Bibliometrics Analysis Report

A bibliometric analysis of tourists’ experience and happiness in tourism (2000-2024)

Author1

Chungil Chae\* (corresponding author)

Wed, 26 February 2025

Abstract

Ver1.0

# Overview of the Report

# Bibliometrics

## Overview

### Main Information

| Description | Results |
| --- | --- |
| MAIN INFORMATION ABOUT DATA | NA |
| Timespan | 1992:2025 |
| Sources (Journals, Books, etc) | 92 |
| Documents | 1553 |
| Annual Growth Rate % | 12.59 |
| Document Average Age | 4.37 |
| Average citations per doc | 30.05 |
| References | 70323 |
| DOCUMENT CONTENTS | NA |
| Keywords Plus (ID) | 2269 |
| Author's Keywords (DE) | 4512 |
| AUTHORS | NA |
| Authors | 3258 |
| Authors of single-authored docs | 146 |
| AUTHORS COLLABORATION | NA |
| Single-authored docs | 160 |
| Co-Authors per Doc | 3.02 |
| International co-authorships % | 39.73 |
| DOCUMENT TYPES | NA |
| article | 1359 |
| article; early access | 124 |
| article; proceedings paper | 2 |
| article; retracted publication | 1 |
| editorial material; early access | 1 |
| review | 60 |
| review; early access | 6 |

**Description**

* **Timespan and Growth**:
  + The dataset spans from **1992 to 2025** with an **annual growth rate of 12.59%**.
  + There are **1553 documents** contributing to this dataset.
* **Document Metrics**:
  + **Average citations per document** is **30.05**, indicating a relatively high citation impact.
  + **Document Average Age** is **4.37 years**, suggesting many publications are relatively recent.
  + A total of **70,323 references** were cited across all documents.
* **Keywords**:
  + **Keywords Plus (ID)** total **2269**, while **Author’s Keywords (DE)** total **4512**.
  + This indicates a broad range of topical coverage and suggests authors employ a wide variety of terms to describe their work.
* **Authors and Collaboration**:
  + There are **3258 authors** in total. Of these, **146** are authors of single-authored documents, and there are **160 single-authored documents**.
  + The average **Co-Authors per Document** is **3.02**, showing moderate teamwork on publications.
  + **39.73%** of the documents involve **international co-authorship**, highlighting a significant level of global collaboration.
* **Document Types**:
  + The majority are **articles (1359)**, followed by:
    - **article; early access**: 124
    - **review**: 60
    - **review; early access**: 6
    - Smaller numbers for proceedings papers, editorial material, and one retracted publication.

**Interpretation**

* The **robust annual growth rate (12.59%)** from 1992 to 2025 reflects an expanding research area, with increasing numbers of publications.
* The relatively **young average age (4.37 years)** of the documents implies that the field is actively publishing new studies or is experiencing a surge of recent interest.
* A **high average citation rate (30.05)** points to the significance or influence of these studies, indicating that the research outputs are resonating within the scholarly community.
* The **large number of references (70,323)** suggests that authors are building upon extensive prior knowledge, indicative of a well-established research base.
* **Collaboration** metrics:
  + An average of **3.02 co-authors per document** indicates moderate teamwork among researchers.
  + **39.73% international co-authorship** underscores a noteworthy global dimension to this research area, suggesting both the relevance and collaborative nature of the topic.
* The **predominance of articles** shows that the main mode of dissemination is through empirical or theoretical research papers, while the presence of **reviews** (66 in total) indicates ongoing efforts to synthesize existing knowledge.

**Conclusion & Summary**

Overall, these findings reveal a **dynamically growing field** with a **steady increase** in publications over the past few decades. **High citation averages** and a **diverse, global collaborative network** underscore the field’s academic importance. The dominance of **articles** among document types and the variety in **keywords** highlight broad research engagement and topical exploration.

**In summary**, the field demonstrates strong growth, collaborative spirit, and robust impact in terms of citation—signaling a vibrant and evolving scholarly community.

