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Scientific research in the tourism, leisure and hospitality field: a bibliometric analysis

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ABSTRACT

This paper presents an overview of the most cited papers in all the journals indexed in the Web of Science in the tourism, leisure and hospitality fields through a bibliometric approach. The paper presents several lists with the most cited papers and the publication and citation structure of the last decades in the tourism, leisure and hospitality fields. It also analyzes how the main topics and keywords have changed in these areas in order to raise awareness of the topics and keywords that will predominate in the research in these fields over the next years.

ARTICLE HISTORY

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KEYWORDS

Bibliometrics; web of science; tourism journals; hospitality journals; most cited papers

Introduction

During the last years, research in tourism, leisure and hospitality fields has increased considerably. Many explanations are available for this including the proliferation of journals in this scientific area (C. Mulet-Forteza, Genovart-Balaguer, Mauleon-Mendez et al., 2019) coinciding with the regional expansion of the Web of Science database (Testa, 2011). During this time, many studies have improved the knowledge of these fields' by introducing many important contributions that have conditioned the development of this field. Similar to the paper of Baker et al. (2020), this paper presents a bibliometric analysis in the tourism, leisure and hospitality research and suggest future research in these fields.

Though a bibliometric analysis, this study presents an analysis of the academic structure of publications, as well as several lists of most influential papers in the last decades in the tourism, leisure and hospitality research. Finally, the last part presents an analysis of the main themes and topics in the tourism, leisure and hospitality research during last years. The information expected to be gathered from the analysis should answer the following research questions (RQ): RQ1: What is the academic structure in the tourism, leisure and hospitality fields? RQ2: What are the most cited papers in these areas? RQ3: What main topics are analysed in the most cited papers published in the tourism, leisure and hospitality fields?

Regarding RQ1, and according to Zupic and Cater (2015), the academic structure aims to reveal the influence of a scientific field, although this analysis lacks the ability to identify interconnection networks (Usdiken & Pasadeos, 1995) within that field. The analysis of the structure of an academic discipline has been carried out in many fields, such as the business (Carmona et al., 2018) or sport (Gonzalez-Serrano et al., 2020), and with the objective of analysing the scientific interest of the analysed field (Patarlageanu et al., 2020). Concerning RQ2, the analysis of the most cited documents

allows to quickly find the most influential documents in a scientific discipline (McKercher, 2008). Following documents like those of Karydakis et al. (2020), Lai et al. (2012), and Lipsman and Lozano (2012), this work shows a list of the 100 most influential documents in the tourism, leisure and hospitality fields. Finally, RO3 identifies current research fronts, allows to track the changes produced in research in a scientific field (Coulter et al., 1998), and offer directions for future research.

There are some documents that have analysed some publications made by specific authors in tourism, leisure and hospitality research (Benckendorff & Zehrer, 2013; Figueroa-Domecq et al., 2015; McKercher, 2008), and other that have analysed the relationship between the different topics published in hospitality and tourism journals (Crawford-Welch & McCleary, 1992; Harrington & Ottenbacher, 2011; Howey et al., 1999). In any case, there is still a significant gap in research in this field because none of the previous documents have analysed all the publications made by the 20 journals indexed on the Web of Science (WoS) in 2013, so that the number of observations analysed in this document exceeds that of previous studies.

Thus, the paper of Benckendorff and Zehrer (2013) only analyzes the data for three journals for a period of 15 years. Figueroa-Domecq et al. (2015) analyse the main documents that address to tourism gender research for a period of 28 years, while McKercher (2008) identifies the most influential authors in the tourism field for the period from 1987 to 2007. Finally, the documents of Crawford-Welch and McCleary (1992), Harrington and Ottenbacher (2011), and Howey et al. (1999) analyse, respectively, 653 documents published in 5 leading hospitality journals for the period 1983 and 1989, the documents published in hospitality journals for 2005 through 2009, and the relation between tourism and hospitality only for six journals.

Literature review

Many papers have developed bibliometric studies in a wide range of fields during the last decades. Table 1 shows some bibliometric studies in management and economic fields.

There are some documents that have analysed some publications made by specific authors in tourism, leisure and hospitality research (Benckendorff & Zehrer, 2013; Figueroa-Domecq et al., 2015; McKercher, 2008), and other that have analysed the relationship between the different topics published in hospitality and tourism journals (Crawford-Welch & McCleary, 1992; Harrington & Ottenbacher, 2011; Howey et al., 1999). Thus, the paper of Benckendorff and Zehrer (2013) only analyzes the data for 3 journals for a period of 15 years. Figueroa-Domecq et al. (2015) analyse the main documents that address to tourism gender research for a period of 28 years, while McKercher

Table 1. Bibliometric studies in management and economic fields.

