



Twenty Years of Winter Tourism Literature: Bibliometric Analysis of SSCI-Indexed Tourism Journals

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Abstract

The purpose of this study is to determine the development of winter tourism literature during the last 20 years. The articles (n=292) published in SSCI-indexed tourism journals between 1997 and 2016 were reviewed with bibliometric techniques. Findings demonstrated that the most investigated main themes were destination marketing and sustainability, most studies were conducted with primary data, and secondary data usage increased in recent years. Countries such as the USA and Canada, institutions such as the University of Innsbruck and Mid-Sweden University, journals such as Scandinavian Journal of Hospitality and Tourism and Tourism Management, and authors such as Martin Falk and Peter Fredman were prominent.

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INTRODUCTION

The development of tourism as an industry accelerated the development of tourism literature, and the number of publications on tourism has increased over the years. Today, hundreds of international journals publish only tourism-oriented articles, dozens of publishers publish tourism related books, and hundreds of tourism themed national and international conferences are organized throughout the world annually. The rapid development in literature led certain researchers to conduct bibliometric analysis of the publications on tourism.

Initial bibliometric studies on tourism were conducted in late the 1980s (Koseoglu, Rahmi, Okumus, & Liu, 2016). The actual development of bibliometric studies on tourism was in the 2000s. Researchers in tourism discipline have investigated the studies published in certain journals during a certain period of time (Mulet-Forteza, Martorell-Cunill, Merigó, Genovart-Balaguer, & Mauleon-Mendez, 2018), analyzed tourism literature in certain countries (Wu & Wall, 2016), and reviewed publications on specific tourism issues (Zanfardini, Aguirre, & Tamagni, 2016). Furthermore, they conducted studies on journal ranking, citation analysis, network analysis, methodology analysis (Jiang, Ritchie, & Benckendorff, 2017; Mazanec, Ring, Stangl, & Teichmann, 2010). Certain researchers even reviewed bibliometric studies on tourism. For example, Köseoğlu et al. (2016) reviewed 190 bibliometric studies published in nine leading tourism journals between 1998 and 2015.

The literature review showed that the researchers have reviewed the publications on a certain types of tourism as well. Health tourism (de la Hoz-Correa, Muñoz-Leiva, & Bakucz, 2018), adventure tourism (Cheng, Edwards, Darcy, & Redfern, 2018), wine tourism (Sánchez, Del Río, & García, 2017) were some of the types of tourism reviewed with bibliometric techniques. However, only a few bibliometric research on winter tourism, which is one of the oldest and most profitable types of tourism, were identified (e.g., Çalhan & Çakıcı, 2019; Silik & Ünlüönen, 2017).

Skiing dates back to 8000-10000 BC according to the new evidence found in the Altai Mountains in China (International Skiing History Association, 2019). Skis, which were used as a means of transportation in that period, became a sports and entertainment equipment, and skiing became a part of sport tourism in the USA during the 1800s. In mid-1900s, winter tourism became one of the most important types of tourism and reached significant supply and demand figures (Hudson, 2003; Van Peer, 2003). According to Vanat's (2019) current report on winter tourism, as of the 2017-2018 season, although a stagnation was experienced in market growth when compared to the previous 15 years, the total number of ski tourists was around 130 million and there were 2,084 ski resorts worldwide. The growth in ski market is also reflected in the number of studies conducted in this field. In particular, the increase in the number of studies on destination marketing, destination management and sustainability is significant. However, the lack of a systematic review in this field prevents us to make detailed comments on this subject. Thus, the present study aimed to analyze the articles on winter tourism published in SSCI indexed tourism journals between 1997 and 2016 with bibliometric techniques in order to eliminate the aforementioned gap in the literature and to reveal 20 years of development of winter tourism literature.

Literature Review

Bibliometrics is a term that was first used by Alan Pritchard. He defined bibliometrics as “the application of mathematics and statistical methods to books and other media of communication” (Pritchard, 1969:348-349). As a more modern definition, Online Dictionary for Library and Information Science (2020) defined bibliometrics as “the

use of mathematical and statistical methods to study and identify patterns in the usage of materials and services within a library or to analyze the historical development of a specific body of literature, especially its authorship, publication, and use.” Bibliometric techniques have been used for a long time in many scientific fields, including tourism. Review of the bibliometric studies on tourism in international literature demonstrated that these studies could be classified into five categories; country/region-based studies, topic-based studies, tourism type-based studies, journal-based studies, and other bibliometric studies (citations analysis, collaborations analysis, journal ranking, etc.).

Certain country/region-based studies conducted bibliometric analysis of tourism studies published in a specific country (Evren & Kozak, 2014; Wu & Wall, 2016), while others reviewed studies in international literature on a country (Seyfi, Hall, & Kuhzady, 2019; Wu, Wall, & Tong, 2019). In certain studies, the influence of tourism researchers in a specific country on international journals was investigated (Koseoglu, Sehitoglu, & Parnell, 2015; Yankholmes, 2014). For instance, Evren and Kozak (2014) analyzed 1217 articles on tourism and hospitality published between 2000 and 2010 in Turkey based on variables such as the topic, methodology, journal of publication, institutional contributions and multiple authorship. On the other hand, Seyfi et al. (2019) reviewed studies on development of tourism in Iran with bibliometric methods based on the variables such as theme and multiple authorship, while Zhong, Wu and Morrison (2015) investigated the studies on tourism industry in China between 1978 and 2012 based on theme and research networks. Yankholmes (2014) analyzed the influence of African authors on international tourism literature through publications in four leading tourism journals published between 1990 and 2010.

In topic-based bibliometric studies, publications on certain topics such as crisis management, corporate social responsibility, strategic management, etc. were analyzed. For example, Jiang et al. (2017) conducted co-authorship and co-citation analyses within the scope of tourism crisis and disaster management, while Avila-Robinson and Wakabayashi (2018) investigated the sub-topics of destination management and marketing. Zanfardini et al. (2016), on the other hand, examined 101 tourism articles on corporate social responsibility based on criteria such as year, source and keywords. Furthermore, bibliometric analyzes were conducted in tourism studies on tourist spending (Sainaghi, 2012), supply chain (Szpilko, 2017), tourism information technology (Yuan, Tseng, & Ho, 2019), strategic management (Koseoglu, Law, & Dogan, 2018), economic impact of tourism (Comerio & Strozzi, 2019), and sustainable tourism (Farid, Hakimian, Nair, Nair, & Ismail, 2016; Ruhannen, Weiler, Moyle, & McLennan, 2015).

