



Bibliometric Mapping of Documents on SPA Tourism in the Scopus Database Between 1990 and 2024

Havva GOZGEÇ MUTLU *

* Dokuz Eylül University Efes Vocational School, Department of Hotel, Restaurant and Catering Services, Izmir,
Türkiye, ORCID Number: 0000-0003-3891-8960

Received: 11.11.2024

Accepted: 02.03.2025

Research Article

Abstract

This study aims to provide a bibliometric analysis of spa tourism literature by examining key publications, authors, countries, institutions, and keywords. The research provides an overview of the development and structure of spa tourism studies to guide researchers and industry professionals. In this context, 174 documents indexed in the Scopus database between 1990 and 2024 with the keyword "spa tourism" were analyzed. The bibliometric analysis was conducted using VOSviewer version 1.6.20 and included document, author, country, institution, and keyword citation analyses. The results show that Bakucz Márta, de la Hoz-Correa Andrea, Muñoz-Leiva Francisco, and Han Heesup are among the most frequently cited authors in the field. The most cited studies include "Past themes and future trends in medical tourism research" and "Health or self-indulgence? The motivations and characteristics of spa-goers." In terms of country contributions, Spain, the United Kingdom, Hungary, and South Korea play significant roles in spa tourism research. Among institutions, the University of Granada (Spain), University of Pécs (Hungary), and Tamkang University (Taiwan) are the leading contributors. The keyword analysis

Corresponding author: Havva GÖZGEÇ MUTLU, e-mail:hgozgecm@gmail.com

Cite This Paper:

Gözgeç Mutlu, H. (2025). Bibliometric Mapping of Documents on SPA Tourism in the Scopus Database Between 1990 and 2024. *International Journal of Health Management and Tourism*, 10(1): 27-44.

reveals that "spa tourism," "health tourism," and "tourism" are the most frequently used terms. This study offers a structured overview of spa tourism research, highlighting the necessity for further comparative analyses and interdisciplinary approaches to advance the field.

Keywords: SPA tourism, Spa, Bibliometric Mapping Analysis, Scientific Productivity

INTRODUCTION

Spa tourism is an expanding subfield of health and wellness tourism that has received increasing attention in the academic literature. Smith and Puczko (2015: 207) stated that it is "important to define 'spa tourism,' as the term is frequently used in tourism promotion." The global spa market exhibited significant growth, expanding from \$65.21 billion in 2023 to \$72.97 billion in 2024, with a compound annual growth rate (CAGR) of 11.2% (The Business Research Company, 2024). As the global market for spa tourism expands, the need for scientific research and comprehensive analysis in academic literature has become increasingly important.

A review of bibliometric studies in the field reveals academic interest in various subcomponents of health tourism and identifies research gaps. Temizkan, Çiçek, and Özdemir (2015) analyzed general trends in health tourism by examining 155 articles indexed in the ISI Web of Knowledge database from 1991 to 2014. While their study offered a comprehensive overview of health tourism, it did not focus specifically on spa tourism. Kazak and Kazak (2023) analyzed over 13,700 articles indexed in SCI-EXPANDED, SSCI, and ESCI in the Web of Science database, but their evaluation did not include spa tourism. Doğan and Baynal Doğan (2020) analyzed 494 articles indexed in the SSCI database of Web of Science between 2000 and 2019. Among these, they identified 49 articles related to thermal and spa-wellness tourism, highlighting a significant gap in research on this topic.

Aluculesei et al. (2021) used co-word analysis to examine 627 studies on medical spa research published in the Web of Science Core Collection between 1997 and 2021. Their study revealed general trends and research topics in the field of medical spa tourism and emphasized the need to expand research to include databases such as Scopus and PubMed. Suban (2023) analyzed spa tourism under the umbrella of wellness tourism using the Scopus database from 1998 to 2021. These findings underscore the gaps in the international literature on spa tourism, indicating the need for future studies to address this area. Often categorized under wellness or health tourism, this concept requires independent investigation.

This study aims to guide researchers interested in this field by using the keyword "spa tourism" to analyze all publications in the Scopus database between 1990 and 2024, as of August 27, 2024. Considering the lack of bibliometric studies directly evaluating spa tourism publications, this research is regarded as significant for addressing a major gap in the literature.

Spa and Spa Tourism

Smith and Puczkó (2013: 10) defined "spa tourism as focusing on the relaxation, healing or beautifying of the body in spas using preventative wellness and/or curative medical techniques." In their earlier work, they described spa tourism as "tourism which focuses on the relaxation or healing of the body using mainly water-based treatments; such as, mineral or thermal pools, steam rooms; and saunas. Emphasis tends to be focused on curing, rehabilitating, or resting the body" (Smith & Puczkó, 2009: 85).

In recent years, factors such as urbanization, stressful living conditions, and environmental pollution have increased interest in spa services. Budakkıran and Mercan (2023) noted that this growing demand impacts both health tourism enterprises and hotel operations. Complementary practices such as massage, hydrotherapy, and acupuncture are popular among individuals seeking to improve their physical and mental well-being. Ramos and Untong (2014) described spa centers as places dedicated to renewing the mind, body, and soul, emphasizing their effectiveness in coping with stress caused by modern life.

