

# The Impacts of COVID-19 Pandemic on the Sustainability of Sports Tourism Destinations: Evidence from Isfahan Province in Iran

Received: 2022-05-31

Accepted: 2024-10-08

Vol. 5, No.4. Autumn .2024, 1-19

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## Abstract

**Purpose:** Following the pandemic of Covid-19, many sports tourism destinations rendered stagnant. The ambiguity of the disease and its unanticipated outbreak came as a surprise to policymakers in tourism centers. Many uncertainties about the dimensions and how this disease affects tourism destinations, arise the need to scrutinize it prospectively. Therefore, present study attempts to focus on the "sustainability" component of tourism destinations along with the situation of sports tourism in Isfahan province in the next 10 years (2031).

**Methods:** By adopting a quantitative-qualitative approach and using the futuristic method, data was collected from a number of sources including experts' interviews, questioning citizens of Isfahan province and documentary studies. Data analysis was performed by open and axial coding, cross-impact analysis and scenario planning.

**Results:** In total, 40 drivers for the future of sports tourism in Isfahan province were identified. Based on four critical uncertainties with two assumptions for each, a total of 16 plausible scenarios were obtained and it was found that the second, seventh and fourteenth scenarios are more likely to occur. In these scenarios, a gradual increase in social responsibility is expected along with the development of technology. However, economic investment and institutional policymaking are at their worst, and so we will see the current trend in pandemic control maintains. This issue threatens the sustainability of sports tourism destinations in Isfahan province.

**Conclusion:** The most significant presupposition for achieving sustainability in sports tourism destinations is a review of crisis management policy at national and state levels.

**Keywords:** Covid-19 Pandemic, Sports Tourism, Sustainable Development, Prospect, Isfahan

## Introduction

The tourism industry has long been recognized as one of the most vulnerable industries encountering all kinds of crises. Meanwhile, health-related crises such as pandemics can have a direct negative contribution to the tourism industry since travel can facilitate the spread rate of pandemics (Yu et.al, 2021; Biggs et.al; 2012; Hall, 2010; Mason et.al, 2005). On January 30, 2020, following 213 global deaths and 9,800 lung infections, the World Health Organization classified Covid-19's disease as an international public health emergency (Weed, 2020: 79). Therefore, immediately after its wide spread the pandemic affected many industries and businesses such as tourism industry (Yan et.al, 2022; Zhang et.al, 2021).

Modifications in lifestyles, the emergence of virtual tourism and Metaverse, the conservativeness of tourists and the fear of disease are factors that should be evaluated on the future development of sports tourism venues. Apparently, one of the conditions for establishing stability in sports tourism market is the existence of constant demand from tourists to visit sports tourism destinations leading to economic benefits and social development of these destinations (Ziakas & Trendafilova, 2018; Duglio & Beltramo, 2017). However, the evidence reveals that the Covid-19 pandemic from 2020 to 2022 has put restriction on tourist travel and in general has caused fundamental changes in the market.

Wade (2020) illustrated that in addition to reducing consumer purchasing power, the recession caused by the outbreak of Covid-19 drastically changed consumer behavior (Weed, 2020). Based on the results of a study by Zhang et al. (2021), those involved in the tourism industry recognize the long-term effects of the Covid-19 pandemic on the tourism industry and predict that this challenge will affect tourism in hotel industry, travel agencies and tourist attractions. The results of a study by Yu et al. (2021) indicate that the cancellation of flights

and other reservations by tourists has been one of the most important consequences of tourists' perception of the dangers and limitations of travel during the Covid-19 period. This study also shows that the prevalence of the pandemic has caused negative emotions such as frustration and anxiety in tourists (Yu et.al, 2021). Another study by England et al. (2020) depicts that 75% of tourists consider their second home and camping place to be among the safest travel facilities in the Covid-19 era while hotels and resorts have been evaluated as the most unsafe and the least-facilitated places (Uglis et.al, 2022: 405). This conclusion can be interpreted in the case of sports tourists in the sense that many sports tourists are likely to consider their travels dangerous, and if the Covid-19 epidemic continues, all types of adventure tourism, including sports tourism, will suffer the most as sports tourists and adventurers, unlike cultural and historical tourists, are exposed to big events and are more human groups and experience more crowded environments.

