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Bibliometric analysis of publications on wine tourism in the databases Scopus and WoS

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ABSTRACT

The aim of this study was to show the current state of scientific research regarding wine tourism, by comparing the platforms of scientific information WoS and Scopus and applying quantitative methods. For this purpose, a bibliometric study of the publications indexed in WoS and Scopus was conducted, analyzing the correlation between increases, coverage, overlap, dispersion and concentration of documents. During the search process, a set of 238 articles and 122 different journals were obtained. Based on the results of the comparative study, we conclude that WoS and Scopus databases differ in scope, data volume and coverage policies with a high degree of unique sources and articles, resulting both of them complementary and not mutually exclusive. Scopus covers the area of wine tourism better, by including a greater number of journals, papers and signatures.

1. Introduction

In the past 50 years, tourism has experienced continuous expansion and diversification that has turned it into one of the economic sectors with greater weight and growth in the world. Thus, we find a market where travelers with different motivations have incorporated into, that take shorter and more frequent trips, which besides visiting the traditional sun and beach destinations, also involves finding new places and experiences. To respond to this change in preferences, the tourist offer has introduced new products.

One of these trends is the interest shown in knowing everything that is related to the food and wine of the region visited. In this way, gastronomy and wine sometimes become the main reason to visit a certain area and are no longer a mere complementary activity of the trip (López-Guzmán, Rodríguez-García, & Vieira-Rodríguez, 2012: 97).

Due to its increasing relevance, it is necessary to analyze and compile the existing literature on the sector in recent years. Thus, the primary purpose of this paper is to present an X-ray on wine tourism through its bibliometric study, that is, by applying mathematical and statistical methods to analyze the course of the literature on our discipline (Spinak, 1996: 34), and determine the characteristics of scientific production, how, who, what, where and how it was investigated.

When carrying out the bibliometric analysis of a research field, the first step is to evaluate the available databases, their suitability and consequences of using one or another. They are defined by Luque (1995: 44) as "*a set of data organized in a logical sequence that allows simple access, so that the information it contains can be: updated, used at any time by any computer program which it is connected to and operated at all times according to different criteria*". They play a key role in bibliometric research, as they enable to analyze the scientific activity carried out by researchers, institutions, regions and countries and identify trends in research. The validity of a paper will depend on the proper selection of the base, as it should cover sufficiently the area under study (Granda-Orive et al., 2013: 2).

For over 40 years, the databases Web of Science of Thomson Reuters (hereinafter WoS) was the only one that allowed this type of bibliometric studies. Its multidisciplinary character and availability of references, among other features, made it continue at the forefront for decades. However, in November 2004 the company

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Elsevier Science launched *Scopus*, which quickly became its great rival for control of the international market of scientific databases.

Recently, there have been studies comparing WoS and Scopus, concluding that thanks to this competition both databases are improving on a permanent basis (Bakkalbasi, Bauer, Glover, & Wang, 2006: 7) and there is not a clear winner. Therefore, some researchers propose conducting a specific analysis by area and time period to determine which of the two is the most suitable (Neuhaus & Daniel, 2008: 208).

It is here where overlap studies between databases come into play and methodology which consists of calculating the degree of similarity that a set of bases can have. In this way, the second objective is to observe the distribution of sources and/or documents (dispersion) and coverage (overlap) of WoS and Scopus in the area of wine tourism.

To achieve the objectives, an advanced search of the terms related to wine tourism in both databases has been carried out, with the aim of locating articles published in journals indexed in these databases. In this way, a set of 118 references in the case of WoS and 191 for Scopus until 2014 were selected, which are the base for the empirical study and were dealt with using the bibliographic manager Refworks.

This article is divided into four main sections. Firstly, and after this introduction, a review of the scientific literature and bibliometrics in the field of wine tourism is presented. The second point describes the databases, the methodology of calculation and tracking strategy used to obtain references. Subsequently in the third part, the main results obtained of the review of basic bibliometric indicators, as well as the analysis of overlap and singularity of WoS and Scopus in their coverage of wine tourism are presented in detail. Finally, in the fourth section the final conclusions and limitations associated with the research are presented.

2. Theoretical framework

2.1. Bibliometric study and wine tourism research

Science is cumulative, each new research builds on previous works and extends knowledge in a particular field. The literature review consists of "*identifying, obtaining and consulting the literature and other materials, which are useful for the purposes of our study*" (Hernández, Fernández, & Baptista, 2007: 23–24).