Spa tourism also stands out as a rapidly expanding sector within wellness tourism. Europe plays a leading role in wellness tourism, with growing interest in spa tourism driven by individuals' desire to maintain physical and mental well-being (Papadopoulou, 2020). Stănciulescu, Diaconescu, and Diaconescu (2015) emphasized that spa services offer a wide range of activities to enhance individuals' social, emotional, physical, and psychological health. Similarly, Koskinen (2019) highlighted that spa tourism contributes to healthy aging and is particularly important for strengthening social ties among older individuals.

Modern spa tourism is characterized by water-based therapies and services provided by professional therapists in specialized spa facilities. Kharisma and Muni (2017) highlighted the positive impacts of spa tourism rooted in local wisdom, such as strengthening the local economy, creating jobs, and preserving cultural values in Ubud. Meanwhile, Erdeli, Dincă, Gheorghilaş, and Surugiu (2011) noted that spa tourism evolves over time with changes in consumer behavior, offering services tailored to different customer profiles and concepts. In recent years, spa tourism

has undergone significant changes by actively embracing wellness and well-being (Pinos-Navarrete, Abarca-Álvarez, & Maroto-Martos, 2022). This evolution has contributed to the diversification of spa services that aim to support physical and mental health through a comprehensive wellness approach.

The popularity of spa tourism calls for further research to better understand these experiences, the nature of their appeal, and how they can be marketed to tourists. Laing, Voigt, and Frost (2013) emphasized that the changing paradigm of spa tourism has introduced new dimensions to tourists' expectations of their experiences.

1. RESEARCH METHODOLOGY

This study aims to guide researchers interested in spa tourism by analyzing all publications in the Scopus database from 1990 to 2024 using the keyword "spa tourism." The study seeks to address the following research questions:

1. Which are the most frequently cited core articles in spa tourism?
2. Who are the leading contributors (authors, institutions, and countries) to spa tourism research?
3. What are the main journals that publish spa tourism studies?
4. What are the primary topics covered in spa tourism articles?

To achieve these objectives, bibliometric mapping analysis was employed. Bibliometrics refers to "the numerical analysis of publications produced by individuals or institutions within a specific field, time period, or region, and the relationships between these publications" (Ulakbim Cahit Arf Information Center, 2024).

The data for this study were retrieved from the Scopus database, encompassing 174 documents published between 1990 and 2024, using the keyword 'spa tourism' as of August 27, 2024. Scopus, a multidisciplinary bibliographic database owned by Elsevier, has been a reliable source for citation analyses since 1996 (Ulakbim Cahit Arf Information Center, 2024). It is widely used in social sciences due to its comprehensive coverage (Archambault et al., 2009).

The data from 174 documents were initially exported from the Scopus database in Microsoft Excel format. Bibliometric mapping was performed using VOSviewer 1.6.20 software. VOSviewer uses bibliographic data such as authors, institutions, countries, documents, and keywords to create visual maps, enabling structural analysis of scientific fields (Van Eck & Waltman, 2010).

In this study, no citation-based restrictions or only minimal thresholds were applied, ensuring that all documents, authors, sources, institutions, countries, and keywords were included in the analysis. This methodological approach aligns with the exploratory nature of bibliometric studies, which emphasize comprehensive dataset inclusion to accurately reflect the dynamics of a research field (Cobo et al., 2011). By incorporating all relevant entities, this study provides a more comprehensive evaluation of the scientific landscape, enabling a nuanced understanding of research collaborations, topic distributions, and academic influence within the field of spa tourism. Such an inclusive approach is essential for capturing both established and emerging contributions, as well as identifying potential "Sleeping Beauty" phenomena, where certain works may gain recognition over time (Van Raan, 2004).

To ensure the accuracy and reliability of the network analysis, The association strength normalization method was employed in all visualization analyses. This method is widely used in bibliometric network mapping as it helps determine the connections between nodes by normalizing the co-occurrence ratio between two items based on the total number of co-occurrences in the dataset. As a result, it provides more balanced and meaningful relationships (Van Eck & Waltman, 2009).

Building upon this, overlay visualization was applied to citation analyses, covering various citation metrics such as author, document, source, country, and institutional citations. In this approach, citation count was chosen as the weighting measure to reflect the impact of citations, while the average citation score served as the scoring metric. According to the VOSviewer manual, assigning weights to elements or links based on attributes such as citation count or publication count enhances their prominence in the visualization. Based on these selections, node colors indicate different citation levels: blue represents low citation scores, green indicates medium scores, and yellow signifies high citation scores (Van Eck & Waltman, 2023). Consequently, areas in yellow correspond to research with the highest citation counts, whereas green represents moderate citation activity, and blue signifies lower citation counts.

Furthermore, network visualization was used for keyword analysis to reveal conceptual structures and research trends within the field. This method was selected due to its effectiveness in visualizing conceptual relationships (Van Eck & Waltman, 2014) and identifying keyword clusters. To determine the prominence of keywords, occurrences was selected as the weighting metric, reflecting the frequency of keyword appearances in the dataset. Network visualization also

facilitates the grouping of similar topics through clustering methods, where node size represents the importance of a keyword in research, while link density indicates the strength of relationships between terms. Through this clustering analysis, key research trends and core topics within the field were identified (Waltman et al., 2010).

