

# Safety and Health Publication Trends: A Case Study of the Tourism Industry

**Khairul Hafezad Abdullah**

*Universiti Utara Malaysia, Malaysia*  
*hafezad@uum.edu.my*

**Ejiro Uriri Osiobe**

*Baker University, United States of America*  
*jiji.osiobe@bakeru.edu*

**Azliyana Azizan**

*Universiti Teknologi MARA, Malaysia*  
*azliyana9338@uitm.edu.my*

**Fadzli Shah Abd Aziz**

*Universiti Utara Malaysia, Malaysia.*  
*f.shah@uum.edu.my*

**Afrig Aminuddin**

*Universitas Amikom Yogyakarta, Indonesia*  
*afrig@amikom.ac.id*

In the tourism industry, it is critical to prioritise safety and health measures to guarantee the satisfaction and well-being of local communities and tourists. This study analyses the publication patterns, geographic dispersion, most-cited articles, and thematic emphasis on safety and health research in the tourism industry. Our empirical investigation utilised Scopus and Web of Science datasets, which were analysed using ScientoPy and vosviewer. The results showed a significant increase in research activity during the 2000s, suggesting that researchers emphasised the significance of safety and health practices in the tourism industry. China is the most prolific contributor, producing 154 publications, more than 50% of which were published between 2021 and 2022. The term 'health tourism' arises as the predominant subject of investigation in safety and health research on the tourism industry, having been featured in 215 publications. Significantly, 19% of publications utilising the term 'health tourism' were published between 2021 and 2022, suggesting continued enthusiasm and a recent upsurge in scholarly endeavours within this crucial field. Since 2018, the terms 'tourism destination', 'tourism industry', 'satisfaction', 'public health', 'wellness', 'tourism safety', 'China', 'COVID-19', 'mental health', 'well-being', and 'health and wellness' have dominated the emerging subfield or niche area of studying safety and health in the tourism industry.

*Keywords:* safety, health, well-being, tourism industry, bibliometric



<https://doi.org/10.26493/2335-4194.17.35-52>

## Introduction

The preservation of safety and the promotion of well-being hold the utmost significance within the global travel and hospitality domain, particularly in the tourism industry (Perić & Vitezić, 2021). However, the longstanding tradition of travel to enhance the overall welfare of tourists has been cast into doubt amidst the unforeseen public health crisis of COVID-19 (Yang & Wong, 2020), when numerous travellers encountered a lack of hospitality in their chosen destinations (Chua et al., 2021). As many individuals travel for purposes such as recreation, commerce, or discovery, prioritising their welfare and protecting their physical well-being becomes imperative (Mitsakou et al., 2021). This multidimensional field involves various facets, including ensuring the safety of travellers during transportation and maintaining health standards in accommodations and destinations (Awan et al., 2021). The scholarly work conducted by Țuclea et al. (2020) underscores the growing significance placed on the health and safety aspects of tourism destinations. In this context, social media platforms assume a heightened level of involvement in travel by fostering trust among individuals seeking reliable and up-to-date information (Berhanu & Raj, 2020; Țuclea et al., 2020). Likewise, the proficient administration of safety and health measures safeguards the well-being of tourists and maintains the standing and long-term viability of the inclusive tourism environment (Fountain & Cradock-Henry, 2020; Hassan & Salem, 2021). Therefore, tourism destinations and the travel market must be researched to examine the impacts of evolving perceptions of tourism hazards, experiences, and behavioural intentions (Chan, 2021).

Within the field of tourism, the notion of safety and health comprises a wide range of tactics and rules designed to mitigate potential hazards and safeguard the physical and emotional well-being of those engaging in various areas of travel-related undertakings (Chua et al., 2021). This encompasses the execution of proactive methodologies to alleviate incidents, the guarantee of hygienic circumstances in lodgings, and the establishment of contingency plans (Kang et al., 2021). Furthermore, it encompasses strategic oversight of health-related matters, proactive measures to

prevent diseases, equitable healthcare services, and optimal mental well-being (Buckley et al., 2021; Gan et al., 2023). These facets are paramount in cultivating a safe and fulfilling travel experience. Gaining a comprehensive understanding of the dynamic nature of safety and health within the tourism industry is crucial to anticipating potential obstacles and successfully executing proactive, efficient methods. Throughout history, the concept of travel safety has undergone significant transformations, closely intertwined with societal, technological, and environmental changes (Asghar et al., 2020; Farajat et al., 2017; Ma et al., 2020). The proliferation of mobile media devices equipped with internet connectivity has experienced a notable surge throughout various global regions, leading to a substantial transformation in how individuals utilise their trip time when using public transportation (Julsrud & Denstadli, 2017). Hence, gaining knowledge from previous achievements and obstacles provides valuable perspectives for creating robust and flexible safety frameworks in the present day.

The extant literature concerning bibliometric analysis offers significant contributions to understanding research progress within the tourism sector. An extensive bibliometric analysis uncovers several seminal studies that have substantially contributed to the comprehension of this topic. Liu et al. (2023) conducted a bibliometric analysis on tourism risk communication, identifying emerging research clusters and highlighting the importance of data analysis and modelling in advancing research in this field. Toker and Emir (2023) conducted a bibliometric analysis on tourism safety and security, identifying influential authors, publications, journals, and countries in this area. Another study analysed the literature on tourist safety and security, emphasising the need for research on decision-making, risk perception, and sustainable development in this field (Amaro et al., 2023). Mohanan and Shekhar (2022) conducted a bibliometric analysis on wellness tourism, identifying prominent journals, trending keywords, and the leading country in research output. Roziqin et al. (2023) conducted a bibliometric analysis on digital tourism, providing insights into the field's most cited publications, authors, institutions, and countries. These bibliometric

analyses demonstrate the breadth of research in the tourist sector and highlight the value of systematic reviews in identifying trends, significant contributors, and areas that require more investigation. As the tourist business evolves, bibliometric analyses remain essential tools for researchers and policymakers seeking a thorough grasp of the subject.

In the current era of unparalleled global interconnectedness, the significance of conducting research on safety and health within the tourism industry has become increasingly paramount. To effectively cater to a varied and discriminating customer base and effectively manage potential unforeseen emergencies, it is imperative to possess a comprehensive grasp of the ever-changing dynamics around safety and health. For instance, the COVID-19 pandemic illustrates the rapid and far-reaching effects of health crises on tourism (Lu et al., 2021). Hence, present-day scholarly investigations tackle immediate issues and lay the groundwork for a resilient and flexible future in tourism safety and health management. The principal aim of this study is to examine the publication trends, geographical distribution, frequently cited publications and thematic focus of safety and health research within the tourism industry over the specified period.

### **Current Trends and Developments in the Tourism Industry**

#### **Rationale for Bibliometric Analysis in Tourism**

The safety and health research trends within the tourism industry refer to the bibliometric analysis conducted in the study that discusses safety and health research trends in the tourism industry. Bibliometric analysis is a quantitative research methodology employed to examine and assess scholarly literature, predominantly encompassing academic publications such as journal articles, conference papers, and patents (Donthu et al., 2021). The process entails the utilisation of statistical and mathematical methodologies to evaluate different facets of the literature under question (Abdullah, 2023). The extensive and varied literature on safety and health in the field of tourism highlights the necessity of conducting a comprehensive bibliometric study to derive relevant insights. Therefore, bibliometric analysis is crucial for safety and

health studies undertaken in the tourism industry as it shows the past, current, and future trends in any field while highlighting their blind spots. Principally, since the post-COVID-19 era, the health and safety of visitors has emerged as a primary concern within the tourism industry.

#### **Significance of Safety and Health in Tourism, Especially Post-COVID-19**

Tourism is preoccupied with promoting tourism destinations to ensure health and safety measures are in place, making them attractive and secure for visitors (Robina-Ramírez et al., 2023). Implementing safety protocols and measures, encompassing food safety, allergen management, and cross-contamination prevention, profoundly influences the overall food and beverage tourism experience (Yeung & Yee, 2020). Wilks et al. (2021) reported that the tourism industry has transitioned from a proactive to a crisis management and recovery framework, emphasising customer service and creating protocols and emergency plans.