Reference	Field	Subfield
Podsakoff et al. (2008)	Management	Most important authors and universities
Pilkington and Meredith (2009)		Operations management
Fagerberg et al. (2012)		Innovation
Landström et al. (2012)		Entrepreneurship
Spens and Kovacs (2006)	Economics	Logistics
Baltagi (2007)		Econometrics
Craighead et al. (2007)		Logistics
Kim and McMillan (2008)		Marketing
Hoepner et al. (2012)		Ecological economics
Leone et al. (2012)		Marketing
Samiee and Chabowski (2012)		Marketing
Wagstaff and Culyer (2012)		Health economics
Vogel and Güttel (2013)		Strategic management
Leung et al. (2017)		Social media
Merigó & Yang (2017)		Accounting
Zhong et al. (2016)		Accounting

Source: own elaboration.

(2008) identifies the most influential authors in the tourism field for the period from 1987 to 2007. Finally, the documents of Crawford-Welch and McCleary (1992), Harrington and Ottenbacher (2011), and Howey et al. (1999) analyse, respectively, 653 documents published in five leading hospitality journals for the period 1983 and 1989, the documents published in hospitality journals for 2005 through 2009, and the relation between tourism and hospitality only for six journals.

Finally, the literature includes examples of bibliometrics papers of a specific journal. For example, C. Mulet-Forteza, Genovart-Balaguer, Merigó et al. (2019) published a study by the thirtieth anniversary of the International Journal of Contemporary Hospitality Management, C. Mulet-Forteza et al. (2018) studied the twenty-fifth anniversary of the Journal of Travel & Tourism Marketing, and Vishwakarma and Mukherjee (2019) analysed the forty-three years of the Tourism Recreation Research. In any case, there is still a significant gap in research in this field because none of the previous documents have analysed all the publications made by the 20 journals indexed on the Web of Science (WoS) in 2013, so that the number of observations analysed in this document exceeds that of previous studies.

Methodology

We have selected the panel of journals from the WoS which is usually considered the most influential database in the world. The WoS includes more than 250 research categories, one of them being "Hospitality, Leisure, Sport & Tourism". We have analysed all the journals included in this last category, removing those related to sports. Data collection was performed during the second half of 2014 and second half of 2018, with the purpose of observing the changes produced in the investigation in tourism, leisure and hospitality fields, in terms of most cited papers and most influential keywords.

There are 20 journals focused on the tourism, leisure and hospitality fields in 2013. Specifically, these are:, Tourism Management, Journal of Travel & Tourism Marketing, International Journal of Contemporary Hospitality Management, Annals of Tourism Research, Journal of Sustainable Tourism, International Journal of Hospitality Management, Cornell Hospitality Quarterly, Journal of Hospitality & Tourism Research, Current Issues in Tourism, International Journal of Tourism Research, Tourism Geographies, Journal of Leisure Research, Leisure Studies, Journal of Travel Research, Leisure Sciences, Scandinavian Journal of Hospitality and Tourism, Asia Pacific Journal of Tourism Research, Tourism Economics, Journal of Tourism and Cultural Change and Journal of Hospitality, Leisure, Sport & Tourism Education. During 2014 and 2016, three journals have been included in the analysed category of the WoS (Toursist Studies, Journal of Destination Marketing & Management, and Journal of Vacation Marketing), but we decided not to incorporate them into the study since in this way the samples will be homogeneous and comparable.

This study uses several methods to represent the bibliographic data. As we have commented previously, firstly, we have analysed the citation structure in the tourism, leisure and hospitality fields with the objective to reveal the influence of this field. For this, the paper considers various citation thresholds to identify the number of articles that achieve a specific threshold (Merigó et al., 2015). This analysis allows to identify the articles that have achieved a certain level of influence in this field. Next, we have analysed the most cited papers in this field. In this analysis, we also include the citations per year ratio, which define which papers have received most citations since their publication. In this regard, one of the main objectives of bibliometric methods is to evaluate the productivity and quality of research (Bornmann & Leydesdorff, 2014). Measuring productivity is the easy part, as bibliometrics provides direct information and does not require assumptions to be made. In contrast, assessing the quality of published documents is a much more complex and less obvious task. Currently, there are basically two methods used to assess the quality of published documents, one qualitative, peer review, and one quantitative, bibliometrics (Ball, 2019). The peer review method involves subjective, non-quantifiable assessments by competent experts, while the bibliometric method has opted for a simple path,

which is still applied today, which considers that a document is more important the more citations it receives (Moed et al., 1992). This criterion has some limitations. Firstly, it is impossible to establish the reason that a publication was cited. Thus, a paper could be cited to refute their arguments (negative citations), making it possible for a bad paper to receive more citations than a mere mediocre document (Wallin, 2005). However, citations for negative reasons are extremely rare, and scientists generally do not criticize previous literature very much (Garfield, 1979). And even then, it is not necessarily valid to assume that critics are necessarily right, so it is likely that the criticized literature contain some merit (Zupic & Cater, 2015). Secondly, self-citation (citations that come from researchers who cite their own document), is often detrimental to the prestige of the indicator (Ball, 2019), although a very large number of documents would have to be published in order to significantly increase the citation frequencies of these documents (Zupic & Cater, 2015).

