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Received: 13 June, 2022

Accepted: 16 Dec, 2022

Published: 15 March, 2023

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ABSTRACT

Despite the known contribution of sports events to cities, especially affected by COVID-19 pandemic, residents hold different attitudes to this, for some citizens, sports events continue to play a vital role in cities sustainable development and may contribute to improved life condition and infrastructure in cities, but others do not think so. Although the benefits of sports events are commonly reported, the reasons why some cities and citizens willing to hold sports events are not well understood. This systematic review aimed to identify studies from the literature that the importance of sport mega-events in cities sustainable development synthesize and discuss the reasons for willing to hold sports events reported in the literature. Searches of the e-journal databases including Science Direct, Sport Discus, Scopus, Social Science Citation Index and Arts & Humanities Citation Index were performed. Studies were included that evaluated importance of sports events in cities sustainable development and residents' attitudes because this is the key point to promote sports events development. The studies included in this review used qualitative, quantitative or mixed methods designs, were peer reviewed, and were published in the English language before the search date. Results: There are 2036 studies identified and after exclusions 30 studies were included in the review (9 qualitative, 10 quantitative, and 11 mixed methods). The review presents several features and findings from the studies, including a description and systematization the role of sports mega-events for cities sustainable development and the main reasons that cities and citizens willing to hold sports events (e.g. increasing job chances, improving the visibility of the city, and taking advantage of opportunities to develop economy). The finding suggest that sports events are an integral part of sustainable development of the city, and sports mega-events were identified as contributing to the city development. Cities and citizens can benefit from various sports events with regard to their development. Sports events play an important role in the sustainable development of cities, and contribute to the political, economic and cultural development of the city. The development of sports events and strategies to promote sustainable urban development should focus on these aspects after COVID-19.

Keywords: Sports events, Sustainable development, Epidemic, City, Factors.

INTRODUCTION

The outbreak of the COVID-19 at the end of 2019 triggered a rapid spread of the global epidemic, which led to a lot of political, economic and cultural events affecting the world, take the hosting of sports mega-events as an example. Nowhere is this more prominent than in the case of the 2020 Tokyo Olympics, which were supposed to be held in July 2020 but were postponed due to the epidemic. This has led to a series of public debate on whether the city should continue to host sports events as usual, because in the process of hosting sports mega-events, society, the government and the people have paid a lot, whether in financial, material or human resources. In the process of social history, sports events always play a certain role in promoting the development of a city. Holding sports events is beneficial to the economic, social culture, urban environment, politics, business and tourism development of cities (Caiazza & Audretsch, 2015; Absalyamov, 2015; Xing & Chalip, 2006; Fourie & Santana-Gallego, 2011; Mills & Rosentraub, 2013; Li et al., 2013). In particular, super-large sports events such as the Olympic Games, World championship and World cup have a more significant impact on cities and even countries. For example, the Tokyo Olympic Games held in Tokyo, Japan in 1964 and the Seoul Olympic Games held in South Korea in 1988, both of which played a great role in helping the development of the city. They are typical examples of promoting rapid economic development by carrying out major sports events. The Tokyo Olympic Games became a milestone for Japan to enter the industrial power, and also an important way for Japan to recover its economy after world War II (Wilson, 2012; Park, 1988). The Seoul Olympic Games made Korea complete the transformation from a developing country to a newly industrialized country, creating a miracle in the world economic (Aragón-Pérez, 2019). Barcelona went from a medium-sized city to the seventh largest city in Europe after the 1992 Olympics (Gholipour et al., 2020). Furthermore, many cities will have a series of fierce competitions for the right to host larger-scale sports events, because this is not only a great opportunity for the city to show itself to the world, but also to inject new vitality into the development of the city.

According to the current systematic review, the most studies on the impact of holding sports events on cities are sports tourism (Kim et al., 2015; Gibson et al., 2012), and the impact of cities economy (Barajas et al., 2016; Caiazza & Audretsch, 2015; Li et al., 2013). Although there has been an increase in interest in the city-related benefits of sports events in recent years, the literature in the area is still developing. Since 2015, a number of important urban development agreements have been adopted. Such as, "2030 Agenda for Sustainable Development", "Paris Agreement" and "New Urban Agenda". At the same time, the UN sustainable development summit was held in New York in September 2015. At the summit, 193-member states of the United Nations formally adopted 17 Sustainable Development goals (SDGs). Among them, the 11th item (Sustainable cities and communities) of SDGs in the UN sustainable development goals points out that it is necessary to build inclusive, safe, risk resistant and sustainable cities and human settlements (SDG, U, 2019, <https://www.un.org/sustainabledevelopment/>). Because the sustainable development of the city involves various aspects of the future of mankind, and the holding of sports events not only helps to stimulate the vitality of urban development (*Fig. 1.pg 19*), but also effectively promotes the active participation of city residents in urban development and construction, so as to jointly build and share a sustainable city.

