

Co-authorship Networks and Thematic Development in Chinese Outbound Tourism Research

Introduction

In the last 30 years, academic research on Chinese tourism has been growing in quantity and quality due to the work from scientists from within and outside China (Huang, van der Veen, & Zhang, 2014). Within Chinese tourism studies, outbound travel is recognized as a critical research component (Jin & Wang, 2016; Law, Sun, Fong, Fong, & Fu, 2016; Tse, 2015) along with others such as sustainability, management of resources, human resources training and local policy and planning (Andreu, Claver, & Quer, 2010). According to Keating, Huang, Kriz, and Heung (2015), the Chinese outbound tourism research field has recently become recognized and legitimized within the broader field of tourism scholarship with the involvement of more researchers and topics. It would therefore be of great interest to comprehend the attributes and characteristics of this newly developed research field.

To study the characteristics and attributes of any research field, two primary different perspectives can be employed (Koseoglu, Rahimi, Okumus, & Liu, 2016). The first perspective includes traditional methods of review, systematic reviews and qualitative approaches, all of which can provide a framework that depicts the evolution of the topics. The second perspective considers bibliometric analyses, which can increase objectivity and are valuable for mapping the structure and dynamics of the scientific subject. In following the assumptions of the second approach, the new topics are socially negotiated and dynamically produced through networks of researchers and institutions that form communities for collaborations (Belhassen & Caton, 2009; Benckendorff & Zehrer, 2013). Thus, the relational structure of scientific collaborations, institutions and research domains are elements that allow us to frame the progress and characteristics of a specific tourism topic.

Chinese outbound travel is an attractive research topic, and it has led to a branching off of the previous scholarly literature reviews. Three previous types of literature reviews have been developed: narrative reviews focusing on understanding the status of Chinese outbound tourism research (Cai, Li, & Knutson, 2008; Law et al., 2016; Tse, 2015); systematic reviews dividing the analyzed articles into fields of knowledge (Jin & Wang, 2016; Keating et al., 2015); and a review that creates a holistic scheme of drivers for destination choice (Keating & Kriz, 2008).

The growing number of articles reviewing this research field illustrate that the existing research has often been superficial: repeatedly similar methods are employed to study motivations and image (Tse, 2015); previous studies usually fail to differentiate between basic tourists' segments (Lojo & Li, 2018); and this

has led to homogeneous and stereotypical representations of Chinese tourists in the academic literature (Jørgensen, Law, & King, 2018). In response to the call for an in-depth understanding, literature reviews are required to contribute new research directions, propose alternative research techniques and offer new perspectives. To our knowledge, a bibliometric review with relational insights has yet to be covered and will allow shedding new light onto social structures as well as the thematic structure of tourism, thus leading to a deeper understanding of the research.

Following the previous considerations, this study aims to offer a more quantitative, objective approach using bibliometric techniques which: (1) will offer a social network analysis through the examination of the networks of co-authorship, universities and geographical areas involved in the production of research; and (2) will supplement previous review efforts to portray the thematic structure of the research following a co-word analysis. The findings will enable researchers, managers and industry practitioners to understand the research field's social and thematic structure while also providing them with six new proposed research directions.

Background

Since the nearly non-existent Chinese outbound tourism (COT) in the 1970s and 1980s, the recent growth of Chinese outbound travel has been a revolution in terms of Chinese consumption patterns and consumer behavior. Since 2014, China has been the first source market for international tourism worldwide. If the Chinese economy and household income continue growing, the number of travelers is expected to increase, as currently only 4% of the Chinese population owns a passport, compared with 37% of Americans (Xinhua, 2017). Due to this development, the number of studies regarding COT has been steadily growing (Jin & Wang, 2016). Keating et al. (2015) studied the stages of development of COT research and concluded that three stages can be identified in the development of the research field. The first studies on COT began during the 1983–1992 period, but those articles have only an ancillary focus on Chinese outbound travel. A second stage is identified during the 1993–2002 period, when the research focused on the potential characteristics of the Chinese market for places such as Korea and Hong Kong. Third, the research topic took off in the middle of the 2000s, as can be shown by the increase in the published research, the topics and the methods used to study it.

Several papers have reviewed COT with unique contributions, but they are not exempt from the research limitations that allow for further investigations. The first reviews appeared in 2008 (Cai et al., 2008; Keating & Kriz, 2008) and adopted two distinct approaches. Cai et al. (2008) reviewed 30 academic articles from 20 tourism journals published from 1995 to 2006, developed a qualitative narrative review and recognized three main research streams: market overview, destination-specific research with findings obtained from secondary data, and

destination-specific research with findings from primary consumer data. Keating and Kriz (2008) conducted a unique review approach that focused on the drivers of the destination choice made by Chinese outbound tourists. They created a model for destination choice that included five elements for explaining the destination choice: push factors, pull factors, internal moderators, destination image, and external moderators. These first review efforts were motivated by the growth of research in the field and they questioned whether Western models and the same predominant tourism methodologies should be applied to study Chinese tourism.

With the evolution of the research field, new reviews emerged to assess the recent changes. Tse (2015), through a qualitative thematic review, integrated the findings and discussions from 80 papers published in 21 tourism journals between 1995 and 2013, and he identified three broad categories of research: destination-related, tourist-related and source-market-related. Law et al. (2016) reviewed 122 articles by following a systematic and an in-depth qualitative assessment of the studies. These authors revealed changes in researched destinations along with the Approved Destination Status scheme, the development of research problems, the methods and data collection techniques used and the changes in research topics. Both of these reviews were motivated to integrate the findings of COT articles through a profound qualitative approach, which is effective for critically analyzing the research, although it does not observe the social characteristics of the research production.

Two reviews used systematic approaches to assess the corpus of literature. First, Keating et al. (2015) performed a review of articles published from 1983 to 2012, which they extracted from three journals. The review chronicled the main contributions in three stages (1983–1992, 1993–2002 and 2003–2012) and classified the articles into research disciplines. As the authors acknowledged, one of the research limitations is that the study was restricted to only three journals, which may make it difficult to generalize the findings. Secondly, Jin and Wang (2016) combined the narrative and systematic quantitative review approaches and selected 161 articles published between 2000 and 2014 in 16 tourism journals. Both review articles combined quantitative and qualitative approaches to assess the research field in a compelling way. In both cases, their studies lack a deep social analysis. Regarding the topics addressed, both articles categorized the articles among research disciplines and procured a narrative synthesis of the main results within each discipline. Nevertheless, classifying the articles according to disciplines of study makes it difficult to understand not only the interests and linkages between topics, but also the internal structure of the COT research.

By adding a new perspective to the earlier works, a relational bibliometric study can provide information about aspects that have not yet been studied. None of the previously mentioned studies have analyzed authorship networks, the contributions of academic institutions or the relationships between keywords.

Thus, the originality of this current study is related to the methodology used, because advanced bibliometric techniques contribute to an understanding of the inner structures of the research field, thus providing a broader picture than those used in previous qualitative and discipline-based analyses.

Bibliometric studies in tourism add knowledge of the discipline domains, the intellectual and social structure and how they evolve over time, all of which can be uncovered through the quantitative studies of published articles as bibliographical units (Broadus, 1987). Bibliometric analysis is an approach for evaluating the progress of a discipline or a research topic by 'sorting data, including citations, author affiliations, keywords, themes discussed and methods employed in published studies via basic/advanced statistical techniques' (Koseoglu et al., 2016, p. 180). According to Koseoglu et al. (2016), there are two main typologies of bibliometric studies: evaluative and relational studies. The former studies employ techniques to measure the productivity and impact metrics of publications. The latter employ quantitative methods to explore relationships between authors, institutions and keywords of the publications, all based on the Network of Social Agents theory. In other words, relational techniques try to find relationships among published research by considering citations, authors, affiliations, and keywords to construct networks of relationships and co-occurrence analysis. These studies produce indicators for the structural characteristics of research production (Benckendorff & Zehrer, 2013).

