



Asian Academic Research in Tourism with an International Impact: A Bibliometric Analysis of the Main Academic Contributions

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Abstract. Asian academic research in tourism is a very recent field of research, which has significantly developed over the last decade due to the strong expansion of the tourism industry worldwide, and also owing to the strong evolution of search engines via the Internet. This article analyses the main contributions to Asian academic research in tourism over recent years using bibliometric indicators. The results obtained are based on the information contained in the Web of Science database. These results focus on explaining three fundamental questions. Firstly, we study the publication structure of Asian articles in tourism over recent decades, as well as the citations these articles have received. Secondly, we present a ranking of the most important tourism journals in Asia through the use of a series of indicators such as the number of publications in said journals, the number of citations, and the h-index. Finally, we present a list of the 50 most cited Asian articles in tourism (and hence the ones that can be considered the most influential) of all times. The results show how, in Asian terms, the most influential journals in this field are *Tourism Management (TM)*, the *Annals of Tourism Research (ATR)* and the *International Journal of Hospitality Management (IJHM)*.

Keywords: Bibliometrics · Tourism · Asia · Web of science · h-Index

1 Introduction

During recent decades, due to globalisation and the development of technology, among other things, the travel market has increased considerably, as has the flow of tourists travelling all over the world. Another factor that may explain this spread of tourism is the economic development of many countries which previously found themselves in more precarious conditions. Thus, the study of tourism and of the different techniques that enable people to make the most of this tourism boom has recently gained more and more importance. Hence, lately many studies and important contributions have begun to be published which have made it possible to improve knowledge on tourism, and which have enriched research in this field.

One way of analysing the state of research in tourism is, amongst other alternatives, by carrying out a bibliometric study. Bibliometrics is an approach which through the use of certain techniques and tools makes it possible to study an area of research by analysing, amongst other indicators, the number of publications of articles in this area and the number of citations these articles receive. In tourism, during the last decade, bibliometric studies analysing this area in question have sprung up. However, although there is one bibliometric study that analyses China tourism [22], there is as yet none that refers to Asian tourism in general.

The aim of this article is to present a bibliometric analysis of Asian academic research in tourism, by analysing the main academic contributions in this area. In order to conduct this study, information was gathered from the Web of Science (WoS), as it is considered the most influential database for scientific research. With this information a series of rankings was drawn up, which are commented on below, including a set of variables (number of citations, number of publications, h-index, etc.), since the ranking order varies depending on the variable used. Thereby, by including more variables, we are able to carry out a broader analysis.

First of all, the number of publications of Asian articles in tourism is analysed over the last three decades. Thereby, it is possible to analyse the evolution of the volume of research that has been conducted recently in this area. If we observe this evolution, a great increase in the number of Asian publications in tourism can be appreciated, mainly due to the improvement in information technologies over the last decade and the development of the Asian economy, which has enabled the existence of a greater number of Asian universities, as well as a greater number of researchers.

Subsequently, we also conducted an analysis of the number of citations the articles published in this field receive, distinguishing between articles according to their year of publication. It is possible to observe how the level of citations is rather low in comparison with other areas of research, such as economics and even accountancy or finance. The main reason for this is that, despite the fact that there are few journals that collect tourism publications, most of these have been indexed in the Web of Science (WoS) for only a short time, wherefore there are not many publications in this field (and even less so if only Asian ones are considered); besides, most of them were conducted very recently. As a result, not enough time has gone by for them to have received a considerable number of citations.

Thirdly, a ranking of the most relevant journals in tourism is made, by analysing the journals strongly oriented towards tourism research that are indexed in the WoS. It must be taken into account that the WoS only includes the journals that meet high standards of quality, hence the journals included in this study (there are only 20, since, as we pointed out above, there are not many journals specialising in tourism) are the most relevant ones in terms of tourism research. In order to analyse the influence and relevance of these journals, several indicators are used, namely the number of articles published in said journals, the number of citations these articles receive, the h-index, and the Impact Factor provided by Journal Citation Reports (JCR). The results reveal that, as far as Asia is concerned, the most influential journals in this field are *Tourism Management (TM)*, the *Annals of Tourism Research (ATR)* and the *International Journal of Hospitality Management (IJHM)*.

Finally, a ranking of the most influential Asian articles in tourism research is presented, in accordance with the results found in the WoS. In order to draw up this ranking, the variable that is taken into consideration is the number of citations received by each article. Thereby, the 50 most cited Asian articles in tourism journals are analysed, with the aim of identifying the most influential contributions in this field.

The rest of the article is arranged as follows. In the next section, a brief analysis is made of the literature review of the bibliometric articles in general, and particularly of those related to tourism. Section 3 refers to the methodology used to carry out this study. In Sect. 4, we analyse the main results, which refer to the publication and citation structure over recent decades; to the most influential tourism journals in Asia according to number of publications; and to the Asian publications in this field that have received the greatest number of citations. Finally, in Sect. 5, the main results are summarised and the conclusions of the article are written.