It is imperative to acknowledge that safety and security constitute fundamental necessities in human existence, extending their significance to the tourism domain just as they do in other spheres of scholarly inquiry (Toker & Emir, 2023). The public's perception of security is shaped by variables, including the extent to which risks are apparent and the ability of the administration to mitigate them (Ruiz-Sancho et al., 2021). The tourism industry faces novel management challenges in addressing health hazards due to the COVID-19 pandemic. This situation has necessitated a paradigm shift in the tourism industry's safety measures and crisis communication strategies (Orindaru et al., 2021). Social distancing, sanitation standards, and contactless interactions have ensured visitor well-being and industry sustainability (Pretto et al., 2023). Transparent and timely information dissemination is crucial to instil confidence in travellers and mitigate potential risks (Ghosh & Uzuner, 2023).

The interconnectedness of safety, security, and health underscores the multifaceted nature of risk management in the tourism sector (Giliberto & Labadi, 2023). Therefore, it is of utmost importance to engage in extensive research and meticulous strategic

planning to tackle the pressing challenges and bolster the industry's resilience in the face of potential future uncertainties. Using bibliometric analysis allows for the acquisition of quantitative data on the quantity of publications, facilitating the evaluation of academic activity and production.

#### Role of Bibliometric Analysis in Analysing Research Trends

Bibliometric analysis aids in identifying significant patterns, recurring motifs, and central areas of focus for comprehending the present state of scholarly inquiry and the future trajectory of the discipline (Duan & Zhu, 2020; Veloutsou & Mafe, 2020). In addition, using bibliometric analysis might elucidate domains within research that are inadequately represented or deficient, hence pinpointing lacunae in knowledge (Mukherjee et al., 2022). This information has the potential to provide valuable guidance for future research endeavours aimed at tackling crucial issues of safety and health within the tourism industry. However, the scope of bibliometric analysis on safety and health within the tourism domain remains constrained.

It is worth noting that prior scholarly investigations have indeed undertaken bibliometric analyses concerning safety and security in the context of tourism (Toker & Emir, 2023), tourist security (Félix et al., 2023), and medical tourism (Habibi et al., 2022), as well as the interplay between contagious diseases and tourism (Goel et al., 2021). Toker and Emir (2023) performed a bibliometric analysis of research on tourism safety and security spanning 45 years. Their study provides a basis for future research in this field. Félix et al. (2023) analysed the scientific production related to tourism security. They found that the literature on tourism safety is gradually growing, focusing on the relationship between security and tourism, risk perception, and customer satisfaction. In their study, Habibi et al. (2022) examined 1,535 papers from 1952 to 2020 that focused on medical tourism. They identified six prominent themes in medical tourism: marketing, economic and political factors, social and cultural factors, ethical considerations, technological aspects, and governmental influences. Within these categories, they found that factors influencing the

emotional aspects of tourists' decision-making were not as well-studied as those influencing the cognitive side of their destination choices. Goel et al. (2021) examine the impact of contagious diseases on tourism by analysing scientific papers and selecting essential topics. The study provides an overview of research on contagious diseases in tourism, including COVID-19, SARS, crisis management, and sustainability.

Therefore, the present investigation employs the applied bibliometric technique to address the subsequent inquiries: What is the overall publication trend in safety and health research within the tourism industry? Which countries or regions have been the primary contributors to research on safety and health in the tourism industry? What are the most frequently cited publications in tourism-related safety and health research? What are the key thematic areas within safety and health in the tourism industry that have received significant research attention? Are there emerging subfields or niche areas within safety and health in tourism that have gained traction in recent years?

#### Methodology

##### Databases, Keywords, and Software

The meticulous curation of suitable databases serves as the fundamental cornerstone upon which any bibliometric analysis is constructed. In this study, two notable databases, namely Scopus and Web of Science (WoS), were deliberately selected due to their comprehensive scope of encompassing scholarly literature. Scopus presents an extensive reservoir of scholarly publications spanning diverse fields of study (Sofyan et al., 2023), furnishing a comprehensive resource for investigating safety and health research within the tourism industry. WoS, renowned for its meticulous indexing and comprehensive citation tracking (Birkle et al., 2020), is a valuable counterpart to Scopus by providing a curated assemblage of esteemed scholarly journals and conference proceedings with significant influence. Collectively, these databases guarantee a comprehensive and all-encompassing dataset for analysis.

The selection of appropriate and specific keywords is critical to retrieving publications that are precise and relevant. This study used a variety of essential terms that were incorporated into the search strategy

Table 1 Data Integration and Duplicate Xclusion

| Data Pre-processing Output Information |   | (1)   | (2)   |
|--|---|-------|-------|
| Initial datasets                       | Raw data from Scopus and WoS  | 2298  | -     |
|  | Automatic type-filter publication to remove non-related document  | 505   | 22.00 |
|  | Total publications after selecting document types (Research articles, conference papers, book chapters, review papers, and proceedings) | 1,793 | -     |
|  | Publications in WoS   | 751   | 41.90 |
|  | Publication in Scopus   | 1,042 | 58.10 |
| Duplicated removal results             | Duplicated publications in both databases   | 438   | 24.40 |
|  | Duplicated publications from WoS  | 7     | 0.90  |
|  | Duplicated papers from Scopus   | 431   | 41.40 |
| Final datasets                         | Total publications after eliminating duplicates   | 1,355 |       |
|  | Publications in WoS   | 744   | 54.90 |
|  | Publications in Scopus  | 611   | 45.10 |

Notes Column headings are as follows: (1) number, (2) percentage (%).

as follows: ('safety and health' OR 'safety' OR 'health') AND ('tourism' OR 'tourist' OR 'hospitality'). The tourism industry's safety and health research datasets were retrieved from Scopus and WoS databases in October 2023. Implementing this varied strategy guaranteed the inclusion of a wide array of safety and health research in the tourism industry. The title search was utilised to retrieve the search string to obtain a more precise and accurate list of publications. The significance of title-based dataset retrieval lies in its ability to emphasise research subjects' structural and content-related advancements (Tullu, 2019). The search string was deliberately constructed to be all-encompassing by including different iterations of these keywords, guaranteeing that the analysis would encompass numerous publications on safety and health in the tourism industry.

The selection of software tools is crucial for efficient analysis and processing of bibliometric data. Both ScientoPy and vosviewer were employed in this study. ScientoPy served as an initial data processing and bibliometric analysis platform. The software's intuitive interface and various features enabled the execution of data extraction, deduplication, and fundamental bibliometric indicator calculations (Ruiz-Rosero et al., 2019). In contrast, vosviewer significantly contributed

to the advancements in visualisation and clustering analysis (Liu et al., 2022). By utilising its functionalities to generate keyword co-occurrence maps, co-authorship networks, and thematic clustering, vosviewer facilitated a more comprehensive examination of the structure and content of the dataset (Abd Aziz et al., 2021). Using these software tools in conjunction made a comprehensive bibliometric analysis of safety and health research in the tourism sector possible.

#### Pre-processing Datasets

The datasets were pre-processed to facilitate the Scopus and WoS integration and eliminate duplicate entries. Preliminary processing is performed on the bibliographic datasets utilising ScientoPy. In this stage, ScientoPy retrieves datasets from the Scopus database by substituting the author's name with a semicolon as part of a standardisation procedure. Additionally, to remove duplicate entries with identical names and authors, the procedure entails removing special characters, dashes, and commas from the metadata of both databases (Ruiz-Rosero et al., 2019).

Table 1 illustrates that the initial findings comprise 2,298 raw datasets acquired from publications in Scopus and WoS. In this study, a document-type filtering strategy was employed to exclude a total of 505 articles, which constituted 22.00% of the datasets.

Before initiating the elimination of duplicates, a total of 1,793 publications were initially found. A total of 438 duplicate entries, accounting for 24.40% of the datasets, were detected in this investigation, including data from both databases. Over time, 1,355 publications have been deemed appropriate for inclusion in the ongoing study. Of the publications, 744 (54.90%) were acquired from the WoS database, while 611 (45.10%) were retrieved through Scopus. The validated datasets in this study met the threshold for undertaking bibliometric analysis, surpassing 300 (Donthu et al., 2021). Notably, having more than 100 publications to conduct a bibliometric analysis is crucial, whereas datasets containing less than 100 articles may necessitate systematic or scoping review approaches (Abdullah, 2023).

