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Crisis and Disaster Management in Tourism: A Scoping Review of Bibliometric and Visualisation Analysis

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Abstract

This study employs bibliometric and network visualisation techniques to analyse scientific publications indexed in Scopus, assessing productivity, citation indicators and research trends in crisis and disaster management tourism. Co-citation, word co-occurrence, and bibliographic linkage methods were applied to map the knowledge structure in this field. Findings highlight "Pennington-Gray" is the most influential author, "Towards a Framework for Tourism Disaster Management" the most cited article, and "Current Issues in Tourism" the leading journal. "Australia", the "U.S". and the "University of Queensland" are the most productive countries and institution, respectively. Network visualisation highlights resilience and crisis response as key themes in tourism research. This study provides a comprehensive overview of the state of the art in crisis and disaster management in tourism, identifying research patterns that can guide future studies. By enhancing the understanding of how tourism adapts to crises, the findings contribute to developing strategies that strengthen the industry's resilience, reinforcing its role as a crucial economic driver and employment generator.

Keywords Bibliometric analysis; crisis and disaster; management; scoping review; tourism

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Introduction

The World Travel & Tourism Council (WTTC) highlighted the significant economic impact of COVID-19 on the tourism sector and recommended measures such as easing travel restrictions, implementing fiscal relaxations, and providing incentives to accelerate recovery. The tourism industry faced severe disruptions due to bans on social contact, border closures, flight cancellations, and widespread travel postponements. Given its economic importance, the tourism sector is highly vulnerable to instability, and inefficient crisis management can lead to slow recovery, damaging the destination's reputation among travellers. The near-total collapse of tourism, due to the pandemic, severely undermined governments' abilities to deliver essential services and harmed the well-being of populations who rely on tourism-related income (Ezra et al., 2021). Moreover, recovery requires increased attention to preserving natural capital and ecosystems, which are essential foundations of sustainable tourism, beyond, just the destinations and physical attractions (Lewis et al., 2021). Also, studies have founded an urgent need to adopt green management practices in travel agencies, revealing a low level of awareness and limited implementation of sustainable behaviours in the workplace (Gaafar et al., 2021). Various scholars have explored crisis and disaster management in tourism, including Faulkner, who, in his 2001 publication Towards a Framework for Tourism Disaster Management, distinguishes between a "crisis" and a "disaster". According to Faulkner & Vikulov (2001), a crisis results from internal actions or omissions that disrupt an organisation's operations, whereas a disaster is triggered by external natural phenomena beyond the organisation's control. Additionally, a crisis is linked to ongoing change and the inability to adapt, while a disaster is characterised by sudden, unpredictable events. Understanding the state of the art in a particular research field requires a through literature review, which provides insights into research trends and helps define key questions (Rowley & Slack, 2004). These authors emphasise that literature searches enable the identification and location of relevant documents, with bibliographic databases and web resources serving as primary sources of information. Given tourism's economic significance, conducting a literature review and bibliometric analysis in this area can help establish research guidelines and provide direction for future studies with substantial economic implications. This bibliometric study analyses the current state of research on crisis management in tourism using data from Scopus. It aims to identify key authors, influential publications, and emerging research trends in the field. The study examines publication patterns based on factors such as publication year, authorship, journal impact, country, and institutional productivity. Additionally, a visualisation analysis was conducted to highlight existing relationships within the literature, providing a comprehensive overview of the research landscape. Ezra et al. (2021) argue that the pandemic revealed structural limitations in tourism governance, including weak infrastructure, protectionist responses and limited regional coordination, which amplified the sector's vulnerabilities. To ensure methodological rigor, the PRISMA framework was employed for this study, following best practices outlined in the article PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation (Tricco et al., 2018). The application of bibliometric techniques in this study sets a foundation for exploring and understanding literature reviews across various research fields. A study found an urgent need to adopt green management practices in travel agencies, revealing a low level of awareness and limited implementation of sustainable behaviours in the workplace (Gaafar et al., 2021).

Open Rubric

Material and methods

Over time, the continuous increase in scientific articles stored in databases has made it more challenging for researchers to stay updated with existing literature. Dávila Rodríguez et al. (2009) highlight that the ongoing progress of science and the rise in publications necessitate an objective evaluation of scientific findings. Similarly, Solano López et al. (2009) attribute this expansion to the rapid development of information and communication technologies, which have driven an unprecedented surge in scientific and technical production. Briner & Denyer (2012) point out that the accelerated growth of research publications makes it increasingly difficult for scholars to keep up with the latest studies. Additionally, González Ramos et al. (2015) emphasise that scientific activity is closely linked to the dissemination of research results, which are influenced by the socio-economic conditions in which they are produced. Literature reviews play a crucial role in identifying gaps in knowledge. Tranfield et al. (2003) stress their importance in the research process, particularly in formulating meaningful research questions. Rowley & Slack (2004) argue that reviewing previous studies allows researchers to synthesise key themes and establish well-defined research objectives. They also highlight the significance of bibliographic databases and digital sources in locating relevant studies. While Briner & Denyer (2012) acknowledge the value of literature reviews, they criticise traditional review methods in management and organisational research for not clearly distinguishing between established knowledge and unexplored areas. Different types of literature reviews vary in focus, methodology, and objectives. Grant & Booth (2009) state that the rise of evidence-based practices has led to an increasing diversity of review approaches, identifying 14 distinct methodologies. One of the most common is meta-analysis, which statistically integrates data from multiple quantitative studies to generate more precise results. To ensure validity, selected studies must share common characteristics, such as the target population, analysed intervention, and comparison criteria. Another key approach is the systematic review, which follows a structured and transparent process to evaluate and synthesise research findings, often adhering to Cochrane Collaboration guidelines. Its rigorous methodology ensures replicability. In contrast, the state-of-the-art review focuses on contemporary issues rather than integrating both historical and current perspectives. This type of review can provide new insights into a subject or highlight areas where further research may not be necessary (Grant & Booth, 2009). Bibliometrics uses mathematical and statistical methods to study scientific literature and its contributors, offering insights into research trends across fields. Licea de Arenas & Santillán-Rivero (2002) describe it as a tool for measuring scientific output and impact based on the number of publications by a country, institution, research group, or individual. Likewise, Dávila Rodríguez et al. (2009) define bibliometrics as the use of quantitative techniques to analyse written communication, providing an objective way to assess the quality and volume of scientific work. Gorbea Portal (2016) states that bibliometric studies identify patterns in the flow of information and scientific production. Mahapasuthanon & Hoffman (2019) add that citation analysis is key to extracting insights from scientific and technological literature. By applying statistical methods and visualisation tools, bibliometrics helps reveal connections between authors, publications, and research topics while detecting keyword trends and emerging themes. The importance of using the right keywords is reflected in the coverage of the field to be analysed, which is why a combination of keywords and the Boolean "AND" or "OR" must be used to search for documents in the database used, in this case in Scopus. Thus, in this research, the following combinations were used: "touris* crisis" OR "touris* disaster" AND "management", as this represents the core of the research to be carried out. With the correct use of the keywords, the research was focused, and it was also avoided that the research would be misdirected and, therefore, meaningless (Regalado-Pezúa & Christofle, 2025).