### Annual Scientific Production

**Description**

**Interpretation**

**Conclusion & Summary**

### Average Citations per Year

**Description**

**Interpretation**

**Conclusion & Summary**

### Three-Field Plot

**Description**

**Interpretation**

**Conclusion & Summary**

## Sources

### Most Relevant Sources

**Description**

**Interpretation**

**Conclusion & Summary**

### Most Local Cited Sources

**Description**

**Interpretation**

**Conclusion & Summary**

### Bradford’s Law

**Description**

**Interpretation**

**Conclusion & Summary**

### Sources’ Local Impact

**Description**

**Interpretation**

**Conclusion & Summary**

### Sources’ Production over Time

**Description**

**Interpretation**

**Conclusion & Summary**

## Authors

### Authors

#### Most Relevant Authors

**Description**

**Interpretation**

**Conclusion & Summary**

#### Most Local Cited Authors

The provided bibliometric analysis focuses on “most local citations” related to the field. “Local citations” typically refer to the number of times an author’s work is cited by other works within a specific dataset or field of study.

**Description**

**Interpretation**

**Conclusion & Summary**

#### Authors’ Production over Time

This bibliometric analysis reflects the scholarly publications on the topic by various authors over the years. Let’s elaborate on the results, particularly focusing on the “authors’ production over time”:

**Description**

**Interpretation**

**Conclusion & Summary**

#### Lotka’s Law

Lotka’s Law is a fundamental principle in bibliometrics and scientometrics, which are fields concerned with the quantitative study of scientific and technological literature. Named after Alfred J. Lotka, who proposed the idea in 1926, this law describes the frequency with which authors publish in a particular field.

**Lotka’s Law** can be represented mathematically as:

* Where:
  + $ Y $ is the number of authors making $ X $ contributions
  + $ C $ is a constant (it describes the number of authors making only one contribution)
  + $ $ is a constant usually close to 2 (though it can vary depending on the discipline).
* Interpretation of Lotka’s Law:
  1. **Majority Publishes Once**: A large number of authors will have only one publication, which corresponds to the value of $ C $.
  2. **Decrease in Frequency**: As the number of publications per author (i.e., productivity) increases, the number of authors who have published that many times decreases, and this decrease is very sharp (often described as an inverse square law).
  3. **Few Prolific Authors**: Only a very small number of authors will be responsible for a large portion of the publications in a particular field. This can be thought of as the “80-20” principle, where a minority (often around 20%) of authors produce the majority (around 80%) of the work.
* Application:
  + **Identify Core Authors**: By applying Lotka’s Law, organizations and researchers can identify the core authors or the most prolific contributors in a particular field or topic.
  + **Analysis of Scientific Output**: Lotka’s Law can be utilized to analyze the scientific output of a field, helping in recognizing the distribution of productivity among authors.
  + **Research Evaluation**: Research institutions might use this principle to evaluate the research output of their faculty or departments, understanding the distribution of prolific authors versus those who publish less frequently.

It’s worth noting that while Lotka’s Law provides a useful general observation about scientific productivity, there are variations depending on the specific scientific discipline or field of study. The values of $ C $ and $ alpha $ might differ across disciplines, and in some cases, other bibliometric models might offer a better fit to the data.

* Measurement for the Lotka’s law is the following:
  + N.Articles: This is the number of articles written by an author.
  + N.Authors: This is the number of authors who have written the corresponding N.Articles.
  + Freq: This is the frequency (proportion) of those authors relative to the total number of authors.

**Description**

**Interpretation**

**Conclusion & Summary**

#### Authors’ Local Impact

* The followings are the measurement of the local impact
  + Element: Name of the author.
  + h\_index: h-index of the author, which represents the maximum number of articles an author has written that have received at least the same number of citations.
  + g\_index: g-index of the author, a metric that takes into account the distribution of citations received by a researcher’s publications.
  + m\_index: Rate of acquiring h-index points. It is calculated by dividing the h-index by the number of years since the first published paper of the author.
  + TC: Total citations the author has received.
  + NP: Number of publications by the author.
  + PY\_start: The year of the author’s first publication.