The review aims to examine the role of sports mega-events in the sustainable development pathways of cities, especially the city development after the impact of COVID-19. Understanding the role of sports events may help to inform strategies that will increase

participation of sports events of citizens, thus providing opportunities for a great number of cities to obtain the benefits of participating in sports events. Holding sports events is inseparable from the strong support of the residents. Residents' attitude towards sports events will also affect the personal behavior and effect of the host city (Oshimi & Harada, 2019). The ultimate advantages of sports events should be reflected in the social economy, politics, culture and the benefits to the life of urban residents. Based on the high practical relevance and the importance of holding sports mega-events for cities development, we conclude that there is a requirement for a more systematic understanding of the role of sports mega-events for the city sustainable development after epidemic.

In our review, this study aims to (1) critically appraise existing studies on the impact of sports events on the sustainable development of the city; and (2) identify the reasons on the city willing to hold sports events in the research. Therefore, this review article attempts to provide a systematic review search on these two fields, and to draw future research of how to improve citizens participation in sports events.

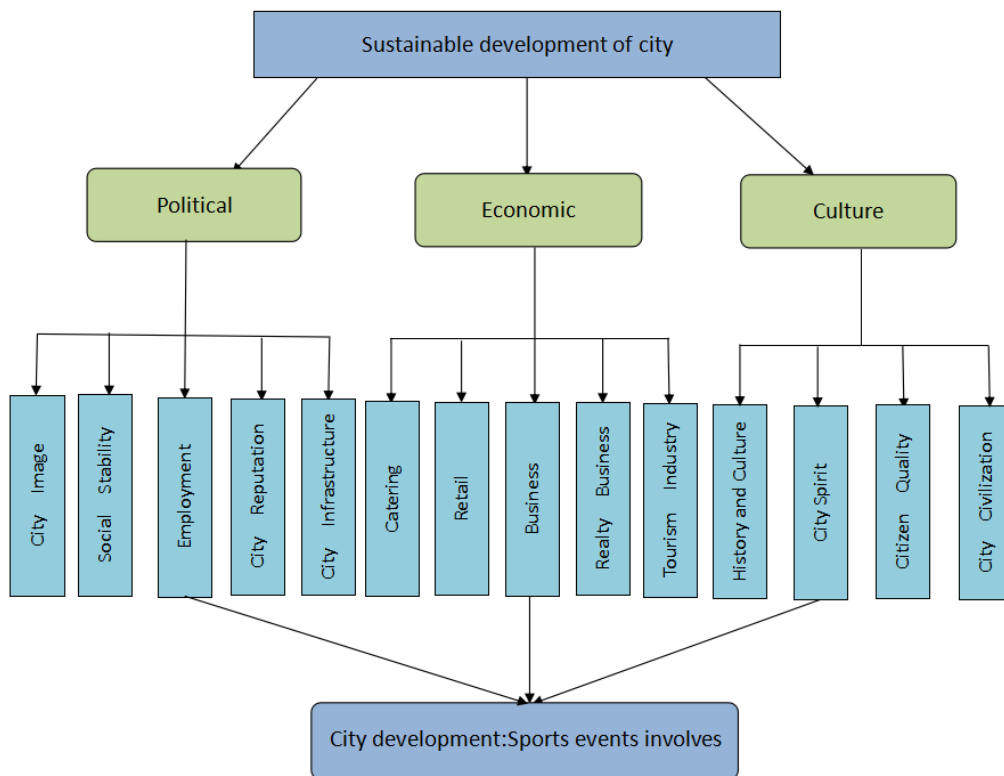


Figure 1: Vitality of Urban Development

METHODS

Search strategy

The Identification of relevant work involved the following process:

- 1) searching e-journal databases (including Science Direct, Sport Discus, Scopus, Social Science Citation Index and Arts & Humanities Citation Index) using the inclusion/exclusion criteria;
- 2) the bibliographic screening of reference sections of eligible studies; and
- 3) forward citation searching of eligible studies.