2 Literature Review

Recently, it has become very popular to use bibliometric tools and techniques in order to quantitatively assess the bibliographic material of a scientific discipline [5]. Therefore, bibliometric studies are now very common, since due to the strong development of computers and of the Internet, information is readily available to any scientific institution or researcher. Specifically a bibliometric study enables you to obtain a general overview as to the state of an area of research. Recently, various studies have attempted to expand the definition that Broadus made of bibliometrics in 1987, by integrating this methodology into a much wider discipline that also covers scientometrics and informetrics [4].

In recent decades in the literature, many studies have been presented that provide a very broad vision of an area of research, by finding out the most productive and influential publications, journals, authors, institutions and countries in the area in question. Among the main bibliometric contributions in different areas stands out the article published by Podsakoff et al. [19], which provides a full picture of the field of management, through an analysis of the most influential authors and institutions in this field. In the field of operation management, Pilkington and Meredith [18] analysed the most influential papers using the citation analysis approach. Meanwhile, in the

discipline of business initiative stands out the publication of Landström et al. [13], which recently provided a full picture of this discipline.

In economics, many authors have published bibliometric articles, one of the most influential of which is the paper by Stern [20], which analyses the most relevant journals in economic research. In specific issues in economics stand out the publications of [11] who focused on ecological economics, Baltagi [3] who studied the most productive authors, institutions and countries in econometrics, and Wagstaff and Culyer [23] who developed a bibliometric analysis in the field of health economics.

In financial research, many bibliometric articles have also been published. The most representative is the one published by Alexander and Mabry [2], which presents a very broad view of this field of research, providing rankings of the most influential journals, authors and institutions, and the most cited articles to date. Meanwhile, in accounting, some of the main bibliometric contributions are those by Brown and Gardner [6] and Brown [7], who analysed the most influential articles, institutions and authors in this field, through the use of a citation analysis.

As regards tourism, the area of research that we focus on in this paper, a series of bibliometric studies has also been published. Some of these focused on analysing the main authors in this area of research, such as [15], who identified the authors who were engaged in publishing in the most cited tourism journals over two periods of time (1970–2007 and 1998–2007). Meanwhile, Zhao and Brent Ritchie [24] in their paper identified the 57 most influential authors that had made publications in tourism journals in the period between 1985 and 2004. Other studies, such as Jogaratnam et al. [12] and Law et al. [14], sought to find out the most influential institutions and countries in the tourism research community.

Meanwhile, other authors focused on developing a bibliometric analysis based on the main tourism journals, for instance, Svensson et al. [21] in their paper described the empirical characteristics of journals specialising in tourism and the hospitality industry, while McKercher et al. [17] and Hall [9] focused on drawing up rankings of the most influential journals in tourism. Apart from this contribution, McKercher [16] also proposed a measure to assess the relative influence of tourism journals in their field of research, which consisted of calculating the percentage of citations a journal receives by taking into account the total number of citations received by all the journals in this field. Cheng et al. [8], meanwhile, after reviewing a set of journals related to tourism and the hospitality industry identified the main trends therein.

Finally, as in other disciplines, in tourism some bibliometric studies have been conducted where a specific country or region is analysed. As pointed out above, Tsang and Hsu [22] carried out a regional analysis of tourism in China, and Albacete-Sáez et al. [1] did the same for Spain.

3 Methodology

As already mentioned above, all the information used to carry out the analysis performed in the present study is gathered from the Web of Science (WoS) database. Owing to the development of information science and the Internet, this is becoming a very practical tool in the search for research information, as the information available

therein is accessible to any researcher. Even though there are other important databases that also enable information of this type to be gathered, such as SCOPUS, Google Scholar and Econ Lit, we chose to work with the WoS due to the fact that it is generally considered the most influential database in scientific research, as all the publications included therein are considered high quality. Currently, the WoS includes over 15,000 journals and 50 million papers. Research is classified in 251 categories and 151 areas. In order to carry out this work, we selected the category “Hospitality, Leisure, Sport and Tourism”, and in this way 20 journals (which can be observed in Table 1) were selected which focus broadly speaking on research in tourism and related areas.

Table 1. List of journals included in the analysis

Acronym	Journal title
ATR	Annals of Tourism Research
APJTR	Asia Pacific Journal of Tourism Research
CHQ	Cornell Hospitality Quarterly
CIT	Current Issues in Tourism
IJCHM	Int. J. Contemporary Hospitality Management
IJHM	Int. J. Hospitality Management
IJTR	Int. J. Tourism Research
JHLST	J. Hospitality, Leisure, Sport & Tourism Education
JHTR	J. Hospitality & Tourism Research
JLR	J. Leisure Research
JST	J. Sustainable Tourism
JTCC	J. Tourism and Cultural Change
JTR	J. Travel Research
JTTM	J. Travel & Tourism Marketing
LS	Leisure Sciences
LSt	Leisure Studies
SJHT	Scandinavian J. Hospitality and Tourism
TE	Tourism Economics
TG	Tourism Geographies
TM	Tourism Management

Some of the journals clearly focus on research in tourism, while others also cover other research topics but equally have a strong connection with tourism. The latter type of journals mainly refers to leisure and to issues related to travel, so they are related to tourism research. Since the WoS does not have many journals indexed on tourism issues, both types of journals were included in the study.