Although link strength was utilized for mapping, it was reported only in keyword analysis, as citation counts were analyzed directly. This is because, in VOSviewer, the calculation and reporting of link strength vary depending on the type of analysis conducted (Van Eck & Waltman, 2014). For example, in co-authorship or co-citation analyses, link strength serves as a fundamental measure indicating the intensity of relationships between nodes (Waltman et al., 2010).

2. ANALYSIS and DISCUSSION

2.1. Author Citation Analysis

During the analysis, 456 authors with at least one publication and zero citations were selected for evaluation. According to the results of the VOSviewer analysis, the top 10 authors were ranked based on their citation counts as follows: Bakucz, Márta received 187 citations; de la Hoz-Correa, Andrea and Muñoz-Leiva, Francisco each received 174 citations; Han, Heesup, Kiatkawsin, Kiattipoom, and Kim, Wansoo each received 167 citations; Chang, Richard C.Y., Mak, Athena H.N., and Wong, Kevin K.F. each received 154 citations; and Szromek, Adam R. received 117 citations. The results of the author citation analysis are presented in Figure 1.

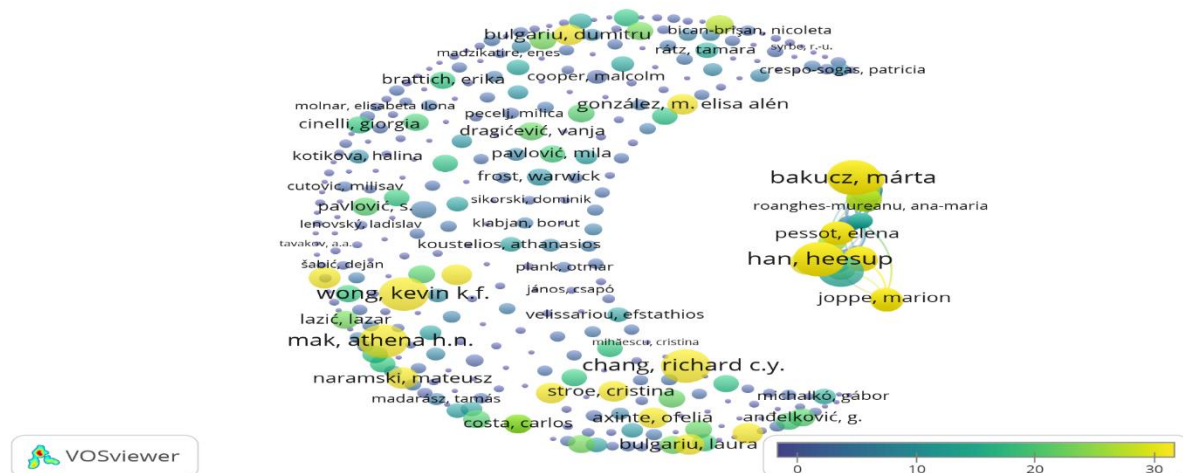


Figure 1: Results of the Author Citation Analysis

Note: Only the names of the first authors from each publication are included in the visualization.

An examination of Figure 1, which presents the visual analysis conducted using VOSviewer, reveals that Bakucz, Márta; Han, Heesup; Wong, Kevin K.F.; and Chang, Richard C.Y. stand out as prominent authors in terms of citations. Highlighting spa as a significant subfield of wellness tourism, Suban (2023) identified Smith, M., Voigt, C., and Puczko, L. as the most-cited authors in the wellness tourism literature within the Scopus database. According to the citation analysis, Smith, M. received a total of 189 citations, Voigt, C. 183 citations, and Puczko, L. 164 citations.

2.2. Document Citation Analysis

Publications that addressed spa tourism were analyzed based on their citation counts. Considering documents with at least zero citations, 171 documents were selected for analysis. The results of the document citation analysis are presented in Figure 2.

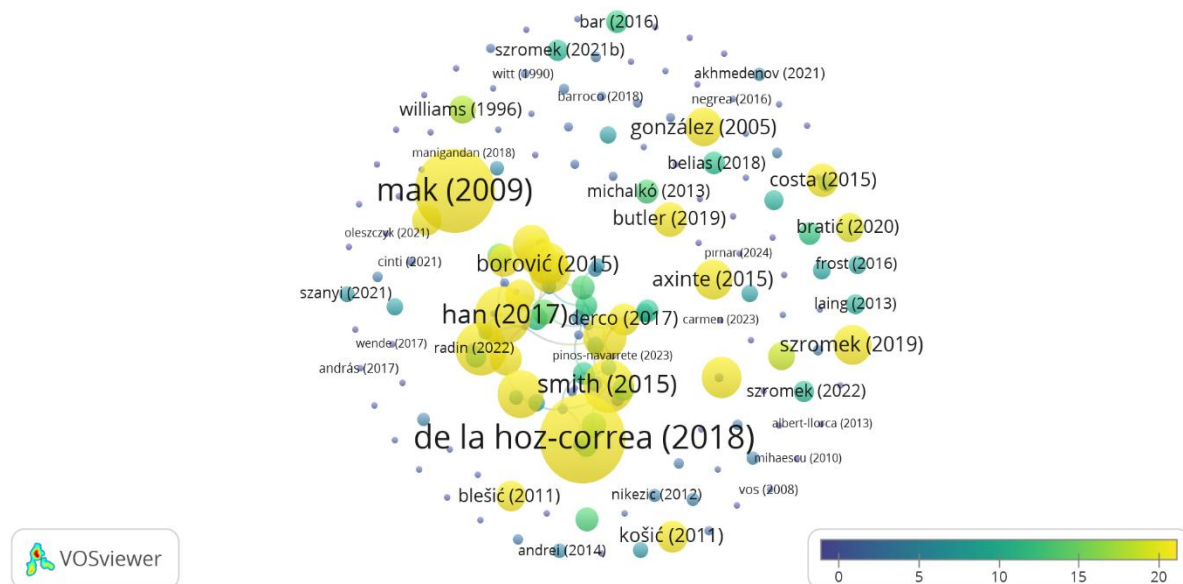


Figure 2: Document Citation Analysis

Note: The document analysis visual was created based on the first authors of the publications.