However, despite these speculations, the future of sports tourism can never be predicted with certainty particularly because advances in technology and disease control methods can curb the Covid-19 pandemic faster than conventional predictions. On the other hand, lack of access to drugs, medical equipment and medical technologies due to international sanctions and other factors can make Covid-19 the most important tourism challenge in developing countries. The emergence of new strains of the disease has also raised concerns about the possible long-term presence of Covid-19 in communities, indicating that Covid-19 should be accepted as part of the future of sports tourism in countries. Therefore, future research in the field of sports tourism focusing on the effects of the Covid-19 pandemic on the sports tourism system is the main topic of this article, which has been conducted with a case study of Isfahan province. In this regard, the main concern of

this study is followed by the following two questions: Assuming the existence of Covid-19 pandemic in the next decade (until 2030), how will sports tourism in Isfahan province get affected from this disease? And how can these effects be explained in relation to the sustainability of sports tourism destinations?

Sport tourism is defined as leisure-based travel, during which people temporarily leave their place of residence and travel to play, watch sports or see the attractions associated with these activities (Holger et.al, 2007). Sports tourism has become very popular in recent years due to economic factors, contributing attitudes and values (Kumar, 2018) and awareness of active lifestyle (Hua & Chiu, 2013) (Mokras, 2016). Tourism has also become a global socio-economic phenomenon beyond an industry (Emery, 2010). Regardless of the reasons people travel, they prefer to combine their travel with recreational and sports activities (Gozalova, 2014).

Since the 1980s, following numerous reports by hundreds of researchers, government experts and academicians, purely economic approaches to tourism development have been challenged and governments were bound to rebuild the traditional framework for tourism development and align it with the sustainable development approach, meeting new requirements and standards and providing an optimal level of socio-economic benefits (Rafika et.al, 2016). According to the sustainable development approach, sustainable tourism is a type of tourism that is ecologically and ecologically safe, economically viable and socially acceptable (Ghadami, 2015). In fact, the need to integrate sustainability components in the process of developing sports tourism destinations is important in three ways:

1. Ensure that revenue generation and economic indicators of the target community are always on the move and will not be affected by economic shocks, financial crises, international sanctions and political developments (economic

stability)

2. Ensure that economic development leads to the preservation and expansion of the indigenous culture and identity of the region and promotes social indicators, literacy and education of the host community and improves their social interaction with each other and with other tourists, which ultimately leads to promotion of hosts' culture and community (social sustainability).

3. Ensure that economic development is not unbridled development and will prevent the destruction of the environment and the disruption of the ecological balance of the destination. Since, with the destruction of the environment and the ecology of the destination, there will no longer be a source of sustainable income and future benefits of tourism (environmental sustainability).

Recent studies show that since the outbreak of the Covid-19, the tourism of the event has suffered from various economic aspects; Including cancellations of exhibitions, live music shows, meetings, weddings, parties, corporate events, brands inauguration, commercial fairs and more. Several major events were postponed and rescheduled for the first time, such as the 2020 Tokyo Olympics as the largest global event. In general, the outbreak of Covid-19 has caused major economic disruption in the world. Disruption of global supply chains led to higher commodity prices, crisis in international tourism and business travel, and lower demand for imported goods and services (Thomas et.al, 2021).

According to World Tourism Organization, travel restrictions have reduced international tourist arrivals by 97 percent worldwide. In the first four months of 2020, the number of international tourists was 180 million less than in the same period in 2019, according to new data from the organization on the effects of the Covid-19 outbreak whereas in 2019, the number of international tourists increased by

14% to 1.5 billion. Statistics for the first four months of 2020 show a 44% drop in the number of international tourists due to the pandemic. According to the World Travel and Tourism Council, following the outbreak, more than 75 million jobs in tourism industry were at risk (Organization for Economic Co-operation and Development, 2020). Depending on the duration of the crisis, the revised scenarios show that the potential shock led to a 60 to 80% reduction in the international tourism economy in 2020. If this crisis is not regulated, the damage in this area will reach 80% (Khosravi et.al, 2021; Ratten, 2020; Uglis, 2022). Undoubtedly, the economic effects have been disastrous, especially in local areas or even countries whose economies are highly dependent on the arrival of tourists (Ioannides D, Gyimóthy, 2020; Hambira te.al, 2021; Lau, 2020).