Based on the articles published in the aforementioned journals, we applied another filter, in order to obtain exclusively Asian articles, which is what the whole bibliometric analysis of the paper is based on.

There is no single widely-accepted mechanism for conducting a bibliometric study. In fact, many bibliometric studies analyse information through totally dissimilar

variables. In order to perform this analysis and to avail ourselves of the most complete possible view of a set of publications, we selected the main indicators, which are the number of publications, and the number of citations, and we also used the h-index [10]. The number of publications is an indicator of the productivity of the journal, whereas the number of citations is an indicator of the influence of this journal. Meanwhile, the h-index is an indicator that enables the value of a set of articles to be measured, whilst taking into account the number of publications and the number of citations. For instance, if a journal has an h-index of 35, this means that of all the articles included in this journal, there are 35 with at least 35 citations each.

Nevertheless, the three indicators reveal a series of drawbacks and limitations. On the one hand, basing a bibliometric study on the number of publications is criticised as it is not the same if an author publishes an article in the most influential tourism journal as in another lower ranking journal, and the WoS does not distinguish between high quality and lower quality journals when it comes to conducting a recount of the number of publications. Moreover, the number of citations is an indicator that is criticised due to the fact that certain topics receive a higher number of citations than others, since they are published in journals of greater prestige or because of the nature of the field in question, which could be more attractive than other fields where articles of equal or even higher quality are published, but which receive a lower number of citations. As far as the h-index is concerned, its main limitation is that at times it can distort the perception of information, in such a way that if in a journal there are over 200 articles published and 5 of these receive over 1,000 citations, but the rest receive fewer than 5 citations, the h-index of this journal will be 5, despite the fact that the value of this journal is much higher.

In an attempt to mitigate these limitations, and especially the fact that the WoS when conducting a recount of the publications does not distinguish between the “levels of quality” of journals, an alternative would be to assign a value to each journal. Therefore, if a top quality journal is assigned a score of three and a medium quality journal is assigned a score of one, a publication in the higher quality journal would be three times more important than a publication in the less good journal. However, it is extremely difficult to assign a score to each journal, as these scores would have to be determined based on many criteria. Currently, the alternative approach that comes nearest to solving this problem is to take into consideration the Impact Factor of each journal.

The Impact Factor is a measure that is widely known throughout the scientific community and is used as one of the main indicators to identify the value of a journal. The Impact Factor is provided by the WoS through JCR, and is calculated in the following way:

$$IF = \frac{citations_{n-1} + citations_{n-2}}{papers_{n-1} + papers_{n-2}}. \quad (1)$$

By performing this equation, the number of citations received by the articles published in year $n-1$ and $n-2$ in this journal during a given year is calculated with respect to the number of articles that this journal published in year $n-1$ and $n-2$. This is the 2-year Impact Factor (IF). The 5-year Impact Factor (IF5), is exactly the same, but

instead of considering only 2 years, the last 5 years are included. Lately, there has been much criticism of the 2-year Impact Factor, as this can be easily manipulated through the use of self-citation and other related techniques; and, as a result, occasionally it does not give a true picture of the influence of journals. Hence, more and more importance is being placed on the 5-year Impact Factor, since as it considers a longer time period, it is more difficult to manipulate.

4 Results and Analysis of the Results

In this section we present the main results we have obtained from the analysis of the information compiled in the WoS. These results are divided into three parts. First of all, reference is made to the structure of the number of publications and citations of Asian articles in tourism. Secondly, a list of the most influential journals in tourism in Asia is drawn up, on the basis of a series of indicators. Finally, a ranking of the most cited Asian articles in tourism research is drawn up.

4.1 Structure of the Number of Publications and Citations of Asian Articles in Tourism

Tourism is a field of research that currently does not hold a significant position in the Web of Science (WoS), as there are barely 20 indexed journals related to tourism. However, over the last 5 years, the number of Asian articles in tourism research indexed in the WoS has undergone a considerable rise. One of the main reasons for this is the regional expansion carried out by the WoS over recent years, which has enabled the entry of many new or already existing journals.

To be precise, in August 2014, in the 20 tourism journals chosen to perform the analysis, the WoS included 2,079 Asian articles in tourism research. Nevertheless, it is worth mentioning that many articles on issues related to tourism are not published in journals that strictly speaking concern tourism research, and therefore are not included in this analysis. These 2,079 articles are the ones that were considered as a basis for performing the bibliometric analysis.

Figure 1 shows the number of Asian articles published in tourism every year, since 1982.

As can be appreciated in the above Figure, until the mid-90s, practically no Asian article had been published in tourism, due to the fact that there were hardly any tourism journals indexed in the WoS. Since 1995, there has been a slight yet steady rise in the volume of publications of Asian articles, until in 2006 and 2007 when around 50 articles were published per year. However, since 2008 this increment in volume of publications has been exponential. In fact, in 2013 twice as many Asian articles in tourism were published as in 2009, with the figure reaching close to 370 articles per year; and it seems as if the number of publications per year is going to continue to rise in the future.

