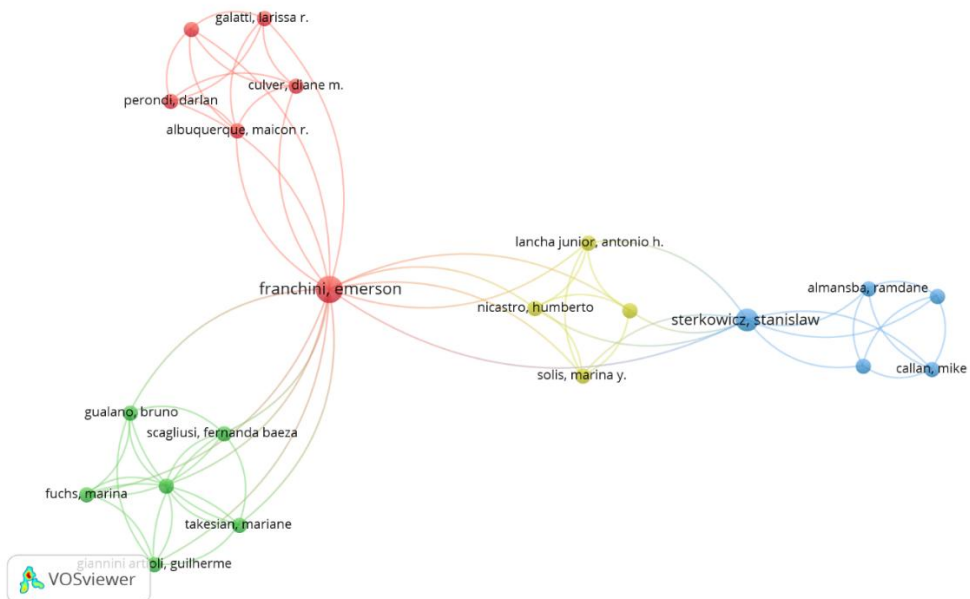


Figure 3. Author network visualization

Source: Own research

Co-occurrence network overlay based on author keywords

This analysis helps detect the research trends authors have focused on by using text mining to identify the commonly used keywords and themes among similar publications grouped into clusters. By using author keywords, CNAK helps us to uncover repetitive patterns or trends among common authors that may correspond to a certain field of study and help detect the topics that have attracted the greatest attention over time. The process of conducting this analysis involved extracting the keywords of the selected publications, merging synonymous and abbreviated keywords and then using the *VOSviewer* software version 1.6.20 to map out the author networks. With the minimum number of occurrences set at 1, there were 304 keywords; all of which met the threshold. The visualization map comprised 20 clusters, 163 nodes and 533 links, with a total link strength of 552. The nodes represent keywords grouped into unique clusters to avoid overlaps. The most frequently used keywords are represented by larger nodes, as seen in *Figure 4*.

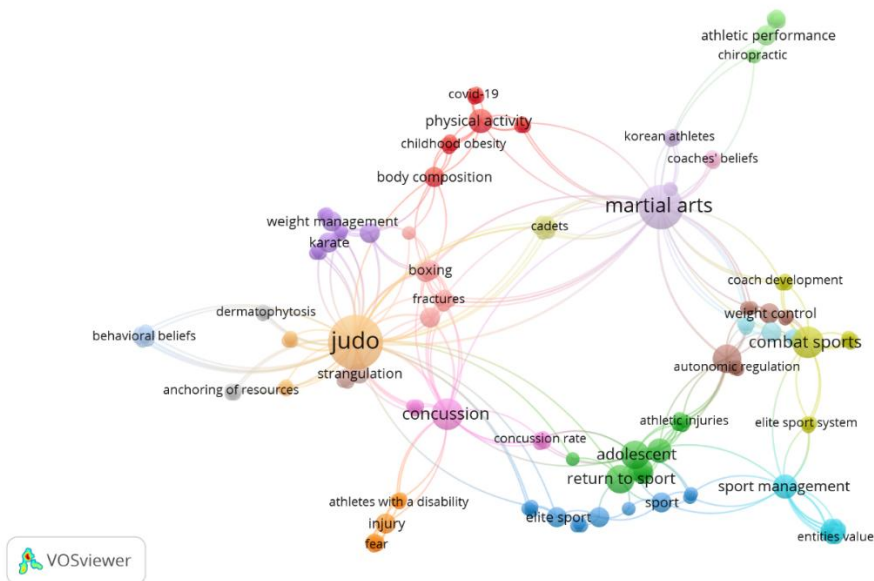


Figure 4. Co-occurrence network overlay based on author keywords
Source: Own research