According to Figure 2 and the data obtained from the Scopus database, the most cited publications in the field of spa tourism demonstrate the diversity of research themes and their academic impact. The leading publication, "Past themes and future trends in medical tourism research: A co-word analysis" by de la Hoz-Correa (2018), received 174 citations. Another

significant work is "Health or self-indulgence? The motivations and characteristics of spa-goers" by Mak Athena H.N. (2009), with 154 citations.

Further notable studies include "Investigating customer loyalty formation for wellness spa: Individualism vs. collectivism" by Han, Heesup (2017), with 76 citations, and "More than a special interest: Defining and determining the demand for health tourism" by Smith (2015), with 63 citations. Other important works include "The role of wellness spa tourism performance in building destination loyalty: The case of Thailand" by Han, Heesup (2018), with 61 citations, and "Natural resources in health tourism: A systematic literature review" by Pessot, Elena (2021), with 49 citations.

Additionally, research focusing on the sector's strategic opportunities during COVID-19, such as "Spa tourism opportunities as strategic sector in aiding recovery from Covid-19: The Spanish model" by Pinos Navarrete (2021), received 46 citations. Studies addressing regional spa tourism topics, like "Utilization and tourism valorization of geothermal waters in Croatia" by Borovic (2015) with 41 citations and "Psoriasis treatment via doctor fishes as part of health tourism: A case study of Kangal Fish Spring, Turkey" by Sayılı (2007) with 40 citations, further highlight the scope of academic interest in the field. Other notable works include "Competing hospitalities in Japanese rural tourism" by Knight (1996) with 38 citations. These findings are systematically presented in Table 1.

Aluculesei et al. (2021) conducted a comprehensive bibliometric analysis of studies in the Web of Science Core Collection database to identify past trends in the medical spa field and anticipate future research directions. Among the most cited works in this domain, the article titled "Watering our cities: The capacity for Water Sensitive Urban Design to support urban cooling and improve human thermal comfort in the Australian context" stands out. Published in 2013, it has garnered 263 citations and 4020 reads, underscoring its substantial academic impact.

Another highly influential publication is "Hydrotherapy, balneotherapy, and spa treatment in pain management", published in 2005. This article has received 261 citations, 3342 reads, and a research interest score of 153.9, emphasizing its importance in examining the therapeutic applications of spa treatments in pain management.

Table 1: Document Citation Analysis Results

Rank	Document Title	First author names	Year	Number of Citations
1	Past themes and future trends in medical tourism research: A co-word analysis	de la Hoz-Correa	2018	174
2	Health or self-indulgence? The motivations and characteristics of spa-goers	Mak Athena H.N.	2009	154
3	Investigating customer loyalty formation for wellness spa: Individualism vs. collectivism	Han, Heesup	2017	76
4	More than a special interest: Defining and determining the demand for health tourism	Smith	2015	63
5	The role of wellness spa tourism performance in building destination loyalty: the case of Thailand	Han, Heesup	2018	61
6	Natural resources in health tourism: a systematic literature review	Pessot, Elena	2021	49
7	Spa tourism opportunities as strategic sector in aiding recovery from Covid-19: The Spanish model	Pinos Navarrete	2021	46
8	Utilization and tourism valorisation of geothermal waters in Croatia	Borovic	2015	41
9	Psoriasis treatment via doctor fishes as part of health tourism: A case study of Kangal Fish Spring, Turkey	Sayili	2007	40
10	Competing hospitalities in Japanese rural tourism	Knight	1996	38

Source: Compiled by the author from VOSviewer analysis.

2.3. Source Citation Analysis

When a source is required to appear at least once in a document and to have been cited at least once, 90 out of 119 sources were analyzed. As a result of the analysis performed using the VOSviewer software, Figure 3 was generated.



Figure 3: Source Citation Analysis Results

Note: The visual was created with the 32 items most closely related to each other out of 90 sources.

As shown in Figure 3, derived from the VOSviewer analysis of data obtained from the Scopus database, the top 10 journals with the highest number of citations are as follows: Tourism Management with three publications and 216 citations, Sustainability with ten publications and 198 citations, International Journal of Tourism Research with one publication and 154 citations, International Journal of Hospitality Management with one publication and 76 citations, Tourism Recreation Research with two publications and 69 citations, Renewable and Sustainable Energy Reviews with two publications and 63 citations, Journal of Travel and Tourism Marketing with one publication and 61 citations, International Journal of Spa and Wellness with eight publications and 47 citations, Tourism and Hospitality Research with one publication and 46 citations, and Journal of Vacation Marketing with two publications and 40 citations.

