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# COMPETITIVENESS OF TOURISM DESTINATIONS: A MIXED-METHOD BIBLIOMETRIC APPROACH

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ABSTRACT

Even after almost three decades of introducing competitiveness into the tourism sector, there is still a rising trend in literature on Tourism Destination Competitiveness (TDC). Though there are a few systematic and traditional reviews in the domain, there has been no study of the bibliometric variables. In the current study, scientific literature on the topic is mapped through evaluative and relational bibliometric techniques utilizing Web of Science (161 documents) and Scopus (manually selected five documents) databases to run a bibliometric analysis of 166 documents on TDC, uncovering the domain's research trend concerning authors, sources, and publications. The science mapping tool bibliometrix R-package biblioshiny and VOSviewer are used to analyze the trend of scientific publications in the area, untapped knowledge, possible future trends, and implications. The analysis is undertaken on three levels: source, author, and document, as well as three types of knowledge structures: conceptual, intellectual, and social. The bibliometric analysis consists of a descriptive evaluation of the bibliographic data frame, network analyses, and graphical visualization. As per the analysis, the competitiveness of natural/cultural destinations is rarely assessed in the global scenario. The maximum number of studies in the domain are carried out in European countries. The findings can guide researchers to focus on less developed themes/areas.

*Bibliometric analysis; Bibliometrix; Biblioshiny; VOSviewer; Tourism; Destination competitiveness; TDC.*

ECONLIT KEYS
L830; Z310

# 1. INTRODUCTION

Competitiveness is a term widely researched in different subject fields since the late 70s. However, Porter (1990) appears to have examined the notion at the firm level, and Poon (1993) applied it to the tourist industry. Following Poon's study, many works, including Crouch and Ritchie (1999); Hassan (2000); Dwyer and Kim (2003); Ritchie and Crouch (2003); and Enright and Newton (2004), examined tourism destination competitiveness by developing models; identifying factors and attributes; and coming up with a definition. The tourism sector recognizes competitiveness as critical for any tourism destination's success (Goffi, 2013). It serves as an instrument to transform tourism into an economic development tool, enables destinations to maintain their market position in the industry, and in some instances, creates a competitive edge (Leung and Baloglu, 2013).

It is vital to comprehend the concept's definition first, to appreciate the importance of competitiveness in the tourism industry and understand what a destination must do to be more competitive than others. Many authors have defined competitiveness in diverse contexts, but still, there is confusion within the literature on a universal definition of competitiveness. Crouch and Ritchie (1999) define tourism destination competitiveness as "a destination's ability to enhance tourism spending, to encourage more tourists while also offering them satisfying, memorable experiences and to do so profitably, while also improving the well-being of destination community and conserving the destination's natural capital for future generations" and this is considered predominant. A tourism destination is a 'well-defined geographical area recognized as a unique entity by tourists, with a political and statutory framework for tourism marketing and planning' (Buhalis, 2000).

Over the last decade, tourism researchers, destination administrators, and international organizations have made numerous efforts to comprehend the importance of the concept and identify how to help cities, regions, or countries

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maintain and improve their competitive positions as tourism destinations while also assessing their competitiveness. Understanding relevant literature on tourism destination competitiveness is highly significant for researchers and decision-makers in tourism-related organizations. Tourism Destination Competitiveness (TDC) is an extensive topic. The developing body of literature in this domain reflects the growing interest in the competitiveness of tourism destinations (Domínguez Vila, Darcy and Alén González, 2015). Because of the disparitises in the literature and abundance of research in this area, it is necessary to perform a bibliometric overview of the topic to search, study and understand the specific field, to draw detailed conclusions about research trends based on previous publications, and to know about knowledge-generating centers (countries and institutions). For researchers, such a study would offer an aesthetically pleasing portrayal of different ways the domain has been approached so far and might provide awareness about open lines of research, the emerging research areas, and prospective future developments (Seguí-Amortegui, Clemente-Almendros, Medina and Grueso, 2019). Knowledge about the evolving nature of destination competitiveness and the reasons it happens at destinations is significant to the tourism industry stakeholders in the private and public sectors. It will help decision-makers to make decisions tailored to achieving their goals in the form of management that boosts competitiveness (Seguí-Amortegui et al., 2019). As a result, it is critical to do a progressive study on TDC and thus to be up to date with current studies in this area (Cronjé and du Plessis, 2020).

Thus, the paper aims to understand the current state of competitiveness research in tourism destinations. The analysis was performed considering the Web of Science database following a mixed-bibliometric methodology and is taken forward through five research questions:

Q1: What is the current universal pattern in publishing research documents on tourism destination competitiveness? What is the information deciphered from this trend?

Q2: What is the influence of the knowledge accumulated in the domain?

Q3: What is the conceptual structure of the domain? (The most common themes that researchers look into)

Q4: What is the intellectual structure of the domain? (The research gaps, nascent research fields, and prospective future approaches)

Q5: What is the social structure of the domain? (In which countries/ institutions are knowledge generated, and what are the cross-border links between these knowledge-generating centers?)

These research questions lead to the objectives of the study: (1) To explore the impact of published academic works in the domain by assessing performance with productivity measures, impact metrics and hybrid metrics, and (2) To investigate the conceptual, intellectual and social connections and relationships among published works of the study domain. The overall study progresses based on the science mapping workflow method from Aria and Cuccurullo (2017) and Zupic and Cater (2015). The bibliometric analysis follows evaluative and relational techniques, as Koseoglu, Rahimi, Okumus, and Liu (2016) suggested. The contribution of this study is that, from a methodological perspective, it uses a mixed-method bibliometric approach in the TDC domain. The study comprehends the existing knowledge in the domain and thereby identifies areas for further exploration.

The study result shows that the competitiveness of natural/cultural destinations is rarely dealt with in different contexts in the international scenario. The maximum number of studies in the domain are carried out in European countries. The findings would help researchers to focus on less developed themes/areas.

The document is designed as follows. The second section examines the core bibliometric review documents in this area that supports the present study. The third section discusses the document search strategy and the bibliometric analysis methods. The outcomes of mixed-bibliometric analysis techniques are given in section four. These outcomes are discussed in the fifth section, including thematic categories addressed and elements that have received less attention in the literature. The sixth section concludes with a summary of study limitations and implications for further research based on the findings.

## 2. LITERATURE REVIEW

Though many bibliometric review papers exist on 'competitiveness' associated with different fields such as economics, management, and tourism, minimal studies are available in the context of tourism destinations.

By compiling, investigating, and critically evaluating the current literature on TDC across the three dimensions of definition, theoretical framework, and quantification, Abreu-Novais, Ruhanen, and Arcodia (2016) performed a traditional literature review following the review bibliometric technique. Though the article covers all the documents on TDC till the study date, neither have they mentioned whether a systematic procedure is followed to collect the reviewed documents; nor specified the database from which data collection is done and even the keywords and search strings used.

Teixeira and Ferreira (2018) conducted a thorough literature appraisal following the review bibliometric technique, mapping previous research patterns and themes and exploring emerging trends in regional competitiveness and tourism innovation. The study summarizes articles published between 1900 and 2016 in the Web of Science (WoS) database. However, they had limited their focus to the competitiveness of regional destinations.

With a focus on tourism destinations or clusters, Seguí-Amortegui et al. (2019) undertook a bibliometric study of the body of knowledge regarding the link between tourism, sustainability, and competitiveness. They studied papers published until July 2019 following the relational bibliometric technique and covered only the WoS database. Rodríguez-López, Diéguez-Castrillón, and Gueimonde-Canto (2019) also conducted an evaluative and relational bibliometric analysis applying sustainability and competitiveness to tourism destinations. The article covers papers published until August 2019 collected from WoS and Scopus databases. But they had limited their attention to protected destinations.

Interestingly, Cronjé and du Plessis (2020) thoroughly assessed TDC studies in the period 1997-2018 to better understand and clarify the progress made on this complex topic, with a systematic review as the informant of the research method.

Articles from Google Scholar, EbscoHost, Sage journals online, and ScienceDirect were used in the study, whereas the principal assessment databases, Web of Science and Scopus, were ignored. Though the search keywords are mentioned, search strings are missing.

Most of the existing traditional literature reviews – specifically those in the domain of tourism destination competitiveness (Abreu-Novais et al., 2016; Cronjéa and du Plessis, 2020; Teixeira and Ferreira, 2018) - are either systematic or narrative and are subjective to the core, and evaluative and relational techniques of bibliometric analysis reduce this subjectivity (Koseoglu et al., 2016). Very few studies have employed evaluative and relational techniques in bibliometric analysis in the domain of tourism destination competitiveness in the WoS database. The studies which followed this methodology either focused on a particular type of destination, such as protected areas (Rodríguez-López et al., 2019) or took additional keywords such as 'sustainability' (Seguí-Amortegui et al., 2019) into consideration. Thus, the purpose of this paper is to fill the research gap in the domain by studying the status of 'tourism destination competitiveness' research in the principal database WoS by following a qualitative research design that uses the mixed method of evaluative and relational bibliometric techniques to comprehend the existing knowledge in the field and thereby identifying areas for future research.

## 3. METHODOLOGY

Bibliometrics is primarily acknowledged for tracking and evaluating research development and thus estimating its quality, impact and significance. Also, it is employed to portray the intellectual, conceptual and social frameworks of the research domain along with their evolution and changing aspects.

The overall study adapts the science mapping workflow method from Aria and Cuccurullo (2017), Zupic and Cater (2015), and Firdaus, Razak, Feizollah, Hashem, Hazim and Anuar (2019). The workflow for general science mapping was defined by Borner, Chen and Boyack (2005) and Cobo, López-Herrera, Herrera-Viedma and Herrera (2011) (Aria and Cuccurullo, 2017). As per Zupic and Cater (2015), a standard workflow comprises five phases: development of a research plan, data

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gathering, data processing, data visualization, and result interpretation. The methodology for the current study, which consists of four phases, is visualized in Figure 1.