In journal-based bibliometric studies, mainly articles in one or several tourism journals were scrutinized based on various bibliometric parameters. These studies sometimes reviewed all studies published in related journals, while in other cases reviewed only particular issues in several journals. For example, Mulet-Forteza et al. (2018) reviewed all articles published in the *Journal of Travel & Tourism Marketing* between 1992 and 2017 based on citations, keywords, authors, universities and countries. Furthermore, journals such as *International Journal of Hospitality Management* (Cunill, Salvá, Gonzalez, & Mulet-Forteza, 2019), *Tourism and Hospitality Research* (Strandberg, Nath, Hemmatdar, & Jahwash, 2018), *TOURISMOS* (Satyanarayana, 2014) were reviewed with bibliometric techniques. Koç and Boz (2014) investigated the use of triangulation method in three leading tourism journals (*Annals of Tourism Research*, *Tourism Management* and *Journal of Travel Research*).

In studies on tourism type, mainly the studies on a particular tourism type published in certain journals or databases were reviewed. For instance, Sánchez et al. (2017) compared WoS and Scopus databases based on articles

published on wine tourism. The authors reviewed 238 articles published in 122 different journals and found that Scopus was a more active database for wine tourism. De la Hoz-Correa et al. (2018) analyzed articles on medical tourism published in journals placed in the WoS and Scopus databases between 1931 and 2016 with co-word analysis as a bibliometric technique. Furthermore, there are studies on wildlife tourism (Cong, Newsome, Wu, & Morrison, 2017), adventure tourism (Cheng et al., 2018), and pro-poor tourism (Zeng & Ryan, 2012). As it is pointed out in the introduction, there are some review or bibliometric based studies on winter tourism, albeit a limited number. Çalhan and Çakıcı (2019), examined 59 winter tourism-related articles published in the journals indexed in WOS and Scopus. They found that the number of winter tourism studies increased especially after 2011. They also found that climate change is one of the most examined themes in the context of winter tourism. Silik and Ünlüönen (2017) examine 85 winter tourism studies (22 Turkish studies, 63 international studies) with content analysis techniques. They found that in international literature, the most popular topic is climate change. On the other hand, in the national literature, winter tourism potential is the most popular topic.

In addition to the above-mentioned categories, literature review revealed bibliometric studies conducted with techniques such as citation analysis (i.e., Hall, 2010; Jiang et al., 2017), collaboration-network analysis (i.e., Benckendorff & Zehrer, 2016; Koseoğlu et al., 2018), journal ranking (i.e., Hall, 2011), methodologic analysis (i.e., Mazanec et al., 2010; Palmer, Sesé, & Montaña, 2005; Wilson, Mura, Sharif, & Wijesinghe, 2019) and keyword analysis (i.e., Wu, Xiao, Dong, Wang, & Xue, 2012). Thus, the links between authors and institutions, leading journals, the most commonly used statistical techniques, frequently used research methods and keywords were analyzed.

Methodology

The main aim of the present study was to determine the developments in literature on winter tourism. Thus, articles on winter tourism published in SSCI-indexed tourism journals during the last 20 years (1997-2016) were analyzed with the bibliometric method. Since publishing in these journals provides advantages in academic promotions in several countries, thousands of tourism academicians from different regions in the world submit articles to these journals. And these journals publish the most qualified ones through a robust review process. Thus, SSCI-indexed tourism journals are preferred in this bibliometric study due to the fact that the articles published in these journals are generally quality articles. All the journals under the category of "Hospitality, Leisure, Sport & Tourism" in SSCI journal list were included in the scope of study, except for sports journals. The reason for the exclusion of sports journals is that the focus of the study is not the sport dimension of winter tourism but the tourism dimension. Thus, 23 tourism, hospitality and leisure journals that were included in the 2017 list were selected.

The review was conducted between September 2017 and June 2018, and 292 articles on winter tourism were identified in 21 journals published during a period of 20 years. However, no winter tourism related articles found in two journals (*Journal of Hospitality, Leisure, Sport & Tourism Education*, and *Asia Pacific Journal of Tourism Research*). In order to reach the articles, 23 journals were searched with various keywords related to winter tourism. These keywords included ski, winter, snowboard, mountain, snow, alpine, downhill, cross-country, and Alps. Certain article titles were not clear on whether the article was related to winter tourism, and abstract and methodology sections were reviewed to decide whether these articles should be included in the study. Both studies on winter tourism or winter tourism destinations as a single topic and studies where winter tourism was one of the study topics were

included. For instance, studies that tackled an economic issue based on both winter tourism destinations and other types of destinations in addition to winter tourism destinations were included. Thus, it was determined that 208 articles out of 292 addressed only winter tourism, while only 84 articles discussed winter tourism with other tourism types and destinations.

Bibliometric analysis of the articles was conducted between July 2018 and March 2019. The analyses were based on three main frameworks: the thematic profile, methodological profile, and contribution profile. Thus, the topics of the articles, types and resources of the data used in the articles, and the prominence of the contribution of the journals, institutions and countries were analyzed. The analyses were mainly descriptive, and data were presented in frequencies, percentages and crosstabs.

Results

Thematic Profile

Winter tourism literature has an interdisciplinary structure and includes several studies conducted based on various themes such as marketing, management, economics, sociology, geography, finance, sustainability etc. As it is presented in Table 1, the most prevalent theme was destination marketing. Based on annual changes, although destination marketing has always been a topic of interest in winter tourism, it was observed that the number of publications on destination marketing increased in recent years, however its share in total winter tourism studies decreased in each five-year period. For example, 44% of 36 winter tourism articles published between 1997 and 2001 were on destination marketing, while only 27% of 129 articles published between 2012 and 2016 were on destination marketing. Sub-topics were also reviewed in the study, however, since there were too many sub-topics, these were not included in Table 1. Analysis of the themes based on sub-topics suggested that the most frequently scrutinized destination marketing sub-topics were market segmentation, tourist experience-behavior-satisfaction and destination branding-image.