As for the number of citations received by these 2,079 Asian articles in tourism research, it is worth pointing out that in comparison with other disciplines, such as

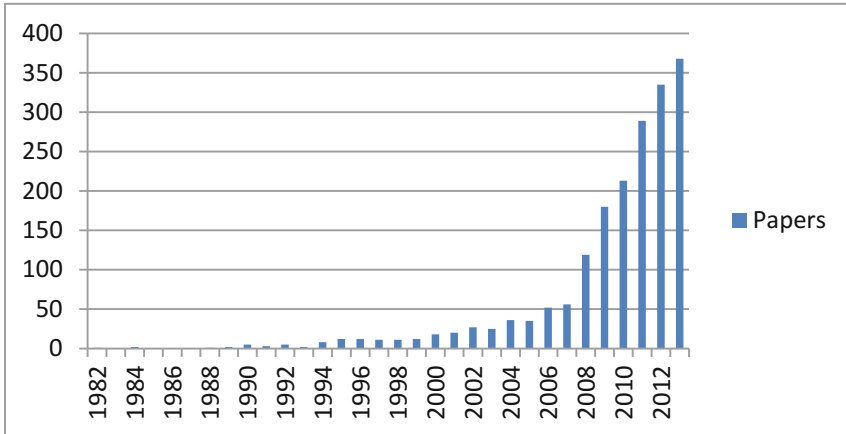


Fig. 1. Asian papers in tourism during the last 31 years (1982–2013)

finance or economics, the number of journals and of articles published in this field is relatively low, as is the number of citations received.

For the purpose of analysing the citation structure of the Asian articles in tourism, minimum citation thresholds were used, which enable the number of articles (in a certain year) which have received a number of citations above this threshold to be detected. Thereby, it is possible to detect in which period the articles receiving a greater number of citations are to be found. Table 2 illustrates the citation structure of Asian articles in tourism, considering various citation thresholds; and conducts an annual analysis from 1995 onwards.

From the results reflected in the above Table, it can be concluded that in the field of tourism research in Asia, a highly cited article is one receiving at least 50 citations, as only 2.68% of all Asian articles in tourism exceeded this citation threshold. In reference to the 100 citation threshold, this was only exceeded by 0.48% (specifically 9 articles) of all the articles in this field. Most of the Asian articles in tourism (79% of them), have currently received fewer than 10 citations.

The majority of the most cited articles in this field were published between 2002 and 2009, while the articles published in the last five years have not received a very high number of citations. The main reason why recently published articles have received a lower number of citations is because in order to receive a more or less consolidated number of citations (in this field we could consider this as between 30 and 50 citations), an article needs several years of maturity before it is known by the scientific community. For this reason, despite the fact that it is in recent years when a greater volume of Asian articles in tourism has been published, these articles have not yet received a considerable number of citations because they lack a couple of years to reach maturity. Nevertheless, most of these more recent articles are expected to receive many citations, as a large percentage of them have already received between one and five citations.

Table 2. General citation structure in Asia in tourism research according to WoS

	≥ 100	≥ 50	≥ 20	≥ 10	≥ 5	≥ 1	Total
Pre 1995	2	3	7	10	14	18	31
1995	0	0	1	3	6	7	12
1996	0	1	7	7	9	11	12
1997	0	1	4	7	8	11	11
1998	0	1	3	7	9	10	11
1999	1	6	6	8	9	10	14
2000	0	3	9	9	13	16	18
2001	0	0	4	6	10	17	20
2002	1	3	14	18	19	23	27
2003	1	3	10	17	22	23	25
2004	0	4	16	27	29	35	36
2005	1	5	17	25	30	33	35
2006	0	6	19	37	42	48	52
2007	1	7	20	36	43	50	56
2008	2	4	21	49	83	110	119
2009	0	1	23	45	94	159	180
2010	0	1	18	50	90	187	213
2011	0	1	4	25	97	231	289
2012	0	0	0	5	35	224	335
2013	0	0	0	0	3	102	368
Total	9	50	203	391	665	1325	1864
Percent.	0.48%	2.68%	10.89%	20.98%	35.68%	71.08%	100%

Abbreviations: ≥ 100 , ≥ 50 , ≥ 20 , ≥ 10 , ≥ 5 , ≥ 1 = number of papers with more than 100, 50, 20, 10, 5 and 1 citations; Percent. = Percentage of papers.

In fact, it is interesting to note that a highly representative percentage of all Asian articles in tourism ever published have received at least one citation, specifically we are talking about 71% of all of them.

On the other hand, it is also worth mentioning that the oldest articles are sometimes not easily available on the Internet and, because of this, neither do they receive a very high number of citations.