To perform bibliometric analysis, we move through data collection, analysis and visualization, and interpretation phases to exhaustively evaluate existing studies. The first phase is the research design (planning) phase which consists of formulating research questions, developing a protocol for the review and deciding on the software for bibliometric analysis. The data collection phase comprises data extraction and synthesis based on the protocol developed in the previous phase. The third phase consists of bibliometric data analysis, including evaluative and relational techniques (Benckendorff and Zehrer, 2013; Koseoglu et al., 2016), and visualization using the opted analysis software – Biblioshiny and VOSviewer. The last phase deals with reporting the results and findings and interpreting them.
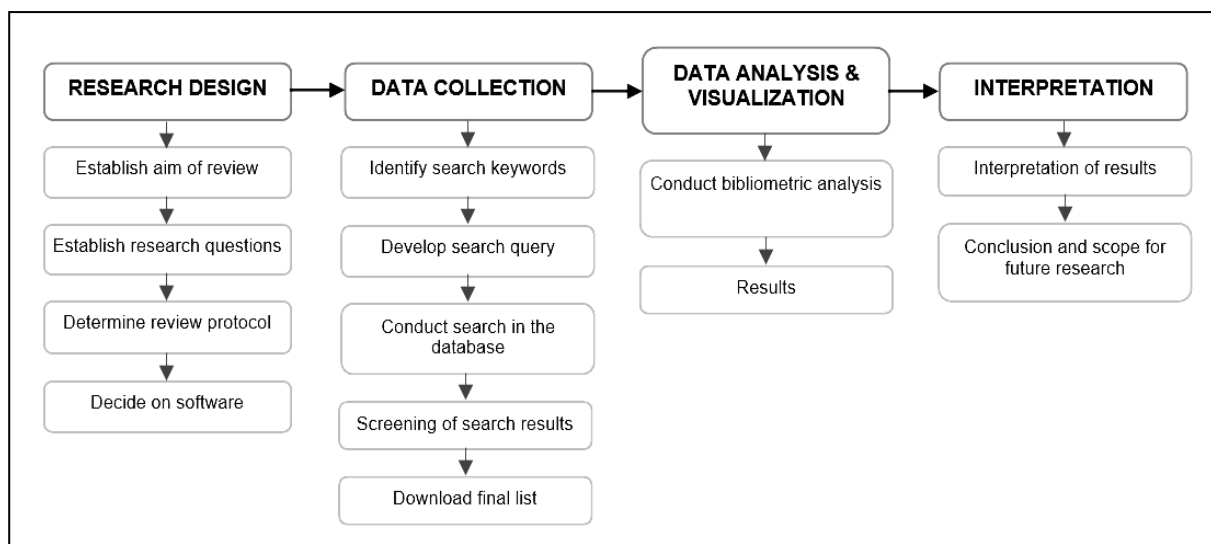


Figure 1: Methodology phases adapted from Aria and Cuccurullo (2017), Zupic and Cater (2015) and Firdaus et al. (2019).
Source: Own elaboration.

This study is taken forward as depicted by the research questions mentioned in the introduction section. Almost all the documents for analysis are extracted from one of the world's largest interdisciplinary online scientific databases, Web of Science (WoS) by Clarivate Analytics, which is preferred to other databases in terms of data quality (Mongeon and Paul-Hus, 2016).

Data collection consists of querying, selecting and exporting documents from the selected database. The data collection was carried out in April 2021. Initially, a combination of terms that can identify scientific literature on tourism destination competitiveness is chosen. Many pre-searches were performed to improve the research quality, which helped to arrive at the appropriate set of terms (keywords). The next step is to conduct an organized exploration and sensible selection of documents to be examined. The keywords identified through trial and error were used to develop a query to answer the research questions framed. The search query was designed by systematically using the keywords in various search fields - title, abstract, and keywords. To ensure that no important documents were omitted, the search was repeated using the most common synonymous terms until the search did not return any new document that met the selection criteria. The search query used is TS ("touris* destination compet*" OR "destination compet*" OR "touris* compet*" OR "compet* destination*"), and this mined out 543 search results from the entire database, including various types of articles in different languages from diverse research areas until April 2021.
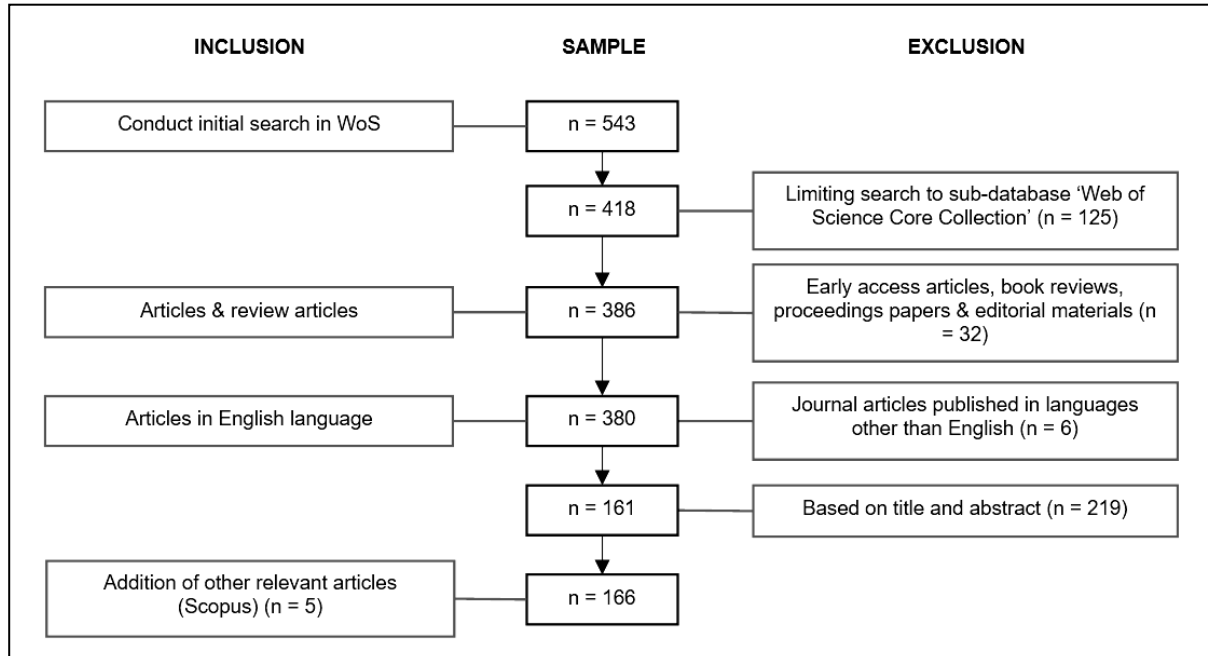


Figure 2: Screening of search results by applying inclusion-exclusion criteria.
Source: Own elaboration.

The search result was refined using different criteria, as shown in Figure 2. 418 documents were obtained when the search query was conducted in the WoS sub-database 'Web of Science Core Collection' in the search field 'Topic'. These documents are indexed in either SSCI or SCI-E or both. Further, early access articles, book reviews, proceedings papers and editorial materials were excluded from the list, reducing the number of documents to 386. Confining the 'documents published in English' reduced the count to 380. Zupic and Čater (2015) state that documents outside the scope of the review can be found in the results obtained, even though a thorough search is performed. Such documents would impact the analysis results and cause outliers in cited documents, thereby reducing the validity of the results. Thus, based on the title and abstract, those irrelevant articles that did not conform to the eligibility criteria were omitted, reducing the number of articles to 161. While analyzing the most cited references of the entire dataset, it was found that it lacked certain seminal articles of the domain. Five out of ten most cited articles were added (from the Scopus database); thus, the final list contained 166 articles. Though 'plaintext' format is preferred to 'BibTeX' in terms of completeness of information, the final list was downloaded from the database in 'BibTeX' format since this is the common format that can be used for both Scopus and WoS databases. The file with the extension 'bib' was used for further investigation. The collected documents from WoS and Scopus databases were merged into a single bibliographic data frame in 'xlsx' format in R Studio, wherein documents and field tags corresponded to cases and variables in the original export file, respectively. The details of the five documents added from Scopus are further checked manually for compliance with the WoS data file.
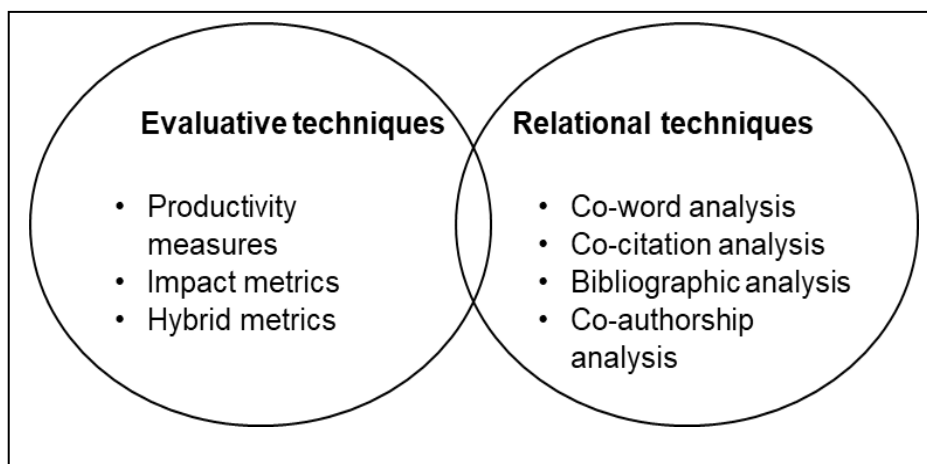
Figure 3: Mixed bibliometric method.
Source: Koseoglu et al., 2016.

The mixed bibliometric method used for data analysis combines evaluative and relational techniques, as seen in Figure 3. The data analysis for each objective is undertaken as indicated in Table 1.

| Research questions | Objectives | Bibliometric analysis technique | Analyses |
|---|---|---|---|
| Q1: What is the current universal pattern in the publication of research documents on tourism destination competitiveness? What is the information deciphered from this trend? Q2: What is the influence of the knowledge accumulated in the domain? | To explore the impact of published academic works in the domain by assessing performance with productivity, impact, and hybrid metrics. | The evaluative technique (using 'biblioshiny') | Number of cited papers; Number of papers per academic year; Number of papers per author; Total number of citations; Number of citations per academic year; Number of citations per individual author/ journal; Average number of citations per paper; Countries' production. |
| Q3: What is the conceptual structure of the domain? (The most common themes that researchers look into; the research gaps; nascent research fields/trends; and prospective future | To investigate the conceptual, intellectual and social connections and relationships among published works of the study domain. | The relational technique (using 'biblioshiny' and 'VOSviewer') | Co-citation analysis; Co-word analysis; Collaboration analysis; Bibliographic coupling. |

| | | | |
|---|---|---|---|
| approaches) Q4: What is the intellectual structure of the domain? (How a research work in the domain would influence the scientific community) Q5: What is the social structure of the domain? (In which countries/ institutions are knowledge generated, and what are the cross-border links between these knowledge-generating centers?) | | | |

Table 1: Data analysis – a mixed-method bibliometric technique.
Source: Own elaboration.

The merged data frame was further loaded in bibliometrix (https://www.bibliometrix.org) R-tool 'biblioshiny' or 'VOSviewer' and was comprehensively analyzed, mapped and visualized. Bibliometrix is a free, transparent software for automating the phases of data analysis and data visualization. Though many R-tools for bibliometrics focus on specific analysis functions, not even one deals with the complete process sequentially (Aria and Cuccurullo, 2017). The tool invariably helps to thoroughly analyze documents, authors and sources using different elements such as type of document, annual production, scientific source, source growth, authors, articles per author, author citation, author dominance, article citation, country citation, affiliated countries, affiliated institutions, keywords, and to construct bibliometric networks based on co-citation, co-authorship and co-occurrence of keywords, in the research domain.