Table 1. Thematic Profile of Winter Tourism Literature

| Themes | 1997-2001 | | 2002-2006 | | 2007-2011 | | 2012-2016 | | Total |
|-----------------------------------|-----------|------|-----------|------|-----------|------|-----------|------|-------|
| | N | % | N | % | N | % | N | % | |
| 1. Destination Marketing | 16 | 44,4 | 15 | 34,1 | 24 | 28,9 | 36 | 27,9 | 91 |
| 2. Sustainability | 6 | 16,7 | 3 | 6,8 | 18 | 21,8 | 32 | 24,7 | 59 |
| 3. Destination Management | 2 | 5,6 | 10 | 22,8 | 9 | 10,8 | 12 | 9,3 | 33 |
| 4. Tourism Economics | 3 | 8,3 | 4 | 9,1 | 6 | 7,2 | 10 | 7,8 | 23 |
| 5. Leisure/Recreation | 1 | 2,8 | 2 | 4,5 | 11 | 13,3 | 8 | 6,2 | 22 |
| 6. Tourism Sociology | 5 | 13,8 | 3 | 6,8 | 1 | 1,2 | 7 | 5,4 | 16 |
| 7. Destination Development | 2 | 5,6 | 3 | 6,8 | 4 | 4,8 | 3 | 2,3 | 12 |
| 8. Tourism Geographies | 0 | 0 | 1 | 2,3 | 4 | 4,8 | 4 | 3,1 | 9 |
| 9. Company Management & Marketing | 0 | 0 | 1 | 2,3 | 2 | 2,4 | 6 | 4,7 | 9 |
| 10. Event Marketing & Management | 0 | 0 | 0 | 0 | 2 | 2,4 | 2 | 1,6 | 4 |
| 11. Financing | 0 | 0 | 0 | 0 | 1 | 1,2 | 2 | 1,6 | 3 |
| Others | 1 | 2,8 | 2 | 4,5 | 1 | 1,2 | 7 | 5,4 | 11 |
| Total | 36 | 100 | 44 | 100 | 83 | 100 | 129 | 100 | 292 |

Sustainability was the second most prevalent topic for winter tourism researchers. Fifty-nine studies (20.6%) were identified on environmental, social and economic sustainability topics. Environmental sustainability was the most prevalent among these dimensions since it was investigated in 52 out of 59 studies on sustainability. Environmental sustainability was the single topic in 34 of these 52 studies, while it was addressed in 14 studies in conjunction with economic sustainability, and in four studies in conjunction with social sustainability. On sustainability, five of the remaining seven studies addressed only economic sustainability and two addressed only social sustainability. The most prevalent sustainability sub-topics were climate change, vulnerability, snowmaking and weather impact. Analysis of sustainability studies based on the five-year periods suggested that the number of these studies increased regularly. The increase was both numerical and proportional. Between 1997 and 2001, 16% of the total winter tourism articles were on sustainability, while between 2012 and 2016, the same rate was 24.7%. This could be due to the economic problems experienced by winter tourism destinations as a result of the low snowfall during the last 20 years and resulting increase in the interest of researchers on the topic.

Other topics of interest included destination management, tourism economics, leisure/recreation and tourism sociology. The most addressed destination management topics were destination planning and human resources. In the context of human resources, especially seasonal workers were scrutinized frequently. Review of destination management articles published in five-year periods revealed that the article on destination management increased rapidly in early 2000s, and then the rate of increase was steady, however proportional increase was reduced. Tourism demand, snow depth and tourist spending were the most frequent topics in tourism economy. Review of the tourism economics studies in five-year periods demonstrated that the number of articles increased regularly, but not proportionally. In leisure/recreation studies, risk-taking and recreation conflict, and in tourism sociology studies mega-events, resident attitudes, social gains/losses were the most frequently studied themes. Albeit not regularly, there was a proportional and numerical increase in the number of articles on leisure, while proportional analysis revealed that the interest in tourism sociology reduced when compared to the initial years of research. The rate of winter tourism articles on tourism sociology was 13% between 1997 and 2001, however between 2012 and 2016, the same rate was around 5%.

Methodological Profile

Methodological profile of 292 reviewed articles was investigated based on data type and utilized data source. Based on the data type, the studies were analyzed in three categories: studies with only primary resources, studies with only secondary resources, and studies with both primary and secondary resources. Findings are presented in Table 2.

Table 2. Methodological Profile of Winter Tourism Literature

| Type of data | 1997-2001 | | 2002-2006 | | 2007-2011 | | 2012-2016 | | Total | |
|------------------|-----------|------|-----------|------|-----------|------|-----------|------|-------|-------|
| | n | % | n | % | n | % | n | % | n | % |
| Primary | 26 | 72,2 | 25 | 56,8 | 51 | 61,5 | 76 | 58,9 | 178 | 60,96 |
| Secondary | 8 | 22,2 | 11 | 25 | 24 | 28,9 | 39 | 30,2 | 82 | 28,08 |
| Mix | 2 | 5,6 | 8 | 18,2 | 8 | 9,6 | 14 | 10,9 | 32 | 10,96 |
| Total | 36 | 100 | 44 | 100 | 83 | 100 | 129 | 100 | 292 | 100 |

The findings demonstrated that 178 studies (60.96%) were conducted with only primary resources, 82 articles (28.08%) were conducted with only secondary resources. The remaining 32 studies (10.96%) were conducted using both primary and secondary data. The analysis conducted based on five-year periods revealed that the number of studies in all three categories increased over time. On the other hand, it was observed that the proportional increase in primary data was not as high as the numerical increase. This result could be interpreted with the effect of the increase in the rate of secondary data use in studies. The rate of the studies conducted only with secondary data was 22% between 1997 and 2001, while the same rate increased to 30% between 2012 and 2016. On the other hand, the increase in the use of the secondary data could be attributed to the increase in the number of studies on sustainability and economy over the years. Because, the two fields were among the fields where secondary data was commonly used in tourism studies. It was observed that 24 out of 59 studies on sustainability utilized only secondary resources, while nine utilized both primary and secondary resources, thus 59% of the studies on sustainability utilized secondary sources. In the field of tourism economy, secondary resources were used in 14 out of 23 articles (63.6%).