Search terms in e-journal searches were: “sport event OR sports event OR sports events OR sporting event OR sports mega-events OR major sports events OR large-scale sports events OR big sports event” AND “city OR cities OR urban OR community”. Search terms were agreed a priori, with exclusions rationalized by the author team, and were intentionally broad to reduce the risk of relevant literature being removed at initial e-journal searching.

Inclusion and Exclusion of Studies

The following inclusion/exclusion criteria were deployed in this study: (a) papers were published in the English language to ensure consistency in appraising articles; (b) papers were original, peer-reviewed articles; (c) full-text article available; and (d) papers must present original data on sports mega-events associated with the city development, or the impact of sports events on the city or residents.

This study excluded studies if they (a) were not related to sports events; (b) did not indicate the relationship or impacts between sports events and the city development; (c) only refers to the holding of sports events without considering the overall impact of sports events on the city development; (d) examined no impact to the city; and (e) included only sports events or the development of the city that were not introducing or indicating the relationship or influence between sports events and the city.

Sifting Articles and Study Eligibility

Sifting was carried out in three stages (*Fig. 2.pg 21*), papers were first reviewed by title, then by abstract, and finally by full- text. At each stage, articles were excluded if they did not meet the inclusion criteria (reasons for full-text rejection are available from the first author). Eligibility of inclusion of the final studies was conducted via peer-debriefing.

