



Campo de turismo no Brasil, 1990-2018: trajetória de seus principais temas e tópicos de pesquisa

Field Tourism in Brazil, 1990-2018: trajectory of its main themes and research topics

Andre Fontan Kohler¹

Luciano Antonio Digiampietri²

ABSTRACT: Knowing the trajectory and current status of tourism research in Brazil through bibliometric study and network analysis allows establishing its theoretical scope and illustrates the need for further studies in the area. Thus, the objective of this study was to identify the formation and trajectory of the main themes and research topics in the field of tourism in Brazil in the period 1990-2018, which would also reflect on research gaps and silences. In a set of articles published in 16 selected Brazilian journals, clusters with keywords were constructed, which represented the main research themes and topics. The bibliographic coupling similarity measure was used, adapted for keywords. In the period from 1990 to 2018, these journals published 3,887 articles, which had 108,595 references, of which 69,022 were unique. These articles were cited 10,882 times by other studies. There were five clusters, each with a main keyword - “ecotourism,” “sustainability,” “cultural tourism,”

1 PhD in Architecture and Urbanism at the School of Architecture and Urbanism of the University of São Paulo (FAU-USP). Master in Public Administration and Government at the São Paulo School of Business Administration of the Getúlio Vargas Foundation (FGV-EAESP). Graduation in Administration at FGV-EAESP. Professor at the School of Arts, Sciences and Humanities of the University of São Paulo (EACH-USP). E-mail: afontan@usp.br

2 PhD in Computer Science from the State University of Campinas (UNICAMP). Graduation in Computer Science at UNICAMP. Professor at the School of Arts, Sciences and Humanities of the University of São Paulo (EACH-USP). E-mail: luciano.digiampietri@gmail.com

“hospitality” and “tourist destination.” They were clearly defined and delimited, but there were differences among them, in terms of impact (citations), references (type and quantity [average and median] per article), and the increase or decrease of importance within the field. The research revealed gaps and silences in tourism field. For example, keywords connected to anthropology, political science, philosophy, and religion were absent, as well as those related to technology, social medias and information systems. It is noteworthy to point out that content related to the economy of tourism and tourism theory and methodology have always had low importance, in high contrast to the international literature.

Keywords: Bibliometrics; Field of tourism; Brazil; Clusters.

1 INTRODUCTION

The term “tourism” can be used in three different dimensions (TRIBE, 1997). The first one refers to a phenomenon of the outside world, which necessarily occurs when people travel outside their places of residence and work, provided that certain requirements are met (for example, there must be at least one overnight stay). The second is the study of tourism, which is centered around an academic community, and whose research results are published in journal articles, books and monographs, among other types of scientific production. The third one is tourism education and training, such as higher education courses in tourism and technical courses in tour guiding.

Tourism consists of two fields of knowledge, which have many points of contact with each other, however distinct they may be. The first is the field of tourism business studies, while the second is made up of everything that does not fit into it, and is called the field of *non-business* tourism studies (TRIBE, 1997, 2010).

The absence of paradigms and the permeability to theories, concepts and research methodologies from other areas mean that these two fields of tourism are marked by multidisciplinary, interdisciplinary, business-oriented and extradisciplinary studies, which form their scientific production (TRIBE, 1997).

There is a certain consensus in the literature that knowledge in tourism is fragmented and eclectic, the result of the great influence exerted by other sciences, disciplines, and fields of knowledge, especially those with more research tradition, such as geography and economics. The tourism academic community is particularly heterogeneous, which prevents the formation of a unified theoretical base (BENCKENDORFF, 2009; BENCKENDORFF; ZEHNER, 2013).

It should also be noted that there is a certain lack of bibliometric and network analysis studies on the field of tourism in Brazil, although Köhler and Digiampietri (2020, 2021a, 2021b, 2021c) and Santos, Panosso Netto, and Wang (2017) have partially filled this gap in recent years.

This is intensified by the fact that, as Leta and Lewison (2003) point out, for developing and/or scientifically peripheral countries, much of their scientific production is not captured by international databases. This is because the scientific production is concentrated in national and regional journals. As Tribe (2010) points out, English can be a barrier to publication in international tourism journals by faculty and researchers who have another language as their native language. However, one has to consider the advancement of the Google Scholar tool, which has enabled easier access to regional and local journal data.

According to Kirilenko and Stepchenkova (2018), bibliometric studies are conducted, as a rule, from three perspectives, namely: a) a particular author; b) a specific journal; and c) a science, discipline, or field of knowledge. In the latter case, the examination of scientific production aims to understand the trajectory and the current state of the science, discipline, or field, both in its most relevant characteristics and in its gaps and silences, as well as to serve as a basis for possible future developments and research.

The bibliometric study and network analysis of scientific journals allows one to check the trajectory and directions of a field, academically and professionally, as well as gaps and silences, as advocated by Koseoglu et al. (2016) and Xiao and Smith (2006). In the case of scientific research, network analysis can contemplate several elements (authorship, keywords, citations, references, etc.), and explore and uncover relationships pertinent to the structure of research, the emergence of new themes and methodologies, and the pattern of coauthorship present in the science, discipline, or field (BENCKENDORFF; ZEHRER, 2013). In regard to keywords, it is possible to establish what the main research topics are, as well as new research fronts (KUMAR; SUREKA; VASHISHTHA, 2020).

Thus, it aimed to identify the formation and trajectory of main themes and research topics in the field of tourism in Brazil in the period 1990-2018, which would also reflect about gaps and silences of the research.

Thus, the object of study was a set of 16 Brazilian scientific tourism journals that simultaneously met four requirements. First, to be a journal published in Brazil, with a double blind peer review system. Second, the journal needs to be about tourism, without contemplating another science, discipline or field. Third, by February 2019, the journal needed to be ranked in the Qualis Periodicals, Area Public and Business Administration, Accounting and Tourism, with at least B5 in the journal rankings (2013-2016 quadrennium). Fourth, the journal needed to be active until, at least, the end of 2016. The sample selection sought to advance from what is most commonly found in the tourism field, that is, not to be restricted to the journals evaluated as the main ones, as recommended by Jamal et al. (2008) and McKercher (2005).

This allowed us to verify both the main themes of the field, which are reflected by the most central clusters, and new research fronts, which were, as a rule, on the periphery of the clusters or even as isolated keywords, even though they had a high frequency.

It was necessary to highlight and comment not only on the existing presences and relationships, but also on the gaps and silences in the field. It was asked, whenever possible, what results were expected, but did not appear in the survey.

2 LITERATURE REVIEW

In the scientific communication process, researchers simultaneously fulfill the roles of producers, disseminators, and users of scientific information (MIRANDA; REJOWSKI, 2013). The journal is considered the main vehicle for scientific communication, and allows the academic community to quickly access new theories, concepts, methodologies, and applications, through peer-reviewed (blindly) evaluated articles, a system that makes the generated knowledge credible and “certified” (MIRANDA; CARVALHO; COSTA, 2018).