**Results**

The subsequent sections elucidate the findings to address the research questions formulated in the introduction section.

**The Overall Publication Trends**

The bibliometric analysis entailed an exhaustive examination of scholarly articles encompassing the multifaceted domain of safety and health within the tourism industry, spanning a considerable temporal spectrum from 1953 to 2022. The decision to choose such a lengthy duration offered a thorough and all-encompassing examination of the progression of scholarly inquiry within this pivotal field.

Figure 1 illustrates the annual distribution of publications over this period. Notably, the field witnessed a steady growth in research output, particularly in Scopus and WoS, from the late 1970s onwards. The earliest publications in the 1950s and 1960s primarily laid the foundation for safety and health considerations within the tourism industry. For example, an article by Uchaudabe (1963) entitled ‘Health Guide for Tourist Agencies’ provided valuable insights into ensuring travellers’ well-being. This seminal work addressed essential health guidelines and practices that tourist agencies could implement to safeguard the health of their clientele. It laid crucial groundwork for

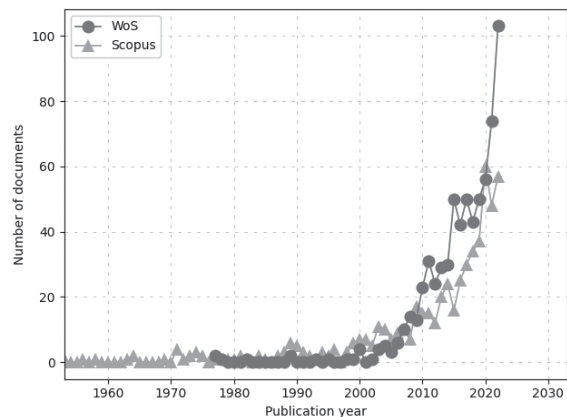


Figure 1 The Evolution of Publications

subsequent research and practices in the domain of safety and health in tourism.

The 2000s marked a notable surge in research activity, indicating an increased recognition of the importance of safety and health practices in tourism in Scopus and WoS databases. This trend continued into the 2010s, as researchers and practitioners focused more on employees’ and tourists’ welfare and well-being. The most recent decade, from 2012 to 2022, has witnessed a continued growth in research output. This surge indicates the industry’s heightened emphasis on ensuring safety and well-being, particularly in the face of evolving challenges, such as global health crises, climate-related concerns, and advancements in tourism technologies.

The longitudinal analysis of publications from 1953 to 2022 reveals a discernible pattern highlighting the growing acknowledgement and importance of safety and health concerns within the tourism sector in both databases, Scopus and WoS. More publications were identified in the WoS database, underscoring comprehensive safety and health research coverage in the tourism industry. The trajectory mentioned signifies the evolution and advancement of the respective field and serves as a testament to the industry’s commendable endeavours in proactively emphasising the welfare and satisfaction of its personnel and customer base.

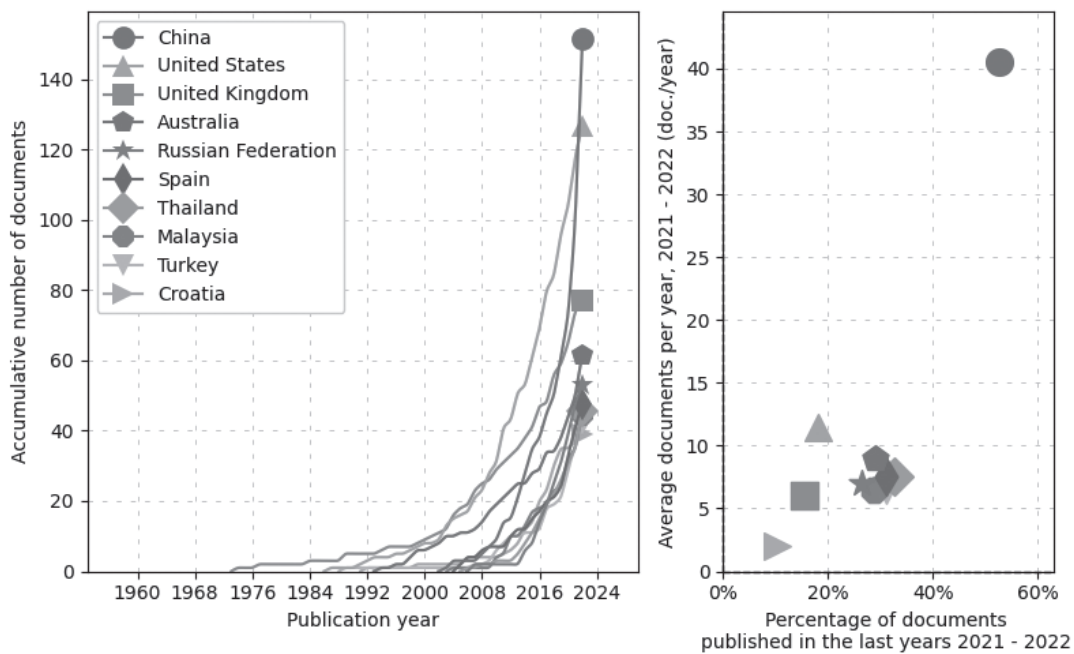


Figure 2 The Productivity of the Top Ten Countries

**Productive Country**

This bibliometric analysis offers a comprehensive overview of safety and health research in the tourism industry, spanning from 1953 to 2022. Figure 2 visually represents the top ten countries based on their safety and health research productivity within the tourism industry. Based on Figure 2, among the examined countries, China emerges as the most prolific contributor, with 154 publications, over half of which were published in 2021 and 2022. Following closely, the United States and the United Kingdom demonstrate substantial contributions, with 127 and 77 publications, respectively.

Australia and the Russian Federation exhibit significant engagement in this domain, with approximately 29% and 26% of their respective publications released in the most recent two years (2021 and 2022), respectively. Spain and Thailand also show noteworthy involvement, with over 30% of their publications published in 2021 and 2022. Malaysia, Turkey, and Croatia demonstrate substantial commitment to safety and health research in the tourism industry, with 29%, 31%, and 10% of their publications in the same period.

These findings underscore the global interest and commitment to advancing safety and health considerations within the tourism industry, with a notable surge in recent research output, particularly in light of contemporary challenges.

**The Most Frequently Cited Publications**

Table 2 provides a detailed overview of publications within safety and health research in the tourism industry that have garnered over 100 citations. These influential works are pivotal to the field, significantly impacting subsequent research endeavours. Notable among these is the study authored by Mueller and Kaufmann (2001) titled ‘Wellness tourism: Market analysis of a special health tourism segment and implications for the hotel industry’, which has accumulated 33 citations. This seminal work stands out as a cornerstone in the discourse surrounding safety and health considerations in the tourism sector, providing a foundational framework for subsequent studies.

Additionally, a review paper authored by Carrera and Bridges (2006) titled ‘Globalisation and healthcare: Understanding health and medical tourism’ has