In the study by Aluculesei et al. (2021), among the journals publishing the most articles in the medical spa field in the Web of Science Core Collection database, the International Journal of Biometeorology (USA) ranks first with 24 articles. It is followed by Acta Balneologica (Poland), Balneo Research Journal (Romania), and Sustainability (Switzerland), each with 10 articles. Additionally, the Asia Pacific Journal of Tourism Research (USA), Dermatologic Clinics (USA), Environmental Earth Sciences (USA), Journal of Clinical Microbiology (USA), Rheumatology International (Germany), and Science of the Total Environment (Netherlands) have each contributed 7 articles to this field.

2.4. Country Citation Analysis

In the analysis of country citations, a minimum threshold of one publication and zero citations per country was set. The results of the country citation analysis are presented in Figure 4.

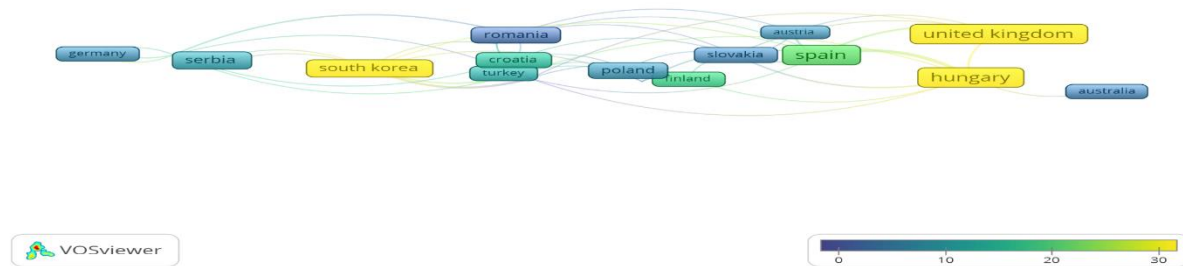


Figure 4: Country Citation Analysis Results

Note: The visual was created with the 24 items most closely related to each other out of 40 countries.

According to the analysis results and Figure 4, Spain ranks as the most cited country in SPA tourism research, with 16 publications and 327 citations. (In VOSviewer visualizations, node colors are usually determined by the average citation score (ACS), not by the total citation count (TC) (Van Eck & Waltman, 2010). Therefore, a country with the highest total citation count may be colored closer to green than yellow if its average citation score is lower. Spain: 16 publications → 327 citations → ACS: 20.4; United Kingdom: 9 publications → 307 citations → ACS: 34.1). Following Spain, other countries ranked by citations include: the United Kingdom with nine publications and 307 citations, Hungary with eight publications and 272 citations, South Korea with four publications and 167 citations, Hong Kong with one publication and 154 citations, Serbia with 14 publications and 135 citations, Poland with 17 publications and 129 citations, Romania with 28 publications and 98 citations, Italy with six publications and 73 citations, Croatia with five publications and 71 citations, the United States with three publications and 59 citations, Canada with three publications and 51 citations, Slovakia with 9 publications and 50 citations, and Turkey with four publications and 46 citations. According to Suban (2023) and the analysis conducted within the Scopus database, the United States is the leading country in wellness tourism literature, with 59 publications. It is followed by Australia with 36 publications, and both India and the United Kingdom, each with 25 publications. Additionally, China has made a significant contribution to this field with 23 publications.

The findings from this study reveal a significant difference between the countries contributing directly to spa tourism research and those contributing to wellness tourism. While Spain leads in spa tourism with 16 publications and 327 citations, the United States, which dominates the wellness tourism literature with 59 publications, shows a more limited presence in spa tourism, with only three publications and 59 citations. This discrepancy suggests that research themes within wellness tourism may vary significantly across different countries and regions.

2.5. Institutional Citation Analysis

For institutional citation analysis, a minimum threshold of one publication and zero citations was set, resulting in the analysis of 301 institutions.