Though the primary tool used in the study is 'biblioshiny', few network analyses such as keyword co-occurrence were conducted in VOSviewer since the software gives legible and accurate networks. In our understanding, this is a first effort which employs mixed tools to conduct a bibliometric review in the context of the vast topic of tourism destination competitiveness. The detailed methodology for bibliometric analysis using biblioshiny and VOSviewer is shown in Figure 4.
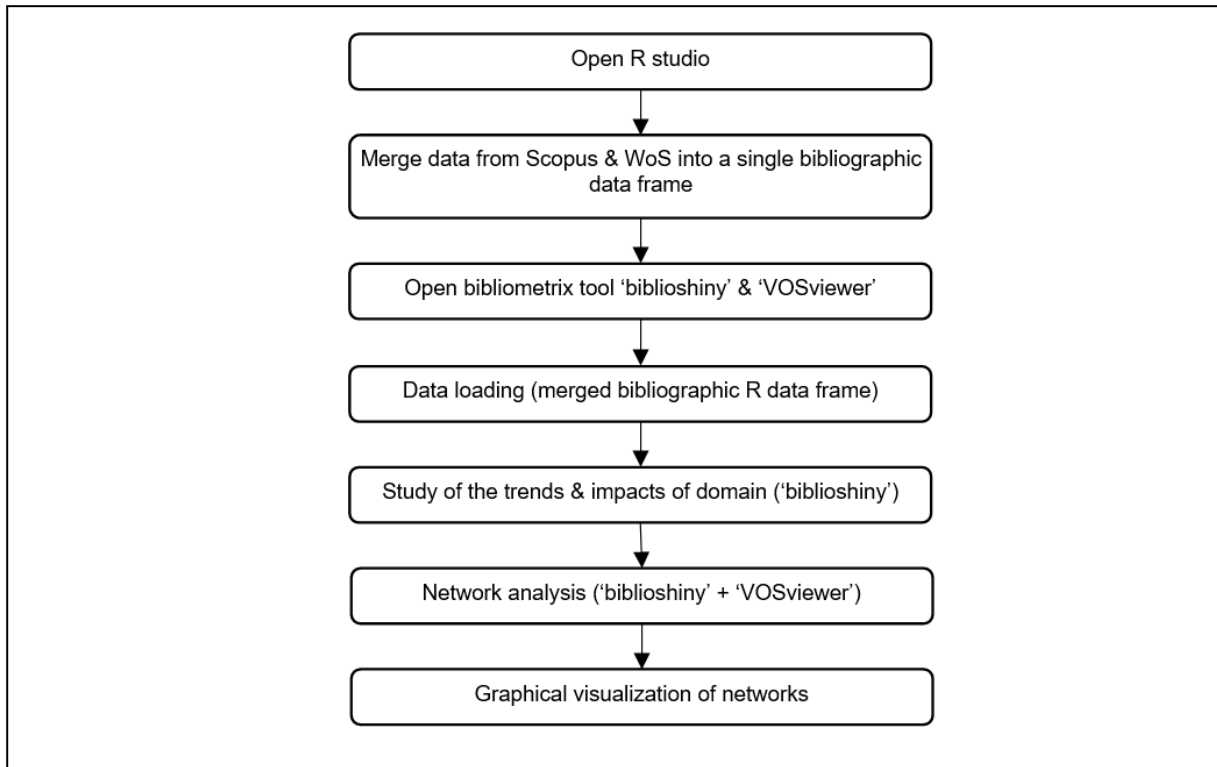
Figure 4: Methodology for data analysis and visualization (Phase 3).
Source: Own elaboration.

The analysis results and discussion will be reported in the following two sections.

## 4. RESULTS

In biblioshiny, the analysis is conducted in three levels – author, source and document, and three knowledge structures – conceptual, intellectual and social. Data analysis is done in 2 sub-stages based on the objectives of the study: descriptive analyses of the bibliographic data frame and network analyses and graphical visualization of networks (Aria and Cuccurullo, 2017). A descriptive study of vital bibliometric statistics is the first step in bibliometric data analysis. Data visualization consists of conceptual structure mapping and network mapping.

The results are presented based on the research questions and objectives in the introduction. Objective 1 (RQs 1 & 2) is explored in Section 4.1 and Objective 2 (RQs 3, 4, & 5) in Section 4.2.

## *4.1) TRENDS AND IMPACT OF KNOWLEDGE IN THE DOMAIN*

### 4.1.1) AN OVERVIEW OF THE BIBLIOGRAPHIC DATA FRAME

A summary of the main bibliometric measures of articles extracted from the databases is given in Table 2. A total of 366 authors authored the 166 articles selected for analysis. The articles are collected from 51 journals and are published between 1999 and 2021.

| Information | Description | Statistics |
|---|---|---|
| Documents | Total number of articles published | 166 |
| Sources | Total number of sources (Journals) | 51 |
| Period | Period of publication | 1999-2021 |
| Annual growth rate | The annual percentage growth rate of articles | 12.9% |
| Average citations/document | Each article's average number of citations | 43.02 |
| Authors' keywords | Total keywords provided by the author | 569 |
| Keywords plus | Total terms/phrases frequently appearing in titles of cited articles | 372 |
| Authors | Number of authors in all | 366 |
| Author appearances | The total frequency of co-authors in all articles | 443 |
| Authors of single-authored documents | The authors who contributed to single-authored articles (same as the number of single-authored articles) | 16 |
| Authors of multi-authored documents | Total authors who contributed to multi-authored articles | 350 |
| Documents per author | Average articles by each author | 0.45 |
| Authors per document | Average authors in each article | 2.2 |
| Co-authors per document | Average co-authors in each article | 2.67 |
| Collaboration index | Co-authors per multi-authored article | 2.33 |

Table 2: Main information regarding the bibliographic data frame.
Source: Based on data from WoS 2021 using bibliometrix R-package.

The compound annual growth rate of scientific production over the study period is 12.9%. The number of authors' keywords is more than thrice, whereas the keywords plus is only twice the total number of articles. An average of two people authored each article. The Collaboration Index (CI) is 2.33, calculated as the ratio of total multi-

authored article co-authors to total multi-authored articles. (Elango and Rajendran, 2012).

## 4.1.2) PUBLICATIONS AND CITATIONS: ANNUAL TREND

Figure 5 shows a positive drift in the number of articles published during the analysis period of 20 years. It is striking that the knowledge addition since 2015 is more than 60% of the total publications. The first article in the domain was published in 2004 in the WoS database. Three of the five most imperative base papers (from the Scopus database) added to the bibliographic data frame based on inclusion criteria were published in 1999, 2000 and 2001. A maximum number of articles were published in 2017, 2019 and 2020. The production data in 2021 may not be considered since the data is not representative of the study (April 2021). The number of publications appears to be stagnant (20 publications) since 2017, except for 2018, when it got reduced to 18.
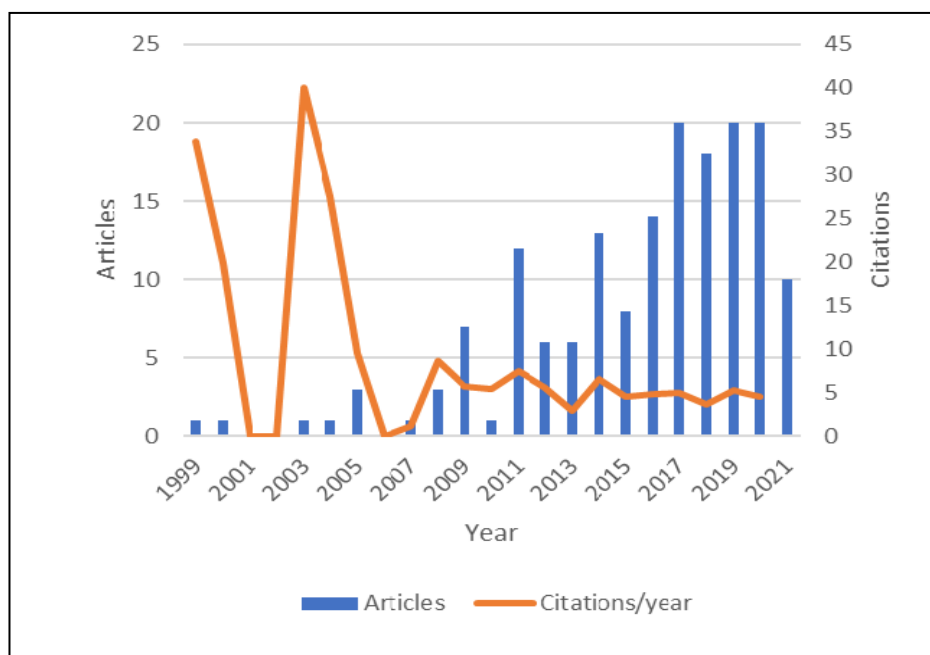


Figure 5: Annual scientific publication trend (articles and citations).
Source: Based on data from WoS 2021 using bibliometrix R-package.

The article by Dwyer and Kim, published in 2003, has the highest average total citations per year (40). The number of yearly citations received shows a significant

reduction since 2014 (Figure 5). This reduction is observed even after exhibiting the articles for a longer time and should be taken cautiously.

### 4.1.3) AUTHORS

### Productive authors

As per author productivity analysis based on Lotka's law, the dispersion of scientific production is as follows: 308 authors (84.2%) have written just one document and are "occasional authors", 44 (12%) have written two, 12 (3%) has written three, 1 (0.3%) has written five, and another 1 (0.3%) has written six. Fourteen authors have published three or more articles, which is shown in Table 3. The most prominent authors who have contributed the most (with 6 and 5 publications each) in the research area are Dwyer and Kubickova, respectively, with the highest H-index '6'.

In the former statistics, the primary authorship is considered rather than fractional. Fractional authorship reflects a particular author's contribution to a published collection of documents based on the assumption that all co-authors in each document contribute equally. The most relevant author per fractionalized number of authored documents is Kubickova, followed by Dwyer with 2.83 and 2.2 fractionalized articles, respectively.

Crouch has the maximum number of local and global citations (152 and 1058, respectively) from 2 publications. Ritchie has the second highest local citation (100), whereas Dwyer has the second highest total citations (927).

| Authors | Articles | H-index | TC | Authors | Articles Fract. |
|---|---|---|---|---|---|
| Dwyer L | 6 | 6 | 927 | Kubickova M | 2.83 |
| Kubickova M | 5 | 6 | 114 | Dwyer L | 2.2 |
| Armenski T | 3 | 3 | 78 | Croes R | 1.83 |
| Croes R | 3 | 3 | 174 | Das J | 1.5 |
| Cucculelli M | 3 | 3 | 118 | Dirienzo C | 1.5 |
| Cvelbar L | 3 | 3 | 159 | Ignacio P J | 1.5 |
| Das J | 3 | 3 | 90 | Rodriguez-Diaz B | 1.5 |

| | | | | | |
|---|---|---|---|---|---|
| Dirienzo C | 3 | 3 | 90 | Crouch G | 1.5 |
| Goffi G | 3 | 3 | 118 | Romao J | 1.5 |
| Hallmann K | 3 | 3 | 77 | Wong P | 1.5 |

Table 3: Top 10–Most productive authors.
Source: Based on data from WoS 2021 using bibliometrix R-package.
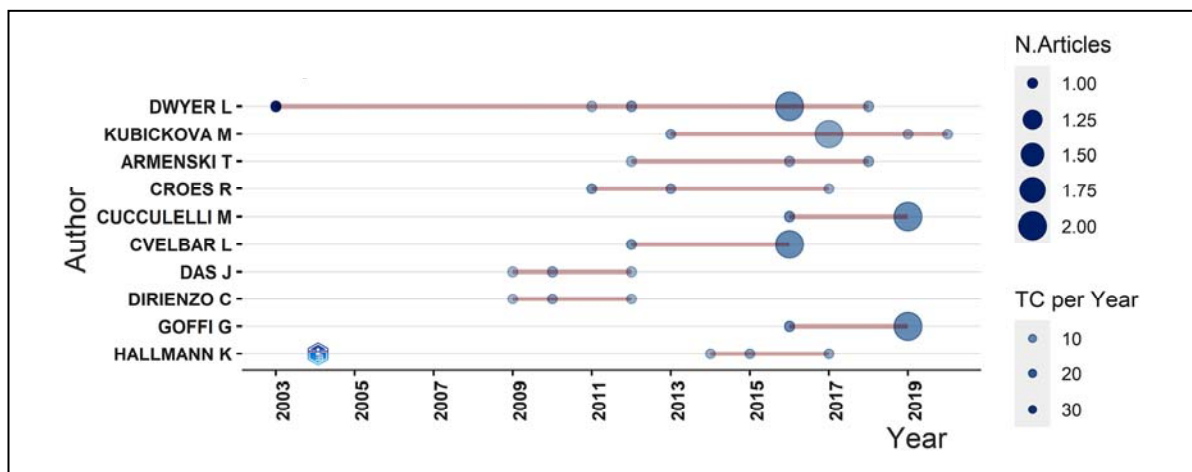


Figure 6: Top authors' production over the time.
Source: Based on data from WoS 2021 using bibliometrix R-package.