The analysis of the co-authorship and institution networks of scientific research allows understanding the patterns of collaboration and comparing collaborative statistics to different contexts (Uddin, Hossain, Abbasi, & Rasmussen, 2012). Co-word analysis techniques are used to map the dynamics of the scientific subject by means of social network analysis (He, 1999). Based on the co-occurrence of words, this technique seeks to visualize the themes being researched and the linkages among them (Ronda-Pupo & Guerras-Martin, 2012). Thus, co-keyword analysis has been used previously in bibliometric studies of Tourism research (Hoz-Correa, Muñoz-Leiva, & Bakucz, 2017; Ying & Xiao, 2012) and of Social Science research (Leung, Sun, & Bai, 2017; Olmeda-Gómez, Ovalle-Perandones, & Perianes-Rodríguez, 2017), specifically in order to create a network of themes and its relationships in the conceptual space of a research field using an objective quantitative approach (Koseoglu et al., 2016).

Methods

The sequence of this research has been developed by following the three key parts of the systematic review argued by Briner and Denyer (2012): first, a comprehensive accumulation of literature was done by locating, selecting and including/excluding literature; second, an analysis was developed; third, a reflective interpretation was carried out by identifying and critically appraising the results. To achieve the goals of the paper, the methodology is based on the theory of networks of social agents (NSA). In this paper, the NSA is used to visualize relational structures of knowledge production and it is employed in two phases. In the first phase, the results show different networks to disclose the origin of the research (authorship, institutions and regions). In the second phase, the research themes are mapped through the co-occurrence and clustering of keywords.

Sampling

For this review, the sources of data were academic tourism journals, with only research articles being considered. Following the model previously developed and used by Jin and Wang (2016), five tourism journal rankings have been examined. The rankings are derived from (a) four academic articles that include ratings of relevant tourism journals and from (b) the Thomson Reuter's Social Science Citation Index (McKercher, Law, & Lam, 2006; Michael Hall, 2011; Pechlaner, Zehrer, Matzler, & Abfalter, 2004; Ryan, 2005; SSCI, 2016). The selected journals for the present study appeared in three of the five sources. Fifteen journals were selected: *Tourism Management*, *Annals of Tourism Research*, *Journal of Travel Research*, *International Journal of Hospitality Management*, *Journal of Hospitality and Tourism Research*, *International Journal of Contemporary Hospitality Management*, *Journal of Travel and Tourism Marketing*, *Cornell Hospitality Quarterly*, *Tourism Economics*, *Asia-Pacific Journal of Tourism Research*, *Journal of Hospitality Marketing and Management*, *International Journal of Tourism Research*, *Current Issues in Tourism*, *Tourism Analysis*, and *Journal of Sustainable Tourism*. In addition, the *Journal of China Tourism Research* has been added because it is the only journal that specializes in China tourism.

The objectives of this study are to understand the recent structures of knowledge creation, so all the articles published between 2006 and 2016 have been selected for further analysis. In this examination, we have also included the articles that were available online (as advancements) as of June 2016. There are two main reasons to select 2006 as the starting year for sampling articles. First, two previous review papers analyzed Chinese outbound tourism research from its origin to the year 2006 (Cai et al., 2008; Keating & Kriz, 2008); therefore, the current study aims to supplement the previous results revealed in those articles in order to offer insights into the recent developments of the research field. Second, the articles in this study that were retrieved before 2006 were small in number

and had a similar focus. Only one paper from 2006 in the selected journals was centrally related to Chinese outbound tourism; and this became four papers in 2007 and ten papers in 2008. The topic exploded after 2010, with more than 15 papers being published each year.

The search for articles was performed directly on the websites of each of the selected journals and using six search strings: 'China outbound', 'Chinese outbound', 'China international', 'Chinese international', 'China overseas', and 'Chinese overseas'. In this first phase, 129 articles were retrieved. Next, the articles were first examined to determine their inclusion or exclusion: all the papers that analyze mainland Chinese outbound tourism were included; the papers excluded were those that focused only on Chinese domestic tourism or on Chinese outbound tourism from Taiwan, Hong Kong or Macau. Articles that study the tourism behavior of Chinese students in international contexts (outside China) were also included. After this process, 15 papers were initially excluded and 114 articles were selected for the analysis phase (see Appendix 1). During a second screening stage, seven articles that study domestic Chinese tourism were finally included because their results draw conclusions and implications for 'outbound tourism' (as expressed by the authors themselves within their articles' text) (see Appendix 2); and eight articles were finally excluded (see Appendix 3).

Standardization and cleaning the data

The step of standardizing and cleaning the data in NSA is crucial for developing a relational analysis, and 'it can be done manually or using specific software depending on the volume of the data' (Fonseca, Sampaio, Fonseca, De A., & Zicker, 2016, p. 4). In this study, the standardization of the codes (authors, affiliations and keywords) was performed manually and each article's metadata was individually checked. First, the library of articles was transferred into reference/citation manager software. The spellings of authors' names and surnames (individual authorship) were homogenized using the software interface. Second, the authors' affiliations to academic institutions (organizational authorship) were also homogenized. Finally, it was necessary to consolidate the keywords of the articles, and similar keywords were simplified and standardized. For example, 'tourism motivations' and 'Chinese motivations' were simplified into 'motivations'. 'Chinese tourism', 'Chinese out- bound tourism', and 'China tourism' were deleted as they cannot offer new information about the relations between topics. After these processes, the library was exported as a simple text data file in order to analyze the information using software for advanced bibliometric studies.

Analysis of the data

For the analysis of the data, VosViewer software was used in this study (van Eck & Waltman, 2013). The first procedure was to calculate the characteristics of the

networks. Three main networks were generated. The first was a network of co-authorship and collaboration between researchers within the research field. In this network, the nodes are the authors and the links connect authors who have co-authored a paper. Second was a network of academic institutions that show the patterns of cooperation between authors' institutions of affiliation (nodes) and their connections (links). Third, the network of keywords is used to determine the topics of research, which are represented by nodes (keywords) and links connecting different keywords that appear together in the articles. For these networks, the number of nodes, links, density of the network, largest set of connected items and number of clusters are included as descriptive characteristics of the network (Table 1).

The clusters – using the VosViewer jargon – are a set of closely related nodes that are calculated according to the ‘smart moving algorithm’ technique of normalization analysis (van Eck & Waltman, 2010), and each node of the network pertains to only one cluster. In this study, the clustering resolution has been set at a value of 1.00 and the minimum cluster size is set to 1; for the co-keyword analysis of topics, the minimum cluster size has been set to 20 (Waltman, van Eck, & Noyons, 2010).

Table 1. Descriptive characteristics of the networks.

Type of network	Nodes	Links	Density	Largest set of connected nodes	No. of clusters	Representation
Co-Authorships	225	278	0.0055	29	59	Figure 1
Institutional relationships	112	130	0.0209	71	39	Figure 2
Co-keywords	266	789	0.0236	238	32	Figure 3

The first section of the findings shows the relational analysis of authorships, institutional affiliation of authors and countries of origin of the produced research. The second section of the findings show the intellectual and thematic structure of the research field using a co-occurrence analysis and frequency analysis of keywords. Table 2 shows the evolution of the most frequent keywords for three different periods, namely 2006–2010, 2010–2013 and 2013–2016. In Table 3, the clustering technique has been employed to select the main research topics and the relationships between them. In this table, the numbers in the third column are a cross reference to the articles included in Appendices 1 and 2. Although all the articles are contained in at least one category of keywords, some of them pertain to more than one research category.

Findings

Social structure of the research field

The production of the Chinese outbound tourism research is highly collaborative. In our sample, most of the papers are authored by two or three authors, with these

papers accounting for 78.25% of the total. Only 10 articles are authored by a single author, which accounts for 8.26%. The degrees of relationships between groups of authors allow organizing the researchers into 51 clusters (Graph 1.1 in Figure 1). Of the total number of clusters, only eight have connections with other groups. In the middle of the graph is situated the core, which is the densest part of the network; while on the periphery are allocated the sparse parts of the network, with authors that have none to one collaboration. The biggest cluster is formed by 11 authors represented by nodes (Cluster 1 in Graph 1.1). The three biggest clusters are formed with collaborations around researchers Brian King and Anna Kwek (Cluster 1, 11 nodes), Samuel S. Kim (Cluster 2, 11 nodes) and Haiyan Song (Cluster 3, 10 nodes).