Finally, this paper also used the VOS viewer software (Van Eck & Waltman, 2010) in order to map the bibliographical material through keyword co-occurrence analysis. The keyword cooccurrence analysis identifies the core scientific knowledge (Kovács et al., 2015; Su & Lee, 2010). The keyword co-occurrence analysis is a content analysis technique that uses words in documents to establish relationships (Callon et al., 1983). The idea behind the method is that, when keywords occur frequently in documents, it means that the concepts behind those keywords are closely related. It is the only method that uses the actual content of documents to build a measure of similarity, while others connect documents indirectly through citations or co-authorships. The result of the keyword co-occurrence analysis is a network of themes and their relationships that represent the conceptual space of a field.

Results

As December 2016, there are about 16,600 papers in these journals indexed in the WoS. Focusing only on peer reviewed documents, the number of papers is reduced to 13,079. The h-index of the field is 152. That is, 152 papers of this set have received 152 citations or more.

Table 2 presents the citation structure between 1975 and 2016. The data collection of this citation structure was performed during the second half of 2018.

Table 2 shows that in the seventies and eighties only a few papers were published in tourism, leisure and hospitality every year. The main reason that explains this issue is that not many journals were available at that time in the WoS. In fact, until 1993, only the Journal of Leisure Research, the Annals of Tourism Research and Leisure Sciences were indexed in the WoS. In the nineties, the number of papers slightly increases, coinciding with the indexing of Tourism Management, but the strong expansion in the number of publications occurs in 2008 motivated by the expansion that the WoS developed in order to include journals from all over the World. Recently, more than 1,000 papers are published every year in tourism, leisure and hospitality journals. Although this increase is important, the number is very low compared to other research areas where several thousands of papers are published every year. Even so, both the number of articles published and the number of citations received in this field are relatively low compared to other disciplines (C. Mulet-Forteza, Genovart-Balaguer, Mauleon-Mendez et al., 2019).

As for the number of documents cited, it can be observed that, except in eight years, more than 90% of the documents have received at least one citation, finding 4 years in which all the documents have received some citation. The paper also includes various citation thresholds for identifying the number of articles reaching a certain amount of influence. Moreover, this analysis allows to see those periods when were published the most cited papers. Table 2 shows how most of the highly cited documents have been published between 2000 and 2010. As of 2013, the number of highly cited documents is reduced, although this is due to the fact that the documents published in this period has not yet reached its highest level of citation since more time is required to receive more citations and become a highly cited article. From the results, we can conclude that a highly cited

Table 2. General citation structure in tourism, leisure and hospitality according to WoS.

	≥ 100	≥ 50	≥ 20	≥ 10	≥ 5	≥ 1	Total
Pre 1985	13	46	147	231	316	470	552
1985	1	8	24	33	40	54	60
1986	2	9	21	33	44	49	56
1987	3	7	19	34	44	57	63
1988	5	15	29	36	46	55	62
1989	4	13	25	40	46	57	65
1990	4	15	28	46	57	70	72
1991	6	19	50	69	78	90	96
1992	9	25	58	73	84	95	103
1993	7	19	50	70	79	91	92
1994	10	27	59	84	120	155	179
1995	10	32	83	123	145	159	180
1996	11	44	79	125	146	176	186
1997	14	40	99	127	148	161	172
1998	9	38	88	121	133	140	146
1999	14	39	96	129	141	155	158
2000	27	60	111	141	160	168	174
2001	25	57	101	128	140	149	150
2002	31	79	122	140	154	164	164
2003	20	53	101	125	144	151	151
2004	24	72	133	157	164	169	169
2005	21	63	136	161	172	176	176
2006	30	79	156	188	209	216	217
2007	25	84	192	254	286	310	313
2008	21	91	317	488	588	659	670
2009	20	85	274	473	631	756	775
2010	20	95	312	557	720	850	871
2011	14	76	309	578	798	961	991
2012	6	35	255	562	814	1,039	1,070
2013	1	18	179	448	731	1,069	1,135
2014	0	8	86	290	621	1,092	1,206
2015	0	1	33	147	407	1,046	1,248
2016	0	0	3	23	120	792	1,357
Total	407	1,352	3,775	6,234	8,526	11,804	13,079
Percent.	3.1%	10.3%	28.9%	47.7%	65.2%	90.2%	100%

Source: own elaboration.

Data collection was performed during the second half of 2018.

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.

paper in this field is a paper with more than 100 citations (C. Mulet-Forteza, Genovart-Balaguer, Merigó et al., 2019). If we compare it with other research areas, this number is very low.

As for the structure of citations, 2002 is the year with the largest number of documents (31) that have obtained at least 100 citations. 15 of these documents (which include a total of 3,952 citations) have been published in Tourism Management, while 12 (which have 3,500 citations) have been published in the Annals of Tourism Research. The remaining four have been published in the Journal of Leisure Research and two in Leisure Sciences. This year' highlights the paper of Martina G. Gallarza, Irene Gil Saura and Haudée Calderón García, entitled "Destination image – Towards a conceptual framework", with 431 citations, and that of Sheng-Hshiung Tsaur, Te- Yi Chang and Chang-Hua Yena entitled "The evaluation of airline service quality by fuzzy MCDM" with 350 citations, published, respectively, in Annals of Tourism Research and Tourism Management. This pattern is repeated for the rest of the years with a greater number of documents that obtain 100 or more citations.