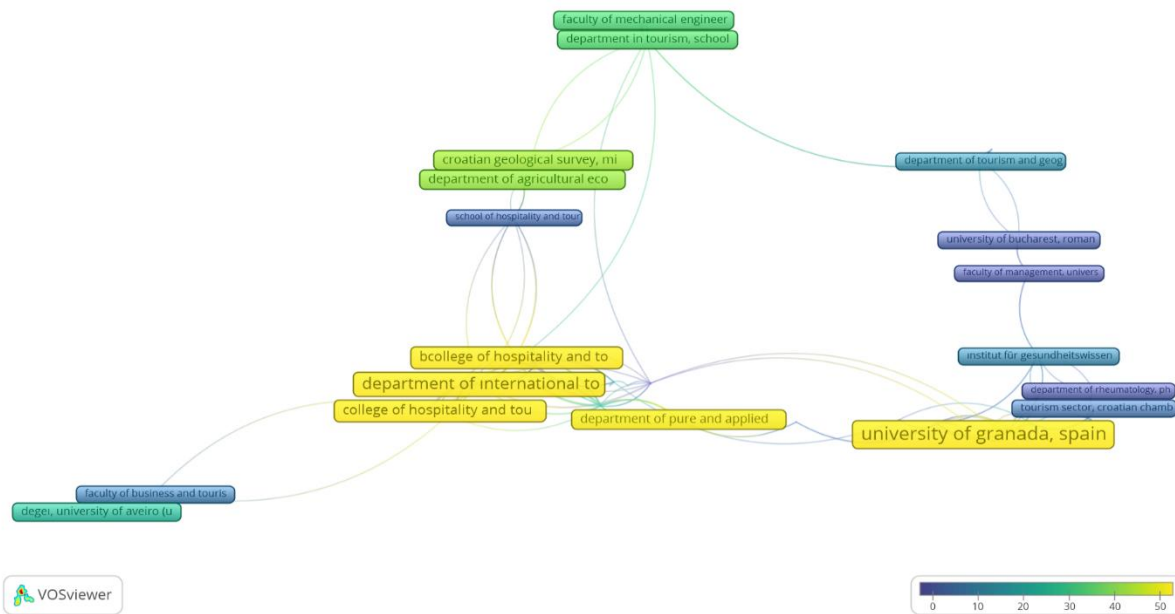


Figure 5: Results of Institutional Citation Analysis

Note: The program generated the visualization based on the largest cluster of interconnected elements, consisting of 96 items from 301 institutions.

According to the analysis results and Figure 5, when institutions are examined in terms of citations, the University of Granada (Spain), with two publications and 220 citations, ranks as the most cited institution. The University of Pécs (Hungary), with two publications and 187 citations, ranks second, followed by the Department of Tourism and Hospitality (Taiwan), which ranks third with one publication and 154 citations.

In the study by Suban (2023), the universities contributing the most to the wellness tourism literature were identified. According to the analysis, the University of Delaware (USA) and Itä-Suomen Yliopisto (Finland) stand out as the most active institutions, each with 9 publications. These are followed by the Alfred Lerner College of Business and Economics (USA), with eight publications, and both Purdue University (USA) and Ritsumeikan Asia Pacific University (Japan), each with seven publications. These universities have made significant contributions to academic research in the field of wellness tourism. Table 2 presents the Institutional Citation Analysis Results in an organized manner.

Table 2: Institutional Citation Analysis Results

Rank	Institution	Number of Documents	Number of Citations
1	University of Granada, Spain	2	220
2	University of Pécs, Hungary	2	187
3	Department of Tourism and Hospitality, Tamkang University, Lanyang Campus	1	154
4	School of Hotel and Tourism Management, The Hong Kong Polytechnic University, Hong Kong	1	154
5	School of Management, University of Surrey, Guildford, United Kingdom	1	154
6	Department of International Tourism, Dong-A University, Busan, South Korea	2	137
7	College of Hospitality and Tourism Management, Sejong University, 98 Gunja-dong, Gwanjin-gu, Seoul, South Korea	1	76
8	Department of Organization and Management, Institute of Economy and Informatics, Silesian University of Technology, Gliwice, Poland	3	76
9	Dept. of Food Service Management, Youngsan University, Busan, South Korea	1	76
10	School of Tourism, Leisure and Hospitality, BKF University of Applied Sciences, Budapest, Hungary	1	63

Source: Compiled by the author from VOSviewer analysis.

2.6. Keyword Analysis

During the analysis, when the minimum occurrence threshold was set to two, 67 out of the 496 keywords met this criterion. Table 3 and Figure 6 present data on the most frequently used keywords in spa tourism.

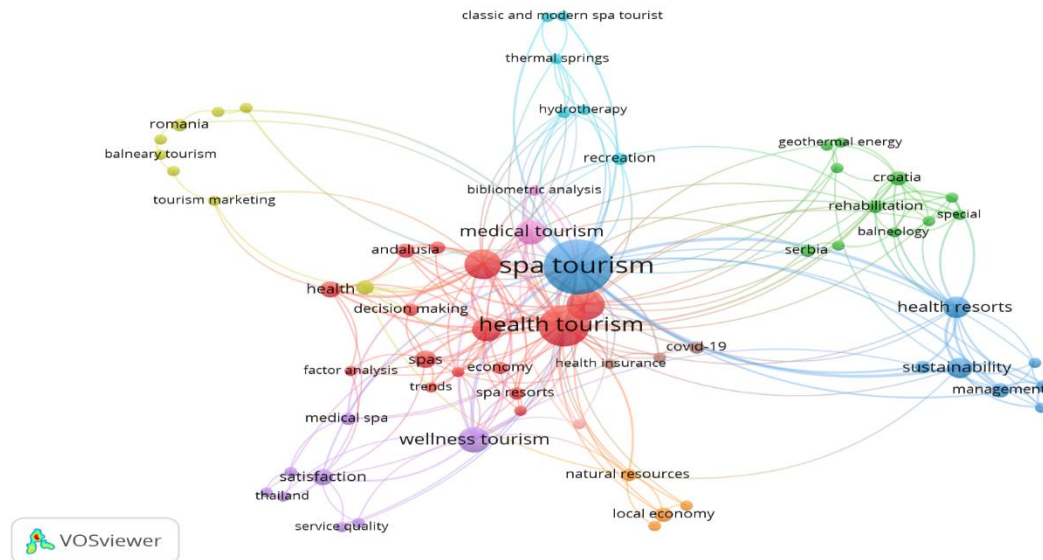


Figure 6: Results of Keyword Analysis

Note: The program generated the visualization based on the largest cluster of interconnected elements, consisting of 66 items from 67 keywords.

