

Bibliometric Analysis from the Perspective of a Croatian Tourism Journal

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Abstract. Since the production of scientific journals in the field of tourism has been growing significantly in the last ten years, bibliometric analysis can be an important and useful tool for the evaluation of the productivity of scientists and scientific institutions, but also for the evaluation of scientific publications. It is gaining importance because bibliometric indicators are increasingly used as a benchmark for the granting of financial resources to institutions, researchers, journals, etc.

Based on the results of research, in this paper the bibliometric analysis of the journal *Tourism* is presented.

The aim of the paper is to accentuate, on the example of the most important Croatian scientific tourism journal, the (not)appropriateness of the uncritical application of evaluation criteria designed for Anglo-Saxon environment in the context of a small academic community that uses a different language and can count on a modest financial support.

Keywords. Bibliometric analysis; scientific journal, tourism, Croatia

1. Introduction

Scientific journals are the primary source of scientific information for more than 300 years. The first journals began to appear in the 17th century. More precisely, it is about *Journal des Scavans* (Paris) from 1665 and *Philosophical Transactions of the Royal Society* (London) from 1665.

Today, science is a career and the requirement to climb the ladder is mainly based on publishing as many articles as possible. It is largely agreed among experts that the publication output in academic journals of a researcher is indicative of an academic researcher's standing career (Campbell & Felderer, 1997). This benefits the general assumption that journal publishing is vital for scientists. (Zehrer, 2007).

As the quality of academic publications has been increasing lately, they can be ranked according to the citation counts of the articles they publish or the quality perceptions of experts (Pechlaner, Zehrer & Abfalter, 2002).

The phenomenon of tourism as an area of academic interest is relatively recent dated (Ballantyne, Packer & Axelsen, 2009). Research in tourism dating from the 1960s onwards, and the area increases significantly over time especially the last fifteen years (Ateljević, 2014). According to Byrne Swain, Brent and Long (1998), although tourism has existed for centuries, and formidable growth of mass tourism in both the industry and its study arose in the 60's, scholarship embraced the field solidly only in the 80's.

In addition to the growing number of travel and tourism journals over the years, scientific research on tourism has experienced a number of changes, which are, among others, a reflection of the increasing number of scientific institutions and scientists whose primary interest is tourism. This contributes to a significant growth in scientific production in the field of tourism.

Today, 819 scientific institutions in 111 countries participate in the research of tourism involving 5,092 researchers who have published 165,684 scientific works (papers, books and other) (Baretje-Keller, 2012). The number of scientific journals in the field of tourism and associated activities has grown since the 1970s from about twenty to 180 at the beginning of 2012 (Ateljević & Peeters, 2008; Ateljević & Peeters, 2009; Baretje-Keller, 2012). The growth in tourism research and scholarship has been dramatic, resulting in a sharp increase in the number of journals and doctoral dissertations throughout the 80s and 90s (Benckendorff & Zehrer, 2013).

Since the production of scientific journals in the field of tourism has been growing significantly in the last ten years, bibliometric analysis can be an important and useful tool for its evaluation. It is gaining importance because bibliometric indicators are increasingly used as a benchmark for the granting of financial resources to institutions, researchers, journals, etc.

2. Journal Tourism

Tourism An International Interdisciplinary Journal is one of the oldest tourism journals in the world and it has been in constant circulation since 1953. In the beginning it was published only in Croatian language, and since 2000 it gets two editions: Croatian edition entitled TURIZAM and English edition entitled TOURISM. Today it publishes peer-reviewed academic articles covering the entire spectrum of themes connected with travel and tourism, which are equally important to scholars and members of the industry. Respecting the multidisciplinary approach to the study of travel and tourism, the Journal publishes works from economics, marketing, geography, sociology, anthropology, psychology, the hotel and catering industries, transportation,

education and history. The Journal publishes mainly original scientific papers and professional overviews as well.

The Journal is published four time per year, and its works are indexed in the following index bases: Boletín de Novedades, Instituto de Estudios Turísticos, Centro de Documentación, Madrid, Spain, CAB Abstracts and Leisure Tourism Database, C.I.R.E.T. (Centre International de Recherches et d'Études Touristiques), Aix-en-Provence, France, Cabell's Directory of Publishing Opportunities in Management and Marketing, Beaumont, Texas, USA, CSA, Bethesda, USA, EBSCO, Electronic Journal Service, Ipswich, Massachusetts, USA, Elsevier Geo Abstracts, Norwich, UK, EMBASE, Elsevier Science, Bibliographic Databases Division, Amsterdam, The Netherlands, IBR, International Bibliography of Book Reviews of Scholarly Literature, IBR - CD-ROM, Osnabrück, Germany, IBZ, International Bibliography of Periodical Literature, IBZ - CD-ROM, PsycINFO, Washington, DC, USA, SCOPUS, Abstract and Indexing Database, Elsevier, Amsterdam, The Netherlands, Social Planning / Policy & Development Abstracts (SOPODA), San Diego, California, USA. It is available online at the Croatian database HRCĀK Portal of Scientific Journals of Croatia.