Thus, in 2006, the 30 documents with at least 100 citations have been published 18 in Tourism Management (with a total of 4,925 citations) and 12 in Tourism Research Annals (with a total of 2,753 citations). In this year, it highlights the paper of Martina G. Gallarza and Irene Gil Saura, entitled "Value dimensions, perceived value, satisfaction and loyalty: an investigation of university students" travel behaviour', with 297 citations, and that of John Connell, entitled "Medical tourism:

sea, sun, sand and ... surgery" with 238 citations, both published in Tourism Management. On the other hand, in the year 2000 the 27 documents with at least 100 citations have been published 12 in Tourism Management (with 2,526 citations), 12 in Tourism Research Annals (with 2,316 citations), 2 in Leisure Sciences and 1 in the Journal of Leisure Research. This year, Dimitrios Buhalis' papers stands out, entitled "Marketing the competitive destination of the future", with 638 citations, and that of Dwayne A. Baker and John L. Crompton, entitled "Quality, satisfaction and behavioral intentions" with 625 citations, published, respectively, in Tourism Management and Annals of Tourism Research. Finally, we also want to indicate that leading tourism journals have traditionally favoured quantitative (Law, Ye, Chen, & Leung, 2009) over qualitative research (Figueroa-Domecq et al., 2015). For this reason, documents based on quantitative approaches also receive more citations (Maliniak et al., 2013).

The most cited papers in the tourism, leisure and hospitality

This section identifies the most cited papers in the tourism, leisure and hospitality field. This information is useful to identify the most popular documents which are a good indicator of the most significant ones. However, there are many limitations because not always the most cited paper is the most relevant. Table 3 presents the 100 most cited documents.

Only 5 journals have papers among the 100 most cited, 87% of them belong only to two journals: Annals of Tourism Research and Tourism Management. The most cited paper was published in Annals of Tourism Research in 1988 by Erik Cohen and currently has 658 citations, 299 citations more than in 2013. The document with a higher ratio of citations per paper is that of Zheng Xiang and Ulrike Gretzel, published in 2010 in Tourism Management with the title "Role of social media in online travel information search". In addition, this paper has been highly cited between 2014 and 2016, which has allowed him to climb from position 177 to the ninth. It can also be observed that there are four other papers, all published in the years 2010 and 2011 in Tourism Management, which are very influential since the number of citations received during the last three years has been very considerable. Specifically, we refer to the papers that occupy positions 31, 41, 56 and 72 of the list of the 100 most cited papers (in 2013 these papers were not among the 100 most cited papers). Another paper that has also been very cited during the last 3 years has been that of Dimitrios Buhalis and Rob Law, published in Tourism Management in 2008 with the title "Progress in information technology and tourism management: 20 years on and 10 years after the Internet: The state of eTourism research".

Only 27 papers from Table 3 have received more than 300 citations. Note that no documents from 2012 or later appears in this table, and only two are from 2011. Obviously, the main reason for this is because these papers are too new in order to become highly cited. In Table 3 we find a total of 142 authors. These include Dimitrios Buhalis (with 4 papers among the 100 most cited documents), Dogan Gursoy, Ercan Sirakaya, John L. Crompton and Seppo E. Isoahola, these latter with 3 documents each among the 100 most cited documents. Another 23 authors have two documents among the 100 most cited documents, while the remaining 122 are only with one document in that list. Table 3 also shows how many of the authors who have published highly cited papers in tourism, leisure and hospitality are also part of the select group of most productive authors in that fields (C. Mulet-Forteza, Genovart-Balaguer, Merigó et al., 2019), as for example, Rob Law, SooCheong Shawn Jang and Dogan Gursoy, among others.

Another important issue is that many papers concerning tourism, leisure and hospitality research are published in other journals with a broad scope but with a section for tourism studies or related applications. Since papers in this direction are also fundamental for the development of tourism, leisure and hospitality research, Table 4 presents a list with the 25 most cited papers in this situation. Note that the search carried out for these papers has been done manually. Therefore, many other highly cited papers may not appear in the list.

Table 3. The 100 most cited papers in tourism, leisure and hospitality journals of all time.

