

Publisher: J-INSTITUTE
ISSN: 2435-0702

Website: www.j-institute.jp/kinesiology/
Editor: kinesiology@j-institute.jp

Corresponding author
E-mail: shinhb@kmu.ac.kr

dx.doi.org/10.22471/kinesiology.2021.6.1.39

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The Impacts of the Winter Olympic Games on SPORT Tourism: A Systematic Review

Xuefeng Bai¹

Keimyung University, Daegu, Republic of Korea

Hongbum Shin^{2*}

Keimyung University, Daegu, Republic of Korea

Soonhwan Lee³

Indiana University Purdue University Indianapolis, Indianapolis, United States of America

Abstract

Purpose: Sport Tourism is a driving force for sustainable economic development of tourism destinations. The Winter Olympic Games is a catalyst for this momentum. In order to clearly sort out the impacts of the Winter Olympic Games on sport tourism of the host city, this paper employed a systematic review. This study allowed to provide some enlightenment for the development of sport tourism in the host cities of the Winter Olympic Games in the future, and proposed the corresponding reference for the continued research in this field.

Method: This paper adopted systematic review, more rigorous than the traditional literature review, to explore the impacts of the Winter Olympic Games on sport tourism in host cities. Through the literature search of selected data, 369 articles in English language was retrieved and finally narrowed down to 17 articles according to the set research criteria. The information extracted from the remaining articles was used to present the types of impacts the Winter Olympics have had on sport tourism in host cities and in how it impacted.

Results: Through the review and summary of the literature, current Winter Olympic Games had both positive and negative impacts on sport tourism in host cities. According to its specific manifestation, this paper classified the impact factors. Positive impacts could be summarized into three parts: improving sport tourism revenue, improving city image and promoting urban reform. Negative impacts were mainly reflected in two aspects: the excessive cost leads to excessive burden and the unsatisfied sustainable development sustainable development.

Conclusions: This paper clearly stressed that the Winter Olympic Games had both positive and negative impacts on the development of sport tourism in host cities, and further analyzed the aspects in which these impacts are found. Based on research results, it proposed the enlightenment on the development planning and ecological environment in order to ensure the sustainable development of sport tourism for the upcoming Beijing Olympic Games. It is a pity that there were still some limitations in the research scope and methods, and it hoped that they can be solved in the following research.

[Keywords] Winter Olympic Games, Sport Tourism, Sustainable Development, Economic Impact, Systematic Reviews

1. Introduction

Sport Tourism is a type of tourism activity that people take part in or watch, which focus on sports[1]. It mainly contains three types: Sport Event Tourism, Celebrity and Nostalgia Sport Tourism, and Active Sport Tourism[2]. Since the World Tourism Organization(UNWTO) and the International Olympic Committee(IOC) held the First World Conference on Sport and Tourism in Barcelona in February 2001, the relationship between sport and tourism were connected close and the benefits and contributions of sport tourism were known by the world[3]. Therefore, sport tourism has become one of the fastest developing sectors in the tourism industry

in recent years[4]. More and more tourists were interested in sport activities during their trips. They were attracted as participants or spectators by various kinds and sizes of sport events. The tourist attractions add their local distinctiveness to provide authentic local experiences[5]. In particular, the hosting of the Olympic Games and other mega sport events have become a catalyst to promote the development of sport tourism[6].

As a typical event, the Winter Olympic Games was the sum of a series of important activities related to the Winter Olympics in a period of time, which directly promoted the development of the city and sport tourism[7]. Although its influence was not as great as that of the Summer Olympic Games[8], the success of the Winter Olympics could not be ignored in promoting the development of sport tourism in host cities. After the 1992 Winter Olympics in Albertville, France, the number of winter visitors increased significantly the following year[9]. After the 2002 Salt Lake City Winter Olympics, Utah experienced a surge in winter sport tourism, with a record number of ski visitors in 2005. According to statistics, Utah received 4.1 million skiers in 2005, compared to 3 million skiers in 2002[10]. However, with the further study, some scholars believed that the Winter Olympic Games also led to the unstable development of sport tourism in host cities. Although the 2014 Winter Olympic Games brought a new atmosphere to the sport tourism in Sochi at the beginning, it subsequently became a burden on the national finance, with the annual interest and tax income from operation, maintenance and abandonment of about 1.2 billion US dollars, directly leading to the decline of domestic support for this project[11]. A lot of debate have been triggered about the impact of sport tourism in the host cities for the similar cases existing. Many scholars have also studied this issue and made a lot of achievement. However most studies focused on the impacts of a certain Winter Olympics on sport tourism in host cities. Only few studies analyzed the impacts of every Winter Olympics. Even though a few studied on the impacts of multiple Winter Olympics, they aimed at urban heritage, urban regeneration and others. Therefore, this paper believes that it is necessary to study how the Winter Olympic Games impacted the host city's sport tourism. This paper was generated in this scientific and empirical context.