4.2 Analysis of the Most Influential Journals in Tourism Research in Asia

In this section a ranking of the most influential journals in tourism research in Asia is conducted, according to the data available in the WoS. In order to draw up the ranking, we used the 20 journals that appear in Table 1, and the indicator taken into account was the number of publications. Thereby, the top journal in the ranking is the one that published the greatest number of articles. However, with the aim of obtaining a full

picture of the quality and influence of the journal, many other indicators were taken into consideration. These other indicators are:

- The number of citations
- The h-index
- The ratio between the number of citations and the number of publications (*C/P*), which represents the mean number of citations received by each article published in the journal.
- The 2-year and 5-year Impact Factor. (There are some journals for which there are not enough data available to be able to calculate the IF5, as they have been included in the WoS for less than 6 years).

Apart from these indicators, for each journal we calculated the %TP and %TC, where %TP represents a percentage of Asian articles in tourism published by the journal in relation to the total number of articles published by the journal worldwide. While %TC represents the number of citations received by the Asian articles in tourism published in the journal with respect to the total number of citations received by all the articles published in the journal worldwide.

Please note that if two journals are tied in number of publications, the journal with the greatest number of citations is chosen in first place. In Table 3 the ranking of the 20 journals included in the analysis is presented.

As can be observed, depending on the number of publications, undoubtedly, the most productive journals in this field are TM, the IJHM and the ATR, as these are the ones that encompass the greatest number of publications of Asian articles in tourism. However, by analysing the ranking according to the TC/TP variable, it can be observed that the most influential journals in this field are, by far, TM and the ATR, while the IJHM appears quite a long way down. The main reason for this is that the Asians publish a lot in the IJHM (42.99% of the articles published in this journal are Asian), and owing to this, in the ranking based on the number of publications it appears above the ATR. One of the reasons why TM and the ATR so clearly dominate this ranking is due to the fact that these are journals that are already highly consolidated, whereas many of the other journals have only been indexed in the Web of Science (WoS) for a short time.

By analysing the rest of the most influential journals in Asian tourism according to the TC/TP ratio, we observe how, in a second block, two other journals with strong connections with tourism research stand out, namely the JLR and the LS, while the JTR is also rather influential.

By analysing the h-index, we reach the same conclusions as we have just mentioned, observing that the journals with the best score are TM and the ATR, by quite a long way, followed by the JTR. Meanwhile, among the journals most related to leisure, the best ranked ones are the JLR and the LS.

As far as the Impact Factor is concerned, as commented at the beginning of the article, the 5-year Impact Factor is considered more representative than the 2-year Impact Factor, as it avoids being manipulated so easily. Hence, in order to conduct the analysis, the IF5 was taken into consideration. The results obtained are in consonance with the rest of the indicators, where the journals obtaining the highest scores are TM and the ATR, closely followed by the IJHM, the JTR and the JST.

One interesting aspect is to observe which journals are the ones in which Asians have the greatest weight. By analysing the %TP column, we can observe how, in tourism, the presence of the Asian market is very important; for instance, in TM (which is the most influential journal in tourism), around 20% of the articles published there in are Asian. However, the journals in which the Asians have most weight are the APJTR (it must be born in mind that the APJTR is an Asian journal), the IJHM, and the JTTM. As stated above, this is the main reason why these three journals are well placed in the Asian ranking, since in the world ranking they would appear in much lower positions. On the other hand, we see how the participation of Asians in the ATR, the JLR and the LS is quite scarce.

With the aim of examining the most influential documents published in these journals, we included three citation threshold columns, which indicate the number of Asian articles in tourism with over 100, 50 and 20 citations published in these journals. Returning to the same conclusions that we have just mentioned, we see how TM and the ATR are the only journals in which Asian articles in tourism research with over 100 citations have been published, whereas, apart from these two journals, only the IJHM has published articles with over 50 citations (in this case, two). As for the articles that have exceeded the threshold of 20 citations, practically all of these are included in these three journals.

Finally, as can be observed in the last column of Table 3, in the ranking of the 50 most influential Asian articles in tourism appearing in Table 4, all of these, except for two, were published by TM, the ATR or the IJHM, with TM, having published 35, by far the one that has published the majority of these 50 most influential articles.

Table 3. Most influential tourism journals in Asia according to WoS

R	Name	TP	TC	H	TC/TP	%TP	%TC	>100	>50	>20	IF	IF5	T50
1	TM	495	7648	43	15,45	19.27%	25.75%	6	36	130	2.377	3.382	35
2	IJHM	319	1370	18	4,29	42.99%	42.13%	0	3	13	1.837	2.466	3
3	ATR	202	2450	26	12,13	7.20%	6.86%	2	10	36	2.795	3.216	10
4	APJTR	161	128	4	0,80	67.65%	59.81%	0	0	0	0.566	–	0
5	JTTM	152	328	9	2,16	41.19%	37.19%	0	0	0	0.695	0.966	0
6	TE	104	113	5	1,09	23.01%	13.36%	0	0	0	0.573	0.901	0
7	IJTR	92	211	7	2,29	29.30%	21.12%	0	0	0	1.024	1.498	0
8	IJCHM	90	264	9	2,93	25.35%	30.99%	0	0	1	1.623	–	0
9	JST	63	258	9	4,10	14.62%	11.12%	0	0	3	2.392	3.134	0
10	JTR	57	395	12	6,93	17.54%	21.76%	1	1	5	1.884	2.487	2
11	CHQ	57	236	8	4,14	15.88%	21.75%	0	0	2	1.165	1.694	0
12	JHTR	51	196	8	3,84	32.08%	35.25%	0	0	1	1.125	1.602	0
13	CIT	41	45	4	1,10	13.90%	6.68%	0	0	0	0.958	1.241	0
14	JHLST	41	44	3	1,07	21.47%	15.83%	0	0	0	0.062	0.325	0
15	TG	28	74	4	2,64	11.86%	12.11%	0	0	1	1.327	1.302	0
16	LS	26	172	9	6,62	3.66%	2.13%	0	0	2	1.109	1.862	0