Results

This section presents preliminary results of the research, the analysis of the information obtained, and, subsequently, the visualisation of networks elaborated on the results of the bibliometric analysis carried out previously during the research.

Preliminary results

Initial search results

A fundamental aspect of research is gathering information from selected databases. According to Ramírez et al. (2019), these databases provide essential bibliographic details such as author names, journal titles, volume, issue numbers, and pagination. However, they also present limitations, including inconsistencies in journal and article coverage, errors in bibliographic data, variations in journal quality, and missing information in specific search fields. The expansion of databases like Web of Science (WoS), Scopus, and Google Scholar has improved access to tourism-related research and citation data. As academic publications increase, network visualisation tools have become essential for analysing research contributions and identifying knowledge gaps (Jiang et al., 2019). Scopus, launched in 2004 by Elsevier B.V., is a multidisciplinary database containing bibliographic records and citation data from scientific journals. It also offers bibliometric tools for evaluating publication and authors performance based on citation counts. Cañedo Andalia et al. (2015) highlight that mastering database search techniques is crucial for researchers, as it directly impacts access to specialised knowledge. Joshi (2016) compares WoS and Scopus, noting that Scopus indexes around 20,000 journals, whereas WoS covers approximately 13,000. While Scopus has broader coverage, it includes more lower impact journals and focuses on recent publications. Despite these differences, both databases allow users to search and rank results by author, citation count, and institutional impact (Joshi, 2016). This study selected Scopus due to its larger journal index. The number of retrieved documents was significantly higher than in WoS. The initial search in Scopus used "title, abstract, keyword" criteria, retrieving journal articles, books, book chapter, and conference papers, including uncited publications. The extracted data was downloaded in CSV format, containing citation details, bibliographic information, abstracts, keywords, and funding data for further analysis.

Using the keywords "touris* crisis" OR "touris* disaster" AND "management", a total of 208 documents were found. This count included duplicates, non-article documents, and uncited publications. The selected studies covered crisis and disaster management in tourism from 1991 to 2023.

The filtering process of the results

The initial search filtering process eliminates documents that have not yet been cited, duplicates, and discards any documents other than papers or reviews. In other words, papers or articles presented at conferences, books, and book chapters are discarded. This filtering process reduced the initial number of documents analysed from 208 to 159 papers, which have at least one citation and were published in one of the journals indexed in Scopus. As can be seen in Figure 1, the total number of documents was reduced, and based on this filtered information, the bibliometric analysis was performed.

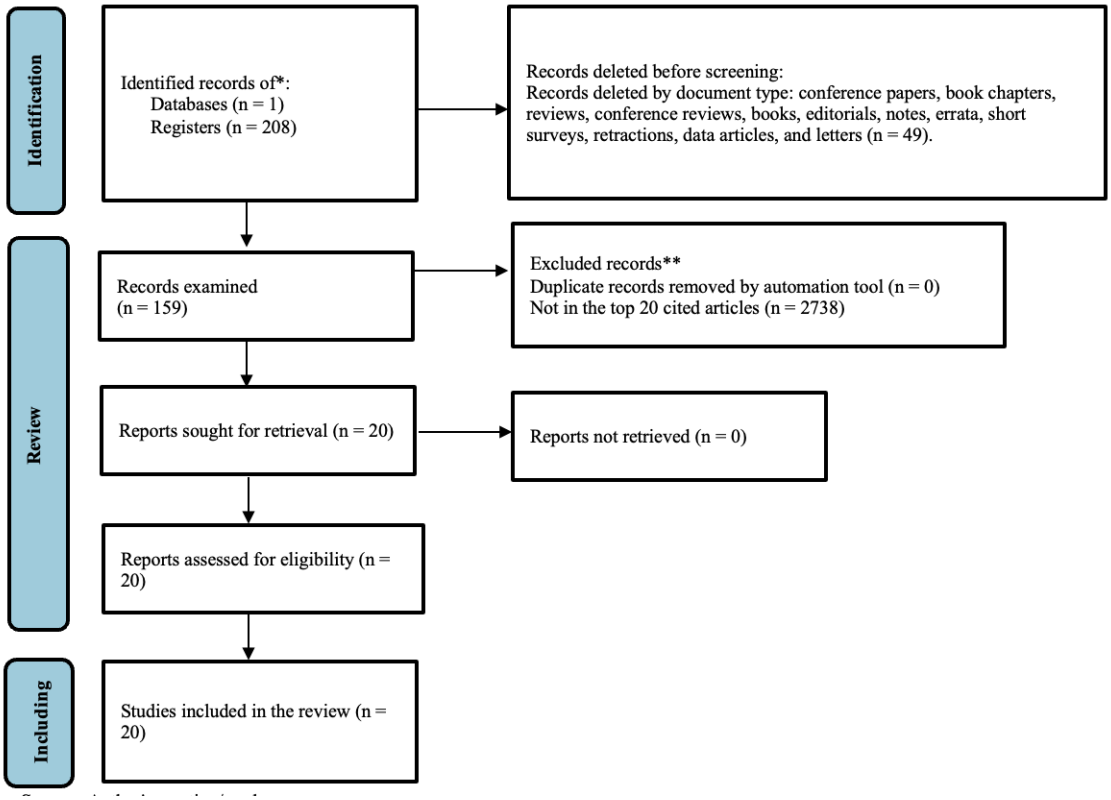

Figure 1 - Inclusion and exclusion decision flow chart based on PRISMA (2018)
Source: Authors' work

Initial statical data

Figure 2 shows the number of documents (articles and reviews) published from 1991 to September 2023. It can also be seen that between 2003 and September 2023, the number of publications increased. In just 21 months (2020 – 2023), 75 documents have been published, representing 47.2% of the total production.