In addition to being vehicles for the production, dissemination, and exchange of scientific knowledge, journals provide a means for the evaluation of scientific research, a fundamental point in the planning and allocation of research resources. The content

of scientific journals allows us to know what is being researched, by whom and where, which is fundamental to base decisions, for instance, which faculty member a certain institution should hire.

The set of scientific journals can reflect not only the state and development of a science, discipline, or field of knowledge, but also of an economic sector (WEINER, 2001; KOC; BOZ, 2014). Through bibliometric and social network analysis it is possible to verify a number of points about a set of journals, such as their impact, their main research topics, and their intellectual structure.

Bibliometrics is a set of instruments and strategies that enable the description, analysis and evaluation of the social, intellectual and conceptual structure of a science, discipline or field of knowledge, as well as its main themes, methodologies and objects of study. According to Koseoglu et al. (2016), this is an approach capable of evaluating and monitoring its current state and trajectory, through authorship (authors, institutions and countries), keywords, the methodology used, bibliographic references and citations received by a set of papers (for example, journal articles), using basic and advanced statistics.(e.g., journal articles), using basic and advanced statistics.

Network analysis is also a set of tools and strategies to describe, analyze and evaluate relationships between elements, whether they are authors, institutions, references or keywords. In network analysis, the individual properties of the elements are not the focus of the analysis. In this case, it focus on the relations that exist between the elements under analysis.

For example, Benckendorff (2009) seeks to identify clusters of themes, topics, and objects of study through network analysis of keywords in articles published by Australian and New Zealand researchers in the *Annals of Tourism Research* and *Tourism Management* journals in the period of 1994-2007. On the other hand, Kumar, Sureka and Vashishtha (2020) carry out a similar work, but taking, as the object of study, the articles published in the *Journal of Heritage Tourism*, in the period 2006-2019.

Social network analysis has been used, together with bibliometric, to evaluate teachers, research groups, institutions, and countries. In social network analysis, the relationships between elements are considered as or even more important than the individual characteristics of each element (WASSERMAN; FAUST, 2019).

In the context of academic production analysis, social networks are typically coauthorship networks, in which each node (element) represents a researcher, institution or country, and each edge represents a coauthorship relationship between them. Also, there are cocitation networks, in which each element is a bibliographic production, and each edge indicates that two elements have been cited by the same paper. In keyword networks, each element represents one keyword, while the edge connects two keywords that are simultaneously present in the same bibliographic production (POBLACION et al., 2009).

Some of the most commonly used measures in social network analysis are the weight of the node (element), which can represent the number of articles published, the number of times a keyword has been used, or the number of different relations it has (centrality degree), and the network density, a metric that corresponds to the

number of edges in the network divided by the number of edges that are possible to exist (WASSERMAN; FAUST, 2006). The edges or relations can also have a weight or value, typically corresponding to the number of times two elements are related; for example, number of co-occurrences of keywords or number of articles coauthored by two authors (POBLACION et al., 2009).

In Brazil, it is more common to find bibliometric studies that work with shorter periods of time and focus on a specific theme or object, such as Almeida and Andalécio (2012), who study the relationship between entrepreneurship and hotel management, in the set of communications of the Encontro da Associação Nacional de Pós-Graduação e Pesquisa em Administração, from 2005 to 2011. This is probably due to the high cost incurred in data collection, especially in the case of manual data collection. Graciano and Holanda (2020), Miranda Júnior, Sousa, and Demo (2018), Ribeiro-Martins and Silveira-Martins (2018), and Martins, Fiates, and Pinto (2016) are examples of bibliometric studies on the field of tourism in Brazil, published in recent years, which are among the most cited by literature.

In the next section, this paper describes the research methodology, from data collection to the qualitative analysis of the results.

3 RESEARCH METHODOLOGY

The present article is the result of a broader research project, which intended to describe, analyze and evaluate the field of tourism in Brazil, through the articles published in 16 Brazilian tourism journals, from 1990 to 2018, namely: (a) Anais Brasileiros de Estudos Turísticos (ABET); (b) Applied Tourism (AT); (c) Caderno de Estudos e Pesquisas do Turismo (CEPT); (d) CULTUR - Revista de Cultura e Turismo (CULTUR); (e) Caderno Virtual de Turismo (CVT); (f) Revista Acadêmica Observatório de Inovação do Turismo (RAOIT); (g) Revista Brasileira de Ecoturismo (RBE); (h) Revista Brasileira de Pesquisa em Turismo (RBPT); (i) Revista Iberoamericana de Turismo (RITUR); (j) Revista Latino-Americana de Turismologia (RLAT); (k) Revista Rosa dos Ventos (RRV); (l) Revista de Turismo Contemporâneo (RTC); (m) Revista Turismo: Estudos e Práticas (RTEP); (n) Revista Turismo - Visão e Ação (RTVA); (o) Turismo em Análise (TA); and (p) Turismo e Sociedade (TS).

Although working with three time periods (1990-1999, 1990-2009, and 1990-2018), emphasis was placed on describing and analyzing the results for 1990-2018, with emphasis on the five clusters found (hospitality, ecotourism, tourism destination, cultural tourism, and sustainability). Given that there are 3,887 published from 1990 to 2018, it is assessed that the data show, with more refinement, the main themes and research topics of the field of tourism in Brazil, compared to 1990-1999 and 1990-2009.

The methodology was based on six steps, namely: (a) data collection; (b) name verification and disambiguation; (c) construction and delimitation of clusters; (d) calculation of indexes and metrics; (e) construction of keyword networks; and (f) qualitative analysis of the data and graphs created.

3.1 DATA COLLECTION

From the sample selection the following data set was collected (from each article): a) authorship (author, institution, and country of the institution); b) keywords; c) bibliographical references; and d) citations (impact). In order to check the complete description of the research methodology of the present article, it is recommended to refer to Köhler and Digiampietri (2021d).

In order to ensure the credibility of the data, the collection was done manually for authorship, keywords, references and citations (impact). The review and verification of the collected data and the disambiguation of names were also done manually in order to avoid duplication and redundancy.

The collection of citations was done using Google Scholar. The use of this tool is advocated by several authors active in the tourism field (JAMAL et al., 2008; MCKERCHER, 2008; HALL, 2011; STRANDBERG et al., 2018), given that most tourism journals are not part of impact indexes (LAW; VEEN, 2008; HALL, 2011; KOSEOGLU et al., 2016). In addition, this tool lists, for each article, a broad set of citations, coming from various types of scientific production, and not only from other journal articles.

The review/verification itself and the disambiguation of names allowed the application of three filters for each and every citation collected, namely: (a) self-citation - there is at least one author in common between the collected paper and the one citing it; (b) error - there is no document listed in Google Scholar, or, if it exists, it does not cite the paper in question; and (c) redundancy - the same document appears more than once in the citation list.

3.2 NAME VERIFICATION AND DISAMBIGUATION

The manual process of disambiguation of names was particularly exhaustive, but necessary to avoid duplication and redundancy, which would take some of the credibility out of the results of this paper. For example, there were many authors with several versions of their name present in the published articles, notably among women, many of whom go through the addition and/or suppression of surnames, derived from marriages and separations.