Table 2. Evolution of topics of interest.

Rank	2006–2010		2010–2013		2013–2016	
	Most frequent Keywords	%	Most frequent Keywords	%	Most frequent Keywords	%
1	Australia	4.82	Motivation	7.41	Motivation	5.28
2	Zero-commission	4.82	Destination Image	4.94	Destination Image	2.85
3	Tourist behavior	3.61	Behavior	3.70	Satisfaction	2.03
4	Group tour	3.61	Segmentation	2.47	Segmentation	2.03
5	Motivation	3.61	Food/dinning	1.85	Australia	2.03
6	Marketing	3.61	Group tour	1.85	Word-of-mouth	1.63
7	Attitudes	2.41	Casinos	1.85	Students	1.63
8	Constraints	2.41	Macau	1.85	Expectations	1.63
9	Information sources	2.41	Satisfaction	1.85	Group tour	1.63
10	Preferences	2.41	Travel magazines	1.85	Independent	1.22

Note. The percentage shows the relationship between the number of occurrences and the total number of keywords in each period.

Table 3. Clusters of research topics.

No	Main Topics	Articles
	Cluster 1	
1	Motivations	1, 4, 16, 17, 22, 24, 28, 31, 34, 43, 45, 46, 49, 59, 60, 65, 66, 69, 71, 74, 84, 91, 96, 99, 101, 103, 106, 114, 116, 117, 118
2	Satisfaction/loyalty	7, 13, 31, 42, 43, 44, 55, 63, 66, 69, 83, 102
3	Segmentation	4, 10, 14, 34, 47, 48, 71, 72, 80, 93, 94, 108, 109
4	Perceived image	11, 25, 26, 34, 39, 50, 54, 66, 78, 80, 81, 82, 91
5	Projected image – attributes	2, 3, 23, 25, 26, 39, 48, 50, 74, 78
	Cluster 2	
6	Tourism policies	18, 20, 61, 62, 87, 88
7	Cross-strait relationship	73, 121
8	Tourism impacts	27, 70, 86, 57, 77, 105
9	Taiwan	8, 10, 26, 34, 53, 54, 69, 73, 78, 91, 121
	Cluster 3	
10	Australia	5, 12, 16, 25, 35, 36, 37, 39, 63, 64, 94, 97, 99, 113
11	Recreational Vehicle tourism	97, 98, 99
12	Zero-commission tours	35, 64, 88, 110, 111
13	Expectations	29, 42, 49, 50, 71, 91, 115
	Cluster 4	
14	Young tourists, students	12, 17, 19, 29, 36, 55, 68, 72, 76, 101, 120
15	Backpacker	36, 67, 71
16	Independent travelers	36, 58, 72
17	Shopping	84, 88, 102, 114
	Cluster 5	
18	Choice, Information sources	2, 10, 12, 14, 32, 48, 55, 76, 79, 93
19	Macau, gambling	14, 56, 69, 92, 96, 108
20	Activities, experience	15, 53, 69, 92, 95
21	Service quality/encounters	21, 29, 49, 53, 56, 71, 95, 105
	Cluster 6	
22	Group tour	7, 8, 13, 29, 35, 38, 42, 65, 75, 88, 110, 111
23	Cultural Values	21, 37, 38, 45, 117, 118, 119
24	Socioeconomics factors	20, 52, 87, 100, 104, 107
25	Food/restaurants/dining	9, 21, 41, 53
	Un-clustered articles	
*	Various destination studies	51, 89
*	Reviews of literature	6, 30, 33, 85, 112

Note. The number of articles refers to the articles retrieved and listed in Appendices 1 and 2. Articles can be related to more than one topic. Visual relationships between clusters are displayed in Figure 3.

The largest set of connected authors within the whole sample includes 29 researchers. They are linked through Clusters 5, 9, 10, and 11. In Figure 1, Graph 1.2 shows this set of authors with enough detail to see the complete relationships between authors through the nodes and arcs displayed. As can be seen in the graph, the largest set of connected authors is constructed around researchers Cathy Hsu, Liping Cai, Mimi Li, Songshan Huang and Hanqin Q. Zhang. Graph 1.3 in Figure

1 represents the whole network of authors, which includes 225 authors and 278 arcs, resulting in a network density of 0.0055. If total linkages are considered, the authors that contributed most to the network cohesion are Mimi Li, Xiang Li and Haiyan Song, who all have 10 or more links with other authors; while Cathy Hsu, Samuel S. Kim, Hanqin Q. Zhang, Cai Liping, Jiaying Lu and Chris Ryan all have seven or more links with other authors. They are also the researchers that contributed most to the production of articles, with four or more papers in the sample. Graph 1.3 also shows that – out of 51 clusters – only 7 are formed with one author and 13 with two authors. This confirms the tendency to work within a collaborative environment.

The network of academic institutions (Figure 2, Graph 2.1) is built with 112 nodes and 130 links, with a density of 0.0209. All the authors are affiliated with higher education institutions except for those authors affiliated to the China Tourism Academy (CTA), Corallia Clusters Initiative (CCI) and the Hong Kong Institute of Vocational Studies (HKIVS). The CTA is a research organization dependent on the China National Tourism Administration, a public entity in China. The CCI is a public organization devoted to the management of and innovation in Greece. However, each of them contributes to the production of only one article. Overall, the sample of articles reveals the lack of collaboration between private enterprises, public research organizations, public administrations and universities. The absence of private enterprises in the sample is especially relevant.