In studies conducted with primary resources, mostly the survey technique was used. Survey technique was used in 126 of 178 articles in this context. This figure equals to 70.78% of the articles with primary resources and 43.15% of the total articles. Thus, it was observed that the survey technique was used as the main data collection instrument in winter tourism research, similar to publications in many social science disciplines. Other important data sources used in studies conducted with primary data were interview and observation techniques. The interview technique was adopted in 51 studies, either as a stand-alone data source or as a data source used in conjunction with other types of data. The rate of interview technique use was 28.6% in the studies conducted with primary resources and 17.4% in total. Observation technique was used alone or in combination with other data sources in 16 studies. In 24 of 178 articles conducted with primary data, data were collected from more than one primary source. These included questionnaire + interview method and interview + observation method pairs, observed in seven studies each. In a study where survey and interview methods were used, also observation method was utilized. Furthermore, questionnaire and observation techniques were used in three studies, survey and GPS tracking methods were used in two studies, survey and software face recognition methods were used in one study.

Interview technique was prominent among the primary data sources in studies conducted with mixed data. In total, 26 out of 32 articles were conducted with interview technique. Interview technique was followed by the observation technique with nine studies and survey technique with seven studies. The most commonly used secondary data types in studies conducted with mixed data were demand data, media data (newspapers, magazines, press releases, etc.), web site data, reports and marketing data (brochures, catalogs, etc.). The data collected from the media were used in 11 of 32 studies conducted with mixed data. While websites were the data source for nine studies, demand data were used in eight studies. Reports and marketing material were used in seven studies. Thus, there was a partial difference between the data used in studies conducted with only secondary data and those used in studies conducted with mixed data. For example, while climate data were only prominent in studies conducted with secondary data sources, only two studies conducted with mixed data utilized climate data. Furthermore, marketing and website data were significant in studies conducted with mixed data, while their utilization was limited in studies conducted with secondary data. Marketing data were used only in four out of 83 studies conducted with secondary data and website data were used only in two studies.

It would be beneficial to analyze the primary resources in studies conducted with primary and mixed data before proceeding to studies conducted only with secondary sources. In 210 of 292 studies, primary data were utilized. The survey technique was the most prominent primary data source, followed by interview and observation techniques (Table 3). Annually, it was observed that all three techniques increased in numbers in each five-year period. However, the analysis based on the increase rate demonstrated that the number of studies conducted with the survey technique increased, but the rate of studies conducted with this technique decreased. At this point, especially in recent years, the effect of increasing interest in qualitative methods in tourism discipline is high as in other social sciences disciplines. The interview technique was used in only 10% of the studies on winter tourism between 1997 and 2001; however, the same rate increased to 40% between 2012 and 2016.

Table 3. The Use of Survey, Interview and Observation Techniques

| Primary data sources | 1997-2001 | | 2002-2006 | | 2007-2011 | | 2012-2016 | | Total |
|----------------------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-------|
| | n | % | n | % | n | % | n | % | |
| Survey | 24 | 85,14 | 24 | 66,67 | 35 | 54,68 | 50 | 48,54 | 133 |
| Interview | 3 | 10,71 | 8 | 22,22 | 24 | 37,50 | 42 | 40,78 | 77 |
| Observation | 1 | 3,57 | 4 | 11,11 | 10 | 15,62 | 11 | 10,68 | 26 |
| Total | 28 | 100 | 36 | 100 | 64 | 100 | 103 | 100 | |

Review of the studies based on secondary data in terms of data source is more difficult when compared to the analysis of the studies conducted with only primary data sources. Because, a large variety of data types are used in studies conducted with secondary data and a wide variety of secondary data could be used in the same study. However, it is possible to group and discuss the prominent data types. For example, climate and meteorological data (weather data, snow depth, snowfall, snow conditions, snowmaking), demand data (overnight stays, lift ticket sales), income data (tourist spending, GDP, hotel or lift company revenues), expense data and literature were the most significant data types. The number of studies conducted with climate and meteorological data was 27. This figure demonstrated that climate and meteorological data were used alone or in combination with other data in 32.5% of the studies conducted only with secondary data. Demand data were used alone or in combination with other data in 21 studies. This figure corresponds to 25.3% of the studies conducted only with secondary data. Furthermore, literature review was used in 13 studies, income data were used in 17 studies, expense data were used in seven studies, and employee data were used in three studies.

Contribution Profile

Journal Contributions

In the present study, bibliometric profile of 21 journals was reviewed within the scope of winter tourism. As seen in Table 4, *Scandinavian Journal of Hospitality and Tourism* made the most significant contribution to winter tourism literature among these 21 journals. This was followed by *Tourism Management* and *Journal of Sustainable Tourism*. The fact that the *Scandinavian Journal of Hospitality* was the most prominent journal is natural since it targets the Nordic region, one of the leading winter tourism regions in the world. The cross-tabs (topic*journal) demonstrated that this journal included research on several topics in the field of winter tourism, especially destination marketing, sustainability and destination management. *Tourism Management*, on the other hand, contributed to the winter tourism literature especially within the scope of destination management and marketing. *Journal of Sustainable Tourism* contributed to winter tourism literature with studies on sustainable winter tourism, while *Journal of Travel*

Research and Current Issues in Tourism make significant contributions to winter tourism literature, especially in destination marketing.