R*	R	J	TC*	TC	Title	Author/s	Year	C/Y*	C/Y
1	1	ATR			Authenticity and commoditization in tourism	E Cohen	1988	24	14
2	9	TM	650	204	An examination of the effects of motivation and	Y Yoon, M Uysal	2005	59	26
2	10	T1.4	(20	100	satisfaction on destination loyalty: A structural model	D. Dukalia	2000	40	1.
3		TM			Marketing the competitive destination of the future	D Buhalis	2000	40	15
4		ATR			Rethinking authenticity in tourism experience	N Wang	1999	37	19
5	6	ATR	635	229	A model of destination image formation	S Baloglu, KW Mc Cleary	1999	37	16
5	5	ATR	625	243	Quality, satisfaction and behavioural intentions	DA Baker, JL Crompton	2000	39	19
7	20	TM	606	149	Progress in information technology and tourism management: 20 years on and 10 years after the Internet: The state of eTourism research	D Buhalis, R Law	2008	76	30
8	39	TM	495	121	Electronic word-of-mouth in hospitality and tourism management	SW Litvn, RE Goldsmith, B Pan	2008	62	24
9	177	TM	474	73	Role of social media in online travel information search	Z Xiang, U Gretzel	2010	79	24
10	19	ATR	450	150	Factors influencing destination image	A Beerli, JD Martin	2004	38	17
11		TM			Tourism image, evaluation variables and after purchase behaviour: inter-relationship	JE Bigne, MI Sanchez, J Sanchez	2001	29	14
12	13	ATR	431	173	Destination image: Towards a conceptual framework	MG Gallarza, IG Saura, HC Garcia	2002	31	16
13	18	ATR	419	159	Collaboration theory and community tourism planning	TB Jamal, D Getz	1995	20	9
14	46	TM			How destination image and evaluative factors affect behavioural intentions?	CF Chen, DC Tsai	2007	45	19
15	14	ATR	404	167	Residents perceptions on tourism impacts	J Ap	1992	17	8
16	2	JLR	393	267	Application of the theory of planned behaviour to leisure choice	l Ajzen, BL Driver	1992	16	13
17	117	TM	382	85	Event tourism: Definition, evolution, and research	D Getz	2008	48	17
18		LS			Beyond the commodity metaphor: Examining emotional and symbolic attachment to place	DR Williams, ME Patterson, JW Roggenbuck	1992	16	11
19	29	TM	362	134	Tourism demand modelling and forecasting: A review of recent research		2008	45	27
20	12	ATR	362	179	Attitude determinants in tourism destination choice	S Um, JL Crompton	1990	14	8
21	8	TM			The evaluation of airline service quality by fuzzy MCDM	SH Tsaur, TY Chang, CH Yen	2002	25	19
22	11	LS	342	196	A hierarchical model of leisure constraints	DW Crawford, EL Jackson, G Godbey	1991	14	9
23	4	JLR	335	247	Leisure value systems and recreational specialization- case of trout fishermen	H Bryan	1977	9	7
24	83	ATR	328	95	Resident's perceptions of community tourism impacts	KL Andereck, KM Valentine, RC Knopf	2005	30	12
25	45	ATR	323	115	Resident attitudes: A structural modelling approach	D Gursoy, C Jurowski, M Uysal	2002	23	10
26	28	TM	321	135	Destination image analysis: A review of 142 papers from 1973 to 2000		2002	23	12
27	-	TM	313	-	Towards a social psychological theory of tourism motivation – a rejoinder	SE Isoahola	1982	9	-
28	70	TM	297	99	Value dimensions, perceived value, satisfaction and loyalty: an investigation of university student's travel behaviour	MG Gallarza, IG Saura	2006	30	14
29	113	TM	282	87	Towards a structural model of the tourist experience: An illustration from food experiences in tourism		2004	24	10
30	15	ATR	282	167	The political economy of tourism in the third world	SG Britton	1982	8	5
31	-	TM	281	-	Experience quality, perceived value, satisfaction and behavioural intentions for heritage tourist	C Cheng, F Chen	2010	47	-
32	65	ATR	281	101	Motives of visitors attending festival events	JL Crompton, SL Mc Kay	1997	15	6

(Continued)

Table 3. (Continued).

33 52 ATR 268 109 Resident support for tourism development Long, L Allem 1990 10 5 134 - TM 267 - Tried and tested: The impact of online hotel reviews on consumer consideration 1 1 1 1 1 1 1 1 1	R*	R	J	TC*	TC	Title	Author/s	Year	C/Y*	C/Y
1								_		_
1))	32	AIII	200	100	nesident support for tourism development	,	1770	10	,
128 TM 265 TM 285 Section Limits to community participation in the tourism development process in developing countries Polymphy, MP 2000 16 6 6 6 7 7 7 7 7 7	34	-	TM	267	-		I Vermeulen,	2009	38	-
128 TM 258 82	35	67	TM	265	100			2000	17	8
12	36	128	TM	258	82	The destination product and its impact on traveller	Pritchaard,	2000	16	6
Separation Sep	37	23	ATR	258	145	Resident attitudes towards tourism impacts in Hawaii	JC Liu, T Var	1986	9	5
40 95 NTR 254 92 Cooperative branding for rural destinations LPA Cai 2002 21 32 42 34 ATR 251 128 Developing a tourism impact attitude scale Not	38	112	TM	255	87		•	2004	21	10
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42 3.4 ARR 251 128 Developing a tourism impact attitude scale SV Lankford, DR Jednovard 1994 17 9 1 7 4 143 RR 251 128 Percentions a tribulate stowards tourism: An improved structural DG Gursoy, DG Rutherford 2004 21 9 2004 21 9 2 9 44 62 ARR 247 103 Measuring tourist motivation Defoness 1994 11 5 3 8 1 3 8 1 3 8 1 3 8 1 3 8 1 3 8 1 3 8 1 3 8 1 3 8 1 3 8 1 3 8 1 3 8 1 3 8 1 3 8 1 3 8 1 3 1 1 5 1 1 5 1 1 9 1 4 1 3 1 1 9 1 4 1 3 1 1 1 1 4 1 <										
Howard H	41	-			-	A review of innovation research in tourism				
Mathematical Notation Math							Howard			
45 30 ATR 244 33 Review of international tourism demand models of 1 or 1						model	Rutherford			
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67 85 ATR 218 95 Collaboration in local tourism policymaking B Braamwell, 1999 13 7 A Sharman	66	178	TM	218	73	Networks, clusters and innovation in tourism: A UK	B Schmitz,	2006	22	10
	67	85	ATR	218	95	Collaboration in local tourism policymaking	B Braamwell,	1999	13	7
	68	104	ATR	216	89	Tourist roles, perceived risk and international tourism	A Lepp, H Gibson	2003	17	9