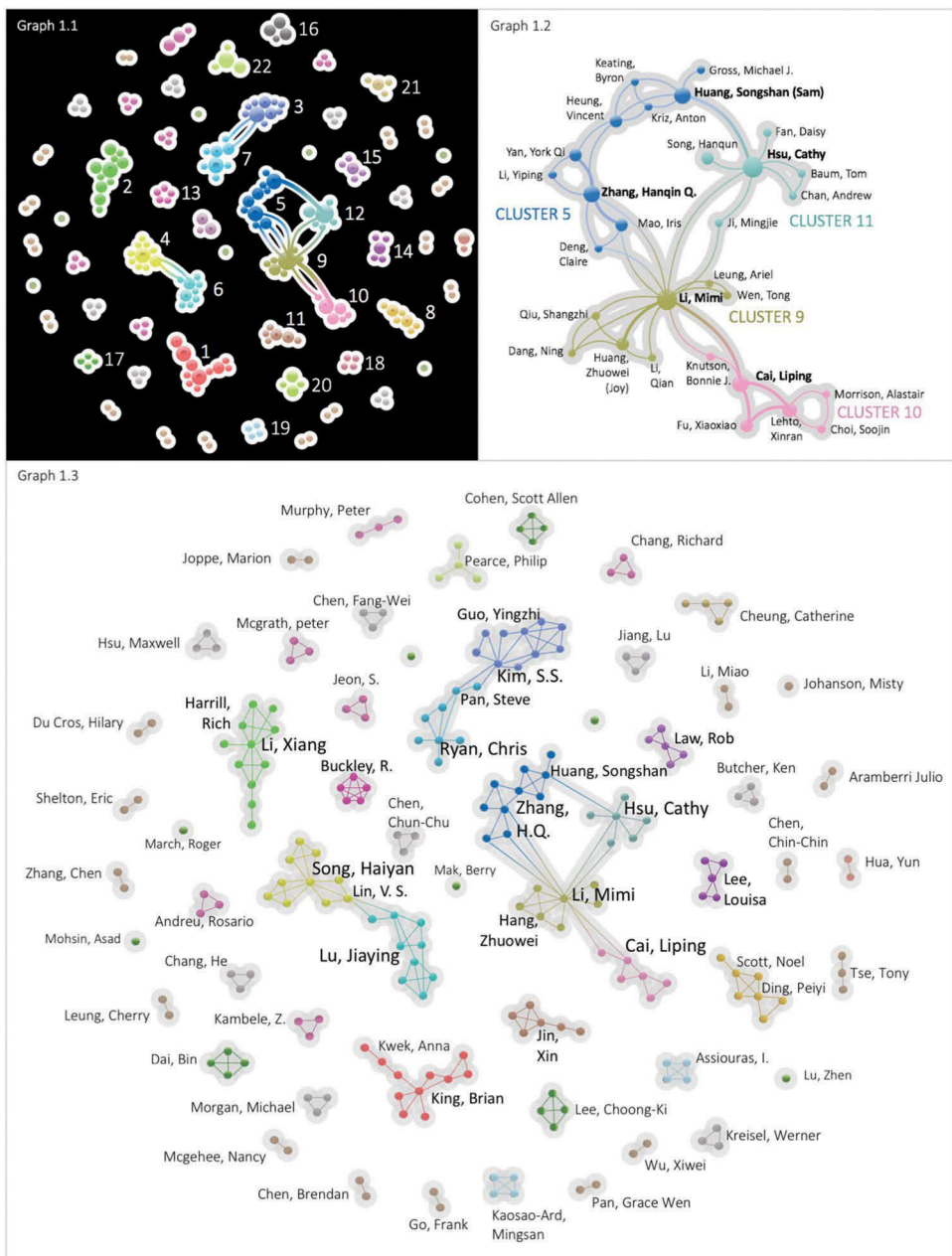


Figure 1. Network of co-authorships.

Note. Graph 1.1 represents the 51 clusters present in the sample. Clusters with more than four authors are numbered according to the number of authors per cluster. Graph 1.2 shows the largest set of connected items, formed by 29 authors from four clusters. The size of the node is determined by the number of links, and the size of the arcs is determined by the number of collaborations between authors. Graph 1.3 provides the whole network of authors.

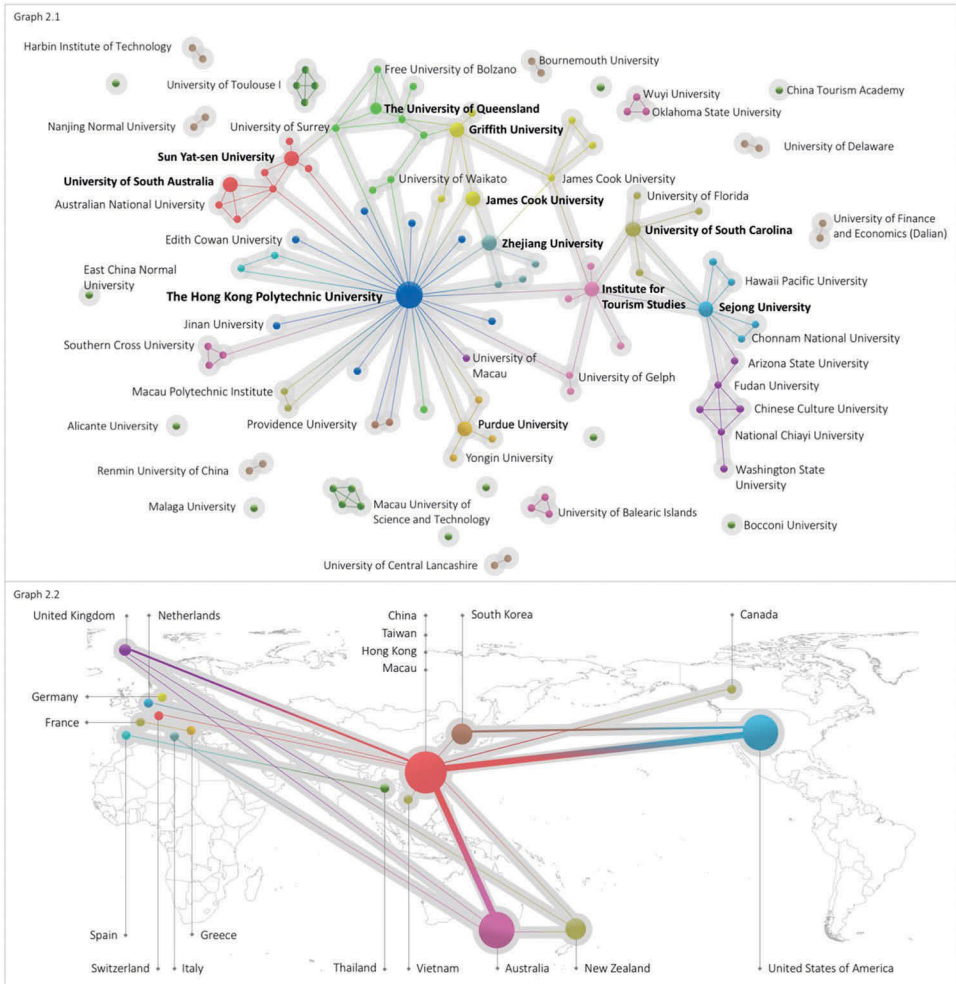


Figure 2. Relationships between institutional affiliation and countries of origin of authors.

Figure 2 shows that the main institution linked with the production of research is The Hong Kong Polytechnic University (HKPU). Sixty-six authors are affiliated with this institution, and it corresponds with 20.5% of the authors and the production of 39 documents. Regarding the network structure (Figure 2, Graph 2.1), HKPU holds a central place with a link strength of 36 connections. Along with HKPU, the top 10 universities in terms of producing research and international collaboration are: the Macau Institute for Tourism Studies (Macau), Griffith University (Australia), Sejong University (South Korea), Zhejiang University (China), James Cook University (Australia), University of South Australia (Australia), Purdue University (USA), Sun Yat-sen University (China) and the University of Queensland (Australia). Around HKPU is formed the largest set of connected items, with 71 institutions altogether. In this network, 13 out of 112 institutions are unconnected and displayed on the periphery of the graph.

Graph 2.2 in Figure 2 shows the relevance of Hong Kong, Macau, China and Taiwan in the production of research. This cluster completely or collaboratively produces 92 documents out of 121. The next regions in terms of research production are Australia (where 39 documents originate) and the United States of America (with 27 documents). Next are New Zealand, the United Kingdom and South Korea, which contribute, respectively, eight, seven and six documents. All the other remaining regions present in Figure 2 range between one and three documents. The results show that the more productive institutions are from East Asian countries and regions, which coincide with:

- (a) the demographic, geographic and cultural proximity to Mainland China; and
- (b) East Asian regions such as Hong Kong that receive a greater flow of mainland Chinese tourists and are more affected by this tourism market (Xie & Li, 2009).

Thematic structure of the research field

The co-word analysis is used to illustrate the association between keywords in the sample of articles, thus allowing for (a) a visual representation of the research field; (b) a greater understanding of the evolution of the main research topics; and (c) organization of the reviewed articles. In this study, the topics addressed can be reduced to a set of six clusters. As a result, the clusters, keywords and their connections can be visualized in a thematic network (Figure 3). The most frequent keywords are presented in a larger size while the most connected topics are located at the center of the figure. The most studied components are related to travel motivations (89 links with other keywords), destination image (49 links), tourist behavior (45 links), group tours (39 links), tourist satisfaction (39 links) and segmentation of tourists (38 links). The most frequently studied destinations include Australia, Macau, Taiwan, Hong Kong, and the United States. The figure also shows different topics that are studied in relation to certain destinations, such

as recreational vehicle tourism and zero-fare tours in Australia and cross-strait territorial impacts of tourism between Taiwan and China. On the periphery of the graph are located eccentric topics such as Confucianism and Chinese tourism, educational tourism, food and food services, marketing and the territorial distribution of tourism at the destination, tourism impacts, and tourism policies. In Table 2, the changes in the most frequent keywords show the evolution of the main research topics. During the first period of our sample, between the years 2006 and 2010, the articles centered on the case of Australia as a destination for Chinese outbound tourism and unethical practices in tourism, such as zero-commission tours, which account for 4.82% of the total keywords of the period. In the second and third stages, from 2010 onward, the topics of travel motivations and destination image grow sharply in relevance. In addition, the articles show different ways to segment the tourists in order to understand Chinese tourists in foreign destinations. The evolution of topics also shows a structural characteristic: the number of published articles, topics and keywords follows an increasing trend. In the selected sample, 22 articles and 60 keywords comprise the first stage; 43 articles and 106 keywords are in the second stage; and 56 articles and 165 keywords in the third. The greater diversity of studied topics and destinations makes it possible to cluster them into six different groups that are represented by different colors in Figure 3. Table 3 shows the main research topics within each cluster and a cross-reference to the articles reviewed.