The Journal itself serves as the indexing database, since in its supplement “Selected Bibliography” it publishes the annotated bibliography of original scientific papers from more than 20 most relevant international tourism journals such as *Annals of Tourism Research*, *Tourism Management*, *Anatolia*, *Tourism Review*, *Journal of China Tourism Research* and others. The specificity of this annotated bibliography is that the articles are indexed by the unique Classification Scheme for Tourism which is developed by the publisher Institute for Tourism, Zagreb (Figure 1).

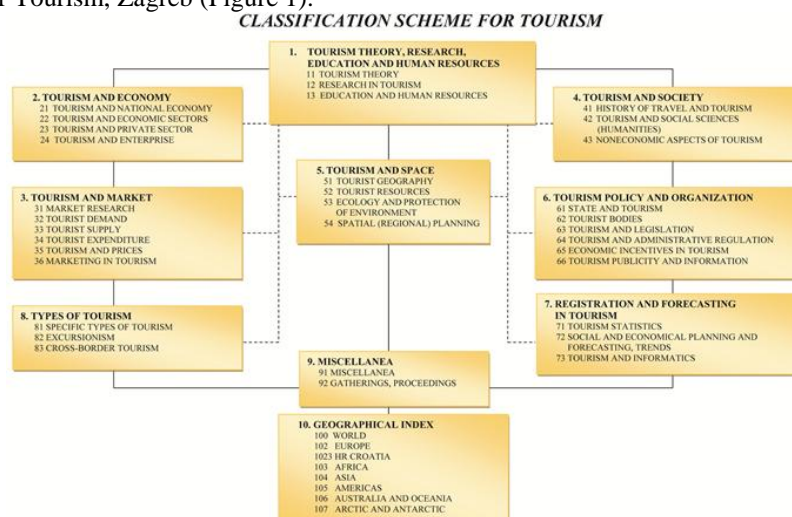


Figure 1: Classification Scheme for Tourism

3. Methodology and research results

Tourism is indexed in a number of relevant international indexing databases, but since the most relevant are Scopus (Elsevier) and Web of Science (Thomson Reuters), in this paper the results of the citation analysis as a part of the bibliometric evaluation of the journal *Tourism* in this two most famous and the most important databases are presented. More precisely, the Journal is indexed in the Scopus from 2002, while it is not indexed in the WoS. However, the retrieval of bibliometric data of *Tourism* showed that although the Journal is not indexed in the WoS, a number of authors which are represented in this database cited articles published in *Tourism*. This indirectly allowed us to obtain the citation frequency of *Tourism* in the Web of Science database.

Table 1. Citation frequency of *Tourism* articles in WoS

Citation frequency of <i>Turizam</i> / <i>Tourism</i> articles: Web of Science till 2015		
Articles indexed	Articles cited	Number of citations
-*	128	273

WoS data suggested that 128 articles were cited 273 times (Table 1). The most cited article was "A dark tourism spectrum: Towards a typology of death and macabre related tourist sites, attractions and exhibitions" by Stone, P. from 2006.

Table 2. Citation frequency of *Turizam* /*Tourism* articles in the Scopus

Scopus: Citation frequency of <i>Turizam</i> * / <i>Tourism</i> articles			
	Articles indexed	Articles cited	Number of citations
<i>Turizam</i> 1996 - 2000	65	35	102
<i>Tourism</i> 2002 - 2015	365	151	904

**Turizam* is edition published in Croatian

Tourism was initially published only in Croatian language until 1995, and from 1996 to 1999, the journal is published bilingually in Croatian and English. Since 2000, the journal has two editions, one in English as *Tourism*, and the other one in Croatian as *Turizam*.

Turizam published only in Croatian was not indexed in Scopus, but since 1996, as a bilingual edition, it had 65 articles indexed and 35 cited. *Tourism* published in English, is indexed in database Scopus since 2002, and the search results

showed that 365 articles were indexed, 151 articles were cited, while number of citations amounts to 904 (Table 2). The most cited article was also „A dark tourism spectrum: Towards a typology of death and macabre related tourist sites, attractions and exhibitions“ by Stone, P.R. from 2006. SJR (SCImago Journal Rank is 0,275, IPP (Impact per Paper) 0,458, while SNIP (Source Normalized Impact per Paper) amounts 0,648. H-index of *Tourism* is 9, and it belongs to Quartile 3.