(Continued)

Table 3. (Continued).

		ontinu		TC	Tist.	A - +l/-	V	CNX	C N/
R*	R	J	TC*	TC	Title	Author/s	Year	C/Y*	
69		ATR	215	81	An integrative model of tourists' information search behaviour	D Gursoy, KW Mc Cleary	2004	18	9
70	73	ATR	214	98	Pictorial element of destination in image formation	KJ MacKay	1997	11	6
71	88	TM	213		The contribution of tourism development to economic growth in the Korean economy	CO Oh	2005	19	12
72	-	TM	211	-	Sustainability indicators for managing community tourism	H Choi, E Sirakaya	2011	42	-
73	123	JLR	211	83	Development of a multi-dimensional scale for measuring the perceived value of a service	JF Petrick	2002	15	8
74		ATR	209		Traditions of sustainability in tourism studies	J Saarinen	2006	21	12
75	25	LS	209	142	Negotiation of leisure constraints	ELJackson, DW Crawford, G Godbey	1993	9	7
76		ATR	208		Food in tourism – Attraction and impediment	E Cohen, N Avieli	2004	17	-
77		ATR	206	90	Staging tourism: Tourists as performers	T Edensor	2000	13	7
78		ATR	206	97	Influence of terrorism risk on foreign tourism decisions	SF Sonmez, AR Graefe	1998	11	6
79	33		206		Attachments to recreation setting: The case of rail-trail users	RL Moore, AR Graefe	1994	9	7
80	40	TM	205		Using data envelopment analysis to measure hotel managerial efficiency change in Taiwan	SN Hwang, TY Chang	2003	16	12
81		ATR	204		Sustainable tourism as an adaptive paradigm	C Hunter	1997	11	7
82	-	TM	201		Destination image representation on the web: Content analysis of Macau travel related websites	S Choi, X Lehto, A Morrison	2007	22	-
83	36		201		Level of specialization and place attachment: an exploratory study of white water recreationists	KSBricker, DL Kerstetter	2000	13	10
84		JLR	200	149	Gender, leisure, and constraint: Towards a framework for the analysis of women leisure	SM Shaw	1994	9	8
85		ATR	198	-	Managing stakeholders – A tourism planning model	ET Sautter, B Leisen	1999	12	-
86	172	ATR	197	74	Residents' attitudes towards tourism development	V Teye, SF Sonmez, E Sirakaya		14	7
87	-	TM	196	-	Repairing innovation defectiveness in tourism	AM Hjalager	2002	14	-
88	-	TM	196		A structural equation model of residents' attitudes for tourism development	DW Ko, WP Stewart		14	-
89	-	TM	194		Policy networks and the local organization of tourism	D Dredge	2006	19	-
90	-	TM	194		The theme park experience: An analysis of pleasure, arousal and satisfaction	JE Bigne, L Andreu, J Gnoth		18	-
91	64	ATR	194		Expanding the functional information search model	CA Vogt, DR Fesenmaier	1998	11	7
92		ATR	193		This trip really changed me: Backpacker's narratives of self-change	C Noy	2004	16	9
93		ATR	192		Host perceptions of impacts – A comparative tourism study	C Tosun	2002	14	-
94		TM	191		Destination attachment: Effects on customer satisfaction and cognitive, affective and conative loyalty	Y Bilim	2010	32	-
95	139	TM	189	80	Tourism expansion and economic development: The case of Taiwan	HJ Kim, MH Jeong, SS Jang	2006	19	11
96		ATR	189	78	Staged authenticity and heritage tourism	D Chabra, R Healy, E Sills	2003	15	8
97	97	TM	187	91	The future eTourism intermediates	D Buhalis, MC Licata	2002	13	8
98	119	ATR	187	84	Community issues and resident opinions of tourism	J Williams, R Lawson	2001	12	7
99 100	68 50	ATR ATR	187 187		From motivation to actual travel The anthropology of tourism	Y Mansfeld NHH Graburn	1992 1983	8 6	5 4

Source: own elaboration.