(continued)

Table 3. (continued)

R	Name	TP	TC	H	TC/TP	%TP	%TC	>100	>50	>20	IF	IF5	T50
17	JLR	20	213	9	10,65	1.23%	1.11%	0	0	4	0.592	1.382	0
18	JTCC	16	10	2	0,63	10.39%	11.49%	0	0	0	0.238	–	0
19	LSt	7	5	2	0,71	2.41%	1.05%	0	0	0	1.096	1.237	0
20	SJHT	5	38	1	7,60	2.59%	6.34%	0	0	1	0.882	1.087	0

Abbreviations: R = Rank; H = *h*-index; TC and TP = Total citations and papers; %TP = Percentage of Asian papers to total papers published in the journal; %TC= Percentage of citations to Asian papers to total citations to papers published in the journal; >100, >50, >20 = number of papers with more than 100, 50 and 20 citations; IF = Impact Factor 2013; IF5 = 5-Year Impact Factor 2013; T50 = Number of papers in the Top 50 list shown in Table 4; Journal abbreviations: Are available in Table 1

4.3 The Most Influential Articles in Tourism Research in Asia

In this section, the most influential articles are identified through the bibliometric analysis of the 50 most cited Asian articles of all times, published in the tourism journals specified in Table 1, according to the WoS. The number of citations received by an article enables us to identify the most influential articles, which are normally those that have provided the most significant contribution to tourism research.

However, this ranking may present various limitations, as the most cited article is not always the most relevant one, but rather there may be some exceptions. One instance of this is that a very important article which is not very attractive to the scientific community, as it is very specific, may receive a much lower number of citations than another article that is less important yet much more attractive to the scientific community.

One noteworthy aspect is that through the automatic search of the WoS, it is not possible to find information directly from articles published in a journal which was not indexed at that time. In an attempt to tackle this problem, we carried out a manual search process, using the tool “Cited Referenced Search”, so as to identify any articles that were not indexed in the WoS, but which received a number of citations that enables them to enter the ranking of the 50 most cited Asian articles of all times, published in tourism journals. This ranking is given in Table 4.

Among the top 10, most of these were published by TM, except for two which were published by the ATR, and one by the JTR.

By analysing the C/Y column, we can identify the articles that receive most citations per year. We observe that the article by Law and Buhal is, published in 2008, which appears in the fifth position in the ranking, is the one that receives most citations per year, 31 to be precise. Another article also published in 2008 which has received a high number of citations per year, is the one that appears in sixth position of the ranking, published by Song and Li, which receives 28 citations per year. In third place, the article published by Yoon and Uysalin 2005, which appears in the second position of the ranking, receives approximately 26 citations per year.

The most recent articles that appear in the ranking were published in 2009, 2010 and 2011, receiving 11, 14 and 18 citations per year, respectively. No article published

Table 4. The 50 most cited Asian papers in tourism according to WoS

R	J	TC	Title	Author/s	Year	C/Y
1	ATR	292	Rethinking authenticity in tourism experience	N Wang	1999	19
2	TM	234	An examination of the effects of motivation and satisfaction on destination loyalty: a structural model	Y Yoon, M Uysal	2005	26
3	TM	227	The evaluation of airline service quality by fuzzy MCDM	SH Tsaur, TY Chang, CH Yen	2002	19
4	ATR	199	Attitude determinants in tourism destination choice	S Um, JL Crompton	1990	8
5	TM	184	Progress in information technology and tourism management: 20 years on and 10 years after the internet – the state of eTourism research	D Buhails, R Law	2008	31
6	TM	165	Tourism demand modelling and forecasting – A review of recent research	H song, Gang Li	2008	28
7	TM	130	How destination image and evaluative factors affect behavioural intentions?	CF Chen, DC Tsai	2007	19
8	TM	130	Using data envelopment analysis to measure hotel managerial efficiency change in Taiwan	SN Hwang, TY Chang	2003	12
9	JTR	119	Measuring destination attractiveness: a contextual approach	YZ Hu, JRB Ritchie	1999	8
10	TM	99	Tourism destination competitiveness: a quantitative approach	MJ Enright, J Newton	2004	10
11	TM	92	Tourism expansion and economic development: The case of Taiwan	HJ Kim, MH Chen, SS Jang	2006	12
12	ATR	84	Korea's destination image formed by the 2002 World Cup	CK Lee, YK Lee, BK Lee	2005	9
13	TM	83	Predicting behavioral intention of choosing a travel destination	T Lam, CHC Hsu	2006	10
14	TM	82	A neural network model to forecast Japanese demand for travel to Hong Kong	R Law, N Au	1999	5
15	ATR	82	Evaluating tourist risks from fuzzy perspectives	SH Tsaur, GH Txeng, KC Wang	1997	5