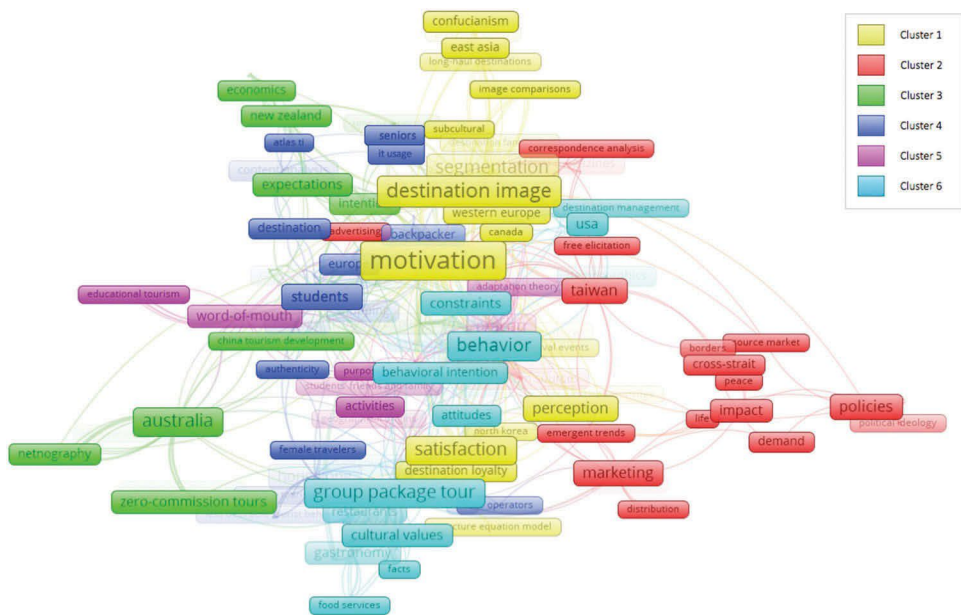


Figure 3. Network of co-keywords.

Note. Clustering resolution '1.0' and minimum cluster size '20'. Clustering technique by 'association strength' (van Eck & Waltman, 2013).

Cluster 1. Motivations, satisfactions, destination image

The articles comprised in this cluster address the more popular topics in Chinese outbound tourism research, including tourists' travel motivations, satisfaction with the destination, segmentation of tourists, and destination image. In addition to studying travel motivations to specific destinations, motivation studies also develop eccentric topics such as the effects of personal values or Confucian values on motivations (e.g. Li, Zhang, & Cai, 2016). Studies also tried to evaluate tourist satisfaction with the travel to different destinations as well as the impact on satisfaction of the motivations, tour-quality and heritage sites (e.g. Nguyen & Cheung, 2016). The sample of articles also shows that market segmentation and understanding differences between segments of tourists is crucial in an emerging market that is becoming increasingly heterogeneous (e.g. C.-C. Chen & Lin, 2012). Another popular research stream is formed by the destination images and their multiple perceived components (attitudinal, sensorial and cognitive), as well as projected brands (e.g. Song & Hsu, 2013).

Cluster 2. Policies, impacts, and the case of Taiwan and Hong Kong

Some articles address understanding the characteristics of Chinese outbound tourism in terms of context and policies, independently of the tourists' destination country. Research efforts show that competitive, demographic, political, economic, cultural and technological forces are shaping this tourism market. As such, determinants such as political changes and Chinese tourism law are studied (e.g. Dai, Jiang, Yang, & Ma, 2016). In addition to the effect of tourism policies, researchers showed interest in assessing tourism impacts and outcomes– which include more than an evaluation of satisfaction/dissatisfaction with the trip. In this research stream, the studies address 'personal realm' outcomes, such as learning outcomes, positive life changes produced by the tourism activity, and tourist emotions that emanated from a trip to Japan (e.g. Tse, 2014). Two specific cases of tourism impacts are: changes in the geopolitical power and territorial understanding between China and Taiwan; and the effect of the 'Chinese tourist wave' and tensions produced in Hong Kong (e.g. Siu, Lee, & Leung, 2013).

Cluster 3. Australia and the development of the local tourism industry

Cluster 3 compresses studies related to the development of the tourism industry, focusing on the case of Australia and an analysis of tour operators, tour packages and wholesale retailers. First, zero-fare group tours received attention as a phenomenon that is lacking in ethics and thus hurting tourism. Its mechanisms, conceptualization, legal aspects and the case of Australia and Hong Kong were studied (e.g. H.Q. Zhang, Heung, & Yan, 2009). Second, the development of certain key points for the tourism industry were studied with regard to Australia, New Zealand, Thailand and the UK (e.g. Y. Zhang & Murphy, 2009). Third, the destination of Australia was studied in relation to topics such as RV tourism, tourism expectations, a model of game-theory and tour products (e.g. Wu &

Pearce, 2014).

Cluster 4. Studies into specific travel segments

Different products and different ways of travel are emerging in China, and an important research theme is the focused study of different segments and tourism products. In this review, we have seen that the specific travel segments and products that were studied are: Chinese adventure tourism; backpackers' views of Macau and their travel motivations; young Chinese tourists, their expectations and use of smartphones; shopping tourists; female travelers' motivations; Chinese international students, their travel behavior, the role of hosts and influential factors in selecting a study destination; senior tourism; and cruise tourism (e.g. Tsang, Lee, & Liu, 2014).

Cluster 5. Choice of destination, service quality/encounters, and the case of Macau

The selected studies reveal that the tourist experience is much more than the tourist visit itself. An initial phase of the travel behavior starts with the planning of the trip, using sources of information, choosing a destination, considering motivations and constraints, and tourism images (Williams & Lew, 2015). In our sample, the choice-of-destination- related research is a major area of interest that is linked to how information sources affect tourists and the information-seeking behavior of Chinese tourists – with attention paid to word of mouth, travel agencies and online sources (e.g. Sparks & Pan, 2009). In addition, the services of the destination are studied in the cases of Chinese tourist dinner experiences and service expectations (e.g. Chan, Hsu, & Baum, 2015). Within this cluster, Macau is a destination that has received special attention regarding tourist behavior, service encounter and gaming patterns at the destination (e.g. Lo, Tsai, & Cheung, 2013).

Cluster 6. Cultural values, food behavior, and group tours

This cluster comprises studies of the socioeconomic characteristics of China and Chinese values applied in tourism. The former studies are approached mostly through a review of secondary sources along with statistical analysis of secondary data and/or of new primary data (e.g. Yang & Wu, 2013). The latter include research into cultural values, the concepts of *guanxi*, *mianzi*, *lian* and the values of comfort, indulgency, leisure seeking, Confucianism, and also the effect of personal values, which are investigated to define the intrinsic behaviors of Chinese tourists (e.g. Kwek & Lee, 2010). Another characteristic of the Chinese tourists and their culture is the importance and influence of tour packages, which are closely studied, particularly in terms of the effects that the tour package has on destination loyalty, the needs of tourists and tourist satisfaction (e.g. Chang, Wang, Guo, Su, & Yen, 2007).