Density visualization based on author keywords

As presented in Figure 5, the dominant keywords in this field of research over the past two decades included Judo, combat sport, martial arts, sport management, elite sport system, entities value, autonomic regulation, behavioral beliefs, anchoring of resources. Represented by yellow highlights on a navy-blue backdrop, this analysis shows the density map derived from an examination of the most popular keywords among the authors, as depicted by a heatmap using *VOSviewer* software version 1.6.20. With the two-color gradients, this density map shows the intensity of the data points around the most common author keywords around Judo and martial art over the period from 2004 to 2024. The brighter the yellow shade with a bigger font of a keyword, the more popular the research around that keyword has become among authors. Similarly, as the color and font size fades, the research around that keyword becomes less frequent, and this points to the likelihood of such areas being less explored.

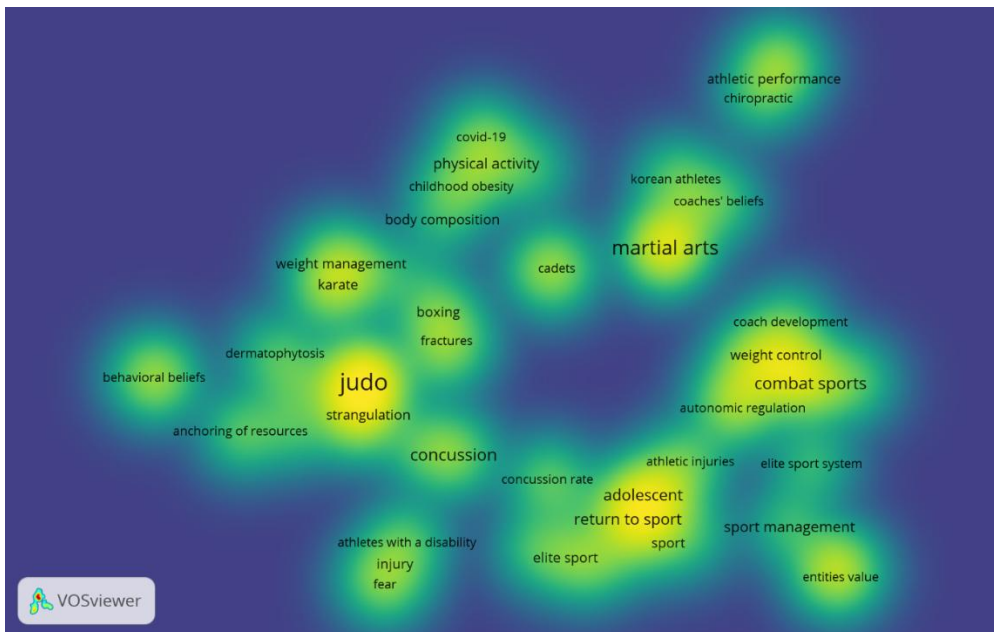


Figure 5. Density visualization based on author keywords.

Source: Own research

Critical Research Gaps and New Research Directions

Keywords serve as a concise indicator of research focus, offering insight into key themes and emergent topics within the field (Sterkowicz & Klys, 2011; Robinson, 2016). From the keyword analysis in this study, the most frequently used terms include “Judo”, “combat sport”, “martial arts”, “sport management” and “elite sport system”. These recurring keywords highlight primary areas of interest in the study of management within Judo, especially regarding the balance between traditional sport values and modern demands. Emerging but less common keywords—such as “entities value”, “autonomic regulation”, “behavioral beliefs”, “anchoring of resources”—suggest areas that have been less explored by scholars, thus pointing to potential research gaps and directions for future study.