^{*}Data collection was performed during the second half of 2018. Rest of information, data collection was performed during the second half of 2014.

Abbreviations are available in Table 1 except for: R = Rank; J = Journal name; TC = Total citations; C/Y = Citations per year (Observe that the decimals have been rounded in order to form integer numbers in the C/Y); CHRA = Cornell Hotel and Restaurant Administration Quarterly (Previously: CHRQ = Cornell Hotel and Restaurant Quarterly). Note that these are the previous names given to the CHQ Journal.

Table 4. The most cited papers in tourism, leisure and hospitality research published in other journals.

R*	R	J	TC*	TC	Title	Author/s	Year	C/Y*	C/Y
1	2	TG	763	266	Photo tourism: Exploring photo collections in 3D	N Snavely, SM Seitz, R Szeliski	2006	76	38
2	1	SR	551		Towards a sociology of international tourism	E Cohen	1972	13	8
3	-	JPSP	541		Optimal experience in work and leisure	M Csikszentmihalyi, J Lefevre	1989	20	-
4	6	JBR			Tourism, competitiveness and societal prosperity	GI Crouch, JRB Ritchie	1999	23	10
5	4	IJF			Forecasting tourism demand	SF Witt, CA Witt	1995	14	9
5	3	EPD			Tourism, capital and place: Towards a critical geography of tourism	S Britton	1991	11	8
7		AE			Tourism as a long-run economic growth factor: the Spanish case	J Balaguer, M Cantavella-Jorda	2002	19	10
3		GEC			Global environmental consequences of tourism	S Gossling	2002	18	11
9	5	ARA	232	168	Representations of international tourism in the social sciences: Sun, sex, sights, savings and servility	M Crick	1989	9	7
0	10				The impact of tourism and personal leisure transport on coastal environments. A review	J Davenport, JL Davenport	2006	22	15
11	-	JBR	177	-	Destination image and destination personality: An application of branding theories to tourism places	S Hosany, Y Ekinci, M Uysal	2006	18	-
12	9	IJCS	166	112	Nomads from affluence: Notes on phenomenon of drifter-tourism	E Cohen	1973	4	3
13	-	JPL	174	-	Residents' attitudes towards tourism development: A literature review with implications for tourism planning	R Harrill	2004	15	-
14	12	EE	170	97	Ecological footprint analysis as a tool to assess tourism sustainability	S Gossling, CB Hansson, O Horstmeier	2002	12	9
15	11	ARS	160	100	The sociology of tourism – Approaches, issues, and findings	E Cohen	1984	5	3
16	-	CG	152	-	The tourism climatic index – a method of evaluating world climates for tourism	Z Mieczkowski	1985	5	-
17	18	CR	151		Climate change as a threat to tourism in the Alps	H Elsasser, R Burki	2002	11	8
18	-	EE	150	-	The eco-efficiency of tourism	S Gossling, P Peeters, JP Ceron, G Dubois, T Patterson, RB Richardson	2005	14	-
19	25	GEC	147	75	Climate change and international tourism: A simulation study	JM Hamilton, DJ Maddison, RSJ Tol	2005	13	9
20	13	TCS	144	92	The other postmodern tourism: culture, travel and the new middle classes	I Munt	1994	7	5
21	27	JDS	141	74	Tourism and economic development: A survey	MT Sinclair	1998	8	5
22	17		137		Tourism in Ghana. The representation of slavery and the return of the black diaspora		1996	7	5
23	14	KK	135		An econometric analysis of the impact of terrorism on tourism	W Enders, T Sandler, GF Parise	1992	6	4
24	-	EJM	134		Consumer-Beavior in Tourism	L Moutinho	1987	5	-
25	21	EC	133	81	Local attitudes towards conservation and tourism around Komodo National park, Indonesia	MJ Walpole, HJ Goodwin	2001	9	7

Source: own elaboration.

Abbreviations are available in Table 3 and for: SR = Social Research; TG = ACM Transactions on Graphics; EPD = Environment and Planning D: Society & Space; IJF = Int. J. Forecasting; ARA = Annual Review of Anthropology; JBR = J. Business Research; GEC = Global Environmental Change: Human and Policy Dimensions; AE = Applied Economics; IJCS = Int. J. Comparative Sociology; ECSS = Estuarine Coastal and Shelf Science; ARS = Annual Review of Sociology; EE = Ecological Economics; TCS = Theory, Culture & Society; KK = Kyklos; AA = American Anthropologist; CR = Climate Research; EC = Environmental Conservation; JDS = J. Development Studies; JPSP = Journal of Personality and Social Psychology; JPL = Journal of Planning Literature; CG = Canadian Geographer-Geographe Canadien; EJM = Europena journal of Marketing.