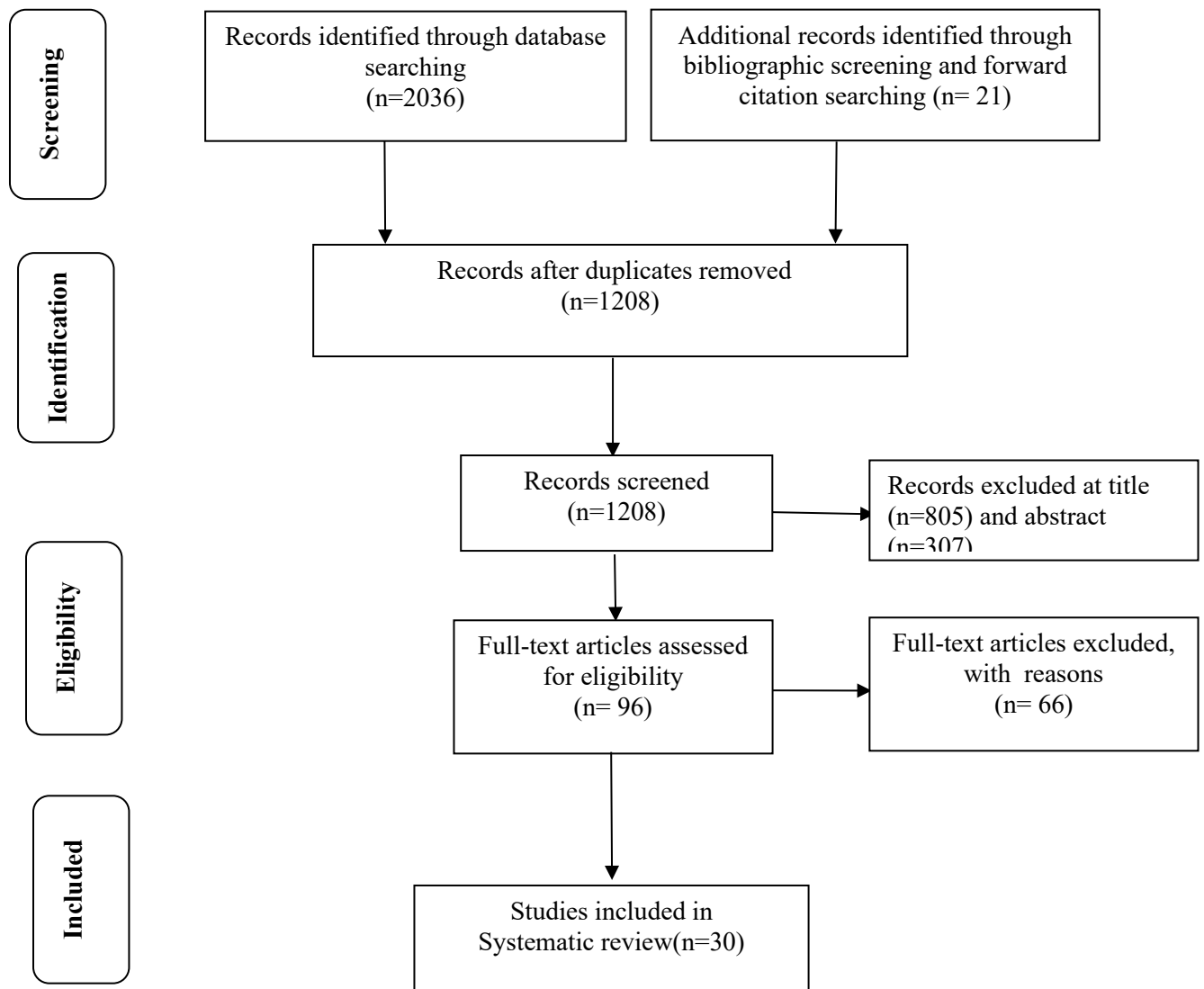


Figure 2 PRISMA flow diagram

Date Extraction

Data extraction tables were developed to record relevant data from included studies. Data related to the following categories were extracted: authors, year of publication, study methodology (quantitative, qualitative or mixed), sample, city or country, events type, findings (effect, relationship, changes and other characteristics), and relevant attitudes reported. Data extracted are presented in Table 1 (pg.23).

Review of Quality

Of the 30 quantitative/qualitative/mixed methods in this review, overall concerns with the qualitative methods were low quality designs, due to lack of use of validated measures (or not reporting this information), and insufficient methodological details. Only 15 studies reported

their sampling procedures, only 18 studies reported the analytic approach, and only 8 studies discussed quality measures. Overall, just 12 of the 30 studies were judged to be methodologically coherent, suggesting that their purpose, philosophy, methodology, and methods were aligned and appropriate.

RESULTS

The electronic database searches produced 2036 results with a further nine being returned from forward and backward citation searching. Following the screening and sifting processes, we deemed 30 studies eligible for inclusion. The eligible studies contained qualitative (n=9), quantitative (n=10) and mixed-methods (n=11) studies, respectively (see Table 1) and there are four main reasons emerged from the studies in regard to the role of sport events in city sustainable development. These factors were related to economic, socio-cultural, infrastructure and political.

Economic

Large-scale sport tourism events attract a wide range of national and international attendees. Sports events, even smaller ones, are to help with wealth creation in the area where they take place, mainly due to the number of the attendees and the participants (Wilson, 2006). Holding sports events is a cyclical event. During this period, the influx and flow of athletes, tourists and audiences in the city will greatly promote the development of city catering industry, hotels and retail industry. As we all know, holding sports mega-events needs to provide corresponding accommodation for athletes and coaches, especially for the Olympic Games, the Olympic Village will be specially built for athletes and coaches to live, that also promotes the development of urban real estate industry. At the same time, the city should also provide catering services for athletes, coaches and tourists during the sports events, especially the requirements of athletes for food and drink is very high, so for the city's catering industry, especially for athletes' catering, we should improve the standard, strengthen the service, high, and ensure the food safety of sports mobilization. Meanwhile, it is the same for tourists. Tasty food and good service in a city can leave a deep impression and attract more tourists to taste it (Mills & Rosentraub, 2013), and major sports events usually associated with spending for food and beverage (Rachão et al., 2021). Some cities hold sports events and provide urban food exhibitions to retain tourists. In addition, the hotel's turnover and occupancy rate will increase and change during the sports events. In the research of Sun, it is pointed out that the occupancy rate of five-star hotels in Kaohsiung region reached more than 75% from April to May of the 2009 World Games, which is 7% - 10% higher than the national average (Sun et al., 2013). What is more important, sports events can also attract investment, attract sponsors and increase advertising revenue. Many sports events will be publicized before the games. For example, billboards will be displayed in subways, buses and shopping malls. There will be publicity of sporting goods, information technology services, and sports health services. All of these can be very helpful for the vitality of economic development and provide economic guarantee for city construction. According to Timur research, even though all-Russia economic slowdown in 2013, Kazan increased by 5.8% and sports events creating a positive impact to local business, hotels, transport, trade (Absalyamov, 2015).