Table 2 Publications With More Than 100 Citations

| Author                       | Title  | Citation | Document Type |
|------------------------------|--|----------|---------------|
| Mueller & Kaufmann (2001)    | Wellness tourism: Market analysis of a special health tourism segment and implications for the hotel industry  | 333      | Article       |
| Carrera and Bridges (2006)   | Globalisation and healthcare: Understanding health and medical tourism   | 225      | Review        |
| George (2003)                | Tourist's perceptions of safety and security while visiting Cape Town  | 216      | Article       |
| Seabra et al. (2013)         | Heterogeneity in risk and safety perceptions of international tourists   | 197      | Article       |
| Pocock and Phua (2011)       | Medical tourism and policy implications for health systems: a conceptual framework from a comparative study of Thailand, Singapore, and Malaysia               | 180      | Review        |
| Hall (2011)                  | Health and medical tourism: A kill or cure for global public health?   | 179      | Review        |
| Huang et al. (2020)          | Predicting tourists' health risk preventative behaviour and travelling satisfaction in Tibet: Combining the theory of planned behavior and health belief model | 159      | Article       |
| Jonas et al. (2011)          | Determinants of health risk perception among low-risk-taking tourists traveling to developing countries  | 150      | Article       |
| Goodrich and Goodrich (1987) | Healthcare tourism - an exploratory study  | 149      | Article       |
| Garcia-Altes (2005)          | The development of health tourism services   | 140      | Article       |
| Richter (2003)               | International tourism and its global public health consequences  | 137      | Article       |
| Horowitz (2007)              | Medical tourism--health care in the global economy.  | 124      | Article       |
| Pienaar and Willemse (2008)  | Burnout, engagement, coping and general health of service employees in the hospitality industry  | 123      | Article       |
| Li et al. (2017)             | Spatiotemporal Variability of Contaminants in Lake Water and Their Risks to Human Health: A Case Study of the Shahu Lake Tourist Area, Northwest China         | 114      | Article       |
| Hu et al. (2021)             | Creating a safe haven during the crisis: How organisations can achieve deep compliance with COVID-19 safety measures in the hospitality industry               | 110      | Article       |
| Weatherdon et al. (2016)     | Observed and Projected Impacts of Climate Change on Marine Fisheries, Aquaculture, Coastal Tourism, and Human Health: An Update                                | 110      | Review        |
| Fernández et al. (2007)      | Impact of the Spanish Smoking Law on Exposure to Second-Hand Smoke and Respiratory Health in Hospitality Workers: A Cohort Study                               | 104      | Article       |
| Sönmez et al. (2020)         | Understanding the effects of COVID-19 on the health and safety of immigrant hospitality workers in the United States   | 102      | Article       |
| Amo et al. (2006)            | Nature-based tourism as a form of predation risk affects body condition and health state of <i>Podarcis muralis</i> lizards                                    | 101      | Article       |



amassed 225 citations, further attesting to its enduring relevance and influence within the field. This work addresses critical aspects of safety and health management in the context of medical tourism, offering valuable insights for researchers and practitioners alike. The third-ranked most cited article in safety and health research within the tourism industry is ‘Tourist’s perceptions of safety and security while visiting Cape Town’ by George in 2003. This influential article has accumulated an impressive 216 citations, highlighting its substantial impact on the discourse surrounding safety considerations in tourism.

Other publications listed in Table 2 have also achieved commendable citation counts, underscoring their enduring impact on the tourism industry’s discourse surrounding safety and health. Collectively, these works signify a body of literature that has significantly shaped the research trajectory in this domain.

**The Key Thematic Areas**

The thematic analysis of keywords reveals emerging safety and health research trends within the tourism industry, providing valuable insights into scholarly publications’ evolving priorities and focus areas in this field. Figure 3 illustrates the compilation of the keywords of the ten foremost authors that effectively mirror the fundamental thematic elements that have been previously investigated. Based on Figure 3, The keyword ‘Health Tourism’ emerges as the most prominent area of focus within safety and health research in the tourism industry, with 215 publications. Notably, 19% of these publications were released in 2021 and 2022, indicating a sustained interest and recent surge in research activity within this critical domain. The broader keyword ‘Tourism’ remains a significant area of scholarly inquiry, with 122 publications dedicated to various facets of safety and health considerations within the tourism industry. Approximately 22% of these publications were produced in the most recent two years, reflecting an ongoing commitment to understanding and enhancing safety and health practices in tourism.

The specific area of ‘Medical Tourism’ garners substantial attention, with 93 publications addressing the unique safety and health considerations associa-

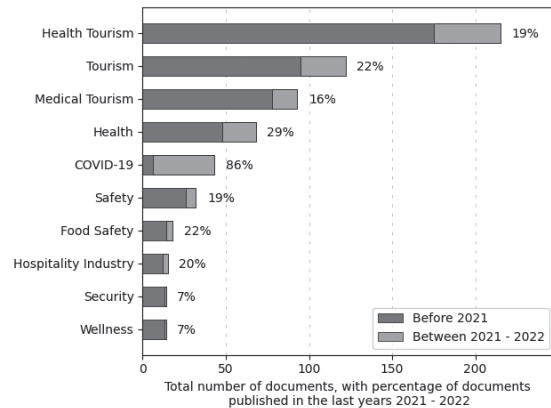


Figure 3 The Rank of the Top Ten Authors’ Keywords

ted with this specialised form of travel. Notably, 16% of these publications emerged in 2021 and 2022, indicating a contemporary focus on this evolving aspect of the tourism industry. The broad keyword of ‘Health’ is a fundamental pillar of safety and health research in the tourism industry, with 68 publications dedicated to understanding and promoting well-being in travel contexts. Impressively, 29% of these publications were released in the most recent two years, underscoring the heightened relevance of health considerations in contemporary tourism.

Unsurprisingly, the global health crisis induced by the COVID-19 pandemic has been a focal point of recent research. Of the 43 publications addressing ‘COVID-19’ in the context of tourism safety and health, a staggering 86% were published in 2021 and 2022. This signifies the urgent need for scholarly inquiry and practical solutions to navigate the unprecedented challenges posed by the pandemic. The keyword ‘Safety’ remains a central concern in the tourism industry, with 32 publications dedicated to understanding and enhancing safety measures for tourists and industry professionals. Approximately 19% of these publications were released in the most recent two years, reflecting a sustained commitment to safeguarding the well-being of all stakeholders.

‘Food Safety’ emerges as a crucial sub-theme within the broader context of safety and health in the tourism industry, with 18 publications specifically addressing this critical aspect. About 22% of these

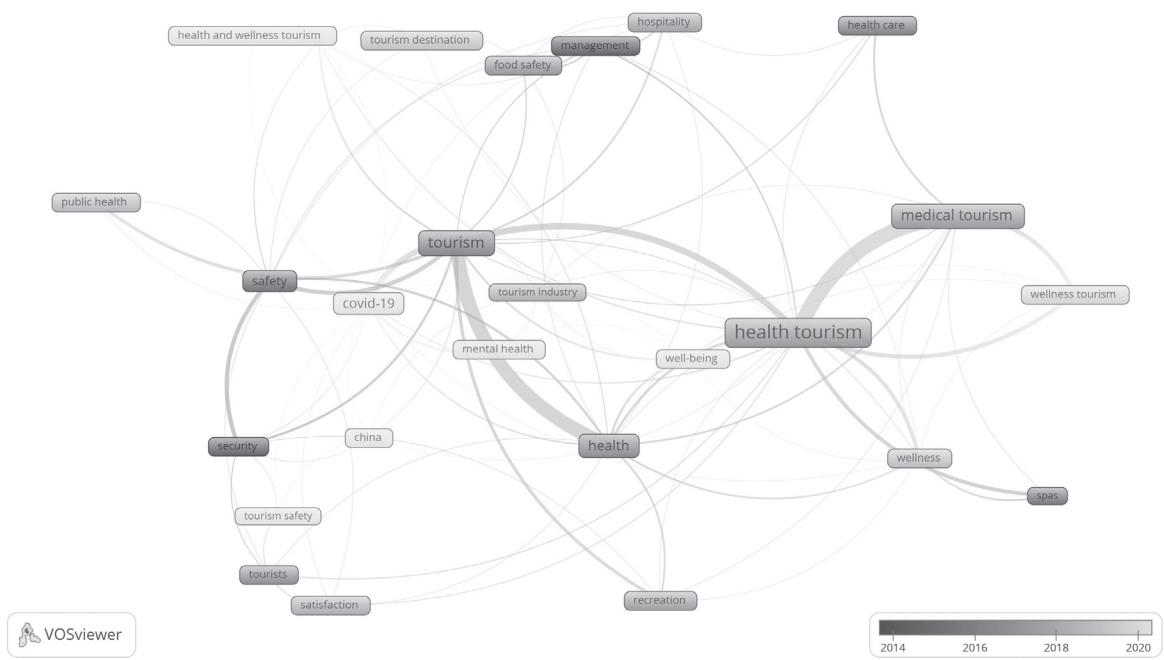


Figure 4 Overlay Visualisation of Authors’ Keywords

publications were produced in 2021 and 2022, highlighting the importance of ensuring safe and hygienic food practices in the tourism sector. The ‘Hospitality Industry’ is a pivotal sector within tourism, and 15 publications are dedicated to understanding and enhancing safety and health practices within this domain. A notable 20% of these publications were released in the most recent two years, indicating a continued commitment to ensuring the well-being of both guests and staff in hospitality settings.