For the bibliographic references, name disambiguation was very important for pieces of legislation and government reports whose citation is not yet properly standardized. Especially for books, it was particularly important to bring together the English and Portuguese versions of the same text.

As presented, the cutting points of the edges aim to make the search focus on the most used keywords and the most relevant relations (co-occurrences) between them, thus avoiding the analysis of keywords with low frequency or unimportant co-occurrences. In the literature, there is no definition of standard values for these cut-off points yet; therefore, they were selected empirically by the authors of the present article. The criterion used was to construct graphs that show enough relevant

cooccurrences for the construction and analysis of clusters in order to ascertain the main research themes and topics in the field.

After the clusters have been generated, the edges between keywords from the same cluster are called inner edges, while those connecting keywords from different clusters are called outer edges. The keywords without edges constitute isolated nodes and have been excluded from the graphs since they are not part of any cluster.

3.3 CREATION AND DELIMITATION OF THE CLUSTERS

The process of building the clusters of keywords corresponded to an adaptation of the method proposed by Grauwin and Jensen (2011) for the clustering articles, based on their references, by means of the bibliographic coupling similarity measure (KESSLER, 1963). Bibliographic coupling uses the number of references shared by two papers as a measure of content similarity between them (KOSEOGLU et al., 2016).

The adaptation used assumes that articles that share keywords have similar subject matter. As Koseoglu et al. (2016, p. 183, our translation) summarize:

“[...] when words frequently co-occur in documents, it means that the concepts behind those words are also closely related. The result of word co-occurrence analysis is a network of themes and their relations, which represent the conceptual space of a field.

Before the clusters were created (1990-1999, 1990-2009, and 1990-2018), the keywords “tourism” and “Brazil” were extirpated from the dataset because they had high frequency and very low descriptive power, given that the field of tourism in Brazil was being studied. Additionally, infrequent keywords and co-occurrences of keywords with low value were discarded in the analysis because they have low descriptive power - they have little relevance to the delimitation and understanding of the field. For the period of 1990-1999, keywords with a frequency equal to at least three, and/or that are in co-occurrence with a value equal to at least two, were considered. For 1990-2009 and 1990-2018, the values were equal to five and three and 20 and five, respectively. The values are different for each period because the number of published articles is also different.

For each cluster generated (1990-1999, 1990-2009, and 1990-2018), articles that met at least one of the following requirements were considered: a) having the keyword with the highest frequency; and b) having at least two keywords from the cluster, regardless of what they are. In this second case, as already seen, the cut-off points for the edge were equal to two (1990-1999), three (1990-2009) and five (1990-2018).

3.4 CALCULATING INDEXES AND METRICS

For the purposes of this article, preference was given to the qualitative interpretation and analysis of the results found, rather than the calculation and presentation of a set of quantitative metrics, derived from bibliometric and social

network analysis. To calculate the frequency and magnitude of the data collected, simple counting was always used, whereby each element received one point per article produced, regardless of whether or not there was coauthorship. In the case of citations (impact), we worked with the actual citations, which consist of the nominal citations subtracted of self-citations, errors and redundancies.

3.5 BUILDING KEYWORD NETWORKS

Three keyword networks were constructed (1990-1999, 1990-2009, and 1990-2018). To build the networks - and, consequently, the graphs - computational tools developed by the authors of this article were used.

The generated networks have the keywords as nodes, and the edges represent the co-occurrence relationship between them, in a given article. The identification of co-occurrences was done by means of a proper *script*, developed in the *Perl* programming language. The graphs that represent the networks were created using a proper tool, developed by the authors, in the *Java* programming language. The diagramming of the graph was produced automatically, based on a *force-directed* algorithm, in which all nodes try to move away from each other, while the edges between the nodes exert a force to bring them closer together.

For visualization purposes, for each cluster, the color pattern was maintained, whenever possible, throughout the periods. The labels of all the keywords in each cluster were presented. The outer edges (between keywords from different clusters) are colored black.

3.6 QUALITATIVE DATA AND CREATED GRAPHS ANALYSIS

The qualitative analysis of the results was favored over the presentation of a myriad of indexes and metrics. A classification of the articles in the five clusters, through Tribe (1997, 2010), into tourism business studies and tourism studies beyond their business was performed. However, Tribe (1997, 2010) does not provide parameters for such a classification. Therefore, it was done at the discretion of the authors of this article, with a certain degree of subjectivity. For each and every article, the title, abstract and keywords were entirely read. For the rest of the text, there was a cross-reading.

With the research methodology described, the next section presents and discusses the results of this paper.

4 RESULTS

In the period 1990-2018, the 16 Brazilian tourism journals published 3,887 articles, which together have 108,595 references, of which 69,022 are unique, and were cited 10,882 times by other papers. Table 1 brings the basic data of the object of study, divided for the periods 1990-1999, 1990-2009 and 1990-2018.

TABLE 1 – TOURISM FIELD IN BRAZIL - BASIC DATA (1990-1999, 1990-2009 AND 1990-2018)

Item	Período 1990 - 1999		Período 1990 - 2009		Período 1990 - 2018	
	Total	%	Total	%	Total	%
Artigos	181		957		3.887	
Autoria						
Autores únicos	165		1.166		4.915	
Instituições únicas	67		347		1.012	
Unidades da federação únicas	12		22		26	
Países únicos	8		21		46	
Palavras-Chave						
Palavras-Chave	820		3.595		15.269	
Palavras-Chave únicas	575		1.930		6.047	
Artigos sem palavras-chave	5	2,76%	58	6,06%	74	1,90%
Impacto/Citações						
Citações reais totais	984		5.642		10.882	
Média de citações por artigo	5,44		5,90		2,80	
Mediana de citações por artigo	2		3		1	
Artigos sem nenhuma citação	50	27,62%	190	3,37%	1.638	15,05%
CitaC. reais totais (por tipo)						
Artigo de periódico (campo turismo)	187	19,00%	1.333	23,63%	3.033	27,87%
Artigo de periódico (outros)	136	13,82%	1.026	18,19%	2.115	19,44%
Livro	40	4,07%	74	1,31%	114	1,05%
Capítulo de livro	16	1,63%	100	1,77%	210	1,93%
Monografia (mestrado/doutorado)	397	40,35%	1.890	33,50%	3.184	29,26%
Comunic. - art. compl. anais event.	133	13,52%	783	13,88%	1.383	12,71%
Outros	75	7,62%	431	7,64%	835	7,67%
Referências bibliográficas						
Número de entradas	1.791		17.856		108.595	
Referências bibliográficas únicas	1.621		13.191		69.022	
Média de ref. biblio. por artigo	9,90		18,66		27,94	
Mediana de ref. biblio. por artigo	7		16		25	
Ref. biblio. (por tipo)						
Artigo de periódico (campo turismo)	142	7,93%	1.275	7,14%	13.394	12,33%
Artigo de periódico (outros)	154	8,60%	2.232	12,50%	19.583	18,03%
Livro	694	38,75%	7.658	42,89%	36.576	33,68%
Capítulo de livro	105	5,86%	1.750	9,80%	9.589	8,83%
Monografia (mestrado/doutorado)	63	3,52%	761	4,26%	4.733	4,36%
Comunic. - art. compl. anais event.	70	3,91%	771	4,32%	4.521	4,16%
Outros	563	31,43%	3.049	19,09%	20.199	18,60%

SOURCE: Köhler and Digiampietri (2021d).