Table 1: Literature appraisal

Study	Authors(year)	Method	Sample	City/Country	Events type	Findings	Relevant attitudes
1	Jiménez-Naranjo, et al. (2016)	Quantitative	n=744	Cacers/Spain	World Paddle Tour	Has positive socio-economic impact of tournament	Significant
2	Yoshida et al., (2013)	Mixed	n=661	USA	FBS college football game	The framework is helpful to understanding consumers assessments of innovative sporting events for the city impact of tournament	Positive
3	Yao, & Schwarz (2018)	Quantitative	n=1047	Shanghai/China	World Golf Championship	The events did not affect the life of most local residents	Over 70% support and only 1.4% against
4	Schulenkorf, N. (2012)	Mixed	n=2	South Africa	Australia–South Africa Junior Sport Programme and Active Community Clubs Initiative	NGOs and government bodies using sport and event projects for social development purposes has been increasing over the past decades.	Significant
5	Smith, A. (2005)	Mixed	n=234	Birmingham, Manchester, and Sheffield/UK	Davis Cup tennis, 2002 Commonwealth Games, and 1991 World Student Game	Sports events is benefit of reimagining for the contemporary city	Most respondents believes it has significant and value for cities
6	Absalyamov, T.(2015)	Qualitative	n=3	Kazan/Russia	2013 Summer Universiade	Has significant impacts for local infrastructure and economic of sports mega-events	Positive
7	Meredith, A. et al.(2019)	Mixed	n=50	Cape Town, Hong Kong, London, Mumbai, Nairobi and New Orleans	Various	human resources are the crucial piece to the success of sports for development	None Reported

8	Johnston et al. (2019)	Quantitative	n=603	Auckland and Christchurch /New Zealand	Commonwealth Games	Political cynicism, civic duty, political interest, event status, and involvement are the five factors with residents participate in the referendum	Majority of respondents were likely to participate in sports events referendum
9	Kim & James (2005)	Quantitative	n=588	Seoul/South Korea	FIFA 2002 World Cup	Have positive impact of city image enhancement and consolidation through sports events	Positive
10	Antonella & Cecilia (2015)	Qualitative	n=14	Rio deJaneiro/Brazil	2014 FIFA World Cup and the 2016 Olympics	Determining the urban development agenda for over a decade, with social and economic impacts on Rio and country	Two different and opposed narrative
11	Graham et al., (2016)	Quantitative	n=603	London/UK	2012 London Olympic Games	Since the Games, there has been growth in the number of inbound visitors to London	Felt positively about the host city
12	Zhou & Kyriaki (2018)	Qualitative	n=10	USA	Running	Increased everyday social interactions and the benefits of social capital for the community	None Reported
13	Rosa & David (2015)	Quantitative	n=80	Naples/Italy	Bicycle Race	Has positive and negative impacts on the economy, socio-cultural and political aspects	Treated the outcomes as losses because the benefits generated were significantly less than they expected.
14	Xing & Laurence, C. (2006)	Mixed	n=275	Chicago and Des Moines /USA	Nascar and Masters Golf	Image transfer can occur when a sport event is mentioned in destination advertising	More Positively

15	Kim et al.(2015)	Mixed	n=1567	Mokpo-si, Yeongam-gun, Muan-gun, and Haenam-gun/South Korea	Formula One (F1)	One	Hosting large-scale sport tourism events can be a part of community urbanization	Both positive and negative
16	James & Guillaume (2018)	Mixed	n=156	London/UK	2012 Olympic Games	Summer	Pre-event and post-event may have different degrees of impact on the image of the city	Respondents perceived the Olympics as a somewhat successful enterprise
17	Brian & Mark S. (2013)	Qualitative	n=3	Baltimore, San Jose and Minnesota /USA	Mega events		Hosting mega-events effects the city of economic development and job	None Reported
18	Sheranne, F. et al.(2016)	Qualitative	n=1	Queensland/ Australia	2014 Pan Pacific Swimming Championships		The infrastructural of the city has significant upgrades and improvements, as well as tourism	Some local residents discontent and some concerned
19	Hassan, F. G. et al.(2020)	Quantitative	n=11	Croatia, Senegal, South Korea, Turkey, Ukraine, Portugal, Uruguay, Paraguay, Ghana, France and Costa Rica	FIFA Cups	World	Outstanding performance in the mega-sport events can result in international tourist growth in the countries and brought economic benefits	None Reported
20	Chena et al., (2018)	Quantitative	n=838	Hong Kong	Standard Charter		Residents' level of involvement is a significant determinant of both	Hold positive attitudes toward the event and tend