‘Security’ represents a critical aspect of safety and health in the tourism industry, with 14 publications addressing various dimensions of ensuring the safety and security of tourists and tourism infrastructure. While the percentage of publications in 2021 and 2022 is comparatively lower at 7%, this keyword remains an integral part of the broader safety discourse in tourism. ‘Wellness’ emerges as a significant area of focus within safety and health research, with 14 publications dedicated to understanding and promoting holistic well-being in tourism. Similarly to the keyword ‘Security’, the percentage of publications in 2021 and 2022 is

7%, emphasising the enduring importance of wellness considerations in the tourism industry.

These top ten keywords results provide a comprehensive overview of the critical areas of focus in safety and health research within the tourism industry. The percentages of publications in 2021 and 2022 indicate the recent surge in research activity, particularly in response to emerging challenges such as the COVID-19 pandemic. This data will be instrumental in informing future research directions and practical measures to enhance safety and health practices in the dynamic field of tourism.

The Emerging Subfields or Niche Areas

The exploration of emerging subfields and niche areas within safety and health research in the tourism industry is vividly illustrated through the vosviewer mapping, employing overlay visualisation techniques as depicted in Figure 4. In order to finalise the overlay visualisation network of authors’ keywords utilising vosviewer, this study employed a threshold

of 10 occurrences. Therefore, out of the 3,164 total keywords, only 25 met the specified threshold.

Based on Figure 4, the overlay visualisation of authors' keywords depicted that the keywords 'tourism destination', 'tourism industry', 'satisfaction', 'public health', 'wellness', 'tourism safety', 'China', 'COVID-19', 'mental health', 'well-being', and 'health and wellness' have dominated the emerging subfield or niche area of studying safety and health in the tourism industry since 2018. These keywords indicate a holistic and multifaceted methodology in regard to researching safety and health within the tourism sector. These phenomena reflect the dynamic shifts in the field, propelled by worldwide occurrences, shifting consumer inclinations, and an increasing cognisance of the paramount significance of safety and health in travel.

### Discussion

The examination of safety and health within the tourism sector has been the subject of extensive scholarly inquiry over several decades, with notable contributions dating back to 1953 as documented in reputable academic databases such as Scopus and WoS. Given the burgeoning corpus of scholarly works, the utilisation of bibliometric methodology within the purview of this study domain is anticipated to augment the existing reservoir of knowledge on the subject matter and make noteworthy contributions to the pertinent research sphere through diverse means. The present study has successfully addressed the research questions outlined within its scope, contributing to a novel comprehension of this domain. It also facilitates the advancement of future research trajectories. Furthermore, it is anticipated that the outcomes will serve as a stimulus for researchers to prioritise safety and health concerns within the tourism industry, thereby acting as agents of change to promote consciousness in this domain.

The findings derived from this study make a valuable contribution to the existing body of literature on safety and health within the tourism industry context. The imperative of exercising scrutiny cannot be overstated, as the tourism industry is intricately entwined with the implementation of safety and health pro-

ocols, necessitating the utmost consideration from all stakeholders, akin to their counterparts in various other service sectors. The recent global pandemic, COVID-19, has further emphasised the importance of ensuring the well-being of tourists and employees in the tourism industry (Javed et al., 2023). In response to increasing demand, organisations in the health tourism sector have been transformed to meet global standards and gain a competitive advantage (Doğan & Yüzbaşıoğlu, 2021).

The rise in scholarly investigation regarding safety and health within the tourist business during the 2000s and succeeding years signifies a growing acknowledgement of the utmost significance of safety and health protocols within this realm. This phenomenon is notably apparent in the increased emphasis on employees' and tourists' welfare and well-being (Félix et al., 2023; Toker & Emir, 2023). The time spanning from 2012 to 2022 is significant, signifying a persistent and heightened dedication towards preserving safety and welfare. For example, the COVID-19 pandemic has precipitated increased research on public health and the tourism industry's recovery, highlighting the need for additional safety precautions (Qiao et al., 2023). The observed increase in activity indicates the industry's proactive approach to tackling emerging difficulties, such as global health crises, climate-related issues, and developments in tourist technologies (Chaudhuri & Ray, 2015).

China is identified as the prominent leader in safety and health research on the tourism business, based on an analysis of productive countries. China has an impressive record of 154 publications in this field. Significantly, most of these contributions were published during the last two years (2021 and 2022), indicating a notable increase in research endeavours. China's increased involvement in the tourism industry is consistent with its significant position as a prominent participant in the global market (Matveevskaya et al., 2020). This underscores its dedication to safeguarding the security and welfare of both local and foreign tourists. The subject of health and safety also witnesses noteworthy contributions from the United States and the United Kingdom, with 127 and 77 articles, respectively. These nations, widely recognised

for their robust academic and research frameworks, significantly influence the tourism sector's discussion on safety and health.

Understanding the most often referenced articles in safety and health research within the tourism industry carries substantial importance for various convincing rationales. Primarily, the works included in Table 2 are widely recognised and referenced as significant contributions to the scholarly discussion on safety and health aspects within the tourism industry. One particularly noteworthy contribution is the original research conducted by Mueller and Kaufmann (2001) on 'Wellness tourism: Market analysis of a special health tourism segment and implications for the hotel industry'. This study has garnered significant attention, evidenced by its 333 citations, and has established itself as a fundamental framework for later scholarly investigations in this field. Comprehending and appreciating significant contributions of previous academic works is crucial for researchers and practitioners, as it establishes a robust basis for constructing and enhancing further investigations. A likely reason is that advancing safety and health tourism is perceived as contributing to societal progress by stimulating considerable investment in society's political, social, cultural, and economic sectors, generating income, employment, vitality, and satisfaction (Rezapour et al., 2023).

The examination of thematic patterns in the utilisation of keywords, as illustrated in Figure 3, presents a noteworthy augmentation to the existing corpus of knowledge in the realm of safety and health investigation within the tourism domain. This analysis presents a comprehensive overview of the dynamic priorities and focal points within this pivotal domain, imparting valuable discernment of the shifting landscape of scholarly publications. 'Health Tourism' emerges as the most prominent keyword, underscoring the substantial interest and research activity devoted to this specialised form of travel. With 215 publications, it is a pivotal area of focus, reflecting a sustained commitment to understanding and enhancing safety and health practices within health-oriented tourism experiences. Notably, 19% of these publications were released in 2021 and 2022, which indicates a recent

surge in research activity, highlighting its enduring relevance and impact on the field. Based on the findings of Dunets et al. (2020), it is evident that health tourism exhibits considerable potential. The authors propose developing specialised programmes close to established resorts, equipped with the requisite infrastructure and medical amenities, tailored to meet the unique demands of individual clients. Thus, the rapid growth of the health tourism sector in recent years has attracted the attention of researchers, entrepreneurs, and managers, highlighting the need for branding activities in health tourism destinations (Lopes & Rodríguez-López, 2022).

The visual representation of authors' keywords, as depicted in Figure 4, offers a striking glimpse into the burgeoning subdomains and specialised spheres within the realm of safety and health research in the tourism industry. The keywords that have been identified in recent research, from 2018 onward, emphasise a comprehensive and multifaceted approach. These keywords include 'tourism destination', 'tourism industry', 'satisfaction', 'public health', 'wellness', 'tourism safety', 'China', 'COVID-19', 'mental health', 'well-being', and 'health and wellness.' Adopting this comprehensive methodology represents a deviation from limited, compartmentalised viewpoints and instead employs a more integrated and all-encompassing strategy for investigating health and safety in the tourism industry. By altering this approach, a fresh and innovative contribution is made to the discipline, providing a more intricate comprehension of the multifaceted dynamics and interconnections within the tourism sector.

The dominance of keywords like 'COVID-19', 'China', and 'public health' reflects the heightened awareness and responsiveness of the tourism research field to contemporary global events and public health concerns. Scholars have focused on the impact of COVID-19 on various aspects of the tourism industry, including its effects on different sectors, countries, stakeholders, and contexts (Alamineh, 2022). The pandemic has also highlighted the importance of public health assurance and the challenges faced in ensuring the safety and effectiveness of health services (Goel et al., 2021). Additionally, the literature has explored the concept of post-pandemic tourism, emphasising

the need for sustainability, local-scale tourism, and the restoration of natural resources damaged by tourism activities (Permata et al., 2022). The pandemic has been seen as a sustainability challenge, and the literature on COVID-19 and tourism provides insights into building resilience, adaptivity, flexibility, collaboration, and co-creation in the face of such challenges (Persson-Fischer & Liu, 2021). The research on risk and tourism has also seen an upward trend, focusing on the recovery of the tourism industry and the management of public health risks (Qiao et al., 2023).