(continued)

Table 4. (continued)

R	J	TC	Title	Author/s	Year	C/Y
16	TM	81	Segmentation of festival motivation by nationality and satisfaction	CK Lee, YK Lee, BE Wicks	2004	8
17	TM	80	Application of importance-performance model in tour guide's performance: evidence from mainland Chinese outbound visitors in Hong Kong	HQ Zhang, I Chow	2004	8
18	TM	75	Back-propagation learning in improving the accuracy of neural network-based tourism demand forecasting	R Law	2000	5
19	TM	74	A structural equation model of residents' attitudes for tourism development	DW Ko, WP Steward	2002	6
20	ATR	71	A DEA evaluation of Taipei hotels	WE Chiang	2004	7
21	TM	70	Tourism development and economic growth: A closer look at panels	CC Lee, CP Chang	2008	12
22	ATR	70	Measuring novelty seeking in tourism	TH Lee, J Crompton	1992	3
23	TM	69	An importance-performance analysis of hotel selection factors in the Hong Kong hotel industry: a comparison of business and leisure travellers	RKS Chu, T Choi	2000	5
24	TM	68	Modelling and forecasting tourism demand for arrivals with stochastic nonstationary seasonality and intervention	C Goh, R Law	2002	6
25	TM	66	Rating tourism and hospitality journals	B McKercher, R Law, T Lam	2006	8
26	ATR	66	Heritage and postmodern tourism	W Nuryanti	1996	4
27	TM	63	A chaos approach to tourism	B McKercher	1999	4
28	IJHM	63	Service quality, customer satisfaction, and customer value: a holistic perspective	Oh HaeMoon	1999	4
29	TM	63	Tourism destination image modification process: marketing implications	KS Chon	1991	3

(continued)

Table 4. (continued)

R	J	TC	Title	Author/s	Year	C/Y
30	TM	62	Support vector regression with genetic algorithms in forecasting tourism demand	KY Chen, CH Wang	2007	9
31	ATR	61	Tourism development and cultural policies in China	THB Sofield, FMS Li	1998	4
32	TM	57	Investigating the relationships among perceived value, satisfaction, and recommendations: the case of the Korean DMZ	CK Lee, YS Yoon, SK Lee	2007	8
33	TM	56	Experience quality, perceived value, satisfaction and behavioral intentions for heritage tourists	CF Chen, FS Chen	2010	14
34	ATR	56	Touristic quest for existential authenticity	H Kim, T Jamal	2007	8
35	TM	56	Critical reflections on the economic impact assessment of a mega-event: the case of 2002 FIFA World Cup	CK Lee, T Taylor	2005	6
36	TM	56	A comparison of three different approaches to tourist arrival forecasting	V Cho	2003	5
37	TM	55	Applying the stochastic frontier approach to measure hotel managerial efficiency in Taiwan	CF Chen	2007	8
38	IJHM	54	The impact of online user reviews on hotel room sales	Q Ye, R Law, B Gu	2009	11
39	TM	54	Motivations for ISO 14001 in the hotel industry	ESW Chan, SCK Wong	2006	7
40	TM	54	The relationship between brand equity and firms' performance in luxury hotels and chain restaurants	HM Kim, WG Kim	2005	6
41	TM	53	The establishment of a rapid natural disaster risk assessment model for the tourism industry	CH Tsai, CW Chen	2011	18
42	IJHM	53	The impact of the website quality on customer satisfaction and purchase intentions: Evidence from Chinese online visitors	B Bai, R Law, I Wen	2008	9
43	JTR	53	International student's imagine of rural Pennsylvania as a travel destination	Po Ju Chen, DL Kerstetter	1999	4
44	TM	52	The development of an e-travel service quality scale	CI Ho, YL Lee	2007	7

(continued)

Table 4. (continued)

R	J	TC	Title	Author/s	Year	C/Y
45	TM	52	The impact of the 2002 World Cup on South Korea: comparisons of pre- and post-games	HJ Kim, D Gursoy, SB Lee	2006	7
46	TM	51	Tourists' satisfaction, recommendation and revisiting Singapore	TK Hui, D Wan, A Ho	2007	7
47	ATR	51	Antecedents of revisit intention	S UM, K Chon, YH Ro	2006	6
48	TM	51	The relationship among tourist's involvement, place attachment and interpretation satisfaction in Taiwan's national parks	SN Hwang, C Lee, HJ Chen	2005	6
49	TM	51	Critical service features in group package tour: An exploratory research	KC Wang, AT Hsiesh, TC Huan	2000	4
50	TM	50	Passenger expectations and airline services: A Hong Kong based study	D Gilbert, RKC Wong	2003	5

Abbreviations are available in Tables 1, 2 and 3 except for: J = Journal name; C/Y = Citations per year.

after 2011 appears, as it must be born in mind that they have not been published for long enough to be highly cited and to appear in the top 50 most cited Asian articles of all time in tourism journals.