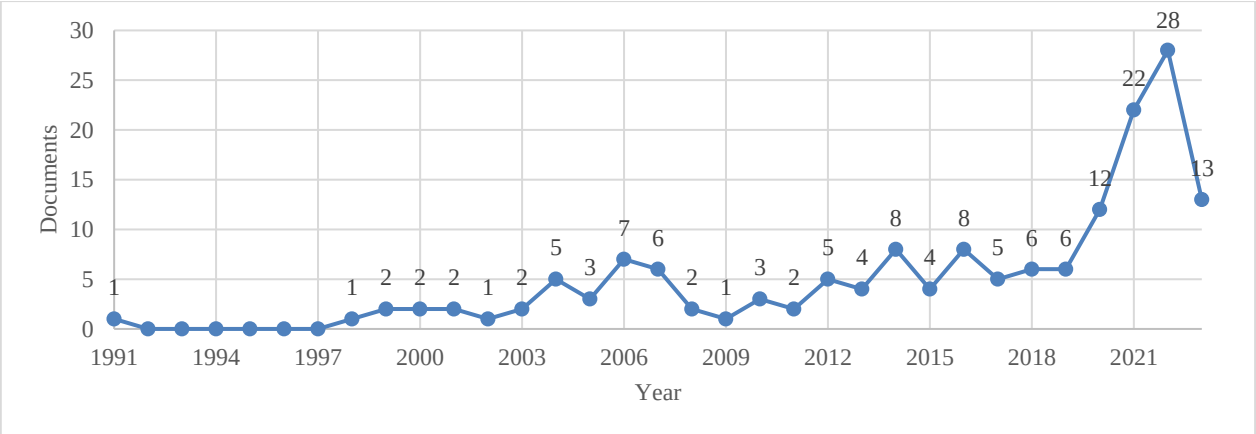

Figure 2: Number of documents per year

Source: Authors' work

Analysis of the information

After the preliminary analysis, a bibliometric analysis and network visualisation were conducted using Scopus data on crisis and disaster management in tourism. For the information analysis, a bibliometric study was performed, generating graphs to illustrate the productivity of authors, documents, journals, countries, and institutions that contribute the most to reach in this field. The network visualisation analysis examined relationships between authors, word occurrences, and bibliographic linkages. Specialised software is required to conduct this type of analysis and visualise existing connections. In this study, the VOSviewer software was selected, as it allows the construction of bibliometric maps based on the type of analysis needed, including co-authorship, co-occurrence, co-citation, and bibliographic coupling.

Bibliometric analysis

Bibliometrics was used to determine the relevant characteristics and trends occurring in the scientific field based on the literature found in the database. In this section, the indicators corresponding to the productivity analysis by author, article, journal, country, and institution are established and measured by the number of articles published in journals indexed in the Scopus database. Additionally, a comparison was made between the most cited documents in the field of crisis and disaster management in tourism. To carry out this bibliometric analysis, the following search criteria were entered into Scopus bibliographic database: "touris* crisis" OR "touris* disaster" AND "management". This resulted in a list of 208 documents. Subsequently, those documents corresponding to articles and reviews were selected, filtered, and exported, resulting in a list of 159 documents.

Productivity by author

This section quantifies the articles published by the author in crisis and disaster management in tourism. The number of published articles was collected from Scopus. Figure 3 shows the top authors based on the number of papers published. In the top three places are Pennington-Gray. L., with 12; Ritchie, B.W., with 10; and Schroeder, A., with 6 papers. Other authors, such as Biingjie Liu-Lastres and Bochner Liu, who are in fourth place with 5 papers each, are also worth mentioning.

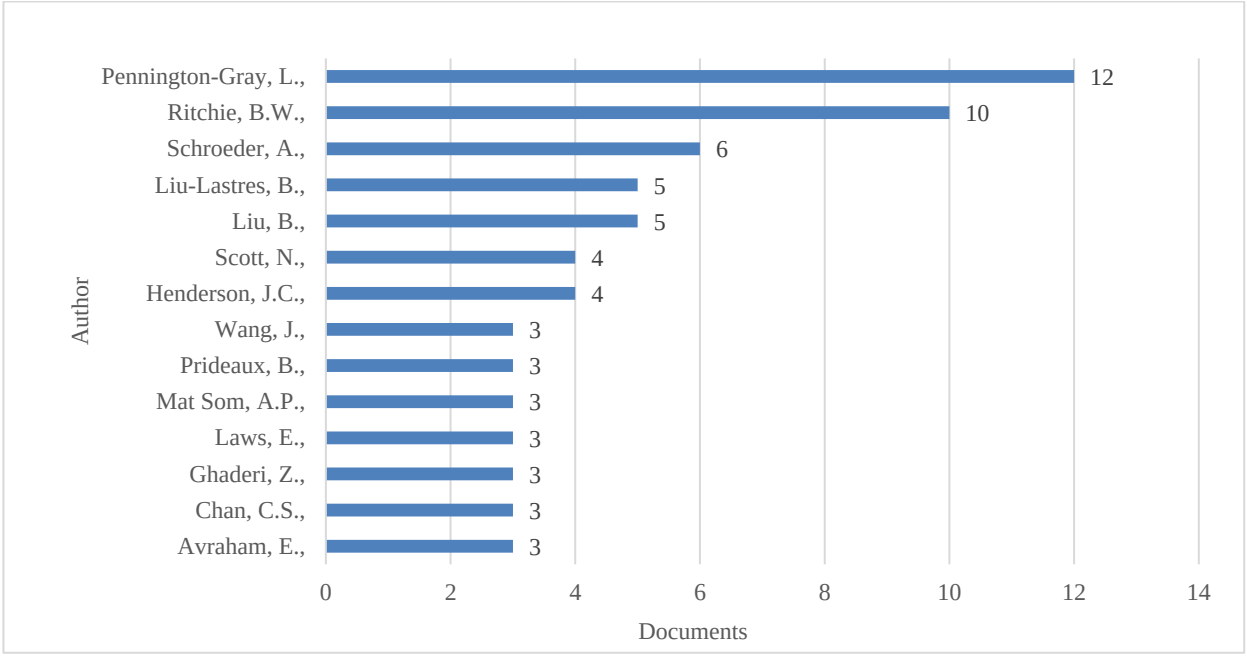

Figure 3: Number of documents per author
Source: Authors' work

Influence of the article

An analysis was conducted on the papers that received the highest number of citations in crisis and disaster management in tourism. As shown in Table 1, the articles were ranked based on the number of citations they received. It was determined that the publication "Towards a Framework for Tourism Disaster Management" by Bill Faulkner accumulated a total of 48 citations, making it the most cited article among those analysed. However, it is important to note that the number of citations does not necessarily reflect the quality of a paper, as it depends on its inclusion in other authors' reviews. Another noteworthy aspect of Table 1 is that the most cited documents were published between 2001 and 2016, with the most cited article dating back to 2001, raising questions about its continued relevance.