Additionally, the identified keywords may be focal points for forthcoming research endeavours. For example, conducting additional research on the precise intricacies of the interactions between the 'tourism industry' and the 'tourism destination' could provide significant knowledge regarding the determinants that impact the safety and well-being of visitors. Gaining a comprehensive understanding of the intricacies inherent in this connection is paramount to grasping how diverse stakeholders, such as tour operators, lodging providers, local authorities, and destination managers engage in collaborative efforts to guarantee the safety and welfare of visitors. The interactions between the tourism industry and the tourism destination involve collaboration among these various stakeholders to ensure the safety and well-being of visitors (Mălăescu, 2022; Sattar & Sfodera, 2023; Wen et al., 2023).

Destination management organisations play a crucial role in this dynamic by developing plans for sustainable tourism, collaborating with service providers, promoting the destination's image, and creating authentic tourism products (Faur & Ban, 2022). Additionally, directly and indirectly, reenactors impact the development of a heritage site as a tourism destination through involvement in decision-making boards, attracting funding, and designing reenactment activities that enhance the visitor experience (Merkle et al., 2023). Online communities, such as travel vloggers, have also emerged as new stakeholders in sustainable tourism, contributing to the market through their online presence. Understanding these dynamics is essential for comprehending how stakeholders work together to ensure the safety and well-being of tourists in the tourism destination.

An in-depth analysis of the terms 'mental health', 'well-being', and 'health and wellness' in the tourism industry can provide insights into the psychological and emotional welfare of visitors, which is increasingly recognised as crucial for their overall satisfaction and security. The concept of well-being tourism encompasses care for the tourist's body, soul, and mind, as well as the destination area's environment, society, and economy (Coelho et al., 2023; Młynkowiak-Stawarz, 2023). Tourists' motivation in health and wellness tourism significantly predicts their behavioural intentions. Their perceived value of health and wellness tourism partially mediates the associations between their behavioural intention and various motivations (Gan et al., 2023). The positive impact of tourism on public health and well-being is often emphasised. However, tourism policies should also consider potential adverse effects on tourists and the communities of tourist destinations (Buckley, 2023). Understanding and addressing tourists' mental health and well-being is crucial for designing tourism experiences that enhance their satisfaction and overall experience.

Although Figure 4 provides a complete summary of current research goals, there may be specific issues of safety and health in tourism that are not well covered. For instance, it is imperative to consider further distinct cultural factors, regional disparities, and specialised areas within the industry. Moreover, examining the potential impact of future technologies, such as artificial intelligence and virtual reality, on improving safety and health protocols within the tourism industry presents a promising avenue for investigation.

### Conclusion

This bibliometric analysis comprehensively investigates safety and health issues in the tourism sector, covering approximately 70 years. By conducting a thorough bibliometric analysis, this study provides essential insights and significant contributions to this vital field of research. The increasing number of scholarly inquiries highlights the growing recognition of the utmost significance of safety and health protocols in tourism. The increased prioritisation of the well-being of employees and tourists demonstrates

a proactive stance in tackling growing difficulties, such as global health crises and improvements in tourism technologies.

China's significant involvement in safety and health research in the tourism industry underscores its commitment to safeguarding the well-being and security of domestic and international visitors. The United States and the United Kingdom substantially contribute to the industry's discourse on safety and health owing to their well-established academic frameworks. The seminal research conducted by Mueller and Kaufmann regarding 'Wellness tourism: Market analysis of a special health tourism segment and implications for the hotel industry' is particularly notable for its establishment of a fundamental framework that has guided subsequent studies. Comprehending and valuing these seminal contributions is critical for scholars and professionals, serving as the foundation for subsequent inquiries.

The current bibliometric analysis significantly contributes to understanding safety and health in the tourism industry by offering a historical perspective, addressing current challenges, and identifying emerging areas of concentration, fostering a deeper scholarly comprehension. In addition, this study advocates for academics prioritising safety and health problems within a continuously expanding business to offer tourists secure and rewarding experiences. In light of the ongoing advancements in the sector, it is vital to prioritise the comprehension and resolution of these difficulties. Moreover, delving into the prospective ramifications of forthcoming technologies on safety and health standards offers a promising route for further scholarly inquiry.

Although this study thoroughly examines safety and health research in the tourism sector, its limitations must be duly recognised. First, the bibliometric analysis depends on the information obtained from secondary databases (Scopus and Web of Science (WoS)). Although these databases are comprehensive and well-known, they might not encompass all pertinent publications within the discipline. There is a possibility that specific contributions published in non-indexed or specialised journals, grey literature, or emerging digital platforms may not be incorporated. This omission could result in a representation of

safety and health research within the tourism industry that is only partially comprehensive.

The second limitation is that it is imperative to recognise that trends and priorities in safety and health research may continue to change despite the study's provision of a longitudinal analysis spanning nearly seven decades. Possible future developments, technological advances, and changes in societal viewpoints that were not accounted for in this analysis could give rise to additional research domains. Hence, this research provides a momentary depiction; further investigations are required to monitor and comprehend the ever-changing safety and health environment within the ever-changing tourism sector. As tourism safety and health research evolves, intriguing research areas arise. First, tourist industry–destination dynamics must be studied. Understanding how stakeholders work together to protect visitors is crucial. This could involve investigating how tour operators, housing providers, local authorities, and location management create and enforce safety measures.

Given the growing importance of mental health, well-being, and holistic wellness in tourism, future studies should examine the psychological and emotional components of tourist pleasure and security. Well-being tourism research on tourists' experiences, behavioural intentions, and potential negative consequences on tourists and destination communities would be helpful. Additionally, improving travellers' mental health and well-being can improve the design and satisfaction of the tourism experience. Studying how upcoming technologies like artificial intelligence, virtual reality, and augmented reality affect tourism safety and health protocols is intriguing as technology advances. Understanding how these innovations improve safety, immersive training, and crisis management could change the industry's safety and well-being strategy. Finally, cross-cultural research and regional safety and health disparities would help clarify how cultural circumstances affect tourism safety goals. Cultural influences on risk perception, crisis communication, and safety protocols may be examined. Such research would help create culturally sensitive and effective safety and health policies for varied tourism areas.