The data in Table 3 show a significant increase in citations of articles from the journal after it was started to be published in English.

Table 3. Citation frequency of *Tourism* articles in WoS and Scopus related to publishing in Croatian or English

Citation frequency of <i>Tourism</i> articles untill 2015					
Articles indexed		Articles cited			
		untill 1995 Croatian	1996-1999 Croatian/English	2000-2015 English	total
WoS	0	2	4	122	128
Scopus	430	0	35	151	186

In the WoS, the number of cited articles increased from 2 articles in Croatian till 1995 to a total of 128 out of which 122 articles were published in English. Similarly in Scopus, in which no article only in Croatian was cited (till 1995), out of total 186 cited articles, 35 were in bilingual (Croatian / English) edition, and 151 articles in English.

4. Discussion

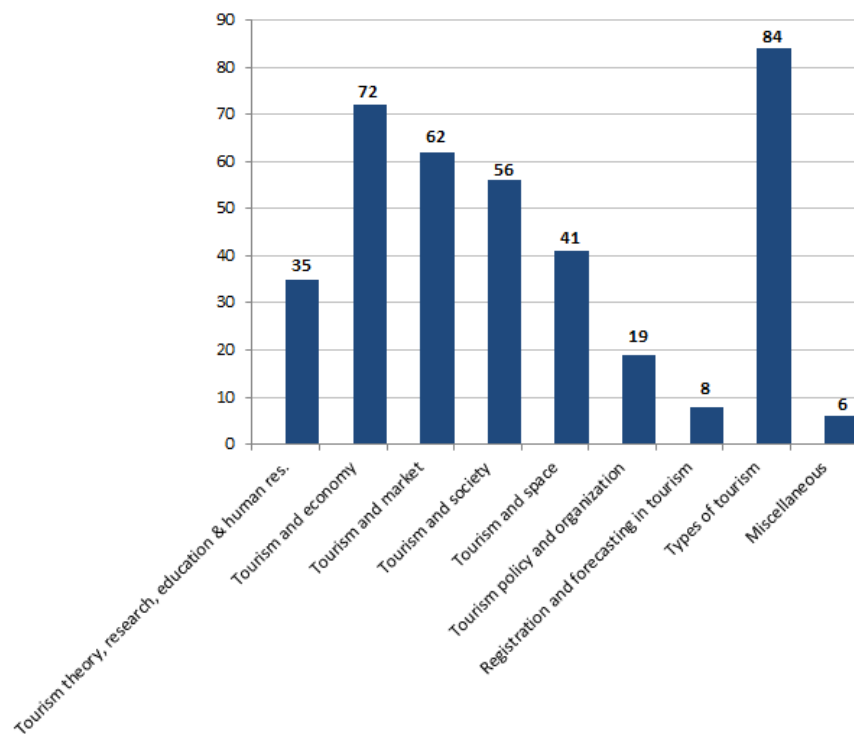
Bibliometric analyses as we know them today are associated with the American linguist Eugene Garfield, whose Institute for Scientific Information in 1960s have introduced the first citation index for papers published in academic journals. Garfield, Malin and Small (1988) defined the citation analysis as the method of bibliometrics based on the number of citations in scholarly works as the primary tool of the analysis.

Bibliometrics is a statistical analysis of books, articles, or other publications. Bibliometric analysis use data on numbers and authors of scientific publications and on articles and the citations therein (and in patents) to measure the “output” of individuals/research teams, institutions, and countries, to identify national and international networks, and to map the development of new (multi-disciplinary) fields of science and technology (OECD, 2015). According to Broadus (1987), it is a method for the quantitative measurement of published works i.e. bibliographic references.

Bibliometric analyses can also be used in the occasion of an anniversary of a Journal to summarize its number of issues, number of authors, themes it dealt with, its development over the years, etc. (e.g. Hitrec, 2002; Wang, Fesenmaier, Werthner & Wöber, 2010; Byrne Swain, Xiao & Houggen, 2003; Vrdoljak-Šalamon & Čorak, 2012; Hall, 2010; Goeldner, 2011).

As illustration, a similar analysis of the key words represented in *Tourism* in the period 2000-2011 (Vrdoljak-Šalamon & Čorak, 2012) shows the variety of topics the Journal dealt with (Figure 1).