Figure 6 visualizes the top 10 authors' production over time. Dwyer published six articles in 16 years (2003-2018), and Kubickova published five articles in 8 years (2013-2020). The number of articles determines the size of the bubble. In 2016 Dwyer and Cvelbar authored two documents with 12.67 total citations per year. Also, in 2019 Cucculelli and Goffi authored two documents with 14.33 total citations per year. The intensity of bubble color is proportionate to the total number of citations per year. Dwyer (2003) has 37.89 total citations per year. The timeline represents the time from an author's first publication year to last.

**Affiliations**

The top three most relevant affiliations are the University of Novi Sad, Serbia, with 13 articles; the University of Las Palmas de Gran Canaria, Spain and the University of Ljubljana, Slovenia, with ten articles each. Griffith University, Australia; University of Malaga, Spain; and the University of South Carolina, Columbia, each with nine articles published, are the subsequent three relevant affiliations.

**Countries' production**

Countries' scientific production based on the first author's affiliation is presented in Table 4. Out of the 37 countries contributing to the research domain in terms of correspondence authors' affiliation, Spain is the most productive country with 28 articles (17.07% of the total number of articles), followed by China (23), the USA (18), and Australia (14). While looking at the countries' total scientific production, Spain takes first place with 86 articles, followed by China with 72 and USA with 50 articles.

Figure 7 illustrates that many places are yet to participate in scientific production in the domain, as indicated by the grey-colored zones. Hongkong tops the list in average citations per year (239), followed by Australia (166.9). Australia is the most cited country (2336), followed by China (1099) in the total number of citations.
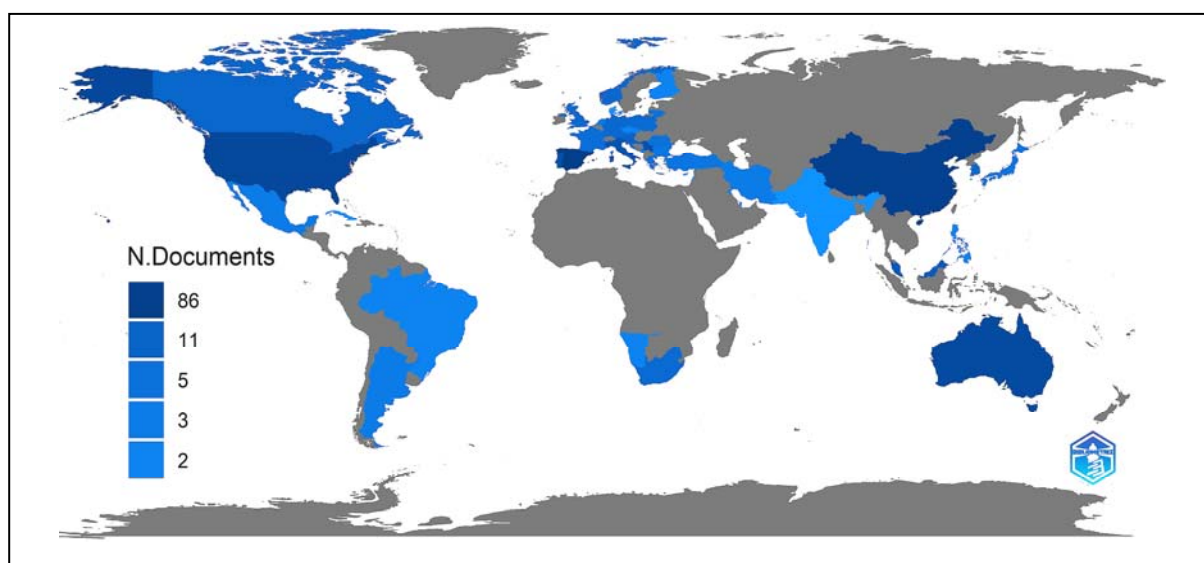


Figure 7: Country's production.
Source: Based on data from WoS 2021 using bibliometrix R-package.

It is interesting to observe productions - single or multiple - in each country and the collaboration and networking between countries. MCP for each country indicates the number of articles with a minimum of one co-author from another country.

MCP ratio (Table 4), which is the ratio of MCP to the entire documents published, is the measure of the international collaboration intensity of a country. The MCP ratio

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is too low for the second most productive country, China, compared to Portugal, Austria, Croatia, Australia, Italy and Serbia. Malaysia has not collaborated with any country for research in this domain.

| Country | SCP | MCP | Total Articles | % of Articles | MCP Ratio |
|---|---|---|---|---|---|
| Spain | 21 | 7 | 28 | 17.86 | 0.25 |
| China | 21 | 2 | 23 | 12.76 | 0.087 |
| USA | 17 | 1 | 18 | 10.20 | 0.0556 |
| Australia | 9 | 5 | 14 | 7.65 | 0.3571 |
| Italy | 6 | 3 | 9 | 6.12 | 0.3333 |
| Serbia | 6 | 3 | 9 | 5.10 | 0.3333 |
| Malaysia | 7 | 0 | 7 | 3.57 | 0 |
| Portugal | 2 | 3 | 5 | 3.57 | 0.6 |
| Austria | 2 | 2 | 4 | 2.04 | 0.5 |
| Croatia | 1 | 2 | 3 | 2.04 | 0.6667 |

*SCP: Single Country Publication; MCP: Multiple Country Publication.

Table 4: Top 10–Most productive countries (based on the affiliation of the first author)
Source: Based on data from WoS 2021 using bibliometrix R-package

### 4.1.4) SOURCES

The journal 'Tourism Management' has published 20 articles (12.05% of the total) in the domain and is considered the most productive. Also, the journal 'Current Issues in Tourism', with 19 articles, is the second most productive. While performing source clustering through Bradford's Law, it is seen that more than one-third of the total number of articles are published by four journals - 'Tourism Management', 'Current Issues in Tourism', 'Journal of Travel Research' and 'Tourism Economics'. Hence these four can be regarded as the core journals in the discipline.

The very first article in the WoS database was published in the 'Tourism Management' journal in 2004, and the first in the bibliographic data frame was published in 'The Journal of Business Research'.

| Sources | Articles | % of Articles | H Index | Local TC | PY Year |
|---|---|---|---|---|---|
| Tourism Management | 20 | 12.05 | 18 | 2177 | 2004 |

| Current Issues in Tourism | 19 | 11.45 | 11 | 1074 | 2003 |
|---|---|---|---|---|---|
| Journal of Travel Research | 13 | 7.8 | 11 | 1316 | 2000 |
| Tourism Economics | 12 | 7.2 | 9 | 495 | 2005 |
| Journal of Destination Marketing & Management | 11 | 6.63 | 9 | 205 | 2013 |
| International Journal of Tourism Research | 8 | 4.82 | 7 | 156 | 2015 |
| Tourism Management Perspectives | 8 | 4.82 | 3 | 50 | 2012 |
| Sustainability | 7 | 4.22 | 3 | 24 | 2019 |
| Asia Pacific Journal of Tourism Research | 5 | 3.01 | 3 | 18 | 2014 |
| Economic Research | 4 | 2.41 | 4 | 47 | 2012 |

Table 5: Descriptive analysis - Top 10–Most frequent sources.
Source: Based on data from WoS 2021 using bibliometrix R-package.

There are 3544 cited sources (journals) in the 166 document bibliographies. The most local cited source is 'Tourism Management' followed by 'Annals of Tourism Research' (Table 5). Again 'Tourism Management' is the journal with the highest H index - 18, which means the journal's 18 out of 20 articles published are cited in other articles at least 18 times.
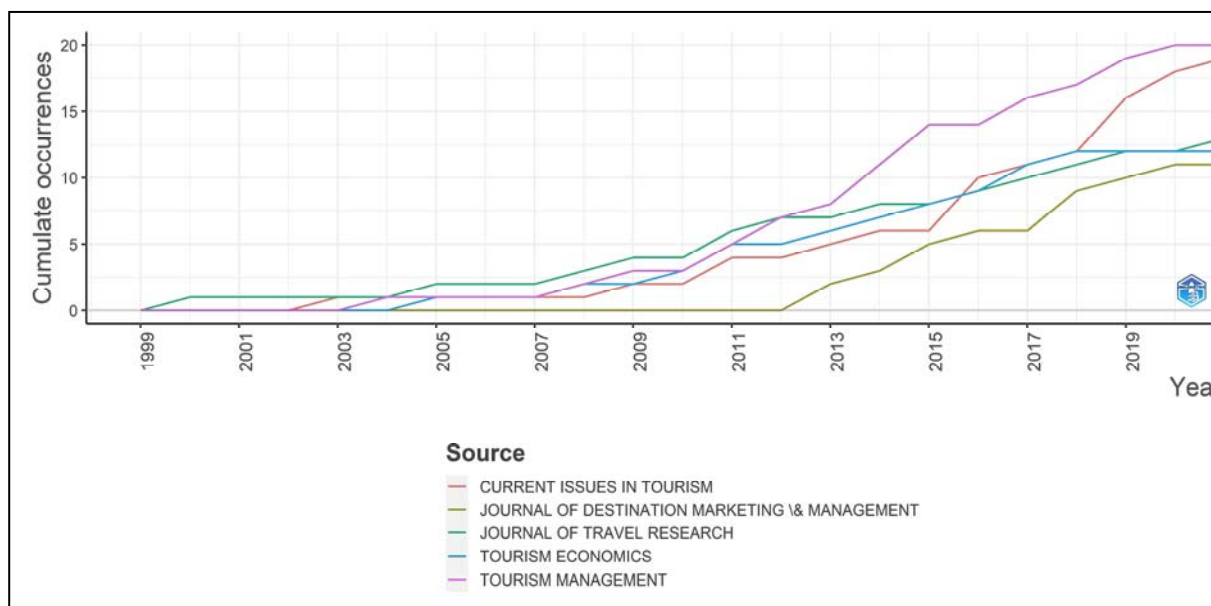


Figure 8: Source growth: cumulative (based on no. of documents).
Source: Based on data from WoS 2021 using bibliometrix R-package.