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Table 1: Top 6 articles with the highest number of references in the field of crisis and disaster management in tourism

Author(s)	Title of the publication	Journal	Year of publication	Citation score
Faulkner, B.	Towards a framework for tourism disaster management	Tourism Management	2001	48
Ritchie, B.W.	Chaos, crises and disasters: A strategic approach to crisis management in the tourism industry	Tourism Management	2004	28
Mair, J., Ritchie, B.W., Walters, G.	Towards a research agenda for post-disaster and post-crisis recovery strategies for tourist destinations: a narrative review	Current Issues in Tourism	2016	20
Hystad, P.W., Keller, P.C.	Towards a destination tourism disaster management framework: Long-term lessons from a forest fire disaster	Tourism Management	2008	19
Ritchie, B.W.	Crisis and disaster management for tourism	Aspects of Tourism	2009	17
Hall, C.M.	Crisis events in tourism: subjects of crisis in tourism	Current Issues on Tourism	2010	15

Source: Authors' work

Country influence

The analysis of the most productive countries in crisis and disaster management research in tourism ranked them in descending order based on the number of published articles. As illustrated in Figure 5, Australia leads with 29 publications, demonstrating a strong interest in this field. The United States follows closely with 28 papers, while China has 24. The United Kingdom has contributed 17 papers, followed by Indonesia with 9. Japan and Israel each have 8 publications. Whereas Singapore and Malaysia have 7. Lastly, New Zealand has 6 papers each. Notably, no Latin American country appears in the top 10, highlighting a potential research opportunity for scholars in the region.

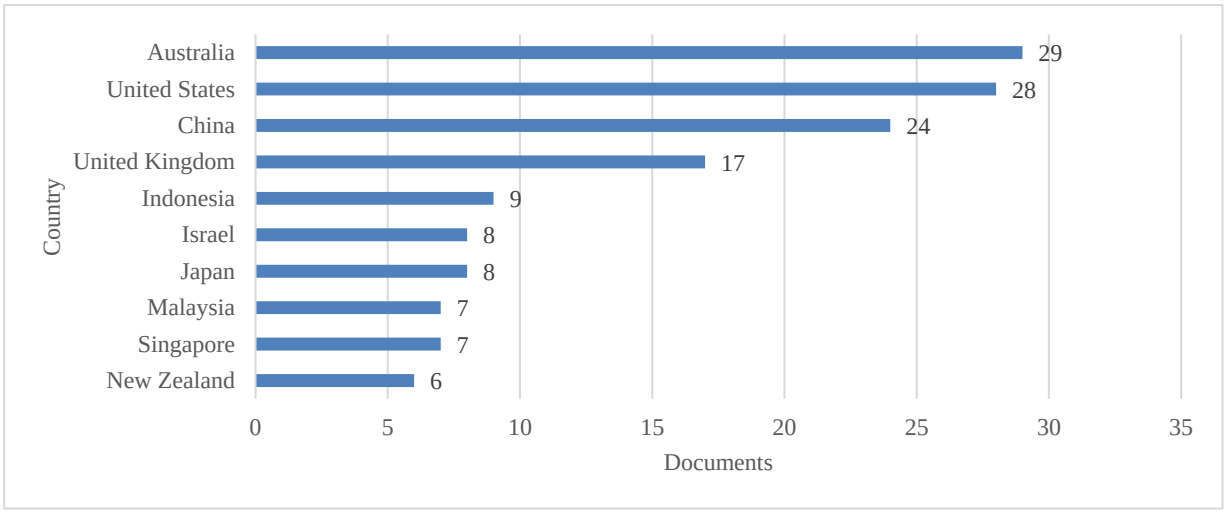

Figure 4: Number of documents per country
Source: Authors' work

Productivity of organisations.

An analysis was also carried out to identify which academic organisation has the most significant number of publications on crisis and disaster management in tourism. As can be seen in Figure 6, the central affiliated institutions have published articles and reviews on crisis and disaster management in tourism. The top 3 are the University of Queensland with 13 papers, the University of Florida with 12 papers, and the University of Queensland Business School with 9.

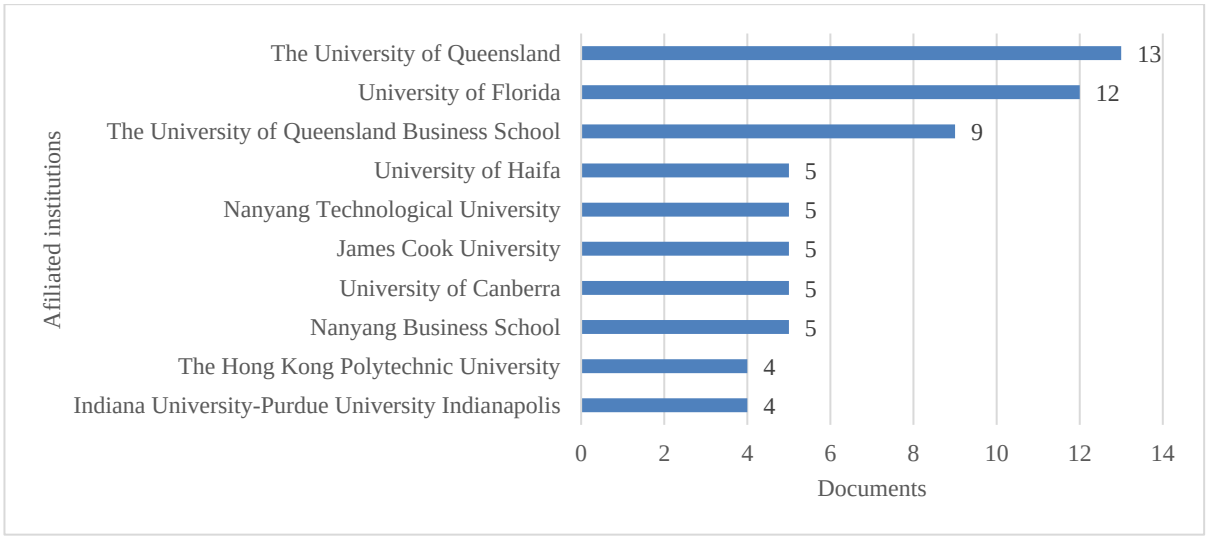

Figure 5: Number of documents per affiliated institution

Source: Authors' work

Network visualisation

The use of network analysis in literature reviews through bibliometric maps has enhanced the visualisation of relationships such as co-authorship, co-occurrence, citations, bibliographic coupling and co-citation. This type of analysis is made possible by specialised software like VOSviewer, which allows the creation and representation of bibliometric maps in three formats: network, overlay and density. In this study, VOSviewer was used due to its ease of generating bibliometric maps and its ability to process data downloaded from the Scopus database, which provides information on citations, bibliographic references, and keywords, among other elements.