Figure 1* Distribution of key words by main CST topics for *Tourism* in the period 2000-2011



*Adapted from Vrdoljak-Šalamon and Čorak (2012).

Furthermore, the analysis of geographical origin of the authors who wrote in *Tourism* in the same period shows the international character of the journal. Most authors were from Europe (303) out of which 60 were from Croatia as the Journal's country of origin. After European, most published authors are from Asia, North America, and Australia (Vrdoljak-Šalamon & Čorak, 2012) (Figure 2).

Figure 2* Geographic distribution of authors in *Tourism* in the period 2000-2011



* Adapted from Vrdoljak-Šalamon and Čorak (2012).

Also, the citation analysis serves as an important tool in modern bibliometrics to explore the range of knowledge in various fields of science, as well as in tourism. It is therefore suitable for the evaluation of the scientific productivity of individuals, institutions, journals, etc. Consequently, citation analysis is increasingly being combined with other tools of bibliometrics for ranking research and scientific works in the aim of granting resources to institutions or individuals, as well as for academic title promotion. This has led to the need for authors to publish their works in journals that are included in relevant index databases, putting ever greater pressure on those journals to be indexed in them (Hall, 2010).

According to Zehrer (2007), as far as the influence of scientists in choosing a journal for publication is concerned, it seems that the majority of the academics are likely being influenced by their colleagues in the field (Word-of-mouth communication) and by existing journal rankings (Classification into first-tier, second-tier and other journals).

Bibliometrics has become an important and necessary element in the research of tourism (Hall, 2010; Hall, 2011; McKercher, 2005) due to the significant increase in scholarly literature from that field.

According to Hall (2010), tourism journals have long been under-represented in citation databases, but in recent years, this has started to change. McKercher, Law and Lam (2006) suggested that bibliometrics is on the one hand, the most commonly used, and on the other, the most controversial method, while

McKercher (2005) believes that it is necessary to systematize the standards for ranking journals that publish articles on the subject of tourism.

The disadvantages of citation analysis as bibliometric method arise from the policies of issuing and publication of articles in academic journals. Thus, Teodorescu (2000), after examining the publishing productivity of university teachers in 10 variously developed countries, warns that it is unsafe to apply the findings of the publishing analysis of Western countries to other that of other nations, because due to the many context-specific variables, we cannot expect a unique model for publishing productivity to function. The same can be said for the application of citation indicators. Thus, for example, in small scientific communities the following two problems are extremely emphasized. One is of methodological nature, which is reflected in bibliometric analysis through the “statistics of small numbers”, and the caution with which to approach their interpretation (Petrač, 2003).

The second problem is that the database of the influential American Institute for Scientific Information, Philadelphia, the primary source of data such as Current Contents, Web of Science, and others, on which bibliometric analyses are based, are oriented toward journals written in the English language. It is interesting to notice that although *Tourism* was founded in 1953, it becomes “visible” just after it started to publish its English version, i.e. after 2000.

These databases are dominated by American authors who are especially fond of citing works created in their country, thus raising the average citation frequency of American science 30% above world average. Narin (1976) justifiably warns that papers published in any other language are far less cited than those published in English. This has implications in determining the impact factor of scientific journals. Scientists from other, especially small, countries are thus in an essentially different position, similar to that in other domains of cultural and political life. Therefore, it appears that the actual impact of their research measured by this indicator, even if the results indicate lower value levels, in this context has special significance.

5. Conclusions

Bibliometrics has proven to be very useful for monitoring the achievements not only of individual scientists but also of scientific journals. It is important that the results of such analyses are correctly interpreted and that are not applied uncritically to evaluate the quality of the journal. Unfortunately, this happens because of the illusion of objectivity that is provided by the quantitative bibliometric methods. Using these results as a basis for evaluating the quality of the journal impacts also on the level of financial aid awarded. For the same reasons it influences authors to publish their articles only in indexed and high-ranking journals, which creates a growing gap between the journals (Tokić and Tokić, 2014). It emphasizes the problem of journals from small countries which are published in the languages of smaller nations, and whose task is to deal with

scientific issues that will affect their communities. Their problem is a decreasing visibility in the scientific community, ever smaller impact on solving local problems, and consequently, ever smaller financial support they receive from the relevant structures. Although this partly applies to Croatian journal *Tourism*, its long tradition, editorial policy and publishing in English managed to keep its place among the leading tourism scientific journals in the world. In addition to quantitative values of bibliometric methods, the Journal quality is confirmed in the opinion of experts, some of which stated that *Tourism*, as the second oldest scientific journal in the tourism field, profiled itself as an extremely high-quality scientific journal (Jafari, 1988; Goeldner, 2011).

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