Table 4. Contributions of Journals

| Journal Names & First Publishing Years | N | % |
|---|-----|------|
| 1. Scandinavian Journal of Hospitality and Tourism (2001) | 46 | 15,8 |
| 2. Tourism Management (1982) | 37 | 12,7 |
| 3. Journal of Sustainable Tourism (1993) | 29 | 9,9 |
| 4. Journal of Travel Research (1968) | 23 | 7,9 |
| 5. Current Issues in Tourism (1998) | 21 | 7,2 |
| 6. Journal of Travel and Tourism Marketing (1992) | 19 | 6,5 |
| 7. Tourism Geographies (1999) | 16 | 5,5 |
| 8. Leisure Studies (1982) | 16 | 5,5 |
| 9. Tourism Economics (1995) | 13 | 4,5 |
| 10. Annals of Tourism Research (1973) | 11 | 3,8 |
| 11. Leisure Sciences (1977) | 9 | 3,1 |
| 12. International Journal of Tourism Research (1990) | 8 | 2,7 |
| 13. Journal of Vacation Marketing (1994) | 8 | 2,7 |
| 14. Journal of Leisure Research (1969) | 8 | 2,7 |
| 15. International Journal of Hospitality Management (1982) | 7 | 2,4 |
| 16. Journal of Destination Marketing & Management (2012) | 5 | 1,7 |
| 17. International Journal of Contemporary Hospitality Management (1989) | 4 | 1,4 |
| 18. Cornell Hospitality Quarterly (1960) | 3 | 1 |
| 19. Journal of Tourism and Cultural Change (2003) | 3 | 1 |
| 20. Journal of Hospitality & Tourism Research (1976) | 3 | 1 |
| 21. Tourist Studies (2001) | 3 | 1 |
| Total | 292 | 100 |

The journals that contributed the least to winter tourism literature included hospitality journals, which publish articles on hospitality sector. This was due to the fact that winter tourism is mostly considered as a type of tourism or type of destination. Furthermore, it could be also due to the short history of these journals. For example, *Journal of Destination Marketing & Management* started to be published in 2012, while *Tourism Management* was published since 1982.

Author Contributions

It was determined that there were 485 authors who contributed to winter tourism literature in SSCI-indexed tourism journals between 1997 and 2016. The list of authors contributed to winter tourism literature with more than three studies is presented in Table 5. As seen in the table, Martin Falk was the top contributor among the reviewed journals. Peter Fredman, Peter W. Williams, Simon Hudson, Daniel Scott, and Kostas Alexandris followed him occupying the top six ranks with at least six articles. According to the official website (WIFO, 2019), Dr. Falk works at Austrian Institute of Economic Research (WIFO) and his research interest was mainly winter tourism. Peter Fredman, on the other hand, works at Mid Sweden University, and he focuses on nature-based recreation/tourism in his studies (Mid Sweden University, 2019). Peter Williams is from Simon Fraser University and mostly studied on winter tourism sustainability (Simon Fraser University, 2019). Simon Hudson is from University of South Carolina and focused on winter tourism and tourism marketing (University of South Carolina, 2019), Kostas Alexandris is

from Aristotle University and focused mainly on sport tourism marketing and specifically on winter tourism marketing (Researchgate, 2019), while Daniel Scott is from The University of Waterloo and studied mostly climate change and sustainable tourism (University of Waterloo, 2019).

Table 5. *Contributions of Authors*

| Author Name | N of studies |
|---------------------------|--------------|
| 1. Martin Falk | 9 |
| 2. Peter Fredman | 7 |
| 3. Peter W. Williams | 7 |
| 4. Simon Hudson | 7 |
| 5. Daniel Scott | 6 |
| 6. Kostas Alexandris | 6 |
| 7. Harald Pechlaner | 5 |
| 8. Pietro Beritelli | 5 |
| 9. Mark D. Needham | 5 |
| 10. Andreas Andronikidis | 4 |
| 11. Chris A. Vassiliadis | 4 |
| 12. Christian Laesser | 4 |
| 13. Eija Pouta | 4 |
| 14. Kaarina Tervo-Kankare | 4 |
| 15. Linda Lundmark | 4 |
| 16. Marjo Neuvonen | 4 |
| 17. Matthias Fuchs | 4 |
| 18. Robert Steiger | 4 |
| 19. Tuija Sievanen | 4 |

Institutional Contribution

The ranking of institutions that contributed five or more articles is presented in Table 6. Review of the contribution of institutions to winter tourism literature demonstrated that University of Innsbruck was the top contributor. It was followed by Mid-Sweden University, Colorado State University and Simon Fraser University. Austrian, Swedish, Canadian and American universities contributed to the field via the academicians they employed. The fact that these countries were among the most developed countries in winter tourism supported the idea that the development of the literature and the industry was parallel. Regional review demonstrated that the institutions in regions where winter tourism is among the principal tourism products were prominent. For example, winter tourism is one of the main tourism products in the State of Colorado, and it was observed that the researchers at Colorado State University studied the dominant tourism product in the region. The same applies to the University of Innsbruck, which is located in Innsbruck, the capital of the Tyrol province. The region is synonymous with winter tourism and the university is naturally prominent in winter tourism research. It is possible to say the same for the other institutions.

Table 6. *Contributions of Institutions*

| Names and Countries of Origin of Institutions | N of articles |
|---|---------------|
| 1. University of Innsbruck – Austria | 15 |
| 2. Mid-Sweden University – Sweden | 14 |
| 3. Colorado State University – USA | 12 |
| 4. Simon Fraser University – Canada | 11 |
| 5. Austrian Institute of Economic Research (WIFO) - Austria | 9 |
| 6. Umea University – Sweden | 9 |
| 7. University of Oulu – Finland | 9 |
| 8. University of Calgary – Canada | 8 |
| 9. University of Lapland – Finland | 7 |
| 10. Griffith University – Australia | 7 |
| 11. University of Waterloo – Canada | 6 |
| 12. University of St. Gallen – Switzerland | 6 |
| 13. University of Queensland – Australia | 6 |
| 14. Texas A&M University – USA | 5 |
| 15. MTT Agrifood Research Finland – Finland | 5 |
| 16. Aristotle University of Thessaloniki – Greece | 5 |

National Contributions

The findings demonstrated that 28 countries contributed to 292 winter tourism articles in 21 reviewed journals. The countries, which contributed with at least five articles, are presented in Table 7, where the category of “other” included 15 countries. As seen in the table, the USA and Canada, the two largest countries on the American continent, were at the top. The contribution of these two countries to winter tourism articles was 34.94% in 21 reviewed journals. Northern and central European countries, where winter tourism is part of the social lifestyle, followed the USA and Canada. Central European countries such as Austria, Germany and Switzerland (20%) and northern European countries such as Sweden, Finland and Norway (28%) contributed approximately 50% of all articles via authors from various institutions. Furthermore, other important European countries such as the UK, Italy, France, Greece and Spain, and Australia contributed to the literature.