The data in Table 1 show, with particular clarity, the significant growth and maturation of the field of tourism in Brazil, especially in the case of authorship and references. The average and median number of references per article had increases of 182.3% and 257.1%, respectively, from 1990-1999 to 1990-2018, data that reinforce the notion of a field with an increasingly complex intellectual structure.

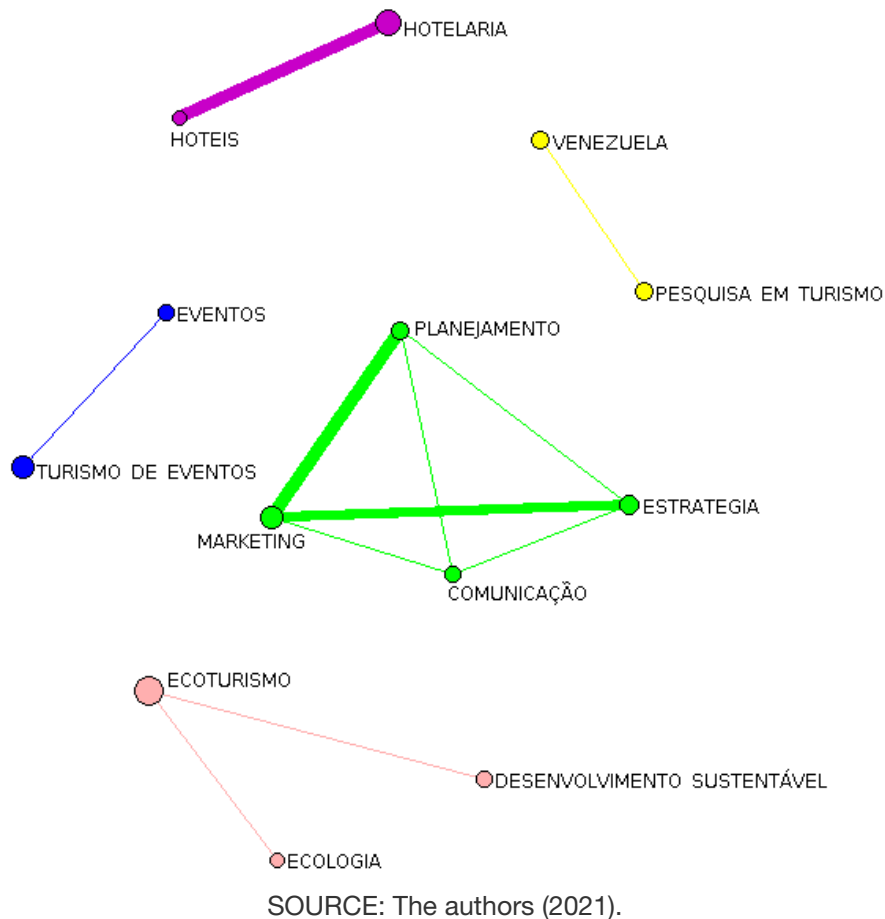
There has also been a significant change in the composition of the references. In 1990-1999, those of the “Book” and “Others” types accounted for more than 70% of the total. In the case of “Others”, there were many course completion papers and institutional documents. In the period 1990-2018, there was a decrease in the importance of “Others”, while journal articles (tourism and other) increased from 16.53% (1990-1999) to 30.37% (1990-2018). Not only the growth of the aforementioned average and median, but also the increase in the importance of scientific journals in the references was assessed as a maturation of the field.

The discussion of the results is divided into the following subsections: a) tourism field in Brazil - period 1990-1999; b) tourism field in Brazil - period 1990-2009; and c) tourism field in Brazil - period 1990-2018. This last subsection is the most extensive, as part of the objectives referred only to 1990-2018.

4.1 TOURISM FIELD IN BRAZIL – 1990-1999 PERIOD

In 1990-1999, the field was mostly composed of the TA journal and RTVA was only created in 1998. There were 181 articles, of which five had no keywords. Within this framework, it is not surprising that there were clusters with few keywords each and no links between them (no outer edges). Of the 35 keywords that supplied, at least one of the conditions posed in the methodology (minimum frequency [3] and edge [2]), 13 (37.14%) were within a cluster, while 22 (62.86%) were isolated. The clusters of the field for 1990-1999 are shown in Chart 1.

CHART 1 – TOURISM FIELD IN BRAZIL - CLUSTERS (1990-1999)



The cluster of Venezuela and tourism research derives from the publication of articles from two institutions in that country in the very first years of the TA. It is not strange, therefore, that this cluster is formed, nor even that it disappears in the following periods, due to the increase in the cut-off points (frequency and edge).

The marketing cluster was, from the 1990-1999 period, the most dense and consistent, as all the keywords were linked together. In the 1990s, the keyword “marketing” is the most important; in the following periods, the cluster is maintained, but “marketing” takes a secondary role in front of other keywords.

The event tourism cluster was relatively simple, linking only “event tourism” to “events.” It is interesting to note how these keywords were important in the 1990s and have been increasingly less used throughout the 2000s and 2010s.

The ecotourism cluster carried the keyword with the highest frequency for all periods, “ecotourism” (12). It already presented a characteristic existent in the other

periods, namely: the cluster was centered on “ecotourism”, a keyword that dominated and centralized it, having low density (number of edges among the possible ones).

Finally, the hospitality cluster linked “hospitality” to “hotels.” Without “hospitality” losing some importance, the keyword “hospitality” joins this cluster in 1990-2009 and becomes the most important for 1990-2018. It can be noticed, by reading the articles in this cluster, that, in the 1990s, the focus was on studies related to tourism business, which may explain the absence of the keyword “hospitality”.

The marketing, event tourism, and hospitality clusters were showing the strength of a more business-oriented orientation in the 1990s. Several articles are by individuals who were working in private firms at the time, such as event organizations, travel agencies, and hotels. Without abandoning this orientation at all, the field, in the following decades, began to have its authorship formed, mainly, by authors affiliated with higher education institutions, which can be perceived by the keywords and new clusters formed.