Many relevant papers have been published in other journals. If we put together this list with Table 3, we see that Table 4 would include the first, ninth and tenth most cited paper of all time. Observe that some exceptional conditions may apply here because of the specific nature involved in each journal. This is important because in other fields the citation level is higher. Therefore, a paper published in a journal of a highly cited field may receive more citations than should do according to the citation standards of tourism, leisure and hospitality research. An example of this is the paper by Noah Snavely, Steven M. Seitz and Richard Szeliski on photo tourism. It has been published in 2006 and has received already 763 citations. One reason for this could be its interdisciplinary perspective that brings citations from engineering and tourism. However, there is no doubt that this paper is very influential.

Keyword co-occurrence analysis in the tourism, leisure and hospitality field

The keyword co-occurrence analysis generates a network of topics and their relations in a scientific field. Regarding the graphical visualization, the lines connect words that are most likely to appear in the same paper (Merigó et al., 2019), and the size of a circle increases with an item's relevance. Figure 1 shows the keyword co-occurrence analysis. The figure elaborated for different periods of time allow to track the changes produced in the tourism, leisure and hospitality field (Coulter et al., 1998).

The previous figure shows a great change in the keywords used in the papers published between the years 2008 and 2016 in the journals of the tourism, leisure and hospitality fields. First, we can see how there are a number of keywords that maintain the importance they already had in 2008. We specifically refer to keywords "tourism", "leisure", "gender", "satisfaction", and "tourism development". We can also see how other keywords that were not important in the year 2008, currently if they are of great importance. Some of these words are directly associated with the entry of hospitality journals into WoS between 2007 and 2009, such as the keywords "hotel industry", "hotel" and "hospitality industry", while that others come from the current problems facing the human being in these fields, such as "climate change", "social media", "tourism impacts", "corporate social responsibility" and "nature-based tourism". On the other hand, we also found important keywords up to the year 2008 that in the years 2013 and 2016 have stopped being so, as is the case of "recreation", "race", "outdoor recreation", "planning", and "women", among others.

The graphical analysis also indicates a change in certain investigations. Thus, for example, until 2008 research that looked at countries like Turkey, Scotland and New Zealand was influential, while now we find how the focus is on Asian countries, such as China and Taiwan. Finally, in the previous figures it can be seen how the network connections have changed substantially between 2008 and 2016, with the change being more important are the appearance of new nodes in topics related to the hotel industry and the sustainable tourism, and the increase of importance of nodes related to customer satisfaction. This is due to the proliferation of hospitality journals, and to the analysis of the great challenges that mankind has to face from a tourist point of view. These nodes are the ones that will mark the future research in the tourism, leisure and hospitality fields during the next years.

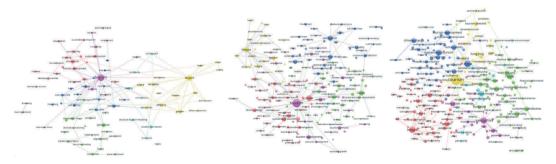


Figure 1. Mapping of keyword co-occurrence analysis with more than 25 keywords and the 100 most influential connections in 2008, 2013 and 2016, respectively. Figure done using the VOSviewer software.



Conclusion and implications

An overview of the most influential papers in tourism, leisure and hospitality research has been presented. First, the paper has studied the publication structure of this discipline. Currently, a bit more than 1,000 papers are being published in tourism, leisure and hospitality journals every year. However, it is worth noting that many more are published in other neighbouring journals. These numbers have increased a lot during the last years because in the eighties and nineties, the average number of papers was around 100. Not many papers have received more than 100 citations. Therefore, it is clear that the citation level is low in this area. The main reason for this is that there are not many journals in this area. Moreover, most of the available journals have entered WoS during the last 15 years through the expansion developed by this database. Therefore, they still have not consolidated their position in the database with an important number of papers and citations. The 100 most cited papers identify the leading contributions in the tourism, leisure and hospitality field. Five journals have monopolized all the papers of the list being Annals of Tourism Research the most influential one, followed very close by Tourism Management.

This paper presents some limitations. First, these results try to be informative and provide an orientation of the most influential papers. But sometimes, some papers with a lower number of citations are more influential for several reasons such as the influence in some specific conferences but without receiving many citations or because only a small number of researchers are working in this topic. Also, our research has the same limitations discussed in previous studies (e.g., Jogaratnam et al., 2005; Tsang & Hsu, 2011). The paper does not contemplate the totality of the contributions made because it only analyzes peer reviewed documents. Despite these limitations, we firmly believe that this study is sufficiently rigorous and complete, and it can become a starting point for future bibliometric studies in these fields.

This study provides several implications. First, this document could provide academic trends related to research in the tourism, leisure and hospitality fields. Moreover, results are specially of great interest to scientists themselves, but also to academics and policy makers, as well as to those who make decisions in strategic positions in universities, research centres and governments. Results can also help future researchers and/or doctoral students to know the research topics that may be a trend in tourism, leisure and hospitality research in the next years. Finally, future research could include journals currently indexed in the Emerging Sources Citation Index.

Disclosure statement

No potential conflict of interest was reported by the authors.

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