However, as Dzage and Szabados (2024) noted, keyword analysis alone may not fully capture research gaps, as it can overlook the nuances of a topic, especially where varied terminologies are used to describe similar ideas. To address this limitation, a clustering analysis was conducted to group closely related keywords into unique clusters, reflecting the core themes within Judo management. *Table 1* presents a summary of the five key clusters, including the most researched topics, emerging themes, and underexplored areas, using a minimum threshold of ten citations.

In detail, the first cluster focuses on the role of management and governance in elite sports, emphasizing operational efficiency, leadership, and strategic decision-making in Judo organizations. For example, Robinson (2016) explored leadership challenges in elite sports organizations, specifically addressing how governance structures influence organizational success. Parry (2019) discussed the complexities of managing Olympic-level Judo organizations, focusing on the need to balance traditional martial arts principles with modern governance practices. Similarly, Hill and Green (2018) examined the impact of globalization on governance frameworks in Judo, highlighting the challenges of aligning traditional values with international sports governance standards. While these studies address

key aspects of governance, there is room for further exploration into the integration of innovative management strategies and how they impact the operational success of Judo organizations.

Table1. Thematic summary of research gaps and new directions based on keywords

Cluster	Top keywords	Total link strength	Occurrences	Main Topic
1	adolescent	9	4	Management and Governance in Elite Sports
	teenager	7	2	
	sport management	3	3	
	sport	4	2	
	shoulder	9	3	
	elite sport	2	2	
	rotator cuff	7	2	
	return to sport	10	4	
	management	3	2	
2	weight control	3	2	Martial Arts Performance and Success Metrics
	success	3	2	
	martial arts	13	10	
	combat sports	4	5	
	athletic performance	1	2	
	athletes	6	4	
3	physical activity	2	3	Physical Fitness and Body Composition in Combat Sports
	boxing	9	2	
	body composition	5	2	
	wrestling	9	2	
4	karate	4	2	Weight Management and Cross-disciplinary Martial Arts
	weight management	3	2	
	judo	21	15	
	taekwondo	7	2	
5	injury	1	2	Safety and Injury Risks in Judo and Martial Arts
	concussion	11	5	
	strangulation	4	2	
	loss of consciousness	8	2	

Source: Own research

The second cluster highlight themes related to performance measurement, success metrics, and their implications for organizational decision-making. Franchini et al. (2013) examined performance trends among Judo athletes, providing insights into training practices and competition strategies. Andreff (2008) extended this discussion by analyzing how performance metrics influence financial investments and resource allocation in sports organizations. Nakajima (2014) explored the role of performance data in shaping national and international Judo strategies, emphasizing the need for evidence-based decision-making. Despite these contributions, there remains a gap in understanding how Judo organizations utilize performance metrics to inform broader management decisions, such as talent development and funding allocation.

The third cluster centers on the importance of physical fitness and body composition in combat sports, with a specific focus on how these factors influence organizational management practices in Judo. Sterkowicz (2011) investigated the role of physical fitness in athlete preparation and performance, while Nakajima (2014) highlighted the importance of aligning fitness programs with international competition standards. However, limited research exists on how Judo organizations manage training frameworks and resource distribution to support athletes across weight categories. Future research could address these gaps by exploring the relationship between organizational practices, athlete fitness programs, and competitive success.

The fourth cluster explores weight management policies and cross-disciplinary insights from martial arts such as Judo, Karate, and Taekwondo. Parry (2019) examined weigh-in practices in Judo, focusing on their impact on athlete health and performance. Hill and Green (2018) discussed cross-disciplinary approaches to weight management, emphasizing the potential for Judo organizations to adopt best practices from other martial arts. While these studies provide a foundation, further research is needed to investigate how Judo federations implement sustainable weight management policies that prioritize athlete safety and long-

term health outcomes.

The core theme of the fifth and final cluster addresses injury risks and safety management in combat sports, with a particular focus on Judo. Suzuki (2014) explored safety protocols in Judo competitions, highlighting the risks of concussion and strangulation. Matsumoto (2009) also analyzed the role of technology, such as video monitoring, in enhancing safety standards, raising questions about its broader organizational implications. While these studies highlight key safety concerns, there is limited research on how Judo organizations implement injury prevention programs and leverage technology to reduce risks. Future research could examine the organizational role in enforcing safety protocols and balancing competitive intensity with athlete welfare.