## References

- Abd Aziz, F. S., Abdullah, K. H., & Samsudin, S. (2021). Bibliometric analysis of behavior-based safety (BBS): Three decades publication trends. *Webology*, 18(Special Issue on Information Retrieval and Web Search), 278–293.
- Abdullah, K. H. (2023). An analysis of publications on climate change communication using a bibliometric lens. *Fronteiras: Journal of Social, Technological and Environmental Science*, 12(3), 354–371.
- Alamineh, G. A. (2022). The nexus between coronavirus and tourism: Tourism as peace sensitive industry. *Cogent Arts & Humanities*, 9(1), 2014110.
- Amaro, D., Caldeira, A. M., & Seabra, C. (2023). Tourism safety and security: A bibliometric approach. In C. Seabra & M.E. Korstanje (Eds.), *Safety and tourism: A global industry with global risks* (pp. 11–30). Emerald Publishing.
- Amo, L., López, P., & Martí, J. (2006). Nature-based tourism as a form of predation risk affects body condition and health state of *Podarcis muralis* lizards. *Biological Conservation*, 131(3), 402–409.
- Asghar, I., Cang, S., & Yu, H. (2020). An empirical study on assistive technology supported travel and tourism for the people with dementia. *Disability and Rehabilitation: Assistive Technology*, 15(8), 933–944.
- Awan, M. I., Shamim, A., & Ahn, J. (2021). Implementing ‘cleanliness is half of faith’ in re-designing tourists, experiences and salvaging the hotel industry in Malaysia during COVID-19 pandemic. *Journal of Islamic Marketing*, 12(3), 543–557.
- Berhanu, K., & Raj, S. (2020). The trustworthiness of travel and tourism information sources of social media: Perspectives of international tourists visiting Ethiopia. *Helikon*, 6(3), e03439.
- Birkle, C., Pendlebury, D. A., Schnell, J., & Adams, J. (2020). Web of Science as a data source for research on scientific and scholarly activity. *Quantitative Science Studies*, 1(1), 363–376.
- Buckley, R. (2023). Tourism and mental health: Foundations, frameworks, and futures. *Journal of Travel Research*, 62(1), 3–20.
- Buckley, R., Zhong, L., & Martin, S. (2021). Mental health key to tourism infrastructure in China’s new megapark. *Tourism Management*, 82(1), 104169.
- Carrera, P. M., & Bridges, J. F. (2006). Globalisation and healthcare: Understanding health and medical tourism. *Expert Review of Pharmacoeconomics & Outcomes Research*, 6(4), 447–454.
- Chan, C. S. (2021). Developing a conceptual model for the post-COVID-19 pandemic changing tourism risk perception. *International Journal of Environmental Research and Public Health*, 18(18), 9824.
- Chaudhuri, S., & Ray, N. (2015). Application of web-based Geographical Information System (GIS) in tourism development. In D. B. A. Mehdi Khosrow-Pour (Ed.), *Encyclopedia of information science and technology* (3rd ed., pp. 7026–7036). IGI Global.
- Chua, B. L., Al-Ansi, A., Lee, M. J., & Han, H. (2021). Impact of health risk perception on avoidance of international travel in the wake of a pandemic. *Current Issues in Tourism*, 24(7), 985–1002.
- Coelho, J. R., Costa, T., & Nunes, S. (2023). The influence of the health literacy on tourist health and well-being choices. *Proceedings of the 6th International Conference on Tourism Research: ICTR 2023*, 6(1), 450–461.
- Doğan, O., & Yüzbaşıoğlu, N. (2021). Medical tourism: Understanding the phenomenon. In M. Singh & S. Kumar (Eds.), *Growth of the medical tourism industry and its impact on society: Emerging research and opportunities* (pp. 19–42). IGI Global.
- Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, 133(5), 285–296.
- Duan, L., & Zhu, G. (2020). Mapping theme trends and knowledge structure of magnetic resonance imaging studies of schizophrenia: A bibliometric analysis from 2004 to 2018. *Frontiers in Psychiatry*, 11, 27.
- Dunets, A. N., Yankovskaya, V., Plisova, A. B., Mikhailova, M. V., Vakhrushev, I. B., & Aleshko, R. A. (2020). Health tourism in low mountains: A case study. *Entrepreneurship and Sustainability Issues*, 7(3), 2213.
- Farajat, S. A., Liu, B., & Pennington-Gray, L. (2017). Addressing travel writers’ role as risk brokers: The case of Jordan. *Journal of Policy Research in Tourism, Leisure and Events*, 9(1), 23–39.
- Faur, M., & Ban, O. (2022). The role of tourism destination management organisations in the development of tourism activities. *Annals of the University of Oradea: Economic Sciences*, 31(1), 44–50.
- Félix, D. P., Pérez-Labrada, S., Nolberto, C. A., & Balseira-Sanamé, Z. (2023). Scientific production on tourist security in the period 2002–2021. *Journal of Multidisciplinary Academic Tourism*, 8(2), 119–128.
- Fernández, E., Fu, M., Pascual, J. A., López, M. J., Pérez-Ríos, M., Schiaffino, A., Martínez-Sánchez, J. M., Ariza, C., Saltó, E., & Nebot, N. (2009). Impact of the Spanish smoking law on exposure to second-hand smoke

- and respiratory health in hospitality workers: A cohort study. *PLOS One*, 4(1), e4244.
- Fountain, J., & Cradock-Henry, N. A. (2020). Recovery, risk and resilience: Post-disaster tourism experiences in Kaikōura, New Zealand. *Tourism Management Perspectives*, 35(2–4), 100695.
- Gan, T., Zheng, J., Li, W., Li, J., & Shen, J. (2023). Health and wellness tourists' motivation and behavior intention: The role of perceived value. *International Journal of Environmental Research and Public Health*, 20(5), 4339.
- Garcia-Altes, A. (2005). The development of health tourism services. *Annals of Tourism Research*, 32(1), 262–266.
- George, R. (2003). Tourist's perceptions of safety and security while visiting Cape Town. *Tourism Management*, 24(5), 575–585.
- Ghosh, S., & Uzuner, G. (2023). Analysing the nexus between pandemic, policy uncertainty, and international tourists' behavior in Taiwan. *Journal of China Tourism Research*, 20(1), 212–240.
- Giliberto, F., & Labadi, S. (2023). Re-imagining heritage tourism in post-COVID Sub-Saharan Africa: Local stakeholders' perspectives and future directions. *Sustainability*, 15(5), 4339.
- Goel, P., Garg, A., Walia, N., Kaur, R., Jain, M., & Singh, S. (2021). Contagious diseases and tourism: A systematic review based on bibliometric and content analysis methods. *Quality & Quantity*, 56(5), 3085–3110.
- Goodrich, J. N., & Goodrich, G. E. (1987). Healthcare tourism: An exploratory study. *Tourism Management*, 8(3), 217–222.
- Habibi, A., Mousavi, M., Jamali, S. M., & Ale Ebrahim, N. (2022). A bibliometric study of medical tourism. *Anatolia*, 33(3), 415–425.
- Hall, C. M. (2011). Health and medical tourism: A kill or cure for global public health? *Tourism Review*, 66(1/2), 4–15.
- Hassan, T. H., & Salem, A. E. (2021). The importance of safety and security measures at Sharm El Sheikh Airport and their impact on travel decisions after restarting aviation during the COVID-19 outbreak. *Sustainability*, 13(9), 5216.
- Horowitz, M. D. (2007). Medical tourism-health care in the global economy. *Physician Executive*, 33(6), 24–30.
- Hu, X., Yan, H., Casey, T., & Wu, C. H. (2021). Creating a safe haven during the crisis: How organisations can achieve deep compliance with COVID-19 safety measures in the hospitality industry. *International Journal of Hospitality Management*, 92, 102662.
- Huang, X., Dai, S., & Xu, H. (2020). Predicting tourists' health risk preventative behaviour and travelling satisfaction in Tibet: Combining the theory of planned behaviour and health belief model. *Tourism Management Perspectives*, 33(2), 100589.
- Javed, M., Vaculčíková, Z., & Tučková, Z. (2023). A systematic literature review on career commitment, job insecurity, and turnover intentions in the tourism industry. *Proceedings of the 6th International Conference on Tourism Research: ICTR 2023*, 6(1), 114–122.
- Jonas, A., Mansfeld, Y., Paz, S., & Potasman, I. (2011). Determinants of health risk perception among low-risk-taking tourists traveling to developing countries. *Journal of Travel Research*, 50(1), 87–99.
- Julsrud, T., & Denstadli, J. (2017). Smartphones, travel time-use, and attitudes to public transport services. Insights from an explorative study of urban dwellers in two Norwegian cities. *International Journal of Sustainable Transportation*, 11(8), 602–610.
- Kang, S. E., Park, C., Lee, C. K., & Lee, S. (2021). The stress-induced impact of COVID-19 on tourism and hospitality workers. *Sustainability*, 13(3), 1327.
- Li, P., Feng, W., Xue, C., Tian, R., & Wang, S. (2017). Spatiotemporal variability of contaminants in lake water and their risks to human health: A case study of the Shahu Lake tourist area, northwest China. *Exposure and Health*, 9(3), 213–225.
- Liu, W., Xu, C., Peng, Y., & Xu, X. (2023). Evolution of tourism risk communication: A bibliometric analysis and meta-analysis of the antecedents of communicating risk to tourists. *Sustainability*, 15(12), 9693.
- Liu, Z., Ren, L., Xiao, C., Zhang, K., & Demian, P. (2022). Virtual reality aided therapy towards health 4.0: A two-decade bibliometric analysis. *International Journal of Environmental Research and Public Health*, 19(3), 1525.
- Lopes, A. P., & Rodríguez-López, N. (2022). Application of a decision-making tool for ranking wellness tourism destinations. *Sustainability*, 14(23), 15498.
- Lu, J., Xiao, X., Xu, Z., Wang, C., Zhang, M., & Zhou, Y. (2021). The potential of virtual tourism in the recovery of tourism industry during the COVID-19 pandemic. *Current Issues in Tourism*, 25(2), 441–457.
- Ma, H., Chiu, Y. H., Tian, X., Zhang, J., & Guo, Q. (2020). Safety or travel: Which is more important? The impact of disaster events on tourism. *Sustainability*, 12(7), 3038.
- Mălăescu, S. (2022). Tourism destinations 'where you can engage in battles with the romans': The role of reenactment in shaping a destination image. In V. Katsoni (Ed.), *Tourism, travel, and hospitality in a smart and sustainable world* (pp. 505–517). Springer.
- Matveevskaya, A., Pogodin, S., & Wang, J. (2020). Russia and China in the field of international tourism. *Vestnik*