In order to clearly sort out the impacts of the Winter Olympic Game on sport tourism of host cities, systematic review was used in this study as the research method to explore and analyze the impacts of the previous Winter Olympics on sport tourism of host cities, and discussed the results. Some enlightenment were proposed for the development of sport tourism in the host cities holding Winter Olympic Games in the future, and relevant references for the continued research in this field were also conducted.

2. Research Methods

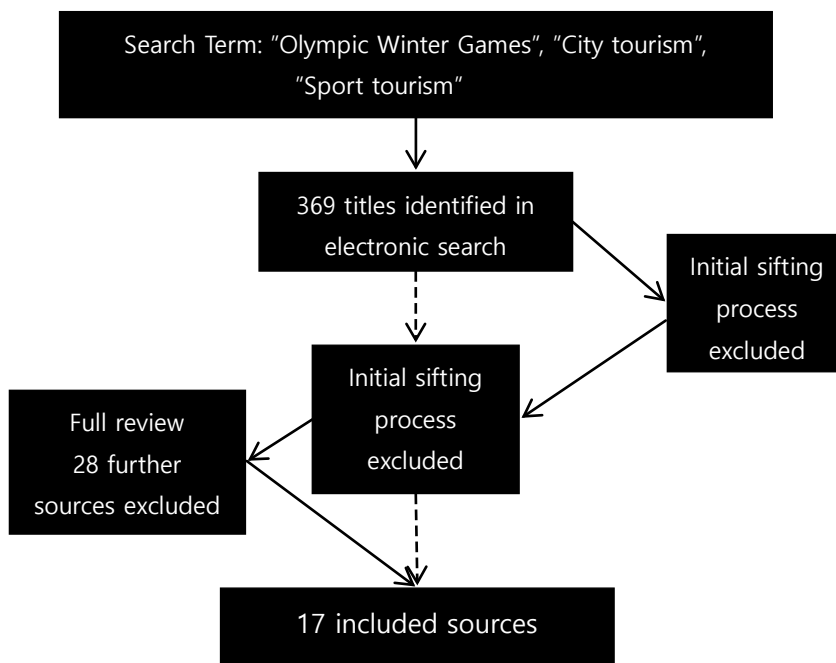
Systematic review aims to provide a complete, exhaustive summary of current literature relevant to a research question[12]. There are two main types of literature review: narrative literature reviews and systematic reviews. Compared with traditional literature review methods, systematic review is more scientific and objective, which can ensure the accuracy of results[13]. The systematic review can be divided into qualitative and quantitative comments. Qualitative research is mainly the qualitative evaluation and summary of the results and conclusions of the original literature, while quantitative research integrates the results of the literature with statistical methods, also known as Meta-analysis[14]. Pickering and Byrne(2014) recommended quantitative literature review for “emerging areas and for areas where methodological approaches are so diverse that there is limited potential for other types of quantitative reviews”[15]. Sport tourism is a relatively new area of academic research that spans multiple disciplines, topics, and methodological approaches and quantitative literature reviews. Therefore, to explore the impacts of the Winter Olympic Games on sport tourism in host cities, this paper took Winter Olympic Games and sport tourism as research objects, and

puts forward the following research questions: What kind of impacts will the Winter Olympics have on sport tourism in host cities? What are the specific aspects of these effects?