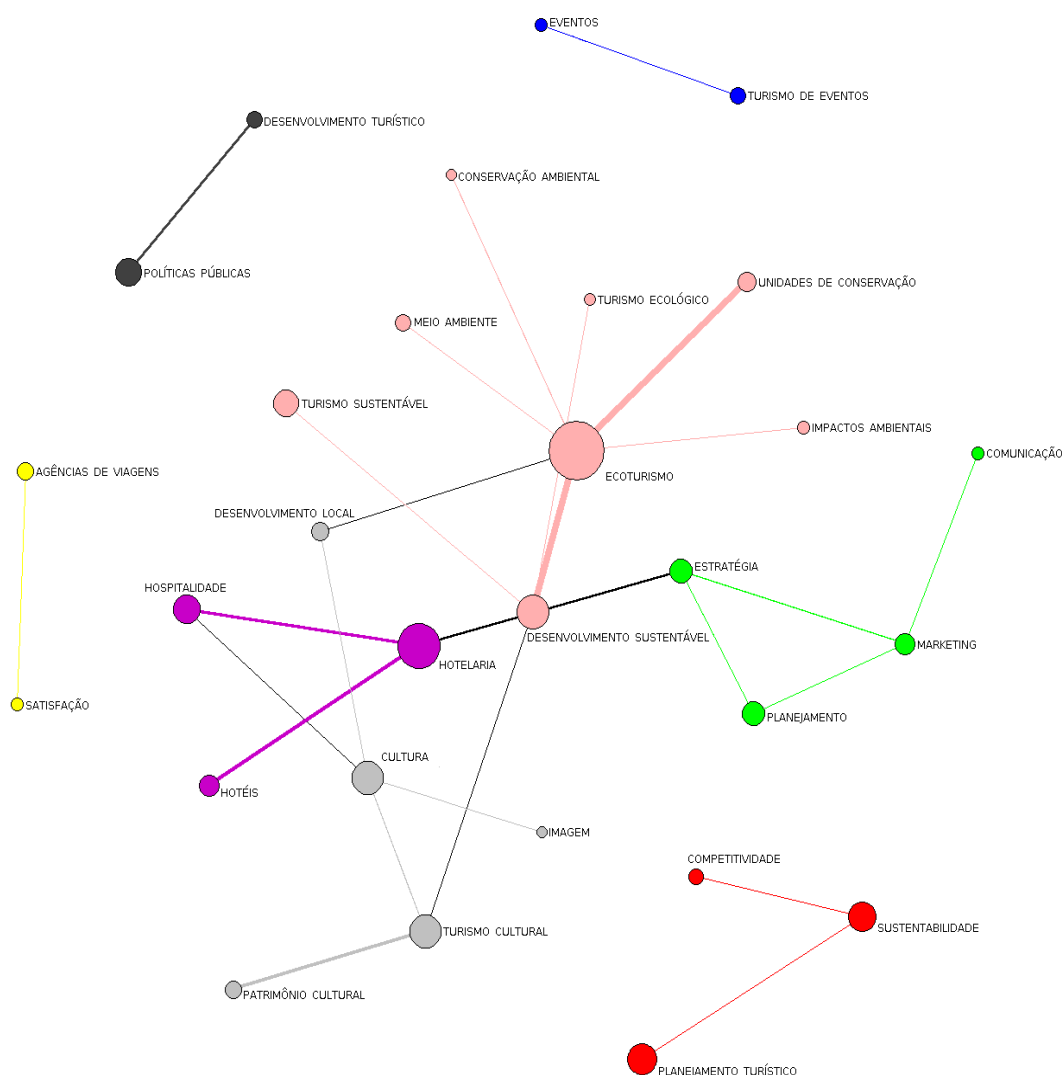
The development issue was divided, among the most used keywords, into three - “regional development” (5), “development” (3), and “sustainable development” (4). It was only with the consolidation of the sustainability cluster in 1990-2018 that the issue of development became concentrated around a theme, within the field.

Sustainability was not yet an important issue in the 1990s. The key word was isolated, with a frequency equal to four. According to Garrigos-Simon, Narangajavana-Kaosiri, and Lengua-Lengua (2018), there has been a dizzying growth in sustainability starting in the 1990s. However, in the field of tourism in Brazil, this phenomenon was only verified in the 2010s.

4.2 THE FIELD OF TOURISM IN BRAZIL - THE PERIOD 1990-2009

In the period 1990-2009, there were 957 articles, spread across nine journals (CULTUR, CVT, RAOIT, RBE, RBPT, RRV, RTVA, TA and TS). Of the 86 keywords that met at least one of the conditions posed in the methodology (minimum frequency [5] and edge [3]), 29 (33.72%) were within a cluster, while 57 (66.28%) were isolated. The cluster of the field for 1990-2009 are shown in Chart 2.

GRAPH 2 – TOURISM FIELD IN BRAZIL - CLUSTERS (1990-2009)



SOURCE: The authors (2021).

As illustrated in the chart above, the cluster of travel agencies linked “travel agencies” and “satisfaction”. It is restricted to this period. In 1990-2018, both stand alone, despite each having high frequency.

The ecotourism cluster had the first (“ecotourism”) and third (“sustainable development”) most frequently cited keywords. This was the cluster with the highest number of articles. It remained thinly dense, focusing on “ecotourism,” although “sustainable tourism” and “eco-tourism” do not link directly to it. It had outer edges only with the cultural tourism and culture cluster, but that has not been maintained for 1990-2018.

The strategy and planning cluster remained the densest, however much it had lost density. The four key words remained the same. Although “marketing” did not have the highest frequency, it was the only one that linked, still, to all the others.

Compared to 1990-1999, the hospitality cluster added the keyword “hospitality,” however it did not link to “hotels,” yet. It had outer edges with two other clusters, which made sense (“culture”-“hospitality” [affine to tourism studies beyond its business] and “strategy”-“hospitality” [affine to tourism business studies]).

The cultural tourism and culture cluster had, as its main keywords, “cultural tourism” and “culture”, which were previously isolated (1990-1999). It was a dense cluster; not one keyword links to all the others. It is difficult to explain the presence of “image” - it linked only to “culture”, with an edge value of three. Not coincidentally, she migrated to another cluster in 1990-2018.

The policy cluster linked “tourism development” and “public policy”, without presenting any outer edges. In the period 1990-2018, it was absorbed into the sustainability cluster, which now concentrates most of the keywords linked to the development issue.