The distribution frequency of articles based on Loess regression (Figure 8) indicates the growth pattern of the top 5 journals related to the research area and associated themes. Substantial growth in the number of articles can be observed in all five journals from 2012 to 2020. 'Current Issues in Tourism' is the fastest growing journal in the research field, with seven articles published within the last three years.

### 4.1.5) DOCUMENTS

### Most cited documents

Table 6 shows the top 10 articles that are locally most cited. The article titled 'Tourism, Competitiveness, and Societal Prosperity' by Crouch GI is the most locally and globally cited article. 'Destination Competitiveness: Determinants and Indicators' by Dwyer (2003) is the second most locally and globally cited article, with the highest total global citations per year. The above two documents are regarded as the base documents of tourism destination competitiveness studies.

| Articles | Local Citations | Global Citations | TC per Year |
|---|---|---|---|
| Crouch GI, 1999, Journal of Business Research | 100 | 746 | 32.435 |
| Dwyer L, 2003, Current Issues in Tourism | 98 | 720 | 37.895 |
| Enright MJ, 2004, Tourism Management | 85 | 468 | 26 |
| Hassan SS, 2000, Journal of Travel Research | 59 | 417 | 18.955 |
| Crouch GI, 2011, Journal of Travel Research | 52 | 312 | 28.364 |
| Pike S, 2014, Tourism Management | 6 | 278 | 34.75 |
| Enright MJ, 2005, Journal of Travel Research | 48 | 239 | 14.059 |
| Cracolici MF, 2009, Tourism Management | 35 | 225 | 17.308 |
| Gomezelj DO, 2008, Tourism Management | 44 | 221 | 15.786 |
| Gooroochurn N, 2005, Tourism Economics | 56 | 181 | 10.647 |

Table 6: Top 10–Most global cited articles.
Source: Based on data from WoS 2021 using bibliometrix R-package.

**Most local cited references**

In 166 article bibliographies, 7376 references are included. Among these cited references, Crouch, 1999 is the most cited with 100 citations, constituting 13.4% of its global citation. This high local citation shows the impact of the document in the analyzed collection. As indicated in Table 7, the second most cited is Dwyer, 2003 with 98 citations, followed by Enright, 2004, with 85 citations.

| Cited References | Citations |
|---|---|
| Crouch GI, 1999, J Bus Res, V44, P137, DOI 10.1016/S0148-2963(97)00196-3 | 100 |
| Dwyer L, 2003, Current Issues in Tourism, V6, P369, DOI 10.1080/13683500308667962 | 98 |
| Enright MJ, 2004, Tourism Management, V25, P777, DOI 10.1016/J.Tourman.2004.06.008 | 85 |
| Ritchie JRB, 2003, Competitive Destination | 74 |
| Hassan SS, 2000, Journal of Travel Research, V38, P239, DOI 10.1177/004728750003800305 | 59 |
| Gooroochurn N, 2005, Tourism Economics, V11, P25 | 56 |
| Crouch GI, 2011, J Travel Res, V50, P27, DOI 10.1177/0047287510362776 | 52 |
| Enright MJ, 2005, Journal of Travel Research, V43, P339, DOI 10.1177/0047287505274647 | 48 |
| Dwyer L, 2000, Tourism Management, V21, P9, DOI 10.1016/S0261-5177(99)00081-3 | 45 |
| Gomezelj DO, 2008, Tourism Management, V29, P294, DOI 10.1016/J.Tourman.2007.03.009 | 44 |

Table 7: Top 10–Most cited references.
Source: Based on data from WoS 2021 using bibliometrix R-package.

*4.2) NETWORK ANALYSIS*

The bibliometric networks attempt to articulate the conceptual, intellectual, and social structure of specific disciplines, scientific domains, or research topics (Cobo et al., 2011).

## CONCEPTUAL STRUCTURE

Researchers frequently use the conceptual framework to grasp the topics they cover (the so-called research front) and to find the most relevant and hot topics. The most important keywords in the documents are employed in a co-word analysis to look at the conceptual structure of the research discipline. This study is based on the assumption that keywords reflect research hotspots in a domain and that they are appropriate to represent the content of a document (Rodríguez-López et al., 2019).

### Most relevant keywords

The study aids in discovering knowledge groups, comprehending the research trend, identifying gaps in the domain and finding possible future research opportunities. Table 8 shows the top-10 most relevant keywords obtained while analyzing the occurrence of top author keywords and keywords plus (database aggregated keywords) in the 166 articles gathered. The first five author keywords are trivial because they are in the set of terms used to build the search query, and this is also true about the most frequent words in the title and abstract.

'Destination competitiveness' is the most dominant author keyword (56 occurrences) and keyword plus (30 occurrences). Other frequently occurring author keywords are 'competitiveness', 'tourism', 'tourism competitiveness' and 'destination'. Keywords plus is equally effective as the author keywords in analyzing the knowledge structure of research disciplines, according to Zhang, Yu, Zheng, Long, Lu, and Duan (2016), but less thorough in reflecting the article's content. The most occurring keywords plus after 'destination competitiveness' are 'performance', 'management', 'tourism' and 'travel'.

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| Author Keywords | Articles | Keywords Plus | Articles |
|---|---|---|---|
| destination competitiveness | 56 | destination competitiveness | 30 |
| competitiveness | 36 | performance | 28 |
| tourism | 26 | management | 25 |
| tourism competitiveness | 24 | tourism | 22 |
| destination | 16 | travel | 21 |
| sustainability | 7 | model | 16 |
| tourism destination competitiveness | 7 | satisfaction | 12 |
| data envelopment analysis | 6 | competitiveness | 11 |
| destination management | 6 | destination | 11 |
| tourism destination | 6 | industry | 11 |

Table 8: Top 10–Most frequent keywords.
Source: Based on data from WoS 2021 using bibliometrix R-package.

### Factorial approach

The link between concepts or words is uncovered through the factorial approach. Factorial analysis helps identify sub-fields in the domain by reducing the bibliographic data frame's dimensionality and representing it in a less dimensional space. In factorial analysis, author keywords are clustered based on the dimension reduction technique: multiple correspondence analysis. When many articles address specific keywords concurrently, they appear to cluster together. The map's origin represents the core of the research domain – the common and large shared topics (Cuccurullo, Aria and Sarto, 2016).

As can be seen in Figure 9, three clusters are identified by hierarchical clustering, and each color represents a topic: destination competitiveness and management (red cluster), perceptional and behavioral studies (blue cluster), and tourism planning and development studies (green cluster).
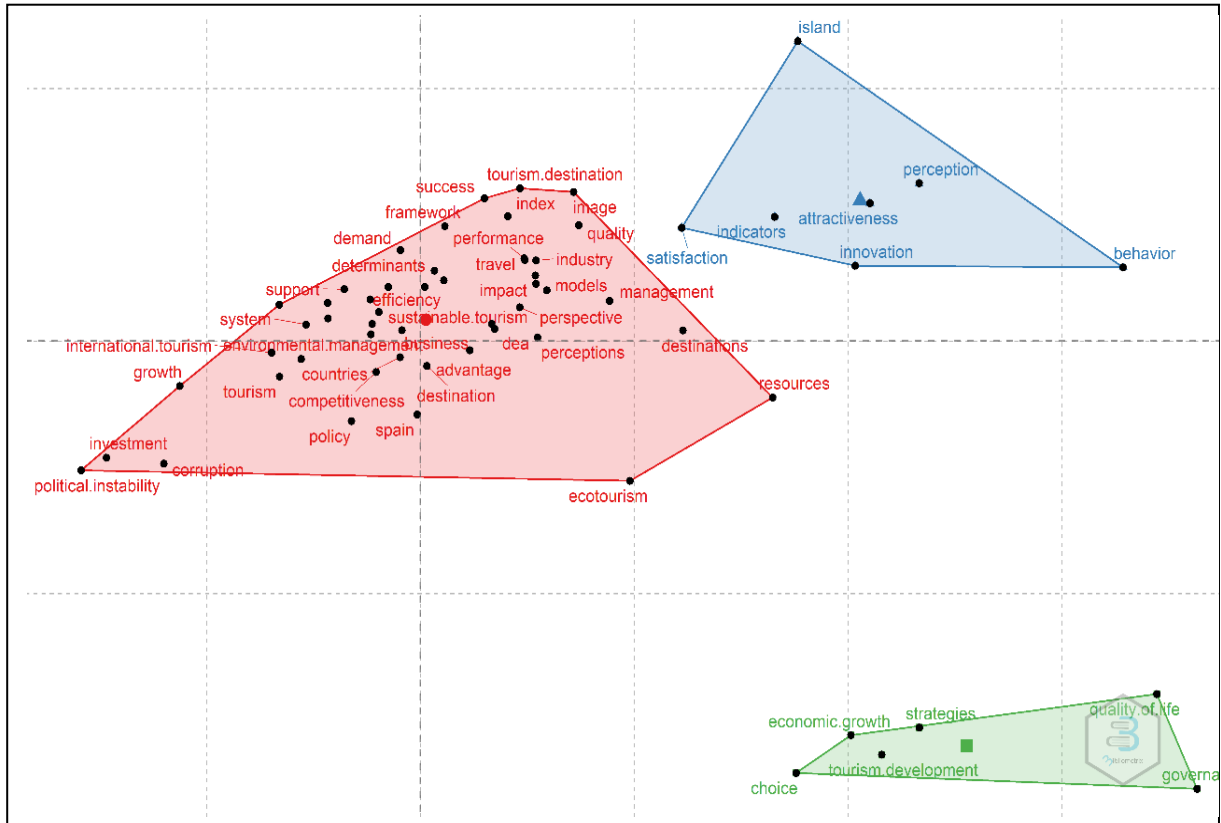
Figure 9: Co-occurrence word map (factorial approach).
Source: Based on data from WoS 2021 using bibliometrix R-package.

While conducting co-word overlay visualization analysis in VOSviewer, no obvious change was observed until 2015. Beyond that, a noticeable variation is seen in the topics addressed across the years (Figure 10). Up to 2015, the main keywords were 'destination', 'economic development', 'model', 'framework'; and from 2015 to 2016, 'competitiveness', 'tourism competitiveness', 'satisfaction', 'industry', 'advantage', 'travel', 'quality', 'determinants', began to get more emphasized. Between 2016 and 2017, 'rural tourism', 'performance', 'destination management', and 'travel and tourism competitiveness' stood out. As in 2018 and beyond, the keywords are 'sustainability', 'perception', 'innovation', 'attractiveness' etc. Thus, there has been an evolution from more general topics focusing on the 'attractiveness' of the destination to 'performance', 'holistic stakeholder perception', 'case study', and 'sustainability'.