The growth of scientific production in recent decades, and its collection in bibliographic databases has led to the use of "bibliometrics" as a useful tool to measure scientific activity based on the statistical analysis of quantitative data provided by scientific literature (Sancho, 1990: 842–843). Pritchard (1969: 348) was one of the first authors to define the term bibliometrics: "*application of statistical and mathematical methods set out to define the processes of written communication and the nature and development of scientific disciplines by using recounting techniques and analysis of such communication*".

This technique is applicable to all knowledge areas, so all disciplines are susceptible to being analyzed with this tool. Citing Albacete-Sáez, Fuentes, & Haro-Domínguez (2013: 18), "*although in other disciplines bibliometric studies have been carried out for a long time, their application to the field of tourism and hospitality had its first results in 1989 with the work of* Weaver and McCleary (1989)". This study marked the starting point of bibliometrics in tourism, dealing with various aspects such as institutional assessment (Page, 2003); authorship analysis (Ryan, 2005); rankings of publications (Jamal, Smith, & Watson, 2008); analysis of journal content (Cheng, Li, Petrick, & O'Leary, 2011) or the study of networks of researchers (Racherla & Hu, 2010).

The beginning of research on tourism, defined by Hall (1996: 4) as "visits to vineyards, wineries, wine festivals and shows where wine tasting and/or experience of the attributes of wine-producing regions are the main motivators for visitors", has its origin in the eighties with the publication of articles like "Wine tourism on the Moselle" (Becker, 1984), although it was not until the beginning of the next decade when they appeared significantly (Gilbert, 1992; Hall, Cambourne, Macionis, & Johnson, 1997). The first works, mainly from Australia and New Zealand, focus on the analysis of its economic impact on rural areas and on the behavior of tourists (Hall, 1996; Getz, 2000). It is important to mention as essential literature on wine tourism the following books cited, among others, López-Guzmán, Vieira-Rodríguez, & Rodríguez-García (2014: 63); Explore Wine Tourism (Getz, 2000); Wine Tourism Around the World (Hall, Sharples, Cambourne, & Macionis, 2000) and Global Wine Tourism (Carlsen & Charters, 2006).

Currently, countries of the Mediterranean coast (France, Spain and Italy) and the wine producing countries of the so-called New World (USA, Canada, South America and South Africa) have joined the Australian continent with major research groups, which use areas close to their workplace for the empirical study, which explains the repeated appearance in the academic literature of certain regions (Vachiano & Cardona, 2013: 65). Following Mitchell and Hall (2006), current research on tourism is classified into seven groups: Wine tourism product; Wine tourism and regional development; Quantification of demand; Segmentation of wine tourists; Visitors' behavior; Nature of visit to wineries; Food safety and wine tourism, which generically can be grouped into studies of demand (Bruwer, Li, & Reid, 2002; Roberts & Sparks, 2006), studies of supply (Carmichael, 2005; Vargas, Porras, Plaza, & Riquel, 2008) or global review of the sector in a specified region, where both supply and demand aspects (Sparks, 2007) will be dealt with.

2.2. Coverage and overlap in bibliographic databases

The databases used as a documentation source for bibliometrics have been analyzed and compared in recent studies. To carry out this comparison, the relative index of singularity or Meyer's Index is usually used (Meyer et al., 1983: 34), which enables to compare the coverage on a given topic of various databases, and traditional and relative overlap, measures originally used by Bearman and Kunberger (1977) and defined by Gluck (1990: 45), which provide an estimate of the overlap of a base on another, taking into account the weight of shared documents in relation to unique ones in each of the databases (Pulgarín & Escalona, 2007: 339).

The start of research on overlap of journals and/or secondary sources dates back to the 60s (Martyn & Slater, 1964; Martyn, 1967), but many of their conclusions were invalidated (Bost, 1968). Subsequent studies differentiate between overlap of primary sources (Bourne, Kasson, & North, 1969), overlap of secondary sources (Bearman and Kunberger, 1977) and multiple overlap (Poyer, 1984). In 1990, the first overlap review by Gluck (1990) was published.

Until the appearance in November 2004 of the SciVerse Scopus database by the publisher Elsevier, Web of Science (WoS) by Thomson Reuters Institute of Scientific Information (ISI), was the only one with bibliographic databases capable of compiling data at a large scale and producing statistics based on bibliometric indicators, being thus the main sources of bibliometric data (Archambault, Campbell, Gingras, & Larivière, 2009: 1320).

With the birth of *Scopus*, the first works that focused on identifying which of the two products better responded to the needs of researchers appeared. Among the studies that compared WoS and Scopus, the one by Goodman and Deis (2005) stands out and so does its subsequent review (Goodman & Deis, 2007). In these studies, the authors compare such diverse aspects as prices, products offered by both bases, coverage regarding content and time, updating, types of empty documents, search facilities, document