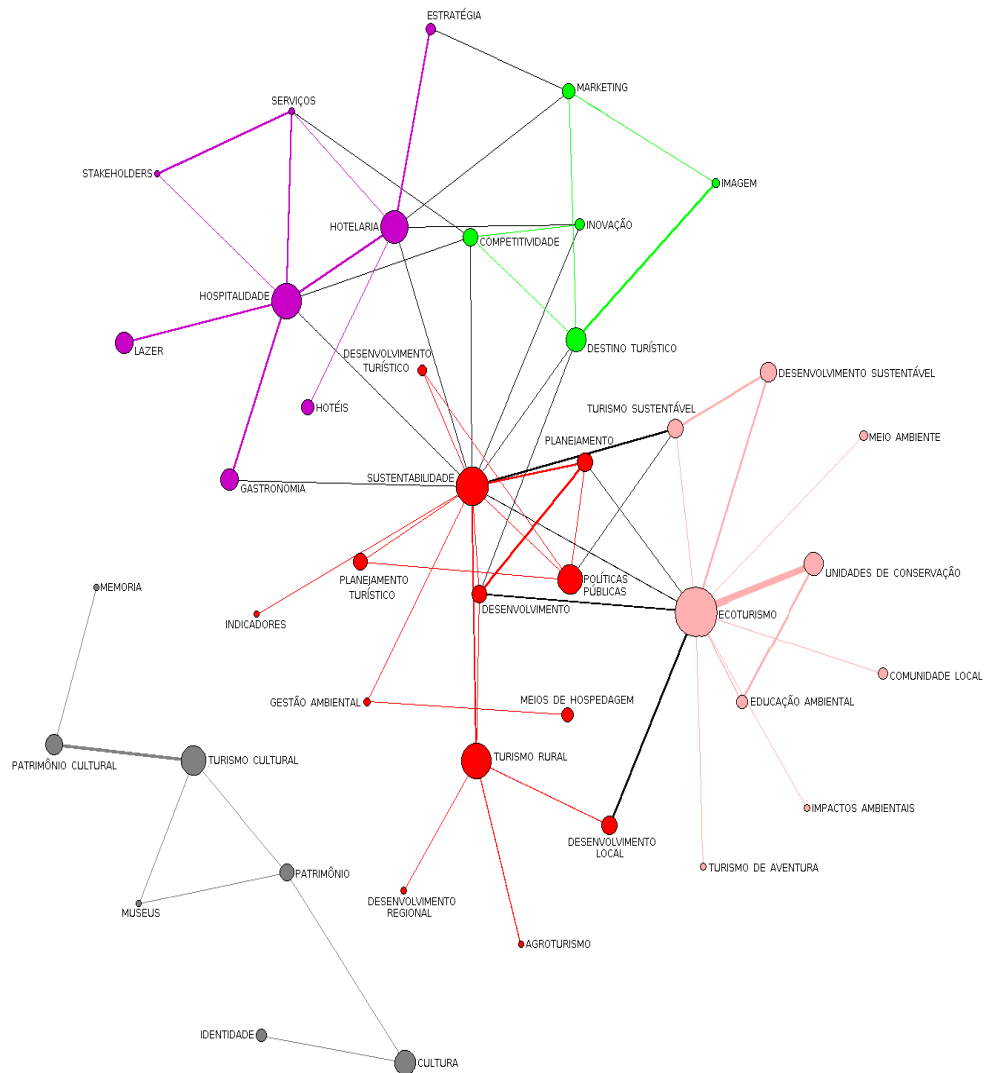
The event tourism cluster linked “event tourism” and “events”. There was already a loss of importance of these key words, in the field. As will be noted below, in 1990-2018, it disappeared; both became isolated keywords.

The tourism planning cluster was new - its three key words stood alone in 1990-1999. It was a cluster with no connection to any other. In addition, only “sustainability” linked to the other two keywords in the cluster itself.

4.3 TOURISM FIELD IN BRAZIL - 1990-2018 PERIOD

In the 1990-2018 period, there were 3,887 articles, spread across 16 journals. Of the 77 keywords that met at least one of the conditions posed in the methodology (minimum frequency [20] and edge [5]), 42 (54.55%) were within a cluster, while 35 (45.45%) were isolated. The clusters of the field for 1990-2018 are displayed in Chart 3.

GRAPH 3 – TOURISM FIELD IN BRAZIL - CLUSTERS (1990-2018)



SOURCE: The authors (2021).

There are two isolated keywords with high frequency - “community-based tourism” and “wine tourism” - which were little used in Brazilian tourism journals in the period 1990-2009. In the 2010s, both have experienced significant growth in their use, and are emerging research topics. However, the fact that they have remained isolated (without any edges) indicates that these keywords have not yet been incorporated into the main research themes of the field. This was not expected for “community-based tourism,” given that there are several key words linked to the development issue, to stay with the most obvious expected relationship.

Compared to 1990-2009, two clusters disappeared. The first is the one that linked “travel agency” and “satisfaction,” which indicates that the research around these points has distanced itself, in the 2010s. The second is the one that linked

“event tourism” and “events”. In this case, it is not possible to know if there was a detachment from the research, and/or if the authors came to evaluate that the joint use of these keywords was redundant.

The ecotourism cluster remains focused on “ecotourism”. There are four points that draw attention. First, there is a clear change in the composition of his second echelon. The keywords “ecological tourism” and “environmental conservation” drop out of the cluster and even out of the list of those with the highest frequency - something similar happens with “ecological tourism” as had happened to “ecology” in 1990-2009. This is in disagreement with what has been observed in the international literature on sustainability and ecotourism in recent decades, as pointed out by Garrigos-Simon, Narangajavana-Kaosiri, and Lengua-Lengua (2018), which show the great importance of environmental conservation and ecology. On the other hand, the keywords “environmental education,” “local community,” and “adventure tourism” enter the cluster, which were isolated (1990-2009).

Second, there were six outer edges, but all of them with the sustainability cluster. In the field, the outer edges used to have low value. The exception to the rule was the one linking “sustainability” and “ecotourism,” with 11 articles. Third, the two inner edges with the highest field values were within this cluster - “environmental education” and “ecotourism” (17) and “conservation units” and “ecotourism” (25). Fourth, the clustering remained sparsely dense, with the dominance and centrality of “ecotourism.”

This made the cluster have a very similar set of articles (208) to those containing the keyword “ecotourism” (183). It is noteworthy that it is the cluster with the most concentrated production in a single journal, in this case the RBE (110 of 208 articles - 52.88% of the total).

The tourist destination cluster had the lowest number of articles - only 98. With the extension of the period under analysis - from 1990-1999 to 1990-2018 - it has lost density. In the latter, not one keyword linked to all the others. It has nine outer edges with two other clusters, always with values equal to five or six. Among the 18 outer edges in Graph 3, half had this cluster as one of its edges.

It is noteworthy how many keywords with high frequency and close proximity to marketing were isolated - “satisfaction”, “consumer behavior” and “destination image”. This is explained by the fact that “tourist destination” is the main keyword, but also by the fact that “marketing” is probably used more in a managerial sense.

The cultural tourism cluster was the only one isolated from the others; this was against our expectations, given the presence of “culture” and “cultural tourism.” With seven keywords, none can link to more than three others - the cluster has low density. It was possible to see, through the absolute frequency and formation of the clusters, that there was a loss of relative importance of cultural tourism in the countryside, compared to themes related to nature, the rural areas, and sustainability.

This cluster had a predominance of tourism studies beyond their business - 89 out of 139 (64.03% of the total). Only the ecotourism cluster had this higher

percentage (147 out of 208 - 70.67% of the total). Given that none of the other four had a social science orientation, and that most of the keywords are closely tied to the study of culture and cultural heritage, it was considered understandable that the cultural tourism cluster was isolated in 1990-2018.

The hospitality cluster was affine to two fields close to that of tourism - leisure and hospitality. The keywords “hospitality” and “hotel” had a significant growth in the 2010s, becoming the main ones. The hospitality cluster went from three keywords in 1990-2009 to eight (1990-2018).

In the case of the internal and external edges, “hospitality” (more linked to tourism business) is very close to the tourism destination cluster, just as “strategy.” Its internal edges also reflect a focus on the tourism business. On the other hand, “hospitality” is more closely associated with tourism studies beyond business, such as “leisure”. The value of the edge between “*stakeholders*” and “hospitality” (10) draws attention, since the former has a frequency equal to 22. The term “*stakeholder*” is widely used in the management field; in tourism it is intensely linked to the study of hospitality. It was expected that “hospitality” would show more outer edges, especially with the cultural tourism and tourist destination clusters, which did not occur.