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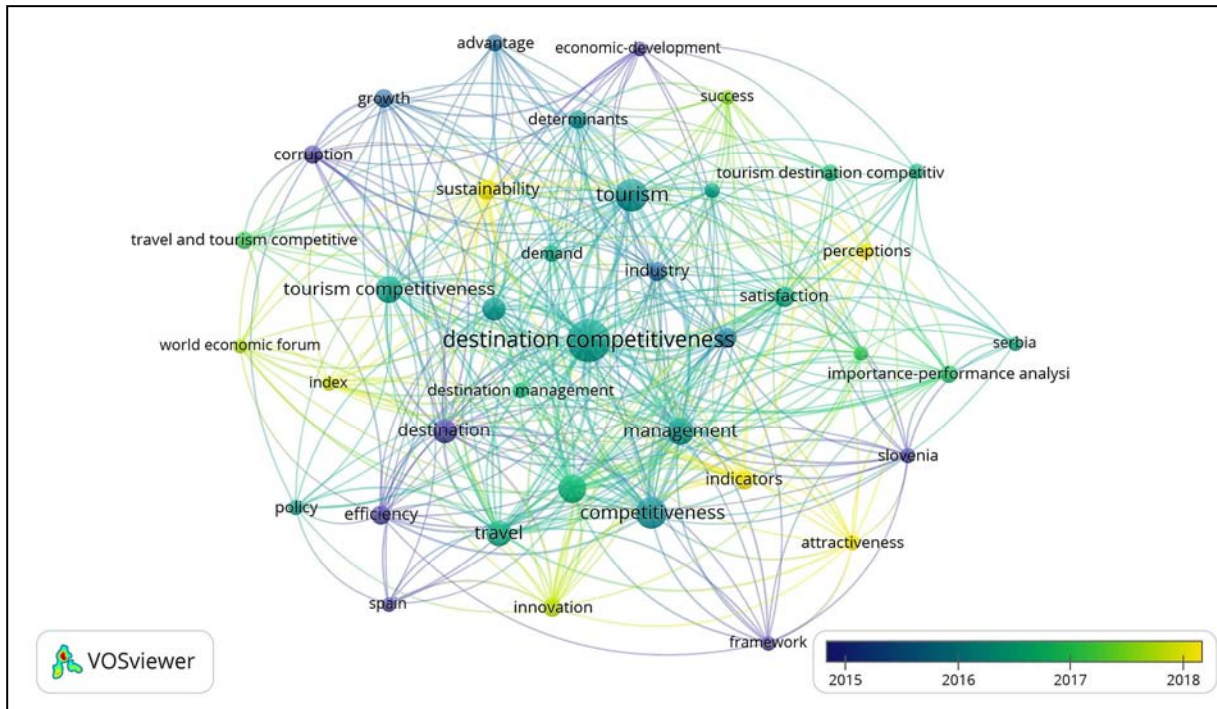
Figure 10: Co-occurrence word network of author keywords. The figure includes the 44 keywords with the most frequent occurrences out of 819 total, which meet a minimum threshold of five occurrences.
Source: Based on data from WoS 2021 using VOSviewer.

### 4.2.2) INTELLECTUAL STRUCTURE

The intellectual structure shows the relationship between references of the collected document set. It helps to understand how an author's work could influence a scientific community.

#### Co-citation analysis

Co-citation (Small, 1973) between authors, documents, or sources is one of the most common analyses in bibliometrics. A co-citation relationship exists between two entities (authors or documents or journals) if they are referred jointly by a third entity (all three cited in other publications).

Figure 11 depicts the co-citation network with 'cited authors' as the unit of analysis. Four well-defined clusters are obtained amid 39 authors who met the threshold of a minimum of 20 citations per author. The green cluster has authors with the highest link strength. The predominance of the red cluster is due to the 14 authors it

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contains, compared to 10 in green, 8 in blue, and 7 in yellow. Predominant authors are Crouch and Dwyer in the green cluster; Ritchie and Buhalis in red; Enright in blue; and Croes and Mazanec in yellow. While examining the significant works of the authors in the cluster, a typical perspective of the articles can be determined. Thus, the green cluster forms the origin document cluster with conceptual and definitional articles on TDC. The red cluster forms a document cluster of strategy or key approaches. The blue cluster involves documents related to the methodological contribution, and the yellow cluster those related to case application.
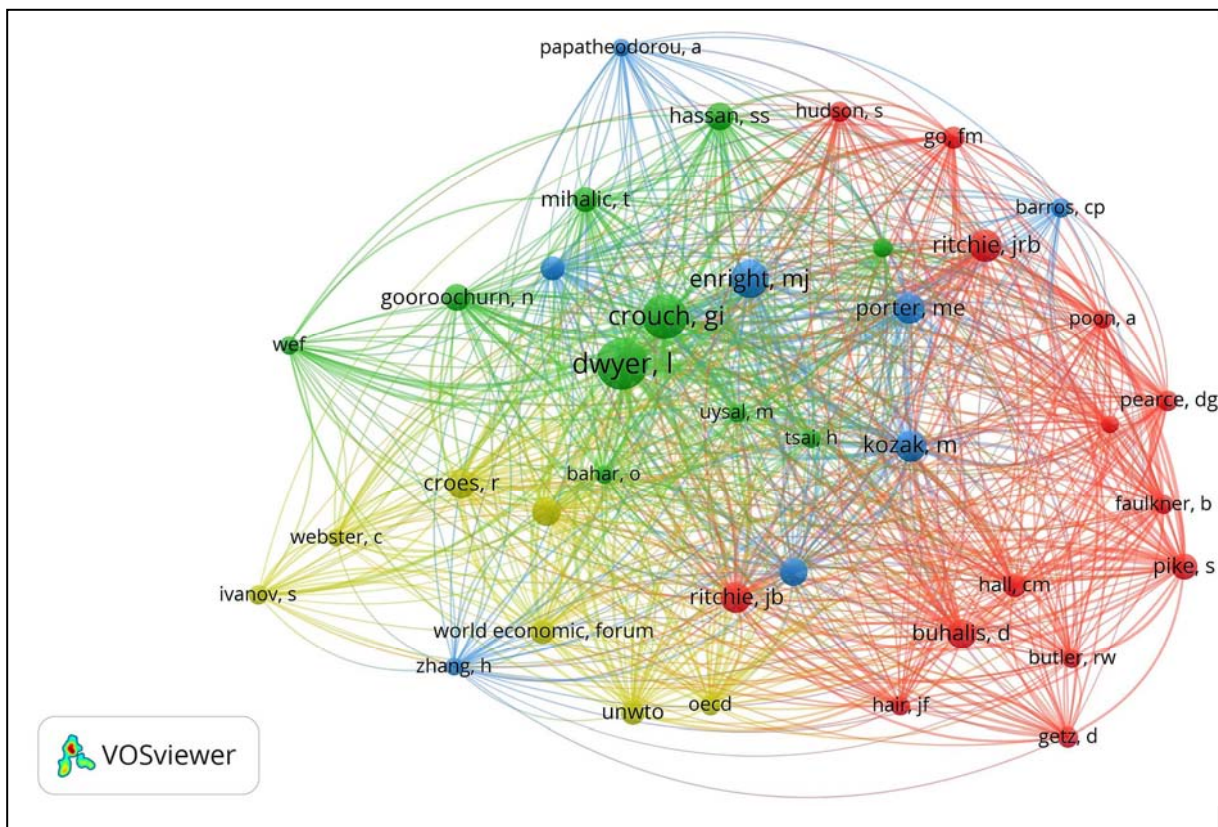


Figure 11: Author co-citation network. The figure includes 39 authors of the 4855 cited authors, who meet the minimum threshold of 20 citations.
Source: Based on data from WoS 2021 using VOSviewer.

### 4.2.3) SOCIAL STRUCTURE

Through collaboration analysis and bibliographic coupling, social structure synthesizes how authors, affiliations, and nations are related to one another in scientific research. The collaboration analysis enables us to assess the linkages between authors/affiliations, indicating which institutions and geographic locations

have a higher concentration of expertise in the topic under investigation. It also reveals the most prominent geographic areas and institutions in the domain and aids in identifying trends in association and interaction among them. The coupling analysis identifies groups of entities that share a common knowledge base. It achieves this by categorizing documents based on the citations used in the preparation of each document, thereby identifying the area and concepts examined, i.e., the intellectual foundation. VOSviewer is used for both analyses.

In collaboration analysis, the node represents the author/institution/country, node size indicates the number of articles published, and the node color represents the average number of publications per year. The link represents collaboration, the link size is proportionate to the strength (frequency) of collaboration, and the red circle indicates the presence of a collection/group of authors/institutions/countries associated with one another. A criterion of three documents per author, institution, and country was chosen to gather the maximum number of entities and understand their relationships. Thus, among 382 authors, 209 organizations and 49 existing countries, 17 authors, 25 organizations, and 18 countries meet the threshold.
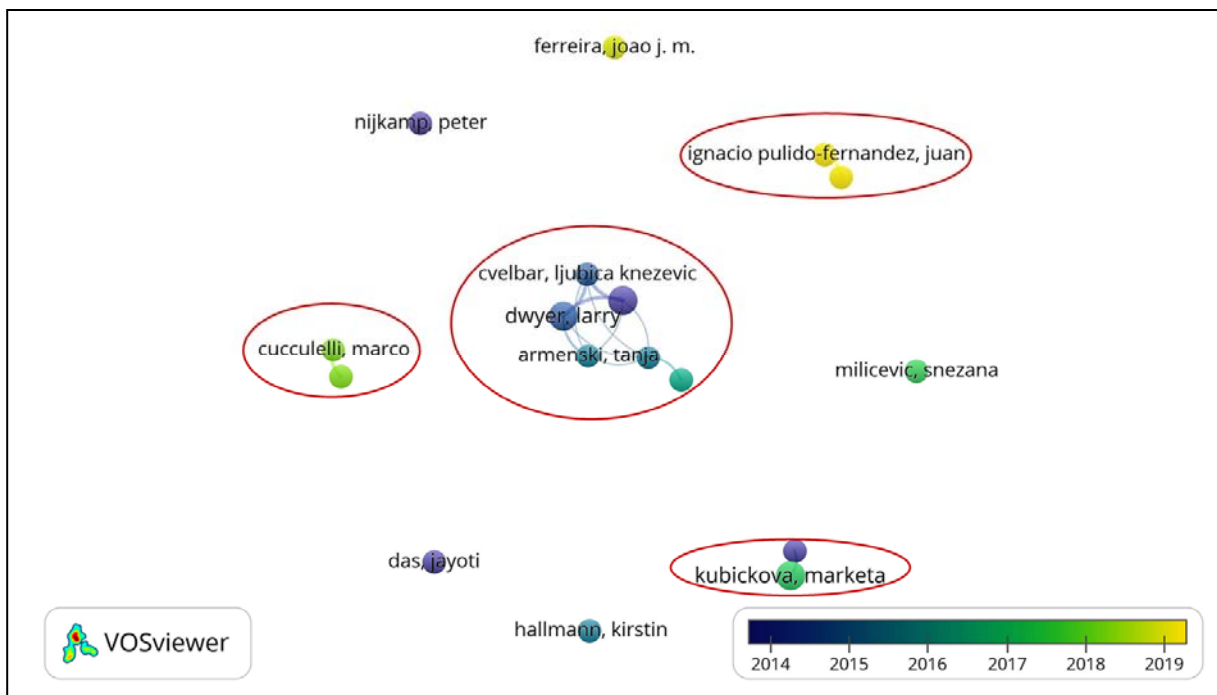


Figure 12: Co-authorship network: Authors. The figure includes 17 among 385 authors who meet the minimum threshold of 3 documents.
Source: Based on data from WoS 2021 using VOSviewer.