Discussion and future research

Theoretical and practical implications

This study offers new insights into the structures of social relationships in the production of Chinese outbound tourism research. Using the networks theory, a co-authorship analysis is performed and the results provide implications that are significant in several ways. First, the findings show an increasing trend in producing collaborative research in tourism academia. The analysis conducted here detected that most of the articles included are authored by two or more authors. Racherla and Hu (2010) analyzed 1,181 published articles on tourism from 1996 to 2005, and their results indicate that 30.72% of the papers were single-authored; while in this study only 8.26% of the papers are single-authored. The density of the tourism researchers network obtained by Racherla and Hu (2010) regarding 705 tourism articles published between 2001 and 2005 was 0.0007, and the density obtained by Acedo, Barroso, Casanueva, and Galán (2006) for 14,705 papers from social sciences published between 1980 and 2002 was 0.0002. In the current study, the network density of co-authorships is 0.0055. These comparisons show that, within our sample, there is a considerably greater propensity to produce collaborative research. This result could be explained by the following factors:

(a) academic collaboration may be induced by the multidisciplinary of tourism research and the existence of different approaches used by tourism researchers to study international Chinese tourism; (b) the results may be affected by the number of articles analyzed being lower than the number of previous articles that applied the network theory (Acedo et al., 2006; Koseoglu, Okumus, Putra, Yildiz, & Dogan, 2017; Racherla & Hu, 2010); (c) a more specific and newly developed research topic is analyzed here, and this may show different patterns of knowledge production due to the novelty. Second, similar to previous studies (Racherla & Hu, 2010), the results show the benefits of developing a network of collaborations. In the case of academic institutions, Hong Kong Polytechnic University has a remarkably higher degree of centrality in the network of institutional collaboration. The core location in the graph of this institution is associated with more linkages to other institutions, a higher number of articles produced and a higher number of topics addressed. Third, at the geographical level, the results show that the regional boundaries are mostly inexistent within nodes: most of the participating countries and world regions are interconnected in one network formed by different clusters. This factor reinforces the idea that within a specific research field of tourism, academic production tends to be highly collaborative, even between different world regions and academic institutions. However, these implications should be interpreted with caution, as the present research did not aim to evaluate the evolution of academic collaboration in the whole field of tourism research.

In addition to the previous considerations, three main practical implications can be derived from the results. First, this study provides bibliometric indicators and network analyses that contribute valuable information on the performance of academic institutions, universities and also individual scientists that are conducting

research on Chinese out-bound tourism. Since Chinese outbound tourism is currently affecting tourism destinations worldwide, new researchers, institutions and local industries will need to understand these new travelers. Thus, similarly to previous bibliometric studies in the field of management (Koseoglu, 2016; Koseoglu et al., 2017), co-authorship analysis provides helpful information for students, managers and industry practitioners who are looking for relevant scholars and advisors that have played critical roles in the research field.

Second, international academic mobility is a fundamental element of present-day academic habitus (Bilecen & van Mol, 2017). Specifically, international mobility, visiting scholars and international students play key roles in the successful research related to intercultural phenomena and developing intercultural competence (Valeeva, 2013). Hence, the findings of the current study – including the taxonomy of research topics associated with specific articles (Table 3) – make it possible for internationally mobile academics and students interested in Chinese outbound tourism to find collaborative pathways, strategic collaborations, and relevant academic institutions.

Third, the results indicate an absence of researchers and academic institutions from under-researched areas such as Africa, Central America, the Caribbean and South America. Applied to today's research and managerial efforts towards understanding Chinese tourism to new destinations, it is interesting to note that the absence of researchers shows a corresponding relationship to the world regions that were absent in the thematic analysis of the research field. A new sociocultural group of visitors to world destinations have always led to changes in tourism supply, and they have further substantially obliged local service providers to adjust (Petermann, Revermann, & Scherz, 2005). Thus, the flow of Chinese travelers constitutes new and culturally different travelers that need to be understood at various international tourism destinations. For example, European destinations such as France and Spain have revealed that they are still dedicating efforts towards the challenge of understanding Mainland Chinese tourists, and they have admitted that their countries need to be friendlier to these visitors (El, 2017; Neild, 2014). Therefore, identifying under-studied areas and generating knowledge about emerging tourism destinations provide an opportunity and a research challenge that network analysis could help address.

Paths for future research

The co-keyword analysis identified six current research streams related to clusters of keywords. Some research topics within these clusters have received greater attention. This can be clearly seen in Table 3 by observing the number of articles that are linked to each research topic. Similar to the observations of Tse (2015), the findings showed that the most studied areas in Chinese outbound tourism are the topics of tourism motivations, destination image and tourist satisfaction. It is expected

that within these topics there is little room for innovation. However, in providing a new perspective from the previous review articles, Table 3 also reveals topics that have been barely addressed and require further research for each cluster. In Cluster 1, which is related to consumer behavior, aspects of tourist behavior involving social contact have been scarcely studied. Within the whole research field of tourism behavior, it has been recognized that relationships between tourists, other tourists and local residents are fundamental research topics (Pearce, 2005). Taking into account that Chinese outbound tourism reflects a crucial difference between social modes of travel such as Free Independent Travel and Group-tour (Lojo & Li, 2018), this research field could contribute the opportunity to further understand how tourism choices and the tourism experience are affected by feelings of crowdedness, solitude and security.

Cluster 2 is related to the policies and impacts of tourism. Tourism impacts include not only the evaluation of the trip and satisfaction/dissatisfaction, but also 'personal realm' outcomes such as skills development, knowledge, perception, emotions, self-development, and identity, all of which are relevant topics in need of further study by tourism academia (Morgan, Lugosi, & Ritchie, 2010). However, personal realm outcomes of the tourist experience remain in their initial stage of development (Tse, 2014). As Chinese tourism is a paradigmatic example of a new and maturing market, new possible research avenues within this cluster could be related to impacts on concepts of self-identity, the sense of the other, changes in self-perception, and emotional encounters that arise from the experiences of these international tourists (e.g. Ji, Li, & Hsu, 2016).

In Cluster 3, questions related to the tourism industry at the destination are in the initial stages of development. The arrival of new tourism flows from emerging markets implies that different approaches are needed for local tourism industries (UNWTO, 2017) and different challenges are arising, as has been studied in the case of zero-fare tours in Australia (King, Dwyer, & Prideaux, 2006). Surprisingly, few keywords within the analyzed articles are related to industry and organizational questions. It has been mostly overlooked the different characteristics of organizational management in Chinese tourism supply chain. Future research in this field could cover aspects such as studies into destination labor force, adaptability of facilities and services, cooperation and collaboration between stakeholders, accommodation and travel retailers, and tour guiding issues (e.g. Chan et al., 2015).

In Cluster 4, the study of specific travel segments constitutes an important extant research stream that is increasing with the rise of different ways of travel, more experienced consumers and different products. It has been noted previously that the diversification of the Chinese market is occurring at a rapid pace and is showing indications of reaching its maturity (Arlt & Burns, 2013). To understand this 'second wave' of Chinese tourists, studies into specific tourism segments are needed (e.g. G. Chen, Bao, & Huang, 2013; Gardiner & Kwek, 2016; Wang, Wu, Luo, & Lu, 2017).

Within this study sample of articles, the investigations that focus on specific segments are steadily increasing over time, and it is possible to identify a diversification of the most frequent keywords in the sample. As a result of this trend, it is guaranteed that this cluster will continue growing with the study of new segments. Under-studied segments that are of interest for tourism managers and tourism academia include nature tourism, sports tourism, medical tourism, food and wine tourism, accessible tourism, and family and child-oriented tourism (e.g. J.Y. Yu & Ko, 2012).

Cluster 5 comprises destination-related studies, with topics such as choice of destination, activities at destination and services at destination. However, the spatial distribution of tourism activities at destinations and in itineraries are under-researched. This research gap has been identified as being present throughout the field of tourism, 'which is strange given their potential importance as determinants of visitor expenditure distribution, and how itinerary planning may become a tool of destination management' (Ryan & Gu, 2007, p. 189). These topics have attracted little attention from researchers but are becoming increasingly important for tourism destinations, as such future research is expected. Jørgensen et al. (2018) studied the heterogeneity of Chinese tourists to Scandinavia in relation to opportunities for second-tier destinations, and they concluded that there is a need for further research regarding differentiation between destinations. Continuing with the example of Chinese tourists to Europe, these tourists usually plan a trip with an itinerary through different cities and countries (ETC, & UNWTO, 2013). This phenomenon provides an opportunity for researchers to investigate the differences between types of destinations, multi-destination trips and spatial distribution – dispersion, concentration, and itineraries – of Chinese tourists at the destinations (e.g. Lojo, 2016; Ryan & Gu, 2007).