In this cluster the importance and centrality of one institution stand out, on a scale unparalleled in the other four clusters. Anhembi Morumbi University stood out both in authorship and in the references of the articles. The centrality of the Hospitalidade magazine, published by Anhembi Morumbi University, was also highlighted in the references.

The sustainability cluster had the highest number of articles. Several of its keywords have seen significant growth over the 2010s. The most polished example of this is “sustainability,” which went from 26 (1990-2009) to 141 articles (1990-2018). The cluster was the result of merging two existing ones (1990-2009) and adding several other keywords.

The keyword “sustainability” linked to eight others within the cluster; with four keywords, there was no link. It is followed by “rural tourism”, with five inner edges. Instead of having one dominant keyword, such as “ecotourism,” this cluster had more than one keyword with many links, making it more dense.

The third keyword with the highest frequency in the sustainability cluster is “public policy”. It does not appear in the graph for the 1990-1999 period (Graph 1), and is found in an isolated cluster in 1990-2009 (Graph 2), in relevant co-occurrence with “tourism development”, only. In 1990-2018 (Chart 3), “public policy” occupies a more central position; its edges show that this keyword connects to the issues of development, planning, and sustainability.

The sustainability cluster has the highest average number of citations per article. Of the five clusters, it is the one with the most articles in the set of the 41 most cited articles in the field (first centile) - Irving et al. (2005), Castrillón et al. (2011), Pires (1998), and Beni (1999). None of the other clusters have more than two papers in this set.

It was possible to verify some of the major differences that existed between the five clusters. The average number of citations per article and the percentage of articles with no citations at all showed that some clusters have an impact above that of the field, notably ecotourism, tourism destination and sustainability, while cultural tourism and hospitality were low performers in this regard.

The (tourism) economy has never formed a cluster. In the period 1990-2018, there were strictly no keywords among the most cited. Xiao and Smith (2006) attest to the decline of content linked to tourism economics and the tourism industry, such as employment, balance of payments, and inflation, in the *Annals of Tourism Research*, however important they still are.

The present article makes it possible to describe and analyze the trajectory of the main themes and research topics in the field of tourism in Brazil (1990-2018). The next section brings the final considerations.

5 FINAL CONSIDERATIONS

The present study allowed us to show the trajectory and growth of the field of tourism in Brazil, from 1990-1999 to 1990-2009 and 1990-2018. It was a field in expansion and maturation, with growth in the number of scientific journals and *stricto sensu* graduate programs. The 1990-2018 period brought five well-defined clusters, whose formation went back, in some cases, to 1990-1999. However, the low density found in all of them was noted, with more or less intensity.

There were a few points that caught attention. Of the five keywords with a frequency equal to or higher than 20 linked to the development issue, there was one in the ecotourism cluster (“sustainable development”), while the other four were in the sustainability cluster (“local development,” “development,” “tourism development,” and “regional development”). As much as the term “development” and its variants are of complex meaning and polysemic use, its study is closely linked to sustainability, the rural tourism segment, and ecotourism. It was worrisome to note that the clusters of tourism destination, cultural tourism, and hospitality do not seem to connect, at least with intensity, to the discussion about development, which indicated a gap in the field.

For example, McKercher and Du Cros (2002) is one of the most popular textbooks on cultural tourism; the linkage of this market segment to tourism destination development, including employment and income generation, permeates the entire volume. In Brazil, the cultural tourism cluster shows that there is still little interest in researching the relationship between tourism and culture, from the perspective of tourism business.

The low frequency and/or isolation of important keywords was surprising, especially in view of what occurs in the international literature. Despite great growth, throughout the 2010s, “community-based tourism” and “wine tourism” remained isolated. Key words with high frequency since 1990-1999, such as “events” and “travel agencies”, have had lower growth and are no longer part of clusters, even though for

the general public they are easily associated with the tourism field. This pointed to the decline in interest and research as they headed to the periphery of the field. The keywords “environmental impacts” and “impacts” have low frequency, when seen their importance in the international tourism literature - see, for example, Xiao and Smith (2006) and Benckendorff and Zehrer (2013) - however much the former is within the ecotourism cluster.

Listing the keywords with the highest frequency and/or belonging to a cluster revealed several gaps and silences in the field. Keywords related to anthropology, political science, philosophy and religion were absent, as were those related to technology, social networking and information systems. It was also noted that research working on movements of resistance and antagonism to tourism were not present. For example, “tourismphobia” has been increasingly used in the international literature. In the set of 3,887 articles collected, there are not even five that contain this keyword. How much of these gaps and silences stemmed from the lack of research on these themes and issues and how much of the absence was a result of the use of very specific terms are still subject to discussion, and are beyond the purpose and methodology of this article.

It was clear that the economy did not have an important place in the field of tourism in Brazil. And the trend verified by Xiao and Smith (2006) for the *Annals of Tourism Research*, about the growth of content linked to theory and methodology, was not verified in the country, for any period.

Given the above, this article provides an overview of the main themes and research topics in the field of tourism in Brazil (1990-2018). There is an interesting window of opportunity for researchers working in bibliometric and social network analysis, namely: to apply the research methodology to other types of scientific production in tourism in Brazil, such as monographs (masters/doctoral) and communications (full papers published in proceedings of technical-scientific events).

REFERENCES

ALMEIDA, E. R.; ANDALÉCIO, A. M. L. Empreendedorismo e hotelaria como tema de pesquisa: um estudo bibliométrico das publicações do EnAnpad de 2005 a 2011. **Turismo e Sociedade**, v. 5, n. 2, p. 527-544, 2012.

BENCKENDORFF, P. Themes and trends in Australian and New Zealand tourism research: a social network analysis of citations in two leading journals (1994-2007). **Journal of Hospitality and Tourism Management**, v. 16, n. 1, p. 1-15, 2009.

BENCKENDORFF, P.; ZEHRER, A. A network analysis of tourism research. **Annals of Tourism Research**, v. 43, p. 121-149, 2013.

BENI, M. C. Política e estratégia do desenvolvimento regional: planejamento integrado e sustentável do turismo. **Turismo em Análise**, v. 10, n. 1, p. 7-17, 1999.