In social aspect, studies conducted by the United Nations have shown that the number of people who lose life from the economic consequences of the outbreak is likely to be higher than the number of people who die from the virus itself (Gohar and Moayed, 2020). Zhang et al.'s study also shows that the sudden and rapid spread of infectious diseases such as Covid-19 has become a social and psychological challenge for tourists in the affected areas and even in neighboring and unauthorized areas (Zhang et.al, 2020). Wade (2020) study in the field of sports programs and events showed some of the effects of Covid-19. For example, one of these effects was the relatively island and regional approach to canceling major sporting events as the Covid Crisis accelerates. This means that a fixed policy has not been adopted in different regions to cancel sporting events. This has caused dissatisfaction and anger among sports fans and tourists, and has led to a wave of discrimination between tourists in different regions. Other dimensions of the effects have been related to the protest and negative reaction of sports spectators to the "new normalized conditions",

i.e., watching live sports behind closed doors after the quarantine period. In fact, one of the effects of Covid-19 on sports tourism has been that even after the end of the quarantine period, the conditions for watching sports events have returned to normal and spectators are forced to watch events behind closed doors and gates. In addition, challenges such as the impossibility of holding games indoors, the impact of live sports events on health during quarantine and the lack of feeling and movement during sports games have all led to reduced economic and social stability of sports tourism destinations and psychological effects for tourists (Weed, 2020: 82).

The environmental impact of the Covid-19 pandemic in relation to sports tourism is difficult to prove; because apparently these two areas are not related to each other in the environmental sector. However, few studies indicate some of the environmental effects of Covid-19 on sports tourism environments. For instance, a study by Hambira et al. (2021) shows that due to the restriction of sport tourism trips to Botswana, the livelihoods of local people who relied on sports tourism revenues were threatened and illegal animal hunting increased. Also, the implementation of the free shooting policy in no-hunting areas has resulted in the death of 17 hunters (Hambira et.al, 2021). Also, the study of Mogomotsi et al (2020) shows that when people's livelihoods are threatened, encroachment on the environment increases (Mogomotsi et.al, 2020).

The present study is conducted on a regional scale i.e., Isfahan province with its subordinate cities. Isfahan province, as one of the leading regions of Iran in the tourism industry and one of the most important centers of sports tourism in the country, has a population of 5,120,850. Having an area of 107019 square kilometers, the province occupies about 6.5 percent of the total area of the country (Iran Tourism Information Bank, 2022).

Aspects of sports and adventure tourism in

Isfahan province include attractions such as mountains, caves, rivers and deserts (Abdinia, 2017). The study of the performance level of the province's tourism resources shows that most of the province's tourism resources are at the local and provincial level (97%). National and local resources account for 2% and 1% of

the province's potential, respectively (Daghestani, 2012). Table 1 shows the Performance level of tourism resources in Isfahan province. Table 1 shows the performance of tourism resources in Isfahan province.

**Table 1- Performance level of tourism resources in Isfahan province**

Total	International	National	Local	Level
2209	22	42	2145	Number
100	1	2	97	Percentage

## Materials and Methods

This study was carried out using survival methodology based on a mixed approach. The required data was collected based on the following three sources:

interview with 14 experts in the field of sports tourism management who were selected in a Targeted method and identified in the following two groups:

8 Managers and officials of departments related to sports tourism in Isfahan province

6 Academic experts (6 people)

theoretical literature review

Distribution of weighted questionnaires.

The selection of people for the interview was based on the following two criteria:

1- Being familiar with the issues and challenges of Isfahan province

2- Expertise in sports tourism and sports management

Data analysis process implemented using three methods including "quantitative and qualitative content analysis", "intersectional effects analysis" and "scenario analysis". This process was such that first, by reviewing the literature, the factors affecting the future of sports tourism

destinations in Isfahan province were identified in the conditions of the outbreak of the Covid-19 disease, and an initial list of driving factors was extracted. Then, this list was provided to experts and while conducting a semi-structured interview, they were asked to complete and correct this checklist. The result of this stage was the preparation of the final list of driving factors, which was redistributed among experts in the form of a cross-effects questionnaire. In this method, the effect of the factors listed in the rows on the factors located in the columns evaluated in a numerical range of zero to 3, where the number zero indicates no effect and the number 3 indicates the greatest effect. To make the final matrix to enter the Mikmac software, the mode of weights was taken into consideration (Asgharpour, 2017). Simultaneously with this questionnaire, another questionnaire was distributed to evaluate the importance and certainty of driving factors in the range of 1 to 10. Based on the results of these two questionnaires, driving factors were screened and key factors were determined. These key driving factors were evaluated in the form of several scenarios and the possible situations of each driver were explained in two favorable and unfavorable situations. Finally, strong, consistent and probable scenarios were identified. Research methodology plan is available in the table 2.