Table 7. *Contributions of Countries*

| zCountry | N of Studies | % |
|---|--------------|---------------|
| 1. USA | 59 | 20,21 |
| 2. Canada | 43 | 14,73 |
| 3. Austria | 35 | 11,99 |
| 4. Sweden | 30 | 10,27 |
| 5. Finland | 28 | 9,59 |
| 6. Australia | 26 | 8,90 |
| 7. Norway | 26 | 8,90 |
| 8. UK | 26 | 8,90 |
| 9. Italy | 16 | 5,48 |
| 10. Germany | 14 | 4,79 |
| 11. France | 12 | 4,11 |
| 12. Greece | 12 | 4,11 |
| 13. Switzerland | 10 | 3,42 |
| 14. Spain | 6 | 2,05 |
| 15. The Netherlands | 5 | 1,71 |
| 16. Korea | 5 | 1,71 |
| Others (15 countries) | 23 | 7,88 |
| Total | 376 | 128,77 |
| * The reason of total line being more than 100% is that 84 articles were published by researchers from more than one country. | | |

Conclusion and Future Research

Winter tourism is one of the most profitable and continuously developing sector in the tourism industry. Although current reports demonstrated a stagnation in market growth during the last decade, 130 million ski tourists reflect the size of winter tourism. The rapid growth in the industry and the market accelerated the development in the literature and the number of studies on winter tourism has increased over the years. In the present study, 20 years of development in winter tourism literature was reviewed with bibliometric techniques. Thus, the present study investigated the articles published in SSCI-indexed tourism journals based on the main research topics, the most frequently adopted research methods, and contributions of the countries, journals, institutions and authors.

Findings related to the contribution profile demonstrated that 485 authors from 28 countries contributed to 292 articles in 21 journals. Based on country, it was determined that the countries which were developed in winter tourism such as the USA, Canada, Austria, Sweden and Finland, made the biggest contribution to the winter tourism literature. Thus, it could be suggested that tourism researchers concentrated on the dominant tourism products in their regions and that the developments in the industry and the literature were parallel. Data on contribution of the institutions and authors also supported this assessment. University of Innsbruck - Austria, Mid-Sweden University - Sweden, Colorado State University - USA, and Simon Fraser University - Canada were the major contributors to winter tourism literature, and these universities are located in regions where winter tourism is developed (Tyrol, Östersund, Colorado, British Columbia). Analysis of the authors who contributed the most to winter tourism literature in SSCI-indexed tourism journals during the last two decades (Martin Falk, Peter Fredman, Peter W. Williams, Simon Hudson, Daniel Scott) demonstrated that they were also from Austria, Sweden, Canada and the USA. General analysis of the contribution profile demonstrated that the countries, which are prominent in several types of tourism such as the USA and Canada, and the countries, which are prominent in winter tourism in general such as Sweden, Austria, and Finland, and the institutions and authors resident in these countries were notable. Certain studies in the literature supported this suggestion. For example, Sanchez et al. (2017), in their study conducted on wine tourism, revealed that the USA and Canada, and the countries such as Australia and Spain that were significant wine producers, were among the countries with the highest number of publications on wine tourism. However, although the USA has an advanced winter tourism, it occupies a specific position. Because, the USA is also a prominent country in bibliometric studies conducted on other topics as well. Mulet-Forteza et al. (2018) reported that the USA contributed the most to tourism marketing literature in *Journal of Travel & Tourism Marketing*. Similarly, the USA is the pioneer in research conducted on information technologies in tourism (Yuan et al., 2019) and gastronomy (Okumus, Koseoglu, & Ma, 2018). Thus, the effects of factors such as the high number of tourism academicians in the USA, the high publishing opportunities due to the native language, and the high number of American journals could be noted.

The most prominent topics in the thematic analysis of winter tourism literature included destination marketing and sustainability. Within the context of destination marketing, issues such as market segmentation, tourist perceptions and experiences and destination image were significant. In sustainability, issues such as climate change, vulnerability, snowmaking and weather impact were among the topics of interest for researchers. It is possible to address this issue from two perspectives. First, the most important issues for the researchers in winter tourism included marketing and sustainability topics. Second, among the tourism academics, those who research on marketing

and sustainability were higher in numbers and their fields of interest included winter tourism destinations. Destination marketing and sustainable tourism were among the topics of certain bibliometric studies. Avila-Robinson and Wakabayashi (2018) reviewed previously published articles on destination management and marketing, and similar to the present study, found that destination perception (satisfaction, intention, etc.), tourist behavior (segmentation, loyalty, motivation, etc.) and destination image were prominent topics. Thus, it could be suggested that winter tourism literature and general destination marketing literature were consistent. Sustainable tourism was a more frequent topic in bibliometric studies (Farid et al., 2016; Garrigos-Simon, Narangajavana-Kaosiri, & Lengua-Lengua, 2018; Ruhanen et al., 2015). The present study findings suggested that the findings on sustainable tourism were consistent with the literature. For example, Farid et al. (2016), in a study on general sustainable tourism, reported that climate change was the most frequently studied issue. Similarly, Garrigos-Simon et al. (2018) found that climate change was among the most commonly used keywords in sustainable tourism literature. Moreover, Çalhan and Çakıcı (2019) found in their study which examined the 59 winter tourism studies that climate change is the most used keyword.

In the present study, it was determined that other frequently addressed main themes included destination management, tourism economy and leisure/recreation. In this context, topics such as human resources practices, tourism demand/expenditures, mega events and recreation conflict were prominent. The least studied topics included management and financing of businesses at winter tourism destinations and event management/marketing. Thus, it was determined that although mega-events were frequently addressed in destination marketing, future studies on the marketing and management of winter sports activities may contribute to the literature. Furthermore, studies on company management in winter tourism destinations (hotels, restaurants, lift operators, etc.) may contribute to the field since there is only a few studies on the topic.