Co-authorship network analysis is the most common type of collaboration analysis. Figure 12 shows a co-authorship network that portrays the groups of regular, influential and hidden authors. Only 12 of the 17 authors who have authored three or more documents have collaborations. There are four collaborating clusters with 12 collaborating authors, as can be seen in Figure 12. The largest collaborating cluster consists of 6 authors with the highest collaboration frequency. This group of authors co-authored the maximum number of documents.

Dwyer in this group possesses the highest frequency of 9 collaborations, with an average of 5 publications per year, and this is followed by Mihalic and Cvelbar, with eight collaborations.



Figure 13: Co-authorship network: Organization. The figure includes 25 of 209 institutes that meet the minimum threshold of 3 documents.
Source: Based on data from WoS 2021 using VOSviewer.

While assessing collaboration between institutes, only 16 of the 25 institutes that met the criteria of three articles have associations and form five clusters. Figure 13 shows institutions with two or more documents published. The largest group comprises eight institutions - University of Novi Sad,  University of Ljubljana,

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University of Belgrade, University of Kragujevac, University of Nis, University of Primorska, University of New South Wales, and the University of Canberra - with 33 documents published. Among the institutions which published at least three documents, the oldest papers (in 2015) correspond to the University of Primorska, University of New South Wales, and University of Ljubljana. As of 2016, the University of Technology Sydney, University of Alicante, University of Canberra, University of Novi Sad, University of Belgrade, and University of Valentia stood out in document publication, followed by the University of Kragujevac and University of Queensland in 2017 and Griffith University in 2018.
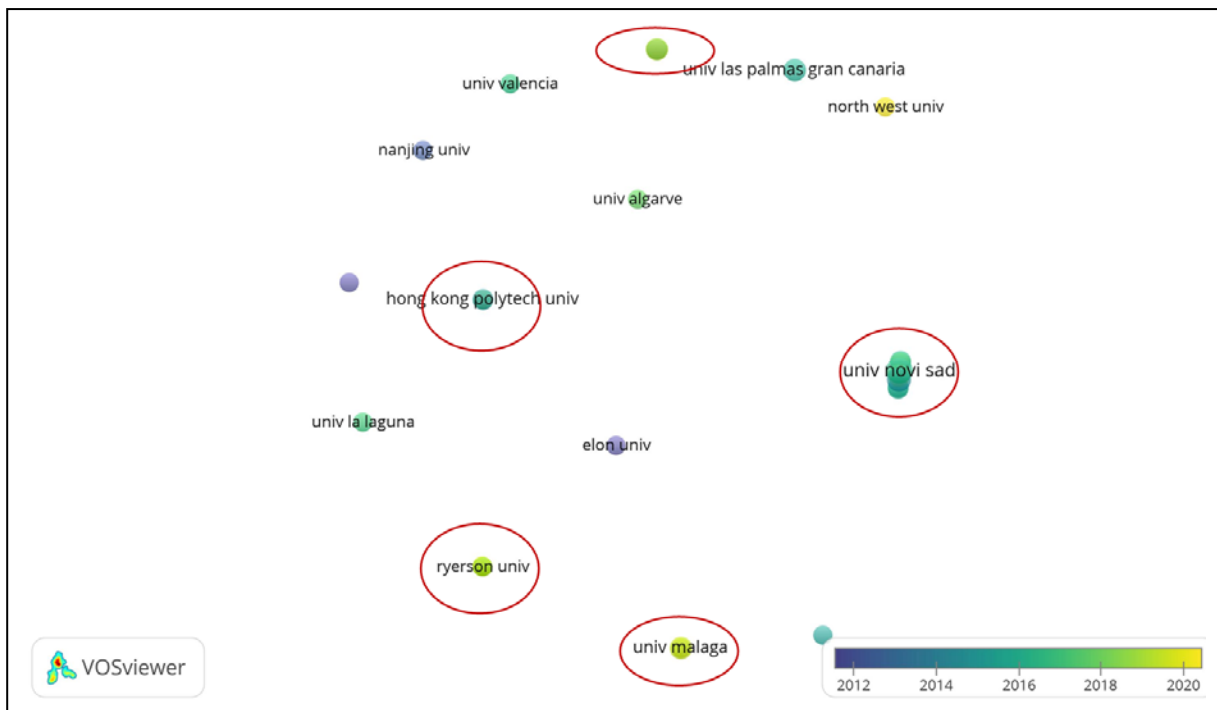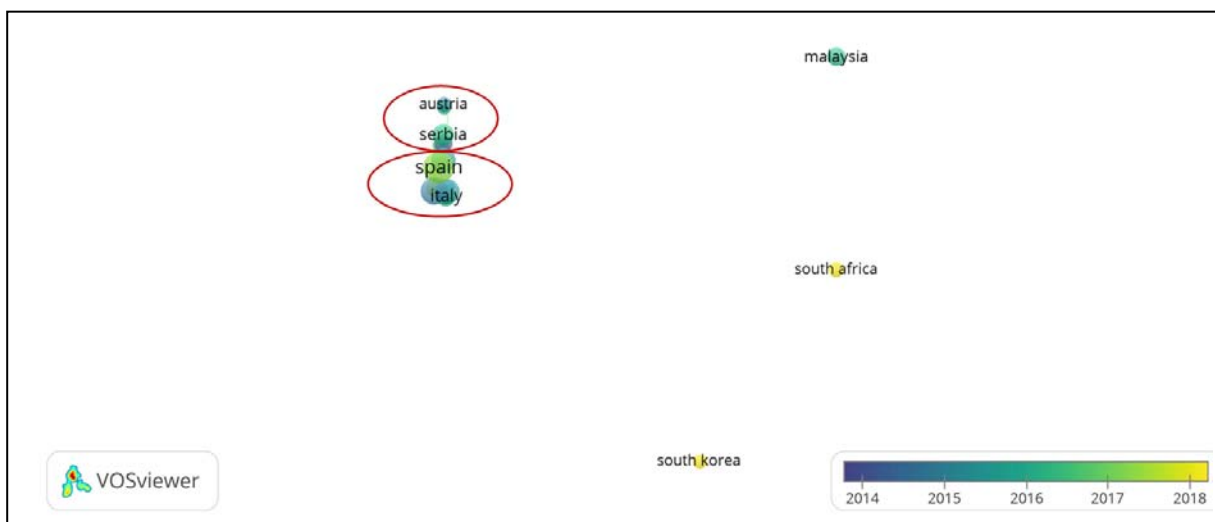


Figure 14: Co-authorship network: Country. The figure includes 18 of 49 countries that meet the minimum threshold of 3 documents.
Source: Based on data from WoS 2021 using VOSviewer.

In terms of countries, only 14 of the 18 countries that match the criteria of three articles have associations. The country-collaboration network reveals two distinct collaborating clusters. Spain collaborates with Canada, England, Italy, Netherlands, China, the USA, and Portugal; and Australia with Slovenia, Austria, Croatia, Germany, and Serbia. Among those countries which published at least three documents, the oldest documents (in 2015) correspond to England, the Netherlands, the USA, Slovenia, Austria, and France. As of 2016, Serbia, Australia, China, Germany, and Croatia stood out in document publication, followed by Portugal and Spain in 2017 and Kuwait, Japan, South Korea, Canada, Mexico, and Turkey in 2018 and beyond.

Figure 15 represents the collaborative association of countries in the research domain. The blue color represents the extent of research cooperation globally, and the intensity indicates the total number of documents each country produces through collaboration. Pink curves of varying thicknesses show the countries that collaborate and the frequency of collaboration between them. It is fascinating to observe how nations with the highest number of TDC publications have engaged in such collaborations. Spain, the most productive country, is collaborating with Portugal and Canada. Spain's cluster consists of only European nations.
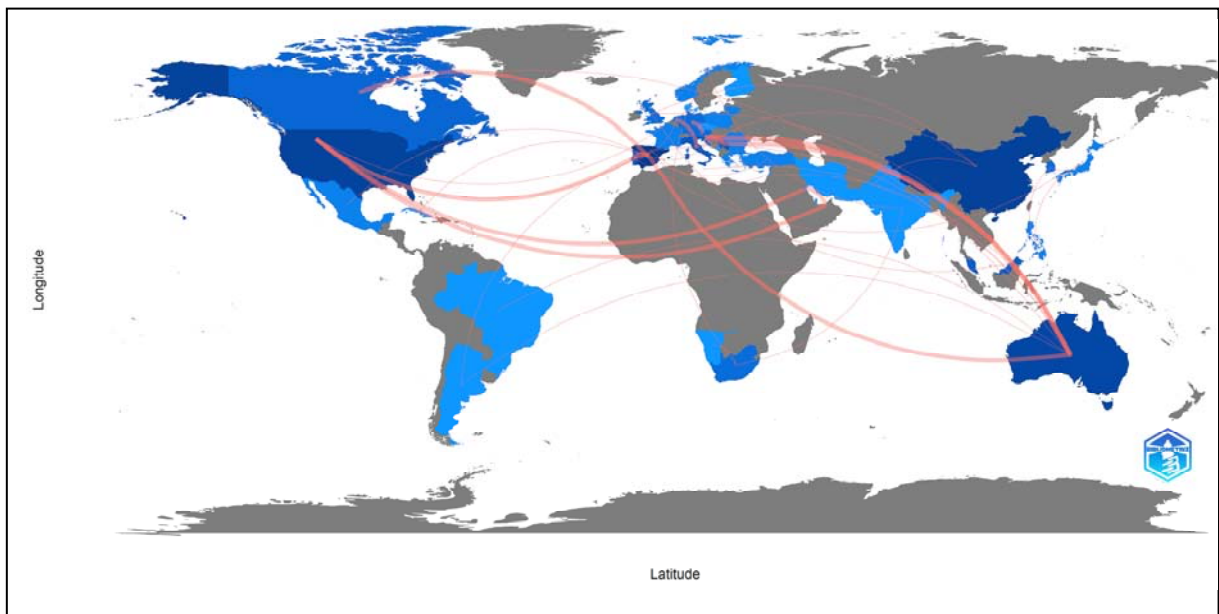


Figure 15: Country collaboration map.
Source: Based on data from WoS 2021 using bibliometrix R-package.