2.1. Search strategy and study inclusion criteria

As an important part of systematic review, literature standard plays a decisive role in the final result. The data on the impact of the Winter Olympics on sport tourism came from a broader systematic review. The initial search was conducted via three databases: the WOS Core Collection, Taylor & Francis, and EBSCO. Considering the influence of the PyeongChang Olympic Games, the Korean Journal Database has also been added to the WOS, but only as a reference. Although the research on sport tourism began in the early 1990s, people began to organize the Winter Olympics in large urban areas as a means of promoting development in the early 21st century[16], so the literature search time was set after 2001. Literature search was conducted with "Winter Olympics", "urban tourism" and "sport tourism" as key words. The initial search was conducted by a researcher. The limitation of data collection process was set by (1)Articles in English and published in journals after 2001; (2)They discussed the relationship between the Winter Olympic Games and sport tourism of host cities or the influence of the Winter Olympic Games on sport tourism of host cities; (3)The thesis was related to the topic and drew a clear conclusion. The initial search returned 369 articles and 324 were eliminated based on title and abstract by one researcher. The remaining 45 articles were cross-examined by two other researchers. Through full text screening, it narrowed down to 17 articles. Details are shown in <Figure 1>.

Figure 1. Process followed to construct literature sample.



The following information were collected from the fully scanned papers: (1)The impact types of winter Olympic Games on sport tourism, (2)The specific performance of winter Olympic Games on sport tourism in host cities. The information above were collected and scanned by two researchers and reexamined by another one. All the information were collected by a single researcher. The information extracted was identified by another researcher. As shown in the following <Table 1>.

Table 1. The information of summary.

No.	Author	Year	Topic relevant	Impact type	Corresponding contents
1	Hillier	2006	Yes	Negative	- Long-term benefit and comprehensive benefit are not ideal
2	Andranovith & Burbank	2011	Yes	Positive	- Expansion of the offer and quality of sport infrastructures
3	Bondonio & Guala	2011	Yes	Positive	- Increasing the attractions for both its citizens and visitors - Successfully reshaped a cultural city
4	Dansero & Putilli	2010	Yes	Positive	- Reconversion of certain Olympic sites - Enhancement of transportation infrastructures
5	Dansero & Putili	2010	Yes	Negative	- Sport wasteland
6	Bondonio & Guala	2011	Yes	Positive	- Improve city image - Increasing the attractions for both its citizens and visitors
7	Black	2007	Yes	Negative	- Increase problem of poverty and homeless - Increase financial burden
8	Mccarthy	2012	Yes	Negative	- Long-term benefit and comprehensive benefit are not ideal
9	Pentifallo & Wynsberghe	2015	Yes	Positive	- Development of environmental standards - Improve city image - Increasing visitors
10	Wynsberghe Et al.	2012	Yes	Positive	- Promote urban change - Urban regeneration
11	Teigland	2012	Yes	Negative	- 40% of the full-service hotels have gone bankrupt
12	Alberts	2011	Yes	Positive	- Expansion of the offer and quality of sport infrastructures - Promote urban change
13	Müller	2014	Yes	Mix	- Expansion of the offer and quality of sport infrastructures - Improve city image - Promote urban change - Increase financial burden - Long-term benefit and comprehensive benefit are not idea
14	Kaplanidou & Karadakis	2010	Yes	Positive	- Expansion of the offer and quality of sport infrastructures - Urban regeneration
15	Sant & Mason	2015	Yes	Positive	- Expansion of the offer and quality of sport infrastructures - Promote urban change
16	Wood & Meng	2020	Yes	Positive	- Promote the growth of tourism economy - Increase in tourism demand
17	Lee	2020	Yes	Negative	- The most development and construction projects are too large and too expensive to sustain in the post-event setting - Leisure industry in PyeongChang is at odds with the surrounding local communities

3. Results

Through literature review, it found that the current Winter Olympic Games had both positive and negative impacts on host cities. According to its specific performance, this paper classified the impact factors. Positive impacts can be summarized into three parts: improving sport tourism revenue, improving city image and promoting city reform. Negative impacts were mainly reflected in two aspects: the excessive cost leads to excessive burden and the unsatisfied sustainable development. In order to make it clearer, the mixed impacts were bro-

ken down and put into positive and negative impacts respectively. See Table 2 for details. In order to understand these contents deeply, this article will be elaborated in detail.

Table 2. Summary of impacts.