**Table 2- Methodological Plan of the study**

Process and methods	Expert No	gender	age	Professional Field	Relevant organization
Number of experts: 14	E1	Male	48	Cultural Management	Cultural Heritage and Tourism of Isfahan Province
Sampling method: Purposive	E2	Male	51	Tourism Management	
Type of Quantitative questions: spectral	E3	Female	35	Sport Management	Physical Education of Isfahan Province
Number of Quantitative questions: 2	E4	Male	63	Sports Organizations Management	
Type of Qualitative questions: open response	E5	Female	58	Hotel Management	Inspection and Supervision of Guilds of Isfahan Province
Number of Qualitative questions; 2	E6	Male	53	Tourism Management	
Type of interview: semi-structured	E7	Male	44	Marketing Management	
Number of interview rounds: 2 (Written- Oral)	E8	Female	38	Urban Planning	Isfahan Management and Planning Organization
Total Interview duration: 248 minutes	E9	Male	36	Sports Tourism	University of Tehran
	E10	Male	39	Sports Tourism	University of Mazandaran
	E11	Male	44	Physical Education	Shahroud University of Technology
	E12	Female	40	Physical Education	University of
	E13	Male	46	Future Studies	University of Imam Khomieni
	E14	Female	37	Future Studies	University of Tarbiat Modares
Qualitative questions	1- Considering the spread of the Covid-19 disease and assuming that it will continue until 2030, what factors and drivers will affect sports tourism in Isfahan province? 2- What challenges threaten Isfahan province in connection with the Covid-19 disease until 2030?				
Quantitative questions	1- How do you evaluate the mutual effects of each of the drivers related to the covid-19 disease in the future of sports tourism in Isfahan province? Please give a score from 0 to 3 (high impact = 3, medium impact = 2, low impact = 1, no impact = 0) 2- What is the importance of each of the drivers of sports tourism in Isfahan province in relation to the spread of the Covid-19 disease? 3- What is the probability of the occurrence of each of the drivers of sports tourism in Isfahan province in connection with the spread of the Covid-19 disease?				

## Results

The analysis process in this study initiated with the detection of the driving factors. At this

stage, based on interviews with experts, questioning citizens and reviewing the theoretical literature on the subject, a total of 40 main drivers were identified (Table 3).

**Table 3- List of drivers based on interviews with experts, questioning of citizens and reviewing theoretical literature**

Scope	Driving factors	Reference Support
Social	Social trust in travelling	Bae & Chang, 2020
	Sports tourists' perceptions of the dangers of Covid-19	Bratic' et.al, 2021
	Observance of health protocols by tourists and the host community	Gossling et.al, 2020 Gretzel et.al, 2020
	Tendency of the host community to sports tourists' entry	Hall et.al, 2020
	Accommodation of sports tourists	Hambira te.al, 2021
	Welcoming the culture of Contactless tourism	Khosravi et.al, 2021
	Diversity in lifestyles	Kim et.al, 2020
	Transformation in traffic patterns	Kock et.al, 2020
	Type of visiting groups (preferring families to public tours - individual to group preference)	Lee, 2020 Mirtaghian Rudsari, 2020
	Preferences of sports tourists from patterns of participation in activities (active participation - passive participation - visits)	Ratten, 2020
	The trend of disease outbreak and the emergence of new variants	Trendafiova et.al, 2019
	hygienity status of Isfahan province in terms of disease transmission capability	Yan et.al, 2022 Zhang et.al, 2020
Infrastructural	Renovation and strengthening of sports tourism infrastructure in the province	Gossling et.al, 2020 Gretzel et.al, 2020
	Creativity and innovation in sports tourism activities in the province	Hua & Chiu, 2013 Khosravi et.al, 2021
	Diversity in tourist attractions and sports tourism activities of the province	Kock et.al, 2020
	Diversity and availability of other types of tourism in the province	Yan et.al, 2022
Economical	Orientation of investments in sports tourism	Gossling et.al, 2020
	economic and financial support of government to the sports tourism industry	Hambira te.al, 2021 Hua & Chiu, 2013
	Business Support (Support Packages, Loans, Subsidies, Facilities, Grants, Insurance)	Khosravi et.al, 2021 Lau, 2020
	Freedom in the activities of support businesses	Ratten, 2020
	Competition and collaboration among businesses	Trendafiova et.al, 2019
	Dynamics and flexibility of business models to adapt to new situations	Uglis, 2022
	Considering elements of market segmentation and marketing mixture	Yan et.al, 2022 Zhang et.al, 2020
	Developing and equipping competitive tourism destinations	
	promoting the standard of service centers (hotels, restaurants, travel agencies, tours, etc.) based on the standards of service in the Covid-19	
Dependence of the host community on sports tourism revenues		
Policy Manahement and	Orientation of the country's macro-tourism policies to maintain the sports tourism market during the Covid-19	Gozalova et.al, 2014 Hua & Chiu, 2013
	Preparation of institutions and organizations to deal with crises caused by Covid-19	Khosravi et.al, 2021 Kock et.al, 2020
	Coordination and Integration of institutions related to sports tourism	Lau, 2020 Le, 2021
	Smart policy-making in controlling the supply and demand of sports tourism after each new wave of disease	Trendafiova et.al, 2019
	Orientation of sports organizations towards the development of	Uglis, 2022