Based on an analysis of the themes that were less popular in this analysis, the emerging directions for future research studies include investigating how digital tools and technologies like data analytics and AI could be integrated to enhance Judo management, addressing gaps in leadership and governance strategies, and analyzing performance-driven approaches to talent development and resource allocation. Additionally, research into sustainable weight management policies, comprehensive injury prevention programs, and safety management practices remains critical to ensuring athlete health and organizational success in Judo. This review also emphasized the significance of integrating performance metrics in the decision-making processes within judo organizations. These areas offer significant opportunities for advancing the understanding of Judo management in a global and increasingly professionalized sports environment.

CONCLUSION

This review sought to provide a comprehensive exploration of the academic discourse surrounding Judo management, leveraging Scopus data to map research trends, key themes, and gaps over the period from 2004 to 2024. The findings underscore the multidisciplinary nature of Judo research, with significant

contributions from the fields of medicine, social sciences, and business management. Witnessing a steady increase in scholarly interest particularly in recent years, this study highlights the growing recognition of Judo's relevance as both a sport and a framework for organizational and ethical practices.

While a geographically high academic output from Europe and Asia reflects Judo's cultural origins and the integration of its principles into regional governance frameworks, the underrepresentation of research from Africa, Oceania, and South America points to opportunities for expanding the global perspective on Judo and management. Analysis of keywords and clusters reveals recurring themes such as governance, performance metrics and safety management, alongside emerging topics like digital tools, behavioral beliefs, and sustainable athlete policies. These findings highlight areas for future exploration, particularly in leveraging technology, fostering innovation in leadership strategies and in integrating traditional Judo values into modern organizational practices. The study further identifies significant research gaps, including the low integration of performance metrics in decision-making, the development of comprehensive safety protocols, and the sustainable management of athlete resources. Addressing these gaps requires collaborative, interdisciplinary approaches that combine insights from sports science, organizational theory, and ethical leadership.

By illuminating the academic landscape of Judo management, this review contributes to a deeper understanding of how traditional martial arts philosophies can inform contemporary management practices and serves as a foundation for scholars and practitioners to address the complexities of managing Judo organizations in a globalized and professionalized sports environment. The insights provided pave the way for innovative strategies to balance the preservation of Judo's cultural heritage with the demands of modern sports governance.

IMPLICATIONS

The findings of this review bring to the fore some important suggestions for both practical applications and for the advancement of academic research. First, the findings of this review may serve as a useful resource for practitioners of the sport and would facilitate an understanding of the academic landscape and emerging trends which organizations can strategize with in aligning the traditional values of judo with modern management principles. Relatedly, the findings of this study are relevant in informing a balanced strategy towards the preservation of the cultural heritage of judo along the demands of modern sports governance frameworks — an important step towards maintaining the integrity of the traditional martial art while balancing it with contemporary organizational management principles.

In terms of its academic significance, this study's revelation of significant gaps in existing literature around judo management presents an opportunity for future research efforts to explore the underrepresented themes, particularly those that integrate the sport with modern management principles. Again, the methodology employed in this study may serve as a robust tool for future similar studies where researchers can rigorously identify research gaps and assess relationships among studies in a manner that paves the way for more investigations. The dispersed authorship issue highlighted in this study for instance may constitute a basis for establishing dedicated research groups that can concentrate their efforts more on some of the less researched topics and themes. Ultimately, this study highlights the multidisciplinary nature of judo research and the important contributions of different fields in understanding this sport. Consequently, judo management may benefit from multidisciplinary collaborations that contribute to a comprehensive understanding of judo management practices going forward.

LIMITATIONS

This study is first limited by its choice of Scopus as a sole database for the purpose of its analysis. While it could have benefitted from the different relevant

publications that may be available on other similar databases, merging multiple databases could have been ideal. Similarly, the strict adherence to the rigid process of the SLNA approach adopted meant that several other important studies might have been missed in the course of conducting the search. Consequently, new or emerging trends in today's updated literature after the search was conducted might have been missed in this analysis. Finally, the reliance on keyword analysis to identify the trends, themes and gaps may be a bit misleading as it may not fully capture the detailed focus of the topical key terms.

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