Tablo 3. Top 15 Keywords by Occurrence and Link Strength in SPA Tourism Research

Keyword	Occurrences	Total Link Strength
Spa tourism	56	80
Health tourism	31	65
Tourism	17	30
Spa	16	40
Wellness tourism	12	27
Medical tourism	11	28
Wellness	10	25
Health resorts	9	31
Sustainability	8	24
Spas	6	13
Health	5	15
Satisfaction	5	14
Croatia	4	17
Management	4	12
Well-being	4	12

Source: Compiled by the author from VOSviewer analysis.

According to the data in Table 3, the most frequently used keywords are spa tourism (56 times), health tourism (31 occurrences), tourism (17 occurrences), spa (16 occurrences), wellness tourism (12 occurrences), and medical tourism (11 occurrences). In terms of link strength, spa tourism (80) and health tourism (65) have the highest values. According to Figure 6, the clustering analysis results show that keywords are grouped around different themes. The blue cluster is associated with spa tourism, health facilities, sustainability, and management. The red cluster includes topics such as health tourism, medical tourism, economy, health insurance, and the impact of COVID-19. The green cluster focuses on geothermal energy, balneology, rehabilitation, and specific destinations (Croatia, Serbia). The yellow cluster is centered on tourism marketing, balneary tourism, and destinations such as Romania and Andalusia. The orange cluster examines the relationship between local economy, natural resources, and health tourism, while the purple cluster encompasses wellness tourism, customer satisfaction, service quality, and well-being. These findings highlight the key themes in spa and health tourism research and their interconnections.

Similarly, Aluculesei et al. (2021) analyzed the research interests of authors in the medical spa field and identified the most frequently used terms from titles and abstracts, including "patient" (652 occurrences), "balneotherapy" (244 occurrences), "quality" (209 occurrences), "hot spring" (208 occurrences), and "pain" (182 occurrences). These findings reflect a strong focus on the therapeutic and medical aspects of spa research, such as patient care, balneotherapy methods, and the role of natural resources like hot springs.

Comparing these analyses, it becomes evident that spa tourism research encompasses both tourism-related aspects (e.g., destination, experience, and sustainability) and medical dimensions (e.g., therapy, patient outcomes, and natural healing resources). This dual focus demonstrates the interdisciplinary nature of the spa field and highlights its importance in both health and tourism studies.

3. CONCLUSIONS AND RECOMMENDATIONS

This study provides a comprehensive bibliometric analysis of spa tourism research, examining key trends, influential contributions, and thematic structures within the field. By analyzing 174 documents indexed in the Scopus database from 1990 to 2024, this research identifies core publications, leading authors, prominent journals, contributing institutions, and country-level participation in spa tourism literature. The keyword clustering analysis further highlights the interdisciplinary nature of the field, demonstrating its connections to health tourism, medical tourism, sustainability, wellness, and economic development.

The findings reveal that spa tourism research is expanding but remains underexplored compared to broader wellness and health tourism studies. While countries such as Spain, the United Kingdom, Hungary, and South Korea play a significant role in spa tourism research, the United States, a leader in wellness tourism, has a relatively limited contribution to this subfield. Similarly, institutional contributions remain concentrated in select universities, with the University of Granada and the University of Pécs standing out as key contributors.

The bibliometric analysis indicates that sustainability, customer satisfaction, service quality, and health benefits are becoming increasingly relevant in spa tourism research. However, studies focusing on technological advancements, digital transformation in spa services, and personalized wellness solutions remain limited.

While European countries dominate spa tourism research, contributions from Asia, the Americas, and Africa remain relatively low. Future studies could explore regional variations in spa tourism trends, particularly in emerging markets.

Despite the increasing economic impact of spa tourism, scientific studies remain scattered and lack coherence. There is a lack of comparative studies evaluating the differences in spa tourism offerings, consumer behavior, and policy approaches across countries. Additionally, longitudinal studies analyzing trends over time could enhance understanding of the field's evolution.

Recommendations for Future Research

- Future bibliometric studies should incorporate data from multiple databases such as Web of Science, PubMed, and Google Scholar to provide a more comprehensive perspective on spa tourism research.
- There is a need for comparative analyses between different spa tourism destinations to identify best practices, competitive advantages, and consumer preferences across regions.
- With the rise of digital wellness platforms, AI-driven spa recommendations, and virtual wellness experiences, future research should explore the role of technology in spa tourism development.
- Given the increasing emphasis on sustainable tourism, research should focus on eco-friendly spa facilities, water conservation in spa resorts, and green certification standards.
- More studies should analyze the economic impact of spa tourism, investment opportunities, government policies, and regulatory frameworks to support industry growth.

This study contributes to the academic literature by mapping the landscape of spa tourism research, identifying key themes, and highlighting existing gaps. The findings indicate that while spa tourism is a rapidly growing sector, it still requires more scientific attention to establish a solid theoretical foundation. Future research should adopt a more interdisciplinary and global approach, integrating perspectives from health sciences, digital innovation, and sustainability to fully capture the evolving dynamics of spa tourism.