Scope	Driving factors	Reference Support
	each type of sports tourism	Yan et.al, 2022
	Decision on how to hold sporting events in line with the Covid-19 outbreak	
	Decision on the work of stadiums and sports centers in accordance with the waves of Covid-19 outbreaks	
	Type of supervising the activity of sports tourism destinations	
	Efficiency and effectiveness of rules for controlling Covid-19 as an illness	
	The process of Iran's sanctions by international sports committees and federations	
Environmental	The process of environmental degradation caused by sports tourism	Gossling et.al, 2020 Hambira te.al, 2021 Kock et.al, 2020 Uglis, 2022 Zhang et.al, 2020
	Presence of environmental activists as health ambassadors in sports tourism destinations	
Tecnological	Development of online technologies, applications and virtual services (metaverse world, face detection, artificial intelligence)	Gossling et.al, 2020 Gretzel et.al, 2020 Lau, 2020 Thomas et.al, 2021
	Development of technology and information infrastructure (robots, bandwidth, Internet networks)	

After identifying the driving factors, their effect on each other was measured in a cross-sectional questionnaire. According to Table 4, the degree of matrix filling is equal to 74%, which indicates that the factors have a great deal of interaction with each other. Due to the proximity of the scores of 0, 1, 2 and 3, it can

be concluded that the driving factors have a lot of interaction and show a vulnerable and fragile system. On the other hand, a high score of zero means that some driving factors, despite having a very high impact, are not affected by any driving factor.

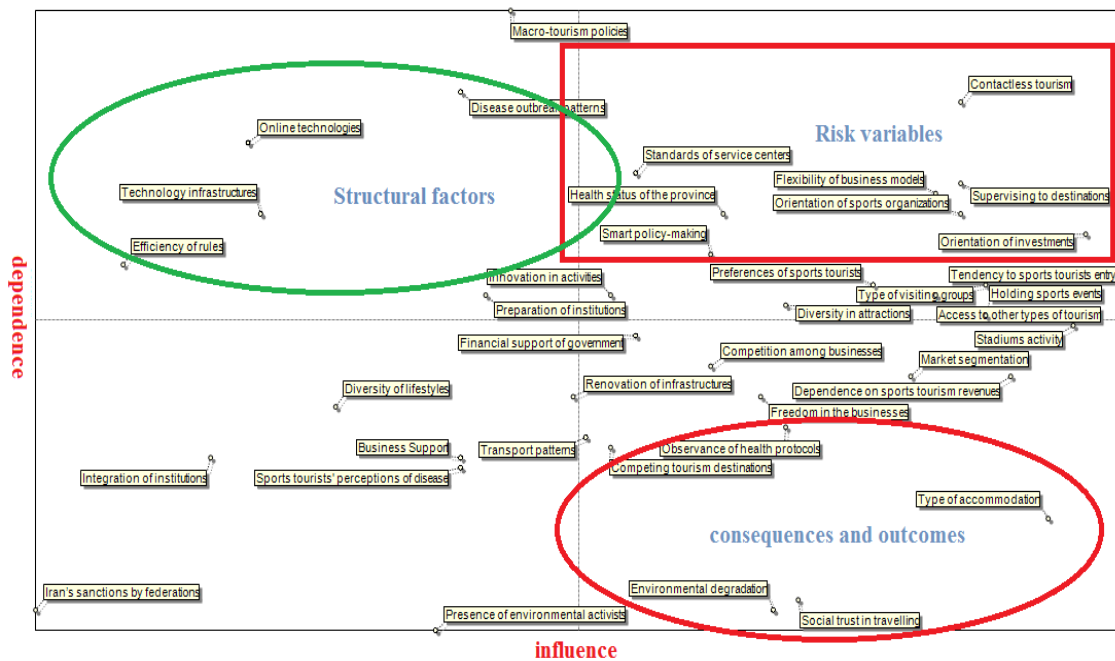
**Table 4- Preliminary results of cross-matrix analysis**