Co-authorship analysis

The analysis of co-authorship identifies the collaboration between authors in producing scientific works. It can also detect research groups and characterise an academic institution or entity's publication habits. Co-authorship analysis by the author is used to identify the relationships between authors and the topics they address; if two or more authors publish together, there will be a thematic similarity between them; the higher the frequency of co-authorship, the greater the affinity between them. This method is used to identify the most influential authors in each field. To carry out this type of author analysis, a copy of the database in RIS format was loaded into the VOSviewer. A minimum of 2 papers per author were then selected, and of the 339 authors, only 39 met this requirement. Figure 7 shows that the 39 authors are divided into 19 clusters, most of which are not directly connected. This analysis reveals that Pennington-Gray has the highest number of co-authored publications, which 12 papers and a total link strength of 18, according to VOSviewer. In second place is Schroeder, A., who has authored 6 papers with a total link strength of 13. Liu, B. ranks third, also with 6 papers but a lower link strength of 8. The fourth position is held by Liu-Lastres, B., with 5 papers and a total link strength of 7. Lastly, Ritchie, B.W. is in fifth place, having published 10 papers with a total link strength of 6. According with total link strength, which measures the quantity and quality of connections between scientific papers, Pennington-Gray, I., Schroeder, A., Liu, B., Liu-Lastres, B., and Ritchie, B.W. are the most influential authors. Co-authorship analysis by country is used to identify the relationship between authors and the countries from which their academic publications originate. It is used to analyse and visualise the knowledge structures of scientific domains. To carry out the co-authorship analysis by country, the VOSviewer was configured to produce a network map considering at least five documents per country, obtaining that, out of the 46 countries, only 12 meet this requirement.

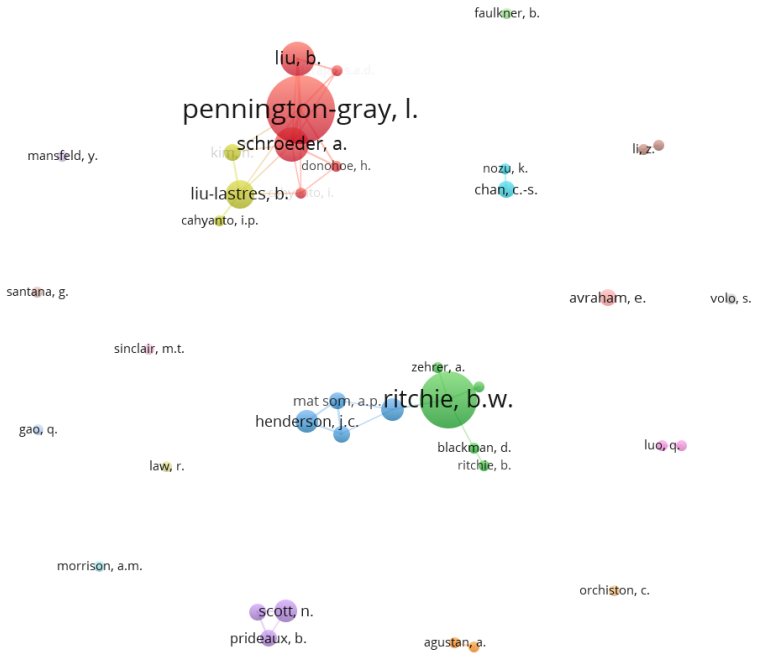

Figure 6: Analysis of co-authorship per author
Source: Authors' work

Figure 8 shows that the 12 countries were grouped into 3 clusters. In first place is Australia, with 29 papers, 4072 citations, and a total link strength of 10. China has 24 papers, 453 citations, and a link strength of 10. The United Kingdom has 27 papers, 1202 citations, and a total link strength of 6 in third place. In fourth place is the United States, with 27 papers, 1202 citations, and a total link strength of 6.

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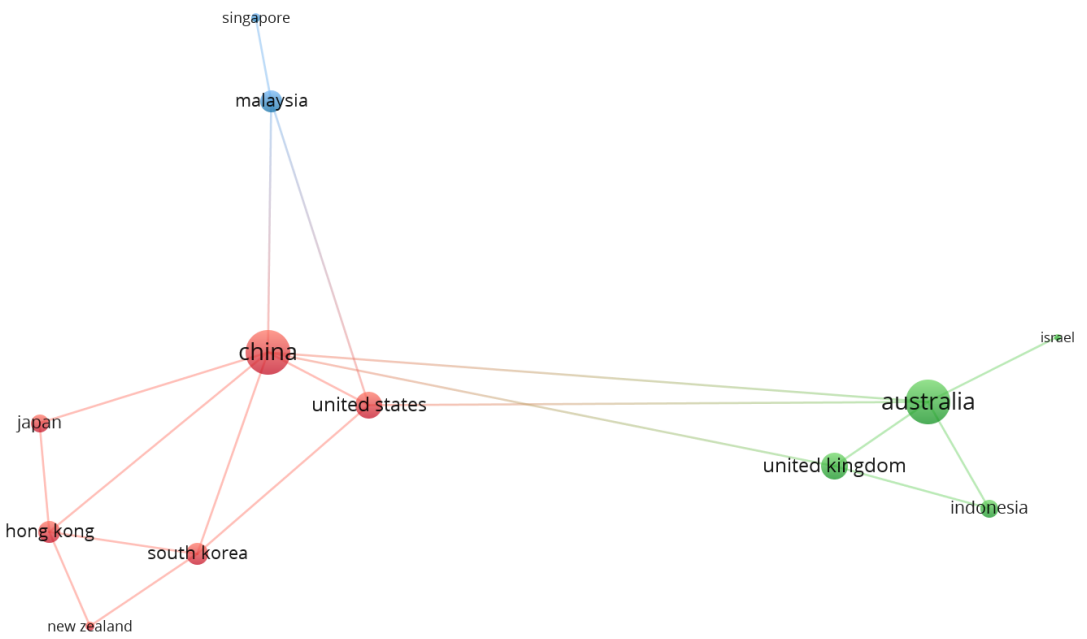

Figure 7: Analysis of co-authorship per country
Source: Authors' work

Based on the results of the analysis, Australia, China, the United Kingdom, and the United States are the most influential countries in the tourism sector regarding crisis and disaster.