Impact type	Category	Frequency	Description
Positive impact	Improving sport tourism revenue	4	- Increasing visitors - Increase in tourism demand
	Improving city image	4	- Reshaped a cultural city. - Improve city image.
	Promoting city reform	7	- Expansion of the offer and quality of sport infrastructures - Reconversion of certain Olympic sites - Development of environmental standards - Promote urban change - Urban regeneration
Negative impact	Excessive cost leads to excessive burden	2	- Increase financial burden
	Unsatisfied sustainable development	6	- Long-term benefit and comprehensive benefit are not ideal - Sport wasteland - Increase problem of poverty and homeless - 40% of the full-service hotels have gone bankrupt - The most development and construction projects are too large and too expensive to sustain in the post-event setting - Leisure industry in PyeongChang is at odds with the surrounding local community

3.1. Positive impacts of winter olympic games on sport tourism

3.1.1. Improving sport tourism revenue

The result showed that the Winter Olympic Games increased the sport tourism revenue in host cities mainly by increasing tourists and stimulating the positive growth of sport tourism demands. The increase in tourists was undoubtedly the most direct means to increase the revenue of sport tourism. The increase in the demands for sport tourism was a necessary condition for the increase in tourists. This result was also confirmed in the literature investigated in this paper. Andranovich and Burbank(2011) found that after Salt Lake City held the Winter Olympic Games, the tourists increased by 19% compared with the same period last year[17], which created great benefits for the economic growth of local sport tourism. Dansero and Puttilli(2010) pointed out that the Winter Olympics might not bring long-term changes to the host city's international tourism industry, but the Turin Olympic Game stimulated public's understanding of this issue[18]. Bondonio and Guala(2011) proposed that during the four years before the Winter Olympic Games, the number of tourists living in hotel increased and reached the peak in 2006, which provided a good boost for the development of local sport tourism economy[19]. The PyeongChang Winter Olympics was also considered to have contributed to the growth of tourism economy[20]. So, according to successful cases, the Winter Olympics can indeed generate significant revenue for the host city's sport tourism and affiliated industries, which is one of the main motivations for these cities to host the Games.

3.1.2. Improving city image

There were two main ways to improve the image of the host cities by Winter Olympic Games: enhancing the city's cultural literacy and promoting the positive image of the city. Tourists could get better sport tourism services and experience via the two ways. It was a direct means to promote the development of sport tourism. Like a virtuous cycle, they contributed to the development of sport tourism through their mutual positive influence. The media

also played a crucial role in this process. Host cities of the Winter Olympics used the Olympic as media to create a positive image of themselves as a tourist destination in order to promote local sport tourism. The result showed that this point was confirmed by many articles, such as: Ferrari and Guala confirmed this idea in 2015, believing that the Winter Olympics, as a mega national event, could enhance the reputation of a city and also build a brand image[21]. Pentifallo and Wynsberghe(2015) also agreed on this point in their research in the same year[22]. In addition, they believed that the Winter Olympics had a positive impact on the appearance of the host cities and the cultural literacy of residents. Full Equipped sport facilities could improve tourists' evaluation of sport tourism. In general, a successful Winter Olympics can promote a city's image, but it also can be tarnished by bad behavior. As a consequence, the Winter Olympics can be a double-edged sword for the image of host cities, which should be paid attention to by host cities.

3.1.3. Promoting city reform

The large-scale construction of sport facilities was a normal part of hosting the Winter Olympics and the fundamental reason why the Winter Olympics could promote urban renovation. This process is mainly reflected as, expansion of the offer and quality of sport infrastructures, Reconversion of certain Olympic sites, Development of environmental standards, Promote urban change and Urban regeneration. Expansion of the offer and quality of sport infrastructures and Improving city image was a bit similar, but there was no denying that it does drive the transformation of the city. The others were the direct ways for the Olympics to promote urban reform. As we all know, the Winter Olympic Games could bring great changes to the local urban construction, which was of great benefit to urban renewal[23]. The result in this paper also showed that many scholars agreed with this point by research, such as, Alberts(2011) believed that the exhibition of Olympic stadiums in Salt Lake City and tour guides generated significant tourism benefits for the local economy[24]. At the same time, it also made a great contribution to city renewal. Kaplanidou and Karadakis(2010) pointed out that the Winter Olympic Games were indeed beneficial to the transformation of host cities and thus promoting the development of sport tourism[25]. Sant and Mason(2015) also agreed on this point after research[26].