- of Saint Petersburg University: *Philosophy and Conflict Studies*, 36(2), 384–393.
- Merkle, T., Knaus, D. L., & Siegrist, C. (2023). An exploration of the service innovation gap in Swiss tourism. In V. Ratten (Ed.), *Entrepreneurship business debates: Multidimensional perspectives across geo-political frontiers* (pp. 87–96). Springer.
- Mitsakou, C., Adamson, J. P., Doutsis, A., Brunt, H., Jones, S. J., Gowers, A. M., & Exley, K. S. (2021). Assessing the exposure to air pollution during transport in urban areas: Evidence review. *Journal of Transport & Health*, 21(Suppl. 1), 101064.
- Młynkowiak-Stawarz, A. (2023). Do Polish tourists want well-being tourism? Preferences for well-being tourism versus the psychological well-being of individuals. *E-Mentor*, 99(2), 56–68.
- Mohanam, M., & Shekhar, S. K. (2022). Bibliometric analysis of publications on wellness tourism. *Turyzm/Tourism*, 32(2), 69–86.
- Mueller, H., & Kaufmann, E. L. (2001). Wellness tourism: Market analysis of a special health tourism segment and implications for the hotel industry. *Journal of Vacation Marketing*, 7(1), 5–17.
- Mukherjee, D., Lim, W. M., Kumar, S., & Donthu, N. (2022). Guidelines for advancing theory and practice through bibliometric research. *Journal of Business Research*, 148, 101–115.
- Orîndaru, A., Popescu, M. F., Alexoaei, A. P., Căescu, Ș. C., Florescu, M. S., & Orzan, A. O. (2021). Tourism in a post-COVID-19 era: Sustainable strategies for industry's recovery. *Sustainability*, 13(12), 6781.
- Perić, M., & Vitezić, V. (2021). Tourism getting back to life after COVID-19: Can artificial intelligence help? *Societies*, 11(4), 115.
- Permata, A. N., Jamiil, S. C., & Malik, A. R. (2022). Leisure, safety, and sustainability on post-pandemic tourism: A systematic literature review. *Jurnal Sosiologi Reflektif*, 16(2), 339–372.
- Persson-Fischer, U., & Liu, S. (2021). The impact of a global crisis on areas and topics of tourism research. *Sustainability*, 13(2), 906.
- Pienaar, J., & Willemsse, S. A. (2008). Burnout, engagement, coping and general health of service employees in the hospitality industry. *Tourism Management*, 29(6), 1053–1063.
- Pocock, N. S., & Phua, K. H. (2011). Medical tourism and policy implications for health systems: A conceptual framework from a comparative study of Thailand, Singapore and Malaysia. *Globalisation and Health*, 7(1), 12.
- Pretto, R., Huang, A., Ridderstaat, J., de La Mora, E., & Haney, A. (2023). Consumers' behavioral trends in the arts, entertainment, and recreation sector amid a global pandemic: A qualitative study. *Tourism and Hospitality*, 4(2), 233–243.
- Qiao, G., Song, H., Hou, S., & Xu, J. (2023). Enhancing literature review and understanding under global pandemic. *Risk Management and Healthcare Policy*, 16, 143–158.
- Rezapour, A., Roodgarnejad, F., & Ranji Jifroudi, N. (2023). Factors affecting the development of health tourism and its effects on society's well-being. *Journal of Health*, 13(4), 495–514.
- Richter, L. K. (2003). International tourism and its global public health consequences. *Journal of Travel Research*, 41(4), 340–347.
- Robina-Ramírez, R., Ravina-Ripoll, R., & Castellano-Álvarez, F. J. (2023). The trinomial health, safety and happiness promote rural tourism. *BMC Public Health*, 23(1), 1177.
- Roziqin, A., Kurniawan, A. S., Hijri, Y. S., & Kismartini, K. (2023). Research trends of digital tourism: A bibliometric analysis. *Tourism Critiques: Practice and Theory*, 4(1/2), 28–47.
- Ruiz-Rosero, J., Ramírez-González, G., & Viveros-Delgado, J. (2019). Software survey: ScientoPy, a scientometric tool for topics trend analysis in scientific publications. *Scientometrics*, 121(2), 1165–1188.
- Ruiz-Sancho, S., Viñals, M. J., Teruel, L., & Segarra, M. (2021). Security and safety as a key factor for smart tourism destinations: New management challenges in relation to health risks. In V. Katsoni & Cina van Zyl (Eds.), *Culture and tourism in a smart, globalised, and sustainable world* (pp. 511–522). Springer.
- Sattar, M. M., & Sfodera, F. (2023). Examining stakeholders' roles in establishing sustainable tourism—an international and cross-cultural study. *Russian Law Journal*, 11(9s), 429–435.
- Seabra, C., Dolnicar, S., Abrantes, J. L., & Kastenholz, E. (2013). Heterogeneity in risk and safety perceptions of international tourists. *Tourism Management*, 36(1), 502–510.
- Sofyan, D., Saputra, Y. M., Nurihsan, J., Kusmaedi, N., Abdullah, K. H., & Osiobe, E. U. (2023). Mapping of literature on sport and religion research: Scientometric review. *Studia Sportiva*, 17(1), 64–86.
- Sönmez, S., Apostolopoulos, Y., Lemke, M. K., & Hsieh, Y. C. J. (2020). Understanding the effects of COVID-19 on the health and safety of immigrant hospitality workers

- in the United States. *Tourism Management Perspectives*, 35, 100717.
- Toker, A., & Emir, O. (2023). Safety and security research in tourism: A bibliometric mapping. *European Journal of Tourism Research*, 34(2), 3402–3402.
- Țuclea, C. E., Vrânceanu, D. M., & Năstase, C. E. (2020). The role of social media in health safety evaluation of a tourism destination throughout the travel planning process. *Sustainability*, 12(16), 6661.
- Tullu, M. S. (2019). Writing the title and abstract for a research paper: Being concise, precise, and meticulous is the key. *Saudi Journal of Anaesthesia*, 13(Suppl 1), S12–S17.
- Uchaudabe, M. (1963). Health guide for tourist agencies. *El Día médico*, 35, 2088–2089.
- Veloutsou, C., & Mafe, C. R. (2020). Brands as relationship builders in the virtual world: A bibliometric analysis. *Electronic Commerce Research and Applications*, 39, 100901.
- Weatherdon, L. V., Magnan, A. K., Rogers, A. D., Sumaila, U. R., & Cheung, W. W. (2016). Observed and projected impacts of climate change on marine fisheries, aquaculture, coastal tourism, and human health: An update. *Frontiers in Marine Science*, 3(36), 48.
- Wen, J., Meng, F., & Ying, T. (2023). Social issues and emerging debates in tourism and hospitality. *Anatolia*, 34(1). <https://doi.org/10.1080/13032917.2023.2127733>
- Wilks, J., Pendergast, D., Leggat, P. A., & Morgan, D. (2021). Issues in tourist health, safety and well-being. In J. Wilks, D. Pendergast, P. A. Leggat, & D. Morgan (Eds.), *Tourist health, safety and well-being in the new normal* (pp. 1–22). Springer.
- Yang, F. X., & Wong, I. A. (2020). The social crisis aftermath: Tourist well-being during the COVID-19 outbreak. *Journal of Sustainable Tourism*, 29(6), 859–878.
- Yeung, R. M., & Yee, W. M. (2020). Travel destination choice: Does perception of food safety risk matter? *British Food Journal*, 122(6), 1919–1934.