The sixth identified cluster comprises eccentric topics that define the core characteristics of Chinese outbound tourism. Topics present in this cluster are considered important for defining the characteristics of the 'Chinese source market', as stated by Tse (2015). In addition, these topics are able to define the macro-context that circumscribes Chinese outbound tourism. Because economics, demographics, sociocultural attributes, and even value systems are changing at a rapid pace in China, research in this area will continue to be necessary for future tourism research (Hsu & Huang, 2016). Within this cluster are new research topics that have been considered previously, specifically those related to the unique Chinese travel culture, power discourse, policies and socioeconomic determinants for travel (Tse, 2015). The co-keyword analysis adds a new perspective and shows that these topics are connected with research into cultural values and systems of belief such as Confucianism (e.g. Kwek & Lee, 2010). Following this path, Chinese outbound tourism research is a fertile research field for cross-cultural research (Li, 2014; J. Yu & Lee, 2014) into how tourists behave differently across different cultures. In addition to the case of gastronomy and service expectations that have already been studied (Table 3), future research lines include the investigation of intercultural interactions such as the determinants and structure of intercultural interactions

between hosts and guests. Ultimately, it is unquestionably important to understand not only how different cultural backgrounds affect tourist behavior, but also the intercultural interactions between tourists and the tangible and intangible elements of the local culture at the destination.

Conclusion

This paper identifies the social structures and subjects addressed in the last 10 years of Chinese outbound tourism research in a sample of 16 leading tourism journals. The social structures are analyzed by building networks of co-authorship and collaboration between academic institutions and their countries of origin. The analysis of subjects addressed is obtained through a co-keyword analysis and by clustering the keywords according to co-occurrence strength. The results contribute to deepening our understanding of the collaborative behavior of researchers, organizations, and countries, specifically by revealing the central actors and the networks of cooperation. The findings also allow visualizing the structure and evolution of research topics, the relationships between certain Chinese tourism destinations and the development of specific topics. The theoretical and practical implications of this study and new future research opportunities have been thoroughly discussed as a result of the findings and the bibliometric indicators obtained. We have also suggested that Chinese outbound tourism could be a good field for covering a selected number of research gaps, and we have proposed a new set of future research directions as guidelines.

Some limitations of the present study can be mentioned. The sample of articles comes from 16 English language journals, and the temporal selection includes articles published between 2006 and 2016. This implies that a higher number of articles, topics and authors exist. Studies have been omitted from this review about Chinese tourism in specific destinations published in languages other than English, such as Korean, Japanese, French, German, or Spanish. Regarding the structure of collaborations, only research articles have been considered, and there may exist more collaborations within other research products. However, this study contributes to understanding social collaborative behavior in tourism studies while also offering new insights into Chinese outbound tourism research.

Disclosure statement

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Appendix 1. List of included articles

No	Author(s)	Title
1	Agrusa et al.	Mainland Chinese Tourists to Hawaii: Their Characteristics and Preferences
2	Andreu et al.	Destination Attributes and Chinese Outbound Tourism to Europe
3	Aramberri et al.	The Chinese Gaze: Imaging Europe in Travel Magazines
4	Assiouras et al.	Segmenting East Asian Tourists to Greece by Travel Motivation
5	Breakey et al.	Impact of Chinese Outbound Tourism to Australia: Reviewing the Past. . .
6	Cai et al.	Research on China Outbound Market: A Meta-Review
7	Chan et al.	The Impact of Tour Service Performance on Tourist Satisfaction and. . .
8	J. Chang et al.	Trends in Outbound Group Package Tours in China and Taiwan: a Marketing. . .
9	R. Chang et al.	Food Preferences of Chinese Tourists
10	C.-C. Chen & Lin	Segmenting Mainland Chinese Tourists to Taiwan by Destination Familiarity. . .
11	F.-W. Chen et al.	Automatically Extracting Tourism-related Opinion from Chinese Social Media
12	N. Chen et al.	Factors Influencing Chinese Students' Behavior in Promoting Australia. . .
13	Y. Chen et al.	Why Can Package Tours Hurt Tourists? Evidence from China's Tourism. . .
14	Choi et al.	Segmenting Chinese Visitors to Macau by Information Source Variables
15	Chow & Murphy	Travel Activity Preferences of Chinese Outbound Tourists for Overseas. . .
16	Chow & Murphy	Predicting Intended and Actual Travel Behaviors: An Examination of. . .
17	Corigliano	The Outbound Chinese Tourism to Italy: The New Graduates' Generation
18	Dai et al.	China's Outbound Tourism – Stages, Policies and Choices
19	Gardiner & Kwek	Chinese Participation in Adventure Tourism: A Study of Generation Y. . .
20	Guo et al.	Development Characteristics and Implications of Mainland Chinese. . .
21	Hoare et al.	Understanding Chinese Diners in an Overseas Context: A Cultural Perspective
22	Hsu & Huang	An Extension of the Theory of Planned Behavior Model for Tourists
23	Hsu & Song	Projected Images of Major Chinese Outbound Destinations
24	Hua & Yoo	Travel Motivations of Mainland Chinese Travelers to the United States
25	S. Huang & Gross	Australia's Destination Image Among Mainland Chinese Travelers. . .
26	Z. Huang et al.	An Examination of Taiwan Destination Brand Associations: From the. . .
27	Ji et al.	Emotional Encounters of Chinese Tourists to Japan
28	Jiang et al.	Exploring Chinese Outbound Tourism Motivation Using Means–End Chains. . .
29	T. Jin et al.	China's Generation Y's Expectation on Outbound Group Package Tour
30	X. Jin & Wang	Chinese Outbound Tourism Research: A Review
31	Johanson	The Outbound Mainland China Market to the United States: Uncovering. . .
32	Kambele et al.	Travelers' Information-Seeking Behaviors
33	Keating et al.	A Systematic Review of the Chinese Outbound Tourism Literature: 1983–2012
34	Kim et al.	Differences in Tourist Attitude and Behavior Between Mainland Chinese. . .
35	King et al.	An Evaluation of Unethical Business Practices in Australia's China Inbound. . .
36	King & Gardiner	Chinese International Students. An Avant-Garde of Independent Travellers?
37	Kwek & Lee	How 'Face' Matters: Chinese Corporate Tourists in Australia
38	Kwek & Lee	Chinese Tourists and Confucianism
39	Kwek & Lee	Intra-Cultural Variance of Chinese Tourists in Destination Image Project. . .
40	Lai et al.	Chinese Outbound Tourists' Perceived Constraints to Visiting the United States
41	Law et al.	How do Mainland Chinese Travelers Choose Restaurants in Hong Kong? . . .
42	Lee et al.	The Impact of Tour Quality and Tourist Satisfaction on Tourist Loyalty. . .
43	F. Li & Ryan	Chinese Tourists' Motivations and Satisfaction of Visiting North Korea
44	G. Li et al.	Comparing Mainland Chinese Tourists' Satisfaction with Hong Kong and the. . .
45	M. Li & Cai	The Effects of Personal Values on Travel Motivation and Behavioral Intention
46	M. Li et al.	An Exploratory Study of the Travel Motivation of Chinese Female

		Outbound. . .
47	M. Li et al.	Segmenting Chinese Outbound Tourists by Perceived Constraints
48	X. Li et al.	Positioning USA in the Chinese Outbound Travel Market
49	X. Li et al.	When east meets west: An exploratory study on Chinese outbound tourists'...
50	X. Li et al.	Chinese Outbound Tourists' Destination Image of America: Part I
51	Lin et al.	Modeling and Forecasting Chinese Outbound Tourism: An Econometric. . .
52	Lin et al.	Tourism expenditure patterns in China
53	Y.-C. Lin & Chen	Needs Assessment for Food and Food Services and Behavioral Intention. . .
54	Y.-H. Lin et al.	The Salient and Organic Images of Taiwan as Perceived by Mainland. . .
55	Liu & Ryan	The Role of Chinese Students as Tourists and Hosts for Overseas Travel
56	Lo et al.	Service Quality of Casinos in Macau: From the Mainland Chinese Perspective
57	Loi & Pearce	Exploring Perceived Tensions Arising from Tourist Behaviors in a Chinese. . .
58	A. Lu & Chen	Information Search Behavior of Independent Travelers: A Cross-Cultural. . .
59	J. Lu et al.	Do Perceptions of Time Affect Outbound-travel Motivations and Intention?. . .