						Hong Kong Marathon (SCHKM)	positive and negative impact perceptions	to express their enthusiasm about the event
21	Li, Adam & Rhodri (2013)	Qualitative	n=130	Beijing/China	2008 Beijing Olympics	Bring positive tourism and welfare impacts to host economies	Significant and positive	
22	Belinda, Y. (2008)	Qualitative	n=1	Singapore	International Olympic Committee (IOC) meeting	Enhanced city image, increased visitation and tourism revenue, increased pride in the city, increased sport participation and growth of local sport.	Positive	
23	Mc Gillivray (2019)	Qualitative	n=4, date sets	UK	Glasgow 2014 Commonwealth Games (G2014)	Major events Promoted as a positive, urban space enhancing concept, creating the Live City	Local opposition to the bidding for major sporting events	
24	Dennis & Brad (2003)	Quantitative	n=37	USA	Professional sports	Has a small positive effect on earnings per employee in the Amusements and Recreation sector	None Reported	
25	Johan & María (2011)	Mixed	n=18	USA, Australia, Greece, Japan, Italy, France, South Korea, Japan, UK, Germany, South Africa, India, Pakistan, Sri Lanka	Mega-sport events	Mega-sports events increase the number of tourists	Significant and positive	
26	Graeff et al.(2020)	Quantitative	n=3465	New Zealand Rio/Brazil	2014 FIFA World Cup	Sport mega events have more direct impacts of the transformations provoked	Major interviews stated that did not participate in the	

27	Knott et al., (2015)	Qualitative	n=8	Johannesburg and Cape Town / South Africa	2010 FIFA World Cup	Sport mega-event has significant branding opportunities for nations and image perceptions of tourism	public decision-making It's a opportunity for a host country to improve nation branding
28	Luis A. et al. (2019)	Mixed	n=20, date from Brazilian Central Bank	Brazil	Sports mega-events	Helped to increase the value of the national currency and increase in the number of Brazilian tourists going abroad and accumulated more dollars in foreign reserves	Positive
29	Oshimi & Harada (2019)	Mixed	n=636	Saitama City/Japan	Tour de France Saitama Criterium	Host sporting events has positive impacts on event organizer and the host city	Significant
30	Ribeiro et al. (2020)	Mixed	n=256	Rio de Janeiro /Brazil	Olympic Games	Lead to a better comprehension on how communities perceive the event's impact on their lives	Positive impacts tends to increase, negative impacts decrease from pre- to post-event

Thus, from these aspects, sports events can improve the turnover of restaurants and hotels, increase advertising revenue, and play an important role in promoting the sustainable development of city economy.

Socio-Cultural

Just as the facts show, sports events will attract a large number of tourists into the city, which brings sports tourism, tickets, the popularity of the city image and other aspects cannot be underestimated. Sports events can effectively enhance the city's popularity and city image by publicity and exposure (Gil-Alana et al., 2019). The world-class sports events like the Olympic Games usually attract millions of spectators to watch sports events. Through online or offline, even some special trips abroad. Therefore, sports events can greatly promote the development of sports tourism in cities (Jiménez-Naranjo et al., 2016). However, due to the requirements of the countries' anti-epidemic policies, the holding of large-scale sports events in cities is limited, and the entry of personnel from various countries will also be greatly restricted. In addition, the behavior of residents will also be affected by sports events, according to the research of Chen (Chen et al., 2018), residents who do not pay much attention to and participate in sports events will involuntarily participate in major sports events or repetitive sports events when they are held in the city where they live, and have different degrees of behavioral influence (Sun et al., 2013). So, the residents have a better understanding of sports events, and more residents are willing to participate in sports to form the sports culture spirit of loving sports and understanding sports, so as to continuously improve the physical quality and health level of residents. For these reasons, in the post epidemic period, how to ensure the restoration of the usual freedom and facilitate the access of spectators to watch the game will be a problem worthy of consideration. Similarly, it is also conducive to the development of national sports and fitness cause, stimulate the healthy vitality of the city, and build a energetic, health and positive city. In another aspects, holding sports events in cities can also well publicize their own culture, such as city history, folk customs and social culture. For instance, the host city of the Olympic Games will formulate publicity logo in line with the characteristics of the city, mascot, medals with the city's historical and cultural flavor, and there are similar situations in some International Marathons and World Championships. It is very effective and necessary for the city to continuously enhance its visibility through the display of these signs, the setting of medals and the slogan (Hahm et al., 2019). Hence, holding sports events is an effective measure to promote the development of city tourism, an important means of city sports culture construction, and a significant strategy for the city to carry out cultural publicity and output.