## 5. DISCUSSION

Competitiveness is a term widely researched in different subject fields since the late 70s. But the concept seems to have been studied at a firm level by Porter in 1980. The history of tourism competitiveness publication can be traced back to 1993 when Poon applied the notion of competitiveness in the tourism sector. Towards the late 1990s, few scholars highlighted the importance of destinations remaining competitive in a competing environment (Buhalis, 2000), while others focused on the competitiveness of specific tourist destinations (Roman, Roman, Prus and

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Szczepanek, 2020). Since the domain's primary literature was published, many researchers have contributed to developing new models and techniques and adapting the existing ones to varying situations. However, the first model of TDC and the pivotal work that placed 'destination competitiveness' in the tourism realm was the one by Crouch and Ritchie (1999). The model/framework of destination competitiveness by Ritchie and Crouch (Crouch and Ritchie, 1999; Ritchie and Crouch, 2003) is considered the most inclusive theoretical elucidation of the concept among the existing ones.

The first appearance of TDC literature in the WoS core collection database was in the year 2004, in which Enright and Newton conducted applied research in combining business aspects and the traditional attributes of TDC. An augmented growth of literature is perceived in the domain due to increased competition among destinations, limited resource availability, and acknowledgement of competitiveness as a vital element for success (Abreu-Novais, Ruhanen and Arcodia, 2018). The last decade shows a radical increase in published documents, as seen in Figure 5.

With the highest H index of 6, Dwyer (6 articles) and Kubickova (5 articles) are the most prominent authors in primary and fractional authorship, respectively. Dwyer published four articles as the primary author: one on destination competitiveness in Slovenia (85 citations); another on Serbia (38 citations); developed a model focusing on the comparison between countries and between tourism sector industries (60 citations); and a cross-country analysis on the price competitiveness of TDC (14 citations). Kubickova and Li (2017), Kubickova (2019), and Kubickova and Martin (2020) investigated the role of government in the competitiveness of country destinations. Kubickova co-authored the document, 'From potential to ability to compete: Towards a performance-based tourism competitiveness index' with Croes, one of the top-4 relevant authors. Most of the studies conducted by the primary authors are done at a national level, indicating the need for a study at the regional level within a country.

The most cited article is Crouch and Ritchie, 1999 (746 citations), followed by Dwyer and Kim, 2003 (606 citations), both conceptual models. The most cited in the WoS database and the third in the bibliographic data frame is Enright and Newton, 2004 (468 citations), which uses a supply-side perspective for the study. The next

most cited article, Gomezelj and Mihalič, 2008 examines the relevance and implication of attributes that determine tourism destination competitiveness, again from a supply-side perspective. Most of the studies in the domain focused on either the supply-side or demand-side perspective to assess destination competitiveness. Very few works have used a combined approach. Since there are arguments for and against both perspectives, conducting research only from one perspective will involve some intrinsic bias, indicating the importance of assessing TDC from a combined perspective.

While looking at the most prominent nations regarding the number of publications (Figure 7), it is apparent that their tourist sectors have come across a need to be competent, drawing scholars' attention to this particular discipline. Europe contributes a significant portion of the total research (55% of documents), followed by Asia (22% of documents). Europe is considered the most popular tourist destination across all continents, and it is evident that research works on TDC are increasing in Europe. It is quite recently that documents started getting published on the tourism destination competitiveness of India.

Among the affiliations, the most relevant one, the University of Novi Sad, is in Serbia which has a diverse range of tourism products. Thirteen articles are published by scholars and academicians affiliated with this university, including those authored by the most prominent authors. The second prominent universities, the University of Ljubljana in Slovenia and the University of Las Palmas de Gran Canaria in Spain, published ten articles each over time. Serbia, Spain and Slovenia are all famous tourist destination countries in Europe. The literature indicates that TDC is context specific; hence, a study has to be customized by considering the immediate requirements of the destination and unique touristic products such as resources and climate. It needs to be assessed relative to another or a group of destinations based on the level of destination chosen.

While looking at the most relevant keywords, it is seen that along with the fundamental keywords - 'destination competitiveness', 'tourism competitiveness', 'competitiveness', 'tourism', and 'destination' - used in the search query, other keywords such as 'management', 'performance', 'model', 'sustainability', and 'satisfaction' also occupy their place in the top-ten list. Since most of the studies on

TDC are from a management perspective, 'management' appears among the top-10 keywords. 'Performance' of destination is another dimension of tourism competitiveness; hence the term occurs in the top list. Many 'models' have evolved in the past three decades to measure the complex construct of TDC for different types of tourism in different contexts. 'Sustainability' is another perspective connected with the long-term capability of a destination, which appears to be hidden or exposed in many works on competitiveness by addressing at least one of the dimensions. 'Satisfaction' again is an important notion which indicates the need for destinations to aspire for an overall appeal and to provide superior tourism experiences compared to competitors. The most occurring author keyword and keyword plus, 'destination competitiveness', appears in almost all the top-20 journals. Sixteen out of 20 prominent authors use it as one of the keywords.

The maximum number of research articles in the domain is published by 'Tourism management' (20 articles) followed by 'Current issues in tourism' (19 articles). Four out of ten most globally cited articles are published in the most prominent journal 'Tourism management', also the most locally cited journal with 2177 citations. The first article in the domain in the WoS database published in 'Tourism management' in 2004 itself has collected 463 global and 98 local citations, respectively. Among the most cited five reference documents, Dwyer, 2003; Crouch, 1999; Ritchie, 2003; and Hassan, 2000 are from the Scopus database, which outlines the need for conducting a bibliometric analysis combining the leading databases – WoS and Scopus.

The collaboration analysis unveils the cooperation among authors, affiliations and countries in the domain. A strong collaboration is observed between 'Dwyer', 'Armenski', 'Mihalic', 'Cvelbar', 'Milicevic' and 'Pavlukovic' from the most prominent affiliation, 'University of Ljubljana' and 'Dragicevic' from 'University of Novi Sad'. The institution and country collaboration maps validate the vital link between these universities. Also, a strong collaboration is observed between 'Ignacio' from 'The University of Jaen' and 'Rodriguez-Diaz' from 'The University of Malaga' in Spain. 'Kubickova' and 'Croes' from 'The University of South Carolina' and 'University of Central Florida' in the USA. There exists a strong link between 'Goffi' from 'Hong Kong Polytechnic University' and 'Cucculelli' from 'Marche Polytechnic University, Italy'.

The co-citation analysis yielded 4 clusters. The prominent cluster (green) contains Crouch 1999 as the most co-cited article, followed by Dwyer 2003. The former scrutinizes the relationship between social prosperity and tourism within a competitive context, while the latter creates a destination competitiveness model that facilitates comparisons across countries and industries in the tourism sector. The book 'The Competitive Destination: A Sustainable Tourism Perspective' by Ritchie and Crouch (2003) focuses on tourism destinations and develops a reference model, emphasizing the need for the qualitative perception of elements such as enhanced competitiveness and sustainability that would lead toward destination success. The yellow cluster is represented by Cracolici and Nijcamp (2009), which compares two different models of two different studies on Slovenian tourism and discusses indicators for assessing tourism competitiveness in general. Kozak (2003), the most co-cited in the red cluster, assesses the relative attractiveness and competitiveness of tourist destinations based on individual visitors' discernments concerning a holiday destination. Enright and Newton (2004) represents a blue cluster and provides methodological contribution.

As per the co-word analysis, it is clear that 'destination competitiveness', 'tourism competitiveness' and 'competitiveness' are fundamental and transversal themes. Focus has been on 'stakeholders', 'case study', and 'sustainability', which appeared to be niche themes that are still highly relevant and require further development. The co-word analysis indicates that recent 'destination competitiveness' studies are mostly perceptional and behavioral ones approached from a management perspective by the researchers. Thus, the destinations need to be strategically approached for tourism development.

No previous studies have addressed TDC in general without focusing or narrowing it down to particular aspects such as 'sustainability' or particular areas like 'protected areas'. Still, this study exhibits a similar trend to other TDC studies regarding productivity metrics (positive trend) but disagrees with them regarding impact metrics (negative trend). This study also shows considerable change in the domain's knowledge structure regarding conceptual, intellectual and social structures. Most of the existing literature reviews on TDC are either systematic or narrative; hence, to comprehend the state-of-the-art in the domain, this study uses evaluative and

relational techniques of bibliometric review analysis. Thus, this paper fills the research gap in the domain by studying the status of 'Tourism Destination Competitiveness' research in the principal database Web of Science by following a qualitative research design that uses evaluative and relational bibliometric techniques to comprehend the existing knowledge in the field.

## 6. CONCLUSION

A review of published literature on Tourism Destination Competitiveness using a bibliometric approach is used in this study. The research questions are answered using the bibliometrix R-package, biblioshiny, and VOSviewer. This science mapping study deciphered the current trend in the publication of research documents on TDC and its impact on the knowledge domain. It also figured out bibliometric maps to describe how the TDC domain is conceptually, intellectually and socially structured in terms of authors, sources, and documents.

The key literature on the competitiveness of tourism destinations is Crouch and Ritchie (1999), which is indexed in the Scopus database. Increased growth of literature has been perceived since the first literature on TDC was published in the WoS core collection database by Enright and Newton (2004) until 2021. The study helps identify the knowledge accumulated in the domain and productivity over time. The number of documents published from 2004-2021 shows a positive trend. However, when measured in terms of the citations obtained, the quality of knowledge shows a declining pattern. Maximum research took place in European countries and was published in 'Tourism Management' followed by 'Current Issues in Tourism'.

The research hotspots in the domain are 'destination competitiveness', 'tourism', 'management' and 'performance', which exhibits a lacuna in the domain not being studied from a 'planning' perspective.

The uniqueness of this study stems from the fact that no previous tourism bibliometric studies have exclusively emphasized the competitiveness of tourism destinations. The study is helpful for tourism practitioners. Destination management organizations should appreciate the findings that evolved from the research. The necessity for collaboration amongst institutions (from different nations) is worth

mentioning in the TDC domain, and there has not been much of it so far. This teamwork will allow tourism destinations to share their experience and best practices.

As seen from the results, this study illuminates the key topics in the TDC research domain and emerging trends such as 'sustainability'. The study could help researchers by emphasizing the various concepts in this large domain and their links. It could also help researchers to comprehend future trends of research. The increasing importance of TDC can be seen from the productivity metrics.

Research that employs relational bibliometric techniques in tourism is scarce (Koseoglu et al., 2016). Hidden trends in the evolution of the subject area, collaborations, and context-specific advancement cannot be shown by using specific discursive bibliometric structures in the domain. It is understood that more research studies involving relational techniques are required to extend arguments about the ontological and epistemological framework of knowledge generation in the discipline and achieve firmer theoretical advancements.

Research in the tourism destination competitiveness domain at a sub-national level is found to be quite rare. Most of the studies done so far in the domain are from a 'management' perspective. The findings of the thematic analysis show the rising importance of the TDC domain from a planning perspective, in geographic areas within countries, and from the standpoint of all stakeholders.

Like any other study, there is no exception to limitations in ours. Since this study focused solely on the Web of Science database, our observations could be improved in future research by incorporating other relevant databases, for instance, Scopus. Articles in languages other than English are excluded from this study. In addition to journal papers, conference proceedings, books, and doctoral research may be included in future studies. The keywords and their combinations can be puzzling; hence, more keywords may be used in future studies.

Bibliometric analysis is used to appreciate the state-of-the-art advancement of the domain and assess the areas that require further attention. Hence future studies may address a deeper content analysis of sub-areas (clusters) identified as research trends in this document.

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