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No	Author(s)	Title
60	Z. Lu	The Study of Chinese Tourists' Motivations to Canada
61	Ma et al.	Impacts of China Tourism Law on Chinese Outbound Travelers and. . .
62	Mak	The Influence of Political Ideology on the Outbound Tourism in China
63	Mao & Zhang	Structural Relationships among Destination Preference, Satisfaction and. . .
64	March	Towards a Conceptualization of Unethical Marketing Practices in Tourism. . .
65	Mohsin	Analysis of Chinese Travellers' Attitudes Toward Holidaying in New Zealand
66	Nguyen & Cheung	Chinese Heritage Tourists to Heritage Sites: What are the Effects of Heritage. . .
67	Ong & du Cros	The Post-Mao gazes. Chinese Backpackers in Macau
68	Park et al.	Examining Chinese College Students' Intention to Travel to Japan. . .
69	Park et al.	A Comparative Study of the Motivations, Activities, overall Satisfaction. . .
70	Pearce & Lu	A Framework for Studying the Learning Outcomes of Chinese Outbound. . .
71	Prayag et al.	Potential Chinese Travellers to Western Europe: Segmenting Motivations. . .
72	Prayag et al.	Segmenting Markets by Bagged Clustering: Young Chinese Travelers. . .
73	Qiu et al.	Impact of Tourism Openness Across the Taiwan Strait: Perspective of. . .
74	Ryan & Gu	Spatial Planning, Mobilities and Culture – Chinese and New Zealand student. . .
75	Sausmarez et al.	Chinese Outbound Tourism to the United Kingdom: Issues for Chinese. . .
76	Shu & Scott	Influence of Social Media on Chinese Students' Choice of an Overseas. . .
77	Siu et al.	Residents' Perceptions Toward the 'Chinese Tourists' Wave' in Hong Kong. . .
78	Song & Hsu	The Image of Taiwan as a Travel Destination: Perspectives from Mainland. . .
79	Sparks & Pan	Chinese Outbound tourists: Understanding their Attitudes, Constraints and. . .
80	Stepchenkova et al.	Chinese Outbound Tourists' Destination Image of America: Part II
81	Sun et al.	Using Chinese Travel Blogs to Examine Perceived Destination Image. . .
82	Sun et al.	Perceiving Tourist Destination Landscapes through Chinese Eyes: The case. . .
83	Truong & King	An Evaluation of Satisfaction Levels among Chinese Tourists in Vietnam
84	Tsang et al.	Understanding the Shopping Motivation of Mainland Chinese Tourists in. . .
85	Tse	A Review of Chinese Outbound Tourism Research and the Way Forward
86	Tse	Does Tourism Change Our Lives?
87	Tse & Hobson	The Forces Shaping China's Outbound Tourism
88	Tse & Tse	The Legal Aspects of 'Zero-Fare' Tour in Shopping Tourism: A Case of. . .
89	Untong et al.	Tourism Demand Analysis of Chinese Arrivals in Thailand
90	Wan et al.	Behavioral Differences in Gaming Patterns among Chinese Subcultures. . .
91	C. Wang et al.	Toward an Integrated Model of Tourist Expectation Formation and Gender. . .
92	L. Wang et al.	Travel Behaviors of Mainland Chinese Visitors to Macao
93	W. Wang et al.	Information Technology Usage, Motivation, and Intention: a case of Chinese. . .
94	Y. Wang & Davidson	Chinese Holiday Makers' Expenditure: Implications for Marketing and. . .
95	Wong & Li	Destination Services and Travel Experience in the Gaming Mecca: The. . .
96	Wong & Rosenbaum	Beyond Hardcore Gambling: Understanding Why Mainland Chinese Visit. . .
97	Wu	Driving an Unfamiliar Vehicle in an Unfamiliar Country: Exploring. . .
98	Wu & Pearce	Understanding Chinese Overseas Recreational Vehicle Tourists. . .
99	Wu & Pearce	Chinese Recreational Vehicle Users in Australia: A Netnographic Study. . .
100	Xie & Li	Development of China's Outbound Tourism and the Characteristics of. . .
101	F. Xu et al.	Students' Travel Behaviour: A Cross-cultural Comparison of UK and China
102	Y. Xu & McGehee	Shopping Behavior of Chinese Tourists Visiting the United States. . .
103	X. Yang et al.	Cross-Cultural Perspectives on Promoting Festival Tourism. . .
104	Y. Yang & Wu	Chinese Residents' Demand for Outbound Travel: Evidence from the. . .
105	Yeung & Leung	Perception and Attitude of Hong Kong Hotel Guest-contact Employees. . .
106	Yun & Joppe	Chinese Perceptions of Seven Long-haul Holiday Destinations: Focusing on. . .

107	G. Zeng & Go	Evolution of Middle-class Chinese Outbound Travel Preferences: An . . .
108	Z. Zeng et al.	To Gamble or Not? Perceptions of Macau Among Mainland Chinese. . .
109	C. Zhang & Zhang	Analysing Chinese Citizens' Intentions of Outbound Travel: a Machine. . .
110	H. Zhang et al.	Play or not to Play. An Analysis of the Mechanism of the Zero-commission. . .
111	H. Zhang et al.	Understanding the Mechanism behind the Zero-commission Chinese. . .
112	J. Zhang & Sheldon	Ordering the Disordered Subject: a Critique of Chinese Outbound Tourists. . .
113	Y. Zhang & Murphy	Supply-chain Considerations in Marketing Underdeveloped Regional. . .
114	Zhu et al.	Behind Buying: The Chinese Gaze on European Commodities

Appendix 2. List of seven articles included after a second screening process

No	Author(s)	Title
115	Buckley et al.	Chinese Model for Mass Adventure Tourism
116	Fan & Hsu	Potential Mainland Chinese Cruise Travelers' Expectations, Motivations. . .
117	Fu et al.	A Confucian Analysis of Chinese Tourists' Motivations
118	Fu et al.	Framing Chinese Tourist Motivations Through the Lenses of Confucianism
119	Hsu et al.	Reconfiguring Chinese Cultural Values and their Tourism Implications
120	O'Regan et al.	Smartphone Adoption amongst Chinese Youth during Leisure-based. . .
121	Rowen	Tourism as a Territorial Strategy: The case of China and Taiwan

Note. These articles do not specifically study Chinese outbound tourists, but the authors explicitly mention the implications and conclusions related to the Chinese outbound market.

Appendix 3. List of eight excluded articles

No	Author (s)	Title
1	G. Chen et al.	Segmenting Chinese Backpackers by Travel Motivations
2	H. Chen & Weiler	Chinese Donkey Friends in Tibet – Evidence from the Cyberspace Community
3	Y. Chen et al.	What drives People to Travel: Integrating the Tourist Motivation Paradigms
4	Hsu et al.	Expectation, Motivation and Attitude: A Tourist Behavioral Model
5	M. Li et al.	The Chinese Way of Response to Hospitality Service Failure: The Effects of. . .
6	M. Li et al.	A Subcultural Analysis of Tourism Motivations
7	McCartney & Pinto	Influencing Chinese Travel Decisions: the Effect of Celebrity Endorsement. . .
8	Sun et al.	Symbolic Consumption and Brand Choice: China's Youth Hostels for the. . .

Note. The articles were retrieved by the search strings but were excluded after a two-phase screening process.