Methodological analysis demonstrated that primary data use was predominant. In recent years, however, there was a general increase in the use of secondary data, especially due to the increase in the number of studies on sustainability and economy. The survey technique was the most used technique both in studies conducted with mixed and primary data. However, it was demonstrated that the percentage of interview and observation techniques increased in recent years and the percentage of the studies conducted with survey technique decreased. Thus, there was a change in research methods used in recent years, and the perception that the techniques except the survey method led to reliability issues since they did not utilize quantitative methods has changed in winter tourism literature as well, and interview and observation techniques became more acceptable. There are bibliometric studies that investigated the methodological structure of publications in tourism literature (Koc & Boz, 2014; Mazanec et al., 2010; Palmer et al., 2005; Wilson et al., 2019). Among these, a study by Koc and Boz (2014) revealed findings parallel to the present study. Koc and Boz (2014) analyzed the use of triangulation method in their bibliometric research conducted on three leading tourism journals and found that the most commonly used data collection method was survey technique, followed by survey + interview method. They also found that the use of dual methods (survey + interview, secondary data + interview, etc.) has increased in recent years. In the present study, it was found that the climate and meteorology data were the most frequently used secondary data. This finding can be explained by the fact that sustainability is among the most researched subjects and that meteorological data are frequently used in sustainability studies. Furthermore, it was determined that similar variables were frequently used in economic studies as well. A methodological recommendation could be to increase utilization of mixed data in future studies due to the low increase in the number of studies conducted with mixed data. Thus, analyses would be conducted with data that

audit and complement each other, and when a less studied topic would be preferred, the publication chances of future articles in quality journals would improve.

Limitations

As with all bibliometric studies, there are limitations regarding the selection of articles reviewed in this study. The most significant limitation was the fact that the study was limited to SSCI-indexed tourism journals. This was due to the conception that SSCI-indexed tourism journals were the most quality journals in the field. Furthermore, only tourism, hospitality and leisure journals were included among the SSCI-indexed Hospitality, Leisure, Sport & Tourism Journals. The exclusion of sports journals was due to the fact that the present study focused on the tourism dimension of the winter tourism phenomenon, not the technical sport dimension. Consideration of the period between 1997 and 2016 was also another limitation. This was due to the fact that it is difficult and quite expensive to access articles published before 1997 in online databases in Turkey.

REFERENCES

- Avila-Robinson, A., & Wakabayashi, N. (2018). Changes in the structures and directions of destination management and marketing research: A bibliometric mapping study, 2005-2016. *Journal of Destination Marketing & Management*, 10, 101-111.
- Benckendorff, P., & Zehrer, A. (2016). Career and collaboration patterns in tourism research. *Current Issues in Tourism*, 19(14), 1386-1404.
- Çalhan, H., & Çakıcı, A.C. (2019). Uluslararası indekslerce taranan kış turizmi başlıklı makalelerin bibliyometrik analizi. In *the First International Winter Tourism Congress (IWTC 2019) Proceedings Book* (pp. 1-11), Erzurum/TURKEY.
- Cheng, M., Edwards, D., Darcy, S., & Redfern, K. (2018). A tri-method approach to a review of adventure tourism literature: Bibliometric analysis, content analysis, and a quantitative systematic literature review. *Journal of Hospitality & Tourism Research*, 42(6), 997-1020.
- Comerio, N., & Strozzi, F. (2019). Tourism and its economic impact: A literature review using bibliometric tools. *Tourism Economics*, 25(1), 109-131.
- Cong, L., Newsome, D., Wu, B., & Morrison, A. M. (2017). Wildlife tourism in China: A review of the Chinese research literature. *Current Issues in Tourism*, 20(11), 1116-1139.
- Cunill, O. M., Salvá, A. S., Gonzalez, L. O., & Mulet-Forteza, C. (2019). Thirty-fifth anniversary of the International Journal of Hospitality Management: A bibliometric overview. *International Journal of Hospitality Management*, 78, 89-101.
- De la Hoz-Correa, A., Muñoz-Leiva, F., & Bakucz, M. (2018). Past themes and future trends in medical tourism research: A co-word analysis. *Tourism Management*, 65, 200-211.
- Evren, S., & Kozak, N. (2014). Bibliometric analysis of tourism and hospitality related articles published in Turkey. *Anatolia*, 25(1), 61-80.

- Farid, H., Hakimian, F., Nair, V., Nair, P. K., & Ismail, N. (2016). Trend of research on sustainable tourism and climate change in 21st century. *Worldwide Hospitality and Tourism Themes*, 8(5), 516-533.
- Garrigos-Simon, F., Narangajavana-Kaosiri, Y., & Lengua-Lengua, I. (2018). Tourism and sustainability: A bibliometric and visualization analysis. *Sustainability*, 10(6), 1976.
- Hall, C. M. (2010). A citation analysis of tourism recreation research. *Tourism Recreation Research*, 35(3), 305-309.
- Hall, C. M. (2011). Publish and perish? Bibliometric analysis, journal ranking and the assessment of research quality in tourism. *Tourism Management*, 32(1), 16-27.
- Hudson, S. (2003). Winter sport tourism. In Hudson S. (Ed.), *Sport and adventure tourism* (pp. 89-124), New York: The Haworth Hospitality Press.
- International Skiing History Association, (2019, May 20). Origin story: where did skiing begin?, Retrieved from <https://skiinghistory.org/news/origin-story-where-did-skiing-begin>.
- Jiang, Y., Ritchie, B. W., & Benckendorff, P. (2017). Bibliometric visualisation: An application in tourism crisis and disaster management research. *Current Issues in Tourism*, 1-33.
- Koc, E., & Boz, H. (2014). Triangulation in tourism research: A bibliometric study of top three tourism journals. *Tourism Management Perspectives*, 12, 9-14.
- Koseoglu, M. A., Law, R., & Dogan, I. C. (2018). Exploring the social structure of strategic management research with a hospitality industry focus. *International Journal of Contemporary Hospitality Management*. Retrieved from <https://doi.org/10.1108/IJCHM-11-2017-0764>
- Koseoglu, M. A., Rahimi, R., Okumus, F., & Liu, J. (2016). Bibliometric studies in tourism. *Annals of Tourism Research*, 61, 180-198.
- Köseoglu, M. A., Sehitoglu, Y., & Parnell, J. A. (2015). A bibliometric analysis of scholarly work in leading tourism and hospitality journals: The case of Turkey. *Anatolia*, 26(3), 359-371.
- Mazanec, J. A., Ring, A., Stangl, B., & Teichmann, K. (2010). Usage patterns of advanced analytical methods in tourism research 1988–2008: A six journal survey. *Information Technology & Tourism*, 12(1), 17-46.
- Mid Sweden University (2019 April 18). Peter Fredman: Publications. Retrieved from: https://www.miun.se/en/personnel/peter-fredman/#Article_in_journal
- Mulet-Forteza, C., Martorell-Cunill, O., Merigó, J. M., Genovart-Balaguer, J., & Mauleon-Mendez, E. (2018). Twenty five years of the Journal of Travel & Tourism Marketing: A bibliometric ranking. *Journal of Travel & Tourism Marketing*, 35(9), 1201-1221.
- Okumus, B., Koseoglu, M. A., & Ma, F. (2018). Food and gastronomy research in tourism and hospitality: A bibliometric analysis. *International Journal of Hospitality Management*, 73, 64-74.
- Online Dictionary for Library and Information Science (2020). Bibliometrics. Retrieved from: https://products.abc-clio.com/ODLIS/odlis_b.aspx