Infrastructure

In general, the hosting of sports events will attract a great deal of people to enter and cause a large number of people to flow, so it is a certain pressure to test the urban transportation capacity and give urban traffic control. Meanwhile, in order to ensure the smooth development of sports events, the hosting cities often need a strong transportation system and stadium facilities as support. Moreover, it will involve urban traffic planning, subway, airport, highway and other aspects of content. For example, during the 2008 Beijing Olympic Games, the Subway, as the main way to support the city's traffic, was improved through a series of measures such as the subway schedule and operation mode to ensure the smooth operation of the traffic (Jiang, 2018). During this period, Beijing expanded capital International Airport, built 8 new subway lines, Beijing-Tianjin intercity high-speed railway, opened 650 bus lines and a number of expressways to meet the needs of the Olympic Games and social and economic development. As a result, Beijing greatly promoted the transportation construction of the city

through hosting the Olympic Games. During the 2010 Guangzhou Asian Games, the Asian Games village was built in Guangzhou. These houses for athletes were later developed and sold to residents. The buildings of the Asian Games Village can continue to use and play their value, promoting the sustainable development of urban infrastructure in Guangzhou (Xie et al., 2017). The construction of London Olympic and Paralympic venues in 2012 has been transformed and utilized through the garbage dump and vast abandoned construction sites in Stratford, which has the opportunity to become a demonstrative environment for sustainable development, and it has been proved to be the same in the later period. By making full use of the river resources in the region, London can build a green corridor, repair the old urban texture, and leave a sustainable new community after the games. The Olympic Park will become one of the largest parks in Europe for more than a century. The construction of the Olympic park considers the sustainable development of environment, economy and society. Planning for the games and the post-games period was closely integrated and carried out at the same time. The overall planning framework of the park heritage is the basis of regional regeneration and further development (Kenyon & Bodet, 2018). So, the Olympic area will be transformed into a new urban area to promote the sustainable development of London. At the same time, it can be seen from the previous review that the development of sports events will play a certain role in the construction of cities. Especially, in order to ensure the travel of athletes and tourists, cities will strengthen the construction of transportation and close roads day and night to build new ones. Although residents may complain in this process, especially it will increase tax burden and price inflation for residents (Deccio & Baloglu, 2002), it will be of great help to the city's infrastructure construction in the long run

Politics

Generally speaking, sports events are usually held by the city government or sports departments. For instance, some important sports events, like the Olympic Games, the intercontinental Olympic Games and the FISU World University Games are prepared and planned by the national government departments. To a certain extent, they represent the national image and national strength. Therefore, the hosting of sports events can enhance the national influence and show the international shape, in the meantime, is both an important opportunity and a challenge. On the one hand, sports events from the planning, bidding, approval, preparation, launch, guarantee and to hold, all processes need a lot of human resources, materials and financial support, but also will promote national cohesion, when the 2008 Beijing Olympic Games was held, the whole nation made concerted efforts to create a good competition atmosphere and created a good national image (Lai, 2018). On the other hand, to a great extent, holding sports events can provide jobs and employment chance for the development of the city, and solve the problem of city employment. Such as FIA Formula 1 World Championship (F1) is settled in Shanghai, except to its huge economic benefits, what is more obvious is that it can provide at least 1000 jobs a year, and it can also add millions of jobs to the 200 km long Yangtze River Delta region. During the preparation period of the 1992 Barcelona Olympic Games from 1987 to 1992, 59000 new jobs were created every year, and 100000 jobs were created in Sydney 2000 (Yang, 2002). Except that, the 2014 Gold Coast Pan Pacific Swimming Championships held in Queensland, Australia, and as an important sports tourism event generating 30,000 direct jobs in the city (Fairley et al., 2016).

The employment and income problem is the top priority of the city development. Solving the employment and income problem is the key to stabilize people's livelihood, society and development. The holding of sports mega-events can not only gather people's support, but also help solve the employment problem of the city. For this reason, more and more cities

willing to hold sports events or sports mega-events to help the government to solve these problem. In other word, sports events are conducive to the city's political development and social stability and play a vital role in the city's political construction and the cities are willing to host sporting events for such reasons.