- CASTRILLÓN, I. D.; CANTO, A. G.; CANTORNA, A. S.; CERRADELO, L. B. Análisis de los principales modelos explicativos de la competitividad de los destinos turísticos en el marco de la sostenibilidad. **CULTUR – Revista de Cultura e Turismo**, v. 5, n. 2, p. 101-124, 2011.
- GARRIGOS-SIMON, F. J.; NARANGAJAVANA-KAOSIRI, Y.; LENGUA-LENGUA, I. Tourism and sustainability: a bibliometric and visualization analysis. **Sustainability**, v. 10, n. 6, p. 1-23, 2018.
- GRACIANO, P. F.; HOLANDA, L. A. Análise bibliométrica da produção científica sobre turismo de base comunitária de 2013 a 2018. **Revista Brasileira de Pesquisa em Turismo**, v. 14, n. 1, p. 161-179, 2020.
- GRAUWIN, S.; JENSEN, P. Mapping scientific institutions. **Scientometrics**, v. 89, p. 943, 2011.
- HALL, C. M. Publish and perish? Bibliometric analysis, journal ranking and the assessment of research quality in tourism. **Tourism Management**, v. 32, n. 1, p. 16-27, 2011.
- IRVING, M. A.; BURSZTYN, I.; SANCHO, A.; MELO, G. M. Revisitando significados em sustentabilidade no planejamento turístico. **Caderno Virtual de Turismo**, v. 5, n. 4, p. 1-7, 2005.
- JAMAL, T.; SMITH, B.; WATSON, E. Ranking, rating and scoring of tourism journals: interdisciplinary challenges and innovations. **Tourism Management**, v. 29, n. 1, p. 66-78, 2008.
- KESSLER, M. M. Bibliographic coupling between scientific papers. **American Documentation**, v. 24, p. 123-131, 1963.
- KIRILENKO, A. P.; STEPCHENKOVA, S. Tourism research from its inception to present day: subject area, geography, and gender distributions. **PLOS ONE**, v. 13, n. 11, e0206820, 2018.
- KOC, E.; BOZ, H. Triangulation in tourism research: a bibliometric study of top three tourism journals. **Tourism Management Perspectives**, v. 12, p. 9-14, 2014.
- KÖHLER, A. F.; DIGIAMPIETRI, L. A. Periódicos brasileiros de turismo (1990-2018): avaliação e classificação por meio de métricas de impacto e híbridas. **Turismo em Análise**, v. 31, n. 2, p. 200-226, 2020.
- KÖHLER, A. F.; DIGIAMPIETRI, L. A. Classificação de autores, instituições e países, por meio de métricas de produção, centralidade e impacto: o campo de turismo no Brasil (periódicos), 1990-2018. **Revista Brasileira de Pesquisa em Turismo**, v. 15, n. 3, p. 1-21, 2021a.

KÖHLER, A. F.; DIGIAMPIETRI, L. A. O campo de turismo no Brasil: caracterização e análise da rede de pesquisadores e sua dinâmica regional. **Perspectivas em Ciência da Informação**, v. 26, n. 2, p. 58-82, 2021b.

KÖHLER, A. F.; DIGIAMPIETRI, L. A. Turismo cultural: análise bibliométrica e de redes sociais do campo de turismo no Brasil, 1990-2018. **Pasos. Revista de Turismo y Patrimonio Cultural**, v. 19, n. 4, p. 825-844, 2021c.

KÖHLER, A. F.; DIGIAMPIETRI, L. A. Estudos de hospitalidade: análise bibliométrica e de redes sociais do campo de turismo no Brasil, 1990-2018. **Revista Hospitalidade**, v. 18, n. 1, p. 104-135, 2021d.

KOSEOGLU, M. A.; RAHIMI, R.; OKUMUS, F.; LIU, J. Bibliometric studies in tourism. **Annals of Tourism Research**, v. 61, p. 180-198, 2016.

KUMAR, S.; SUREKA, R.; VASHISHTHA, A. The Journal of Heritage Tourism: a bibliometric overview since its inception. **Journal of Heritage Tourism**, v. 15, n. 4, p. 365-380, 2020.

LAW, R.; VEEN, R. The popularity of prestigious hospitality journals: a Google Scholar approach. **International Journal of Contemporary Hospitality Management**, v. 20, n. 2, p. 113-125, 2008.

LETA, J.; LEWISON, G. The contribution of women in Brazilian science: a case study in astronomy, immunology and oceanography. **Scientometrics**, v. 57, n. 3, p. 339-353, 2003.

MARTINS, C.; FIATES, G. G. S.; PINTO, A. L. A relação entre os clusters de turismo e tecnologia e seus impactos para o desenvolvimento local: um estudo bibliométrico da produção científica. **Revista Brasileira de Pesquisa em Turismo**, v. 10, n. 1, p. 65-88, 2016.

MCKERCHER, B.; DU CROS, H. **Cultural tourism: the partnership between tourism and cultural heritage management**. Binghamton: Haworth, 2002.

MCKERCHER, B. A case for ranking tourism journals. **Tourism Management**, v. 26, n. 5, p. 649-651, 2005.

MCKERCHER, B. A citation analysis of tourism scholars. **Tourism Management**, v. 29, n. 6, p. 1.226-1.232, 2008.

MIRANDA, A. C. C.; CARVALHO, E. M. R.; COSTA, M. I. O impacto dos periódicos na comunicação científica. **Biblos: Revista do Instituto de Ciências Humanas e da Informação**, v. 32, n. 1, p. 1-22, 2018.

- MIRANDA, E. C. P.; REJOWSKI, M. Turismo e hospitalidade no cenário da comunicação científica: avaliação de periódicos científicos eletrônicos. **Revista Rosa dos Ventos**, v. 5, n. 4, p. 559-576, 2013.
- MIRANDA JÚNIOR, N. S.; SOUSA, P. H. R.; DEMO, G. Análise do composto de marketing em empresas de turismo: um estudo bibliométrico. **Revista Turismo: Visão e Ação**, v. 20, n. 2, p. 324-342, 2018.
- PIRES, P. S. A dimensão conceitual do ecoturismo. **Revista Turismo: Visão e Ação**, v. 1, n. 1, p. 75-91, 1998.
- POBLACION, D.; MUGNAINI, R.; RAMOS, L. **Redes sociais e colaborativas em informação científica**. São Paulo: Angellara, 2009.
- RIBEIRO-MARTINS, C. S.; SILVEIRA-MARTINS, E. Turismo gastronômico: uma pesquisa bibliométrica em bases de dados nacionais e internacionais. **Revista Turismo: Visão e Ação**, v. 20, n. 1, p. 184-197, 2018.
- SANTOS, G. E. O.; PANOSSO NETTO, A.; WANG, X. Análise de citações de periódicos científicos de turismo no Brasil: subsídios para a estimação de indicadores de impacto. **Revista Brasileira de Pesquisa em Turismo**, v. 11, n. 1, p. 61-88, 2017.
- STRANDBERG, C.; NATH, A.; HEMMATDAR, H.; JAHWASH, M. Tourism research in the new millennium: A bibliometric review of literature in Tourism and Hospitality Research. **Tourism and Hospitality Research**, v. 18, n. 3, p. 269-285, 2018.
- TRIBE, J. The indiscipline of tourism. **Annals of Tourism Research**, v. 24, n. 3, p. 638-657, 1997.
- TRIBE, J. Tribes, territories and networks in the tourism academy. **Annals of Tourism Research**, v. 37, n. 1, p. 7-33, 2010.
- WASSERMAN, S.; FAUST, K. **Social Network Analysis: methods and applications**. 19. ed. Cambridge: Cambridge University Press, 2009.
- WEINER, G. The academic journal: has it a future? **Education Policy Analysis Archives**, v. 9, n. 9, p. 1-19, 2001.
- XIAO, H.; SMITH, S. L. J. The making of tourism research: insights from a social sciences journal. **Annals of Tourism Research**, v. 33, n. 2, p. 490-507, 2006.

Recebido em: 12-02-2021

Aprovado em: 01-12-2021

TS