Degree of Filtration	Total	Number of Score P	Number of Score 3	Number of Score 2	Number of Score 1	Number of Zeros	Frequency	Matrix size
74/37	1199	0	357	499	343	401	4	40×40

Overall, the cross-effects model divides the input variables into four categories, including effective variables, affected variables, trivial variables, and two-dimensional variables (effective and affected). According to the results, the driving factors related to the future of sports tourism in Isfahan province during the Covid-19 outbreak include 7 effective factors, 12 affected factors, 15 two-way factors and 6 insignificant factors (Figure 1) that affect each other directly and indirectly (Figure 2 and 3).

As Figure 1 shows, the sports tourism system of Isfahan province is unstable and imbalanced in the face of the Covid-19 pandemic. Because most of the driving factors, are scattered on the diameter of the diagram. In such a system, two-way variables that have high impact and effectiveness at the same time are the most frequent and with the smallest change in these variables, the whole system undergoes fundamental changes.





**Figure 1 - Position of each driver in the cross-sectional analysis diagram**

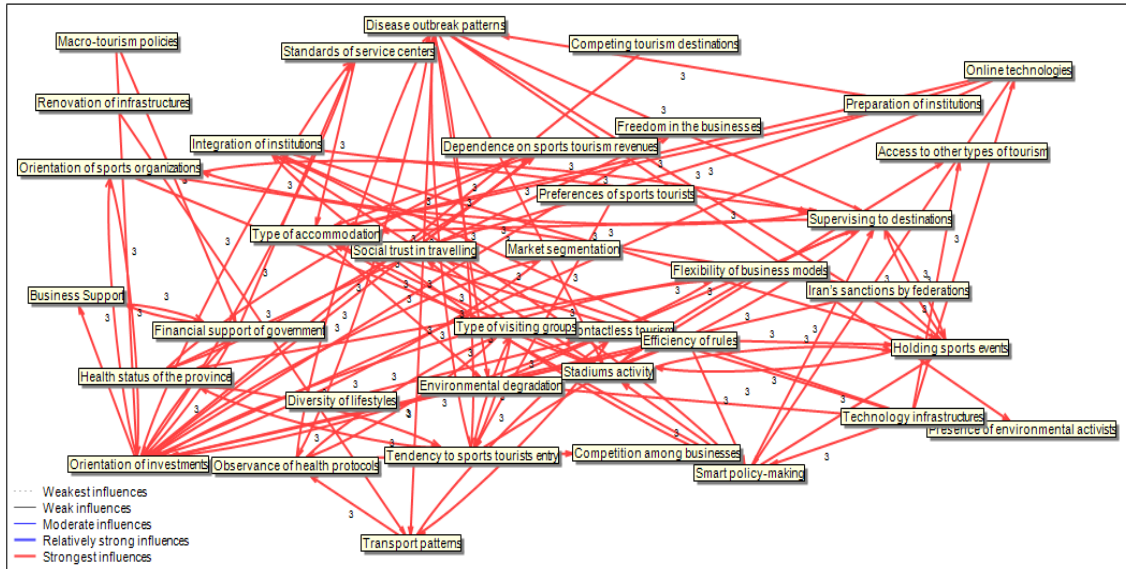
The results of the analysis indicate that driving factors such as the direction of the country's macro-tourism policies, efficiency and effectiveness of laws, software and hardware development of online technologies, disease outbreaks, and the readiness of institutions to control the disease have a great impact on the future of sports tourism in Isfahan. These driving factors are seldom affected by others and operate completely independently. This means that the change in the process of increasing or decreasing the weight of these drivers is dependent on factors outside the country's tourism system and is related to national policies at the governmental level. On the other hand, we have two-dimensional drivers that are characterized by simultaneous effect and affectedness. These drivers are the best bottlenecks for reforming and optimizing the province's sports tourism system. Most of the issues related to disease policy and control fall into this area. Since on the one hand, they are influenced by the macro-policies of the system and the way of running country, and on the other hand, they act as the middle level of policy-making and strategy. For example, how to monitor the activities of tourism centers, the orientation of sports

organizations in the province to develop each of the patterns of sports tourism, the orientation of investments, the type of policy to control disease peaks and how to deal with businesses and whether or not to support them are among these drivers.