**Description**

**Interpretation**

**Conclusion & Summary**

### Affiliations

#### Most Relevant Affiliations

The data provided is a bibliometric analysis focusing on the affiliations that have contributed to research related to psychological entitlement. Bibliometric analyses help understand the research landscape of a specific topic by evaluating the academic output from various institutions. The data lists different university systems and universities with the number of articles they’ve published on the topic.

**Description**

**Interpretation**

**Conclusion & Summary**

#### Affiliations’ Production over time

The table provided represents a bibliometric analysis of the production of articles related across different universities and university systems over a span of approximately two decades. Here’s an elaboration and interpretation of the results for each institution:

**Description**

**Interpretation**

**Conclusion & Summary**

### Countries

#### Corresponding Author’s Countires

The data presented offers a bibliometric analysis of psychological entitlement based on the country of the corresponding author. Here’s an interpretation and elaboration of the results:

**Description**

**Interpretation**

**Conclusion & Summary**

#### Countries’ Scientific Production

**Description**

**Interpretation**

**Conclusion & Summary**

#### Countires’ Production over Time

**Description**

**Interpretation**

**Conclusion & Summary**

#### Most Cited Countries

**Description**

**Interpretation**

**Conclusion & Summary**

## Documents

### Documents

#### Most Global Cited Documents

**Description**

**Interpretation**

**Conclusion & Summary**

#### Most Local Cited Documents

**Description**

**Interpretation**

**Conclusion & Summary**

### Cited References

#### Most Local Cited References

**Description**

**Interpretation**

**Conclusion & Summary**

#### References Spectroscopy

When we talk about “References Spectroscopy” in the context of bibliometrics, we are drawing an analogy with the spectroscopic techniques used in the physical sciences to analyze materials based on the spectrum of the radiation they emit or absorb.

* Reference Spectrum: Just as a material has a unique spectrum in physical spectroscopy, a research paper or topic will have a unique “spectrum” of references it cites. This spectrum can give insight into the foundational works for that paper or topic, indicating which previous works are most influential or relevant.
* Analysis: By examining the “spectra” (or citation patterns) of multiple papers or topics, one can identify trends, clusters, and gaps in the research landscape. This is analogous to how one might use spectroscopy to categorize and analyze different materials based on their spectral signatures.
* Evolution Over Time: Just as the spectrum of a star can tell us about its age and stage in the lifecycle, looking at the changing citation patterns or “spectra” over time can reveal how a field or topic has evolved. It can show which works have become foundational over time or which ones have fallen out of favor.
* Intensity & Peaks: In physical spectroscopy, the intensity of certain peaks in a spectrum can indicate the concentration of specific elements or compounds. Similarly, in bibliometrics, certain references might be cited much more frequently than others, indicating their centrality or importance to the field. These “peaks” in the citation spectrum can point to seminal works or pivotal authors in a domain.
* Comparative Analysis: By comparing the “spectra” of different papers, topics, or even researchers, one can identify overlaps, synergies, and distinctions. This can be useful for interdisciplinary research, collaboration opportunities, or understanding the landscape of a broad field.
* Anomalies & Outliers: Sometimes, a spectrum will have unexpected peaks or features. In bibliometrics, unexpected citation patterns might indicate emerging areas of interest, interdisciplinary bridges, or even issues like citation cartels or excessive self-citation.
* Application: Just as spectroscopy has practical applications in material identification, quality control, and more, bibliometric “spectroscopy” can be used for research evaluation, funding allocation, curriculum design, and other academic or research management tasks.

In essence, the concept of “References Spectroscopy” in bibliometrics is a metaphorical way of describing the deep analysis of citation patterns to understand the structure, evolution, and dynamics of scholarly research.

The “Reference publication year spectroscopy” (RPYS) is a method to analyze the age of cited references in a given publication set. It can reveal the seminal works and foundational literature within a topic or domain. Let’s break down and interpret the given data on the bibliometric analysis:

**Description**

**Interpretation**

**Conclusion & Summary**

### Words

#### Most Frequent Words

The provided data lists the most relevant words and their occurrences in a bibliometric analysis related to the topic.