References

- Aluculesei, A. C., Nistoreanu, P., Avram, D., & Nistoreanu, B. G. (2021). Past and future trends in medical spas: A co-word analysis. *Sustainability*, 13(17), 9646.
- Archambault, É., Campbell, D., Gingras, Y., & Larivière, V. (2009). Comparing bibliometric statistics obtained from the Web of Science and Scopus. *Journal of the American Society for Information Science and Technology*, 60(7), 1320–1326.
- Budakkıran, M., & Mercan, Ş. (2023). The importance of SPA centers in hotels. *Boyabat İktisadi ve İdari Bilimler Fakültesi E-Dergisi*, 3(2), 284–304.
- Cobo, M. J., López-Herrera, A. G., Herrera-Viedma, E., & Herrera, F. (2011). Science mapping software tools: Review, analysis, and cooperative study among tools. *Journal of the American Society for Information Science and Technology*, 62(7), 1382–1402. <https://doi.org/10.1002/asi.21525>

- Doğan, S., & Doğan, T. G. B. (2020). Uluslararası alanyazında sağlık turizmi alt bileşenleri üzerine bibliyometrik bir analiz. *Hacettepe Sağlık İdaresi Dergisi*, 23(4), 561–586.
- Erdeli, G., Dincă, A. I., Gheorghilaş, A., & Surugiu, C. (2011). Romanian spa tourism: A communist paradigm in a post-communist era. *Human Geographies: Journal of Studies & Research in Human Geography*, 5(2).
- Kazak, M., & Kazak, G. (2023). Sağlık turizmi alanında yapılan çalışmalarının Vosviewer ile bibliyometrik analizi. *Journal of Healthcare Management and Leadership (JOHMAL)*, 1, 34–45.
- Kharisma, P. G. Y., & Muni, P. K. S. (2017). Local-wisdom-based spa tourism in Ubud village of Bali, Indonesia. *Russian Journal of Agricultural and Socio-Economic Sciences*, 68(8), 188-196.
- Koskinen, V. (2019). Spa tourism as a part of ageing well. *International Journal of Spa and Wellness*, 2(1), 18–34. <https://doi.org/10.1080/24721735.2019.1668673>
- Laing, J., Voigt, C., & Frost, W. (2013). Fantasy, authenticity and the spa tourism experience. In *Wellness tourism* (pp. 220–234). Routledge.
- Papadopoulou, G. (2020). SPA tourism in Europe: An economic approach. *Athens Journal of Tourism*, 7, 133–144.
- Pinos-Navarrete, A., Abarca-Álvarez, F. J., & Maroto-Martos, J. C. (2022). Perceptions and profiles of young people regarding spa tourism: A comparative study of students from Granada and Aachen universities. *International Journal of Environmental Research and Public Health*, 19(5), 2580.
- Ramos, V., & Untong, A. (2014). Spa tourism. In J. Jafari & H. Xiao (Eds.), *Encyclopedia of tourism*. Springer.
- Smith, M. K., & Puczkó, L. (2009). *Health and wellness tourism*. Butterworth-Heinemann. ISBN: 978-0-7506-8343-2.
- Smith, M. K., & Puczkó, L. (2013). *Health, tourism and hospitality: Spas, wellness and medical travel*. Routledge.
- Smith, M. K., & Puczkó, L. (2015). More than a special interest: Defining and determining the demand for health tourism. *Tourism Recreation Research*, 40(2), 205–219. <https://doi.org/10.1080/02508281.2015.1045364>

- Stănciulescu, G. C., Diaconescu, G. N., & Diaconescu, D. M. (2015). Health, spa, wellness tourism. *Knowledge Horizons/Orizonturi Ale Cunoasterii*, 7(3), 158–161.
- Suban, S. A. (2023). Bibliometric analysis on wellness tourism: Citation and co-citation analysis. *International Hospitality Review*, 37(2), 359–383.
- Temizkan, P., Çiçek, D., & Özdemir, C. (2015). Bibliometric profile of articles published on health tourism. *Journal of Human Sciences*, 12(2), 394–415.
- Ulakbim Cahit Arf Information Center. (2024). Bibliyometrik analiz sıkça sorulan sorular. <https://cabim.ulakbim.gov.tr/bibliyometrik-analiz/bibliyometrik-analiz-sikca-sorulan-sorular/> (Accessed: 31.10.2024).
- Van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84(2), 523–538.
- Van Eck, N. J., & Waltman, L. (2009). How to normalize co-occurrence data? An analysis of some well-known similarity measures. *Journal of the American Society for Information Science and Technology*, 60(8), 1635-1651. <https://doi.org/10.1002/asi.21075>
- Van Eck, N. J., & Waltman, L. (2014). Visualizing bibliometric networks. In Y. Ding, R. Rousseau, & D. Wolfram (Eds.), *Measuring scholarly impact: Methods and practice* (pp. 285–320). Springer. https://doi.org/10.1007/978-3-319-10377-8_13
- Van Eck, N. J., & Waltman, L. (2023). *VOSviewer Manual (Version 1.6.20)*. Centre for Science and Technology Studies (CWTS), Leiden University.
- Van Raan, A. F. J. (2004). Sleeping beauties in science. *Scientometrics*, 59(3), 467–472. <https://doi.org/10.1023/B:SCIE.0000018543.82441.f1>
- Waltman, L., van Eck, N. J., & Noyons, E. C. (2010). A unified approach to mapping and clustering of bibliometric networks. *Journal of Informetrics*, 4(4), 629-635