- Palmer, A. L., Sesé, A., & Montaña, J. J. (2005). Tourism and statistics: Bibliometric study 1998–2002. *Annals of Tourism Research*, 32(1), 167-178.
- Pritchard, A. (1969). Statistical bibliography or bibliometrics. *Journal of Documentation*, 25(4), 348-349.
- Researchgate (2019 May 13). Kostas Alexandris. Retrieved from https://www.researchgate.net/profile/Kostas_Alexandris
- Ruhanen, L., Weiler, B., Moyle, B. D., & McLennan, C. J. (2015). Trends and patterns in sustainable tourism research: A 25-year bibliometric analysis. *Journal of Sustainable Tourism*, 23(4), 517-535.
- Sainaghi, R. (2012). Tourist expenditures: The state of the art. *Anatolia*, 23(2), 217-233.
- Sánchez, A. D., Del Río, M. D. L. C., & García, J. Á. (2017). Bibliometric analysis of publications on wine tourism in the databases Scopus and WoS. *European Research on Management and Business Economics*, 23(1), 8-15.
- Satyanarayana, D. (2014). TOURISMOS: a bibliometric study. *Journal of Tourism and Hospitality*, 3(2). Retrieved from <https://www.longdom.org/open-access/tourismos-a-bibliometric-study-2167-0269.1000124.pdf>
- Seyfi, S., Hall, C. M., & Kuhzady, S. (2019). Tourism and hospitality research on Iran: Current state and perspectives. *Tourism Geographies*, 21(1), 143-162.
- Silik, C.E., & Ünlüönen, K. (2017). Kayak merkezleri kapsamında yapılan araştırmalara yönelik kavramsal bir inceleme. *Journal of Recreation and Tourism Research*, 4(4), 24-34.
- Simon Fraser University (2019 April 18). Peter Williams: Biography. Retrieved from: <https://www.sfu.ca/rem/people/profiles/williams.html>
- Strandberg, C., Nath, A., Hemmatdar, H., & Jahwash, M. (2018). Tourism research in the new millennium: A bibliometric review of literature in Tourism and Hospitality Research. *Tourism and Hospitality Research*, 18(3), 269-285.
- Szpilko, D. (2017). Tourism supply chain—overview of selected literature. *Procedia Engineering*, 182, 687-693.
- University of South Carolina (2019 April 18). Simon Hudson: Background. Retrieved from https://www.sc.edu/study/colleges_schools/hrsm/faculty-staff/hudson_simon.php
- University of Waterloo (2019 April 18). Daniel Scott: Recent Publications. Retrieved from <https://uwaterloo.ca/geography-environmental-management/people-profiles/daniel-scott>
- Van Peer, L. (2003). Tourism development and strategies for success in ski resorts: A study of the theory and practice. [Unpublished doctorate thesis], Bournemouth University.
- Vanat, L. (2019 June 26). 2019 International Report on Snow & Mountain Tourism. Retrieved from <https://www.vanat.ch/RM-world-report-2019.pdf>
- WIFO (2019 April 18). Homepage of Martin Falk: Publications. Retrieved from: <https://martin.falk.wifo.ac.at/index.php?id=129>

- Wilson, E., Mura, P., Sharif, S. P., & Wijesinghe, S. N. (2019). Beyond the third moment? Mapping the state of qualitative tourism research. *Current Issues in Tourism*, 1-16. Retrieved from <https://doi.org/10.1080/13683500.2019.1568971>
- Wu, B., Xiao, H., Dong, X., Wang, M., & Xue, L. (2012). Tourism knowledge domains: A keyword analysis. *Asia Pacific Journal of Tourism Research*, 17(4), 355-380.
- Wu, M. Y., & Wall, G. (2016). Chinese research on family tourism: Review and research implications. *Journal of China Tourism Research*, 12(3-4), 274-290.
- Wu, M. Y., Wall, G., & Tong, Y. (2019). Research on China's Inbound Tourism: A Comparative Review. *Journal of China Tourism Research*, 1-20. Retrieved from <https://doi.org/10.1080/19388160.2018.1516584>
- Yankholmes, A. K. (2014). Publish or perish: African scholarship in the field of tourism and hospitality studies. *Tourism and Hospitality Research*, 14(1-2), 97-107.
- Yuan, Y., Tseng, Y. H., & Ho, C. I. (2019). Tourism information technology research trends: 1990-2016. *Tourism Review*, 74(1), 5-19.
- Zanfardini, M., Aguirre, P., & Tamagni, L. (2016). The evolution of CSR's research in tourism context: a review from 1992 to 2012. *Anatolia*, 27(1), 38-46.
- Zeng, B., & Ryan, C. (2012). Assisting the poor in China through tourism development: A review of research. *Tourism Management*, 33(2), 239-248.
- Zhong, L., Wu, B., & Morrison, A. M. (2015). Research on China's tourism: A 35-year review and authorship analysis. *International Journal of Tourism Research*, 17(1), 25-34.