Word co-occurrence analysis

Boeris (2010) states that this type of analysis aims to uncover connections between concepts within a related group. By extracting words from analysed documents, it is possible to determine the topics addressed by different authors and the relationships between them. One commonly used technique is keyword co-occurrence analysis, which identifies links between keywords in academic publications. A higher frequency of co-occurrence indicates a stronger association between the Rms. This method is also useful for pinpointing the most significant keywords within a specific research area. For this analysis, the database was imported into VOSviewer in RIS format. A minimum threshold of five occurrences per keyword was set, which reduced the initial 763 keywords to 40 that met the required criteria. Figure 9 shows that the 40 keywords are grouped into 5 clusters. According to this analysis, *tourism management*, with 35 occurrences and a total link strength of 146, is in first place. With 44 occurrences and a total link strength of 113, *crisis management* is in second place.

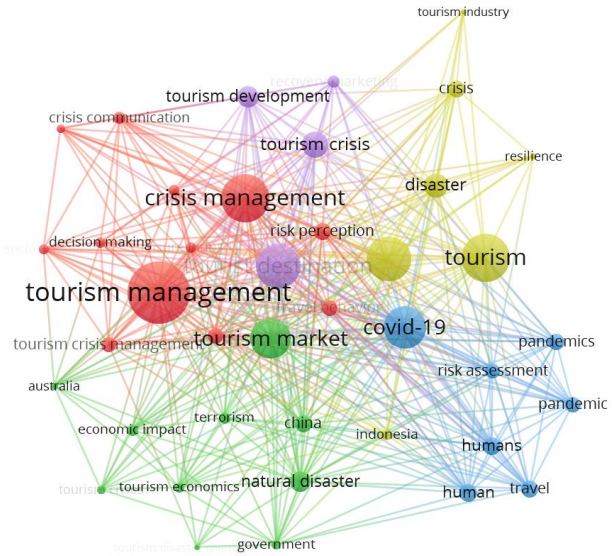

Figure 8: Keyword co-occurrence analysis
Source: Authors' work

Based on the above analysis, the most relevant keywords are tourism management, crisis management, tourism, tourism market, and COVID-19.

Analysis of bibliographic coupling by sources

Bibliographic linking measures the similarity between two or more scholarly publications. It is based on citation analysis and occurs when two or more publications refer to a typical third publication in their bibliographies. Therefore, finding related research that has been published before can be helpful. Bibliographic source linking focuses on the relationship by source rather than the publications being cited. To carry out this type of analysis, a copy of the database in CVS format was loaded into VOSviewer. They then selected at least five documents from one source, with only 10 of the 72 sources meeting this requirement. In Figure 10, these 10 sources were grouped into 3 clusters. Among the most important, we can mention in first place Current Issues in Tourism, with 17 papers, 1563 citations, and a total linking strength of 675. Second place goes to the Journal of Travel and Tourism Marketing, with 14 papers, 970 citations, and a total linking strength of 549. Tourism Management is in third place, with 11 papers, 2560 citations, and a total linking strength of 534. The Journal of Hospitality and Tourism Management is in fourth place, with 7 papers, 327 citations, and a total link strength of 413. Finally, in fifth place is the Annals of Tourism Research, with 5 papers, 934 citations, and a total linking strength of 371.

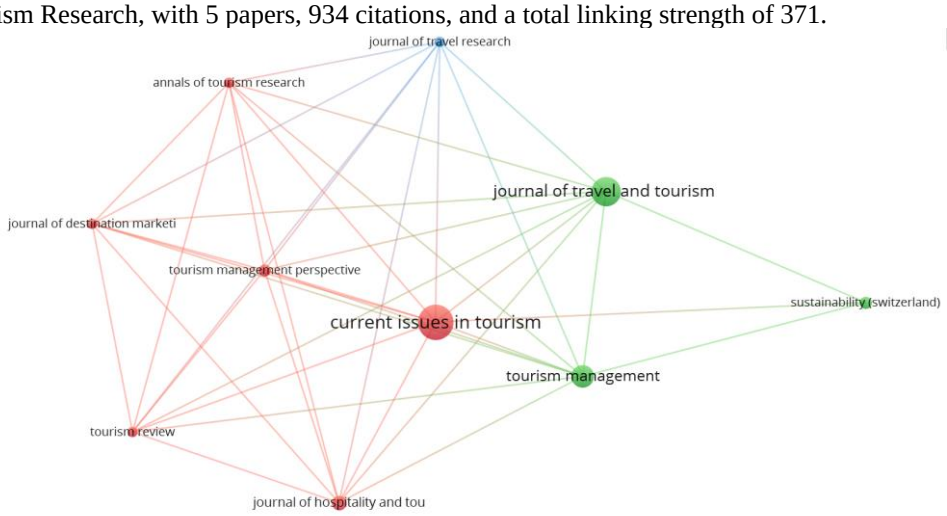

Figure 9: Bibliographic coupling per source
Source: Authors' work

Based on the analysis, the most cited sources are Current Issues in Tourism, Journal of Travel and Tourism Marketing, Tourism Management, Journal of Hospitality and Tourism Management, and Annals of Tourism Research.

Co-citation analysis

Co-citation is a citation analysis technique used to measure the similarity between publications. It occurs when two or more papers are cited independently, indicating a thematic connection. A specific form of this, cited reference co-citation, happens when two publications are indirectly linked through a common third reference. This method helps identify thematic relationships between documents and locate relevant past research. To conduct this analysis, a database in CSV format was imported into VOSviewer. A threshold of at least 15 citations per cited reference was set. Out of 8,290 cited references, only 7 met this criterion. As shown in Figure 11, the most frequently cited reference is Faulkner (2001), with 48 citations and a total link strength of 54. Hystad & Keller (2008) follows, with 19 citations and a total link strength of 45.