3.2. Negative impacts of winter olympic games on tourism

3.2.1. The excessive cost leads to excessive burden

A large amount of fund in the early stage was invested in previous Winter Olympic Games. And the maintenance costs of venues and facilities after the Games are also a severe test of the host city's finance. Lee(2020) believed that most construction projects for the PyeongChang Winter Olympics were too large and expensive to sustain in the post-event environment. The leisure industry in PyeongChang was in conflict with the surrounding communities[27]. If this problem was not solved properly, it could be the next Sochi Winter Olympics mentioned above. In the beginning, it was created as a world-class tourist destination, even called symbol of the revival of the Russian nation. In the later period, it became a typical failure due to excessive financial pressure. But PyeongChang Winter Olympics just ended, everything was still to be judged. According to the current situation after the PyeongChang Winter Olympics, development here was still in good shape.

3.2.2. Unsatisfied sustainable development

The result showed that the long-term unsatisfactory benefits, sport wasteland, increasing poverty and hotel bankruptcy were the concrete manifestations of the unsustainable development of the host cities after the Winter Olympics. These problems have appeared many times in different host cities but have not been completely solved. As a result, how to maintain the sustainable development seems always the problem for the host cities. Some of the

host cities after the Game still keep the stable development of sport tourism industry, while sport tourism in some host cities declined year by year. Sport tourism and its affiliated industry in host cities even have to face a serious crisis at the end of the winter Olympic. These problems were mentioned in many articles investigated in this paper. The point proposed by Teigland was the most typical one. Teigland(2012) pointed out in a study that after the 17th Winter Olympic Games in Lillehammer, the local sport tourism industry did not flourish, and 40% of the full-service hotels went bankrupt[28]. Sustainability, among other issues, is the key to a city's success in hosting the Winter Olympics. Even successful Turin Winter Olympic Games also presented a gradual weakening of the development of sport tourism in the aftermath. That seems to be one of the reasons cities do not bid for Winter Games.

4. Conclusions

As a more rigorous and systematic review, this paper clearly emphasized the positive and negative impacts of the Winter Olympic Games on sport tourism in host cities, and further analyzed the causes of these impacts. It is a pity that only part of the databases are extracted this time. It is possible that some articles related to this issue that have been investigated and cited in other subject databases have not been confirmed yet. In addition, only international English articles were selected as the included literature, which may also lead to the limitation of the research results. For example, most of the studies related to the PyeongChang Winter Olympics exist in the Korean Journal Database, but this search did not include the articles in the candidate literature, and only served as a reference after query. Finally, this study only used qualitative research. There may be some methodological limitations. It is hoped that the above situation can be improved in the following research.

As the 2022 Winter Olympic Games will soon be held, Beijing, as the first city to host both summer and winter Olympic Games, has been attracting much attention. This is not only the first international mega sport events in China after the spread of Covid-19[29], but also a good opportunity for the sport tourism transformation in Beijing. In order to ensure the good development of sport tourism in Beijing after the Winter Olympic Games, this paper proposed the following enlightenment. First, a good sport tourism development plan is essential. A key factor in Turin's success was the host country's ability to make plan for mega sport events and align them with the long-term goals, capabilities and amenities of the host country. Although based on the experience of the Beijing Summer Olympics, long-term planning is not the main factor impacting the good development of sport tourism. But now epidemic still exists, how to ensure the smooth development of sport tourism is still a key issue to be considered. In addition, the protection of ecological environment is the basis of the sustainable development of sport tourism. The Winter Olympic Games will more or less have an impact on the local ecological environment. Only when the ecological environment is guaranteed, can sport tourism have a prerequisite for sustainable development. Nowadays, "environment" and "sustainable development" have been mentioned in every Olympic Games, but the specific structure remains to be considered[30]. Hosting mega sport events can benefit various areas, including the economy, society, culture, and environment[31]. So the issue still deserves attention.

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6. Appendix

6.1. Authors contribution

	Initial name	Contribution
Lead Author	XB	-Set of concepts <input checked="" type="checkbox"/> -Design <input checked="" type="checkbox"/> -Getting results <input checked="" type="checkbox"/> -Analysis <input checked="" type="checkbox"/> -Make a significant contribution to collection <input checked="" type="checkbox"/>
Corresponding Author*	HS	-Final approval of the paper <input checked="" type="checkbox"/> -Corresponding <input checked="" type="checkbox"/> -Play a decisive role in modification <input checked="" type="checkbox"/> -Significant contributions to concepts, designs, practices, analysis and interpretation of data <input checked="" type="checkbox"/>
Co-Author	SL	-Participants in Drafting and Revising Papers <input checked="" type="checkbox"/> -Someone who can explain all aspects of the paper <input checked="" type="checkbox"/>