5 Conclusions

In this paper we present a general view of academic research in tourism in Asia over recent decades, through the use of different bibliometric indicators. In particular, we analyse the fundamental results with respect to the publication and citation structure of Asian articles in tourism research; which tourism journals in Asia are the most productive; and the most influential Asian articles in tourism research. All the information was compiled through the Web of Science (WoS), which is considered the main database in academic research.

As far as the study of the publication structure in this discipline is concerned, it is concluded that in Asia, academic research in tourism is a relatively small area in comparison with other fields, such as economics or finance. In the 80s and 90s, the publication of Asian articles in this area was practically non-existent, until at the end of the 90s a few more began to be published, reaching a mean of around 50 articles per year in 2007. However, in the last five years the number of publications in this area has risen a lot, to reach nearly 370 articles published in 2013. Even so, these figures are totally irrelevant compared to other areas, such as economics.

It is worth highlighting that the number of tourism journals indexed in the WoS is very low in comparison with other areas; therefore, only 20 journals were included in this study. Besides, most of these journals have been indexed in the WoS during the last six years through the regional expansion carried out by the WoS. This is another of the reasons explaining the low number of Asian publications in this field, as it also affects the number of citations received by these articles, since as they were included recently, these articles are not yet mature enough to be known throughout the scientific community.

Regarding the citation structure, it is worth noting that only 9 articles (0.48% of the total Asian articles published in tourism journals) have received over 100 citations, while only 2.68% of them have received over 50 citations. Thus, it can be clearly seen that as happens with the number of publications, the level of citation of said articles, is very low compared to that of other fields of research. However, it is worth mentioning that over 70% of all Asian articles in tourism published throughout history have received at least one citation.

In reference to the analysis of the most productive tourism journals indexed in the WoS, there is no doubt that the most influential journal in this field, where the majority of the most cited Asian articles are published, is TM. In Asian terms, in second place is the IJHM and in third place the ATR.

Given the fact that it is difficult to establish a ranking of journals based on a single indicator (in this case the number of publications), other indicators were included in order to attain a more global vision as to the quality of each journal. Amongst other indicators, we included the total number of citations, the mean citations per article published in the journal (TC/TP), the h-index, the Impact factor, and certain citation thresholds. Based on some of these other indicators, it is clear that although the IJHM occupies a very high position in the ranking, TM and the ATR are by far the most influential journals, as they are the ones that receive the greatest number of citations per article published. In a second block, we find the JLR and the LS, while the JTR is also quite influential. The 5-year Impact Factor merely confirms what has been said thus far, reflecting the leadership of TM and the ATR, closely followed by the IJHM and the JTR.

Another aspect to highlight as far as the analysis of the journals is concerned, is the fact that the journals where most articles are published in Asia are the APJTR, the IJHM and the JTTM, in which out of all the articles published in these journals, 67.65%, 42.99% and 41.19% are, respectively, Asian.

Concerning the analysis of the most cited Asian articles in tourism research, the ranking of the 50 most cited Asian articles in tourism enabled us to identify the most important and popular main contributions in this field. The most cited article is entitled "Rethinking authenticity in tourism experience", which was published in the ATR, in 1999 by N. Wang and currently has 292 citations. Two other articles have received over 200 citations, and eight articles have received over 100 citations.

It is worth emphasising the fact that four journals have monopolised the publication of the 50 most influential Asian articles in tourism, two of which stand out far above the others. Of these 50 most influential articles, 35 were published by TM, ten by the ATR, three by the IJHM and two by the JTR. Besides, it is worth noting that if any

author has rather a lot of influence in this ranking, it is R. Law, who has published seven of the 50 most influential Asian articles in tourism.

Although this ranking is classified in accordance with the number of citations, the mean number of citations received by each article per year was included as a variable. This indicator enables us to analyse the importance of the article by taking into account the time elapsed since it was published. Based on this indicator, the article by Law and Buhalis, published in 2008, which appears in fifth position in the ranking and receives 31 citations per year, stands out. In second place, receiving 28 citations per year, appears the article published by Song and Li, which occupies the sixth position in the ranking.

The main conclusions to be drawn from this study are useful to reflect a general overview of the state of tourism research in Asia, according to the bibliometric information included in the WoS. However, this paper presents a series of limitations to be taken into account. First of all, the results obtained refer to the information gathered from the WoS and, as has been mentioned above, this database and especially some of its indicators, have a series of limitations that must be born in mind. Secondly, it must also be taken into account that many journals or articles that occupy low positions in the rankings presented, when using a different indicator from the one used to draw up the ranking, could occupy a much higher position therein, or vice versa. For this reason, this paper does not aim to provide official rankings, but rather it aims to be merely informative, through the provision of a wide range of indicators. The reason why the information is presented through rankings is because this is a way in which the information can be analysed very easily.

Despite these limitations, on the whole, this study provides a general overview which can be extremely useful in order to understand the main trends in academic research in tourism, with respect to the most influential journals y articles in Asia.

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