**Description**

**Interpretation**

**Conclusion & Summary**

#### Words’ Frequency over Time

The provided table offers a bibliometric analysis of the frequency of specific words related to the topic over a span of two decades.

**Description**

**Interpretation**

**Conclusion & Summary**

#### Trend Topics

**Description**

**Interpretation**

**Conclusion & Summary**

## Clustering

### Clustering by Coupling

Bibliometric coupling occurs when two documents reference a common third document in their bibliographies. It’s a method used to understand and visualize the intellectual structure of a scientific field.

* Table1 Parameters:
  + Analysis of Documents using the CR (Cited References) field.
  + The analysis uses a single word (ngram = 1) as a term.
  + The labeling term used is ‘ID’.
  + The impact measure is local, meaning the citation scores are specific to this dataset and do not refer to global scores.
  + Stemming is set to false, which means words in their base form were not merged (e.g., ‘running’, ‘runner’, and ‘ran’ are treated as distinct words).
  + The size of 0.3 might refer to the size of the nodes or clusters in a visualization (if one exists).
  + Community repulsion and repel are both set to zero or false, which means there is no repulsion force in the clustering process. This could have implications for the layout of a network visualization.
  + Walktrap is the clustering method used. Walktrap is a method that identifies communities (or clusters) in networks by simulating random walks.

**Description**

**Interpretation**

**Conclusion & Summary**

## Conceptual Structure

### Network Approach

#### Co-occurence Network

**Description**

**Interpretation**

**Conclusion & Summary**

#### Thematic Map

Based on the provided data, it appears to be a bibliometric analysis of the term. Bibliometric analysis is used to quantify and analyze published literature on a particular topic, often to identify the most prevalent themes, authors, and journals. The data seems to be organized in a thematic map, detailing the occurrences and relevance of certain words or terms associated with the topic.

**Description**

**Interpretation**

**Conclusion & Summary**

#### Thematic Evolution

**Description**

**Interpretation**

**Conclusion & Summary**

### Factorial Approach

#### Factorial Analysis

Factorial analysis is a statistical method used to identify the underlying relationships among a set of variables. Here, you’ve presented data for words (probably representing research themes or keywords) and documents (probably representing research papers) in two different dimensions (Dim.1 and Dim.2).

**Description**

**Interpretation**

**Conclusion & Summary**

## Intellectual Structure

### Co-citation Network

**Description**

**Interpretation**

**Conclusion & Summary**

### Historiograph

**Description**

**Interpretation**

**Conclusion & Summary**

## Social Structure

### Collaboration Network

The given data presents a bibliometric analysis of the author collaboration network on the topic. The metrics included are betweenness, closeness, and PageRank. Let’s delve into an interpretation of the results:

**Description**

**Interpretation**

**Conclusion & Summary**

### Countries’ Collaboration World Map

The dataset offers a broad view of the collaborations between countries in the field. The frequencies indicate the number of times scholars from two countries have co-authored papers. In this case, the majority of collaborations have a frequency of 1, meaning that many pairs of countries have collaborated once.

**Description**

**Interpretation**

**Conclusion & Summary**

## Discussion of the bibliometrics

* Relevant Arguments:
* Potential Research Questions:
* Interdisciplinary Implications:
* Methodological Challenges and Innovations:

## Conclusion of the bibliometrics

# Topic Modeling

## Preprocessing

## Optimal K

## Modeling

### Final Model Modeling

### Final Model Validation

### Effect

## Findings (Main)

### Topic Result

### Proportion

### Topic Comparision

### Topic Labeling

#### Initial Label

#### Update Label from User

## Additional Findings (Analysis with Covariates)

### Covariate (time)

### Covariate (Categorical)

### Covariate (Interaction Term)

### Topic Network Analysis

### LDAVIS

## Discussion of the Topic Modeling

### Relevant Arguments:

### Potential Research Questions:

### Three discussion points:

#### Discussion point1

#### Discussion point2

#### Discussion point3

## Conclusion of the Topic Modeling

# Discussion

# Conclusion

# References