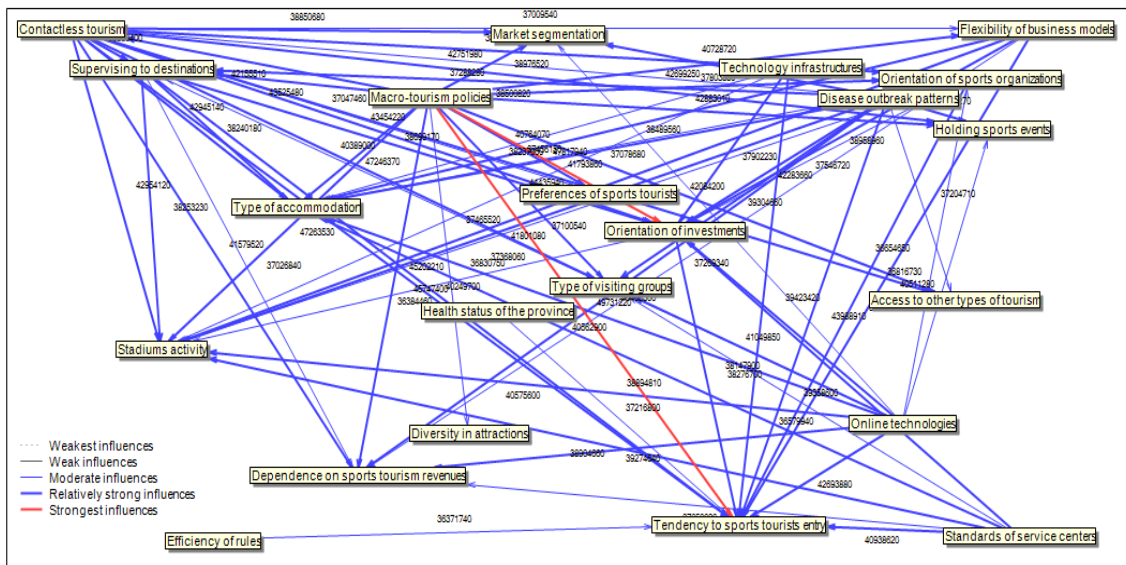
The third group affected drivers are in fact the consequences of current actions and policies that in the next stage, as influential factors, will affect the future of sports tourism in Isfahan province. Issues such as accommodation of sports tourists, changes in transportation patterns, extent of environmental degradation, sports centers performance, development of competitive destinations and the degree of dependability of local community of tourism revenues are all policy implications and actions taken during the pandemic which are even objectively visible and evaluable by citizens. Finally, insignificant drivers are those that are negligible and their effects on the tourism system can be temporarily ignored. These drivers include the sanction of Iranian sports by international sports federations, the presence of environmental activists in pandemic, diversity of lifestyles, and renovation or non-renovation of tourism infrastructure.

Figure 2 and 3 also shows the direct and indirect effects of the driving factors on each other. Based on these two figures, it can be seen that apart from the instability of the sports tourism system of Isfahan province, the

intensity of the system variables influences each other is also high and this makes the system highly vulnerable and fragile against sudden changes.