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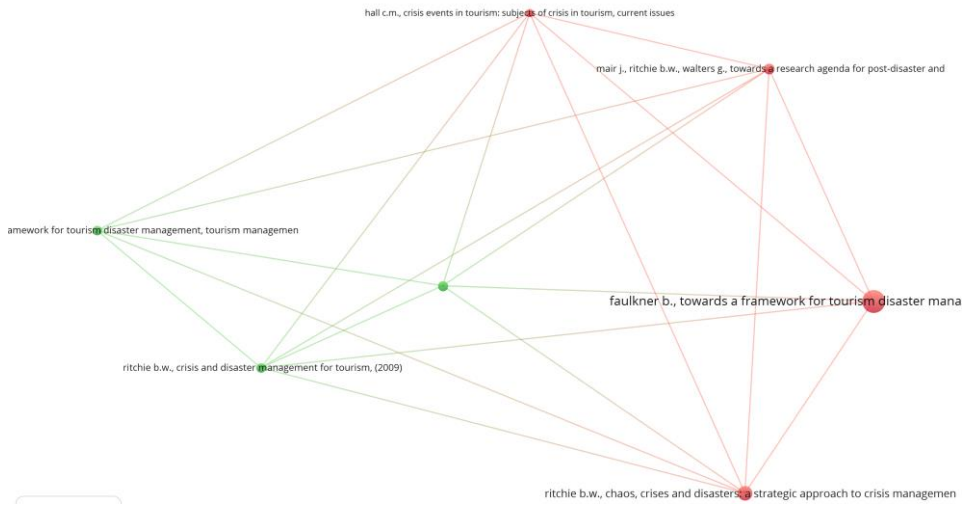

Figure 10: Co-citation analysis according to cited references
Source: Authors' work

Based on this analysis, it can be concluded that the following academic publications are related: Faulkner (2001), Hystad & Keller (2008), and Ritchie (2004).

Content analysis

A review of 20 articles on "Crisis and Disaster Management in the Tourism Sector" was conducted, categorising them based on their primary focus. This analysis identified two main thematic clusters: "crisis strategies" and the "cause/origin" of the disaster. Table 2 presents the 18 most cited articles, grouped accordingly, along with their respective citation counts. Two relevant articles were not included in the table, as they did not fit within either of these clusters. Jiang & Ritchie (2017) was excluded because their approach does not emphasise marketing as a tool for post-crisis recovery or prevention but instead focuses on knowledge sharing and financial support among stakeholders. Similarly, Yeh (2021) was omitted because its strategy prioritises resource management, such as budgeting and human resources, rather than aligning with the predominant classification criteria.

Table 2: Grouping of the 18 most cited articles by cluster

Cluster	Article	Cited by
Crisis Strategies	Towards a framework for tourism disaster management	992
	Chaos crises and disasters: A strategic approach to crisis management in the tourism industry	773
	Tourism Disaster Planning and Management: From Response and Recovery to Reduction and Readiness	221
	Tourism in Crisis: Managing the Effects of Terrorism	432
	Tourism business preparedness, resilience and disaster planning in a region of high seismic risk: The case of the Southern Alps, New Zealand	107
	Katherine, washed out one day, back on track the next: A post-mortem of a tourism disaster	244
	Tourism crises and marketing recovery strategies	115
	Crisis management and tourism: Beyond the rhetoric	
	Understanding accommodation managers' crisis planning intention: An application of the theory of planned behaviour	
	Knowledge management and tourism recovery (de)marketing: the Christchurch earthquakes 2010-2011	100
Cause/Origin	No Ebola... still doomed' - The Ebola-induced tourism crisis	409
	Crisis events in tourism: Subjects of crisis in tourism	379
	Crisis Management: A Suggested Typology: Journal of Travel & Tourism Marketing	111
	Tourism crisis management US	321
	Cycles of war, terror, and peace: Determinants and management of crisis and recovery of the Israeli tourism industry	214
	Towards a destination tourism disaster management framework: Long-term lessons from a forest fire disaster	232
	Comparing crisis management practices in the hotel industry between initial and pandemic stages of COVID-19	150
	A content analysis of Chinese news coverage on COVID-19 and tourism	115

Source: Authors' work

The articles in the first cluster reflect various strategies for crisis management in tourism, which can be divided into prevention and post-crisis through marketing. Within this group, pre-crisis strategies differentiated according to the context of the crisis, be it terrorism or natural disasters, are identified. According to Sönmez et al. (1999), while a natural disaster may hinder tourism flow, a terrorist act tends to generate a more severe impact, as evidenced by trip cancellations during periods of intensified terrorist activity. On the other hand, in the cluster of causes, the articles analysed distinguish between two main triggering factors: natural causes and human-induced causes. Within the analysis of applied strategies, two predominant approaches are identified: crisis management focused on prevention and that based on marketing tools for post-crisis recovery.
About strategies in terrorism context, a procedure of action with three main steps is highlighted, namely:

1. Incorporate crisis management into tourism management planning. This allows for a quick reaction and more excellent knowledge from the intervening agents, promoting the re-establishment of the destination's attractiveness and reassuring potential tourists.
2. The formation of a crisis management team. With local government personalities and tourism specialists, it should, in turn, be subdivided into important functions such as communication and public relations, which gives a unified

message to the public media; marketing and promotion, which manages tourist; the disaster information team, which assesses damage and evolution; and finance team, which handles fundraising and its correct distribution.

3. Drafting a crisis management guide, which will be passed on to all teams, with specific actions and those responsible for each one, to have a quick and correct reaction when a crisis appears, as these do not usually "warn" (Sönmez et al., 1999).