DISCUSSION

Discussion of findings

In the process of city development in the post epidemic era, sports events will still be an important driving force to promote sustainable urban development. The holding of sports events can accelerate the construction of a smart city along with build a more secure urban operation mechanism. At present, the development and construction of cities are in the direction of sustainable, intelligent and scientific development (De Guimarães et al., 2020), and advocate the construction of smart city. A smart city is based on people to achieve comprehensive and sustainable development of economy, society and environment. The holding of sports events can accelerate the construction of a smart city, especially large-scale sports events, requires the construction of a complete set of guarantee system to ensure the smooth progress of sports events, which involves the city's information technology, venue construction, transportation network, urban planning, commerce and real estate. A smart city is one that uses information and communication technology ways to perceive, analyze and integrate the key information of the core system of urban operation (Araral, 2020), that make intelligent response to various demands, including people's livelihood, environmental protection, public security, urban services, sports events and activities. For this reason, the essence of sports events to promote the construction of smart cities is to make use of advanced information technology to realize urban smart management and operation, which create a better life for people in cities and promote harmonious and sustainable growth of cities. Of course, the hosting of sports events is also influenced by the attitude of city residents and social environment, for the most part, residents' support and will largely influence the sports competitions held activities as well as the construction of city development, so when the sports event with wisdom closely linked to the city and people realize the importance of it can maximize the value of sports events will, the sustainable development of the city also has further guaranteed.

Limitations of this review

This systematic review measures the impact of holding large-scale sports events on the city sustainable development by analyzing relevant literature. However, this study is not without its limitations. As mentioned above in the study, the sustainable development of a city is a systematic and long-term problem, which also involves many aspects, including industry, commerce, service industry, as well as urban environment, population, education, and other aspects. From the perspective of holding sports events, this review analyzes the political, economic, cultural and infrastructure benefits of the city brought by the holding of sports events but does not do analysis and research on other impacts of holding sports events (e.g., increase of residents' taxes, urban security issues, social conflicts). When the 2014 Brazil World Cup was held in Brazil from June to July, before the World Cup, some Brazilians were dissatisfied with the high taxes imposed by the government, but they provided poor quality public services and ignored people's livelihood. In order to hold international sports activities, they spent a lot of money. They opposed spending a lot of money to host the World Cup. They believed that

the money should be used to improve health care and education. On the evening of July 8 local time, when the Brazilian national team was eliminated by Germany with a score of 1-7, Brazilian fans could not hide their sadness and dissatisfaction. After the competition, more than 20 buses in two bus stops in Sao Paulo City, and a commercial building was burned. So from this point of view, whether sports mega-events are totally beneficial, beneficial and harmful, or the advantages outweigh the disadvantages or the disadvantages outweigh the advantages in the sustainable development of the city is worthy of more in-depth discussion and research. Additionally, in this review, there is no more analysis of the attitude of urban residents on the final effect of holding sports events. The attitude of residents to hold sports events also affects the interests of sports events to a large extent. Sports events are not only about the development of the city, but also about the vital interests of urban residents. Their own attitude is closely related to sports events and the development of the city. However, there was no more examined on the attitude of residents at present.

For future research, it would be valuable to assess a variety of the advantages and disadvantages of holding sports mega-events in order to provide managerial insight for sport and city sustainable development based on comprehensive understanding of residents' different attitudes.

CONCLUSIONS

Nowadays, many cities take hosting large sports events as an impetus for urban sustainable development. In particular, large comprehensive events, like Olympic Games, World Championship, World Cup and other international competitions, have a strong role in promoting the economic and sustainable development of the host cities. In addition, the sustainable development of a city cannot be separated from economic security, reasonable urban planning and excellent living environment. In the current environment of the epidemic, a number of multi-sport events have been postponed, including the 2020 Tokyo Olympic Games, the 2022 Dakar Youth Olympic Games and the 2022 Hangzhou Asian Games. The postponement of sports events is also increasing the test of the city. Under certain pressure, it will require more strength and the support of urban residents to run large-scale sports events well. Only with the efforts of all parties can we better ensure the smooth development and progress of sports events.

Holding large-scale sports events has contributed to the development of various industries in the city to varying degrees, especially the economic development. Not only the sports mega-events can have a profound impact on the city's economy, tourism, commerce, infrastructure, transportation, real estate, employment, but also facilitate the political and cultural exchanges between cities and enhance the visibility of cities, except that, the intercontinental, national, and even sub-level sports events such as the National Games or City Games can play a critical role in the development of a city.

Authors' contributions:

Xiang—Main author and drafted the manuscript, acquisition, analysis and interpretation of data.

Dong—Contribute to the idea and formal analysis.

Prof. Tengku Fadilah—Corresponding author and helped in the supervision of the study and editing the manuscript.

Dr. Normala—Responsible for selecting articles for inclusion and Quality assessment.

Zhao—Contribute to the idea of the research.

Yang—Responsible for data extraction and helped to revise the study.

Luo—Responsible for data extraction and helped to revise the manuscript.

Conflicts of Interest

The authors declare no conflict of interest.

Funding

This research received no external funding.

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