On the other hand, managing natural disasters coincides with different authors on prevention. Business planning with a preventive approach can generate greater resilience to natural disasters by improving the continuity of business operations in the event of a disaster (Goeldner & Ritchie, 2011; Orchiston, 2013). Disaster planning is also more likely to be undertaken in more mature markets, with medium to large enterprises and longer business hours. Business income influences the preparedness stage, indexing insurance, staff training, evacuation, and induction (Orchiston, 2013). In addition, the preventive strategy is based on the life cycle of a crisis, which is divided into three main phases (Faulkner & Vikulov, 2001). The pre-event phase, where the population is made aware of possible events; the prodromal phase, where various working and organisational teams work together; and finally, the intermediate phase, in which disaster management is improved. Within crisis management strategies that integrate marketing, knowledge management systems emerge as a crucial resource for governments, organisations, and communities, aiding in the prevention, mitigation, planning, and recovery from disasters and crises. Additionally, recovery marketing plays a fundamental role in revitalising tourism in post-disaster environments, particularly in destinations that depend heavily on tourism (Walters & Mair, 2012). A key aspect of crisis management is leveraging digital tools, such as websites, to facilitate both internal and international communication. The use of positive messaging, including the idea that visiting affected destinations contributes to their recovery, can be highly effective. Moreover, reducing uncertainty within the industry is essential, as it provides vital information to stakeholders such as operators, travellers, and their families. This not only supports better decision-making for those involved but also allows tourists to adjust their travel plans, activities, and visits based on changes in the economic and social climate (Orchiston & Higham, 2016; Paraskevas et al., 2013). Crises in tourism can arise from a diverse range of events, making it difficult to anticipate or predict when they will occur (Law et al., 2014). Natural disasters such as hurricanes, volcanic eruptions, and heavy rainfall, as well as human-induced situations like social or political conflicts, crime, and terrorism, all have the potential to trigger tourism crises. The impact extends beyond travellers, affecting businesses and the broader tourism industry (Hall, 2010). Tourism crises can have local, regional, or national repercussions, making it crucial to understand their causes in order to respond effectively. A timely reaction helps assess the extent of the crisis and implement strategies to minimise its effects on tourism operators, business continuity, destination safety perceptions, and overall attractiveness. By addressing these aspects proactively, the industry can prevent long-term economic downturns and safeguard the tourism sector from prolonged instability (Hall, 2010). Among natural causes, pandemics stand out as highly disruptive events that require prompt governmental action. Managing such crises effectively necessitates immediate measures, such as restricting travel or closing borders, even before the full impact of the pandemic is fully understood. These actions not only safeguard the local population but also enhance the perception of safety at the destination, an essential element in tourists' decision-making. For example, during the Ebola outbreak in Guinea, Gambia implemented strict border controls to minimise external risks. Likewise, in the initial stages of the COVID-19 pandemic, the most affected countries were major tourist destinations near China. These cases emphasise the significance of early containment measures and the need for a well-structured recovery plan as the crisis unfolds (Zhang, 2020). Yang et al. (2020) point out the preparedness and response of small and medium-sized enterprises to a health-related disaster. Of note are the actions that were taken due to the impact of the COVID-19 pandemic:

1. People's feelings: During transition periods, tourists may be temporarily stranded, generating anxiety and panic. Hotels have an important role to play, providing room delivery services and having scheduled staff to take care of guests' physical condition, which generates a feeling to being at home.
2. Control tourist activities and cultural sites, such as cancelling visits or opening museums or public cultural sites.
3. The hospitality industry's role is to provide services free of charge and promote brand image and reputation.
4. National command and local response, developing emergency plans and strictly restricting tourist activities.
5. Tourism disputes and remedies: Tourism companies have been quick to introduce measures in response, such as terminating the travel contract and refunding tourists in full, as well as eliminating processing fees related to changes and extensions.
6. Government assistance, mainly including support with special funds, fiscal and financial policies, value-added tax reduction, reduction of rental costs, and online government services.

Regarding natural causes such as fires, earthquakes, or floods, it is essential to emphasise the importance of implementing recovery and marketing strategies. These strategies play a crucial role in promoting safety through governmental collaboration between institutions, raising public awareness about preparedness for such events, and effectively communicating the area's recovery process. By conveying the restoration of normal conditions, these efforts help reassure potential visitors and facilitate the revival of tourism in the affected region (Hystad & Keller, 2008). Lastly, crises caused by terrorism require management strategies focused on controlling security threats, as these incidents not only jeopardise the safety of tourists but also harm the perception of the destination. In regions affected by conflict and terrorism, the negative impact on tourism cycles can be mitigated through effective crisis management tools. However, for a complete restoration of the destination's image, establishing lasting peace is essential (Mansfeld, 1999).

Discussion and conclusions

By utilising bibliometric analysis, articles indexed in the Scopus database on crisis and disaster management in tourism were identified. The collected information enabled the classification of a top 14 based on author productivity, journal impact, and country contributions. It was determined that the leading author in this field is "Pennington-Gray, L.A." with a total of 12 publications, while "Australia" ranks as the most productive country in this domain, with 29 published articles. Additionally, a ranking of the seven most cited articles was developed, identifying "Towards a framework for tourism disaster management," published in 2001, as the most cited paper with a total of 48 citations to date. However, it is important to note that the number of citations does not necessarily reflect the quality of an article, as citations may include references from critiques by other authors. In terms of institutions contributing to research in this field, "The University of Queensland" emerged as the most significant contributor, with 13 published documents on crisis and disaster management in tourism. Through network analysis, relationships within the literature were examined using co-citation analysis, word co-occurrence, and bibliographic coupling. The co-citation analysis confirmed the prominence of the journal "Current Issues in Tourism," as it received the highest number of citations and exhibited the strongest linkages compared to other journals. Meanwhile, the word co-occurrence analysis identified "tourism management," "crisis management," and "COVID-19" as the most frequently used terms in the field. Lastly, the bibliographic coupling analysis demonstrated a strong connection between research from the United States, Australia, and China, indicating that these countries share a high number of cited references in common. The analysis of the 20 most cited articles underscores the critical role of crisis management in tourism following disasters. Given the unpredictability of such crises, proactive prevention, the establishment of structured response systems, and strategic planning are essential to minimising their impact on affected areas. A distinction is made between crises caused by natural disasters, such as earthquakes and floods, and those resulting from human actions, such as terrorism. In the case of natural disasters, it is crucial to implement a prevention plan through staff training, the formation of crisis committees, and a clear action plan to ensure that all involved parties understand their roles and responsibilities. For human-induced crises, security management is required, and in regions with persistent conflicts, institutions focused on safety and stability should be engaged. In all cases, communication and marketing play a vital role in mitigating the impact on the tourism industry. It is essential to inform travellers not only that the tourist destination has returned to normal but also to communicate the actions taken to ensure safety, order, and transparency. The application of bibliometric analysis has facilitated an in-depth examination of the crisis and disaster management field in tourism, allowing for the identification of key articles and relevant journals. This research serves as a valuable tool for future studies and new analysts in the field. Furthermore, applying bibliometric methods to other areas of study can be instrumental in exploring and understanding literature reviews as a fundamental component of the research process.

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