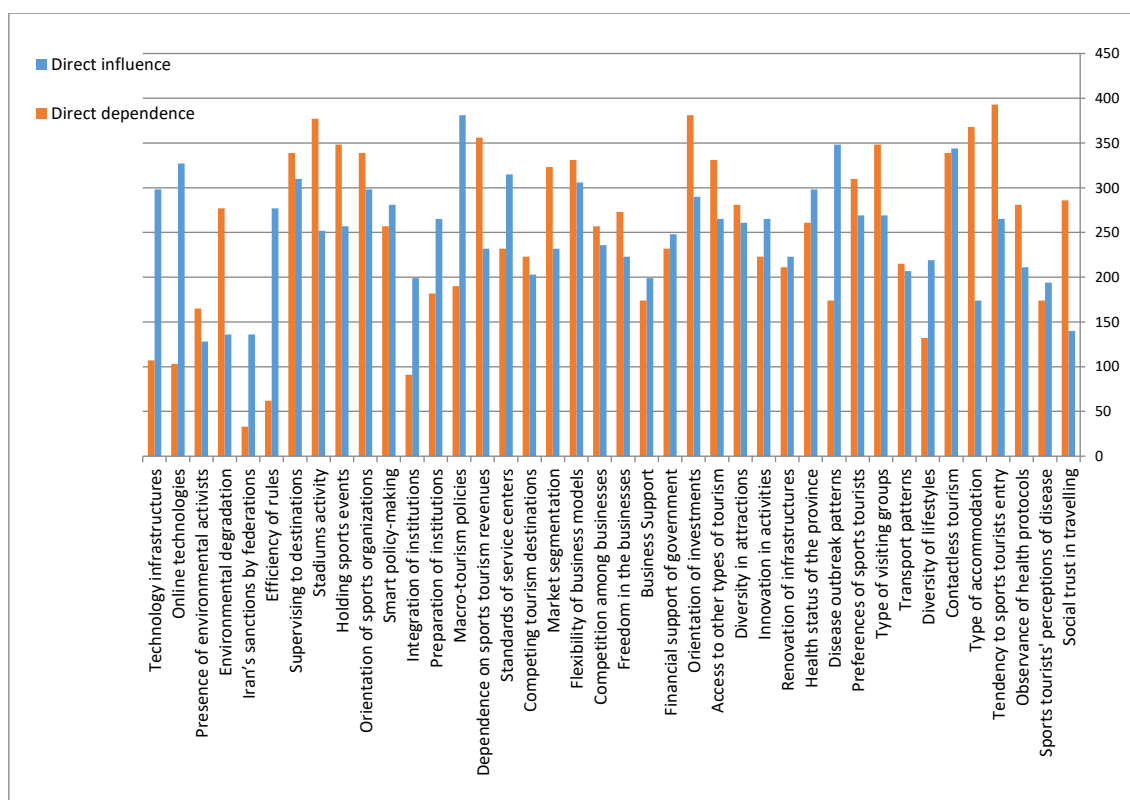
**Figure 2 - Direct relationships between drivers (at the 5% level)**



**Figure 3- Indirect relationships between drivers (at the 5% level)**

Also, according to Figure 4, the most effective factors include macro-tourism policies, disease outbreak patterns, and contactless tourism. On the other hand, the most effective factors

include such things as the Tendency of the host community to sports tourists' entry, orientation of investments, and the activity of stadiums and sports centers.



**Figure 4 – Effectiveness and affectedness scores between drivers**

Sports tourism scenarios for Isfahan province during Covid-19 Pandemic

The logic behind selecting drivers for scenario analysis

Screening and monitoring methods were used to determine the significant drivers for scenario analysis. Accordingly, using a weighting logic, it was attempted to determine and select the drivers that affect the future of sports tourism in Isfahan province during the outbreak. Based on this logic, three basic conditions were

considered in selecting the drivers:

Principle of Significance: Selection of drivers with a score greater than 7

Principle of certainty: Selection of drivers with a score greater than 7

Uncertainty Principle: Selection of driver with a score less than 5

**Table 5- The main conditions for selecting drivers for scenario analysis**

Conditions of selection	Uncertainty Principle	Principle of certainty	Principle of Significance
Average of the Obtained Scores	Score less than 5	Score higher than 7	Score higher than 7

The rationale for selecting driver was that each of them must meet at least two of the above three conditions in order to enter the scenario environment. Accordingly, only 14 driving factors were eligible to enter the scenario environment (Table 6). The selected driving factors, according to their similarities, were

classified into four main groups, each of which is a major factor influencing the future of sports tourism in Isfahan province during the Covid-19 outbreak. For each macro process, an optimistic assumption and a pessimistic assumption were considered (Table 7).

**Table 6- Evaluation of drivers to enter the scenario space**

Driver's Name	Average Certainty of Driver	Average Significance of Driver
Social trust in travelling	6.9	4.2
Sports tourists' perceptions of the dangers of Covid-19	8.8	7.1
Observance of health protocols by tourists and the host community	8.1	7.4
The tendency of the host community to attract sports tourists	7.4	4.6
Accommodation of sports tourists	5.3	5.8
Welcoming the culture of Contactless tourism	4.3	8.1
Diversity in lifestyles	6.8	3.1
Transport and traffic patterns	5.2	5.8
Type of visiting groups (preferring families to public tours - individual to group preference)	4.3	6.1
Preferences of sports tourists from patterns of participation in activities (active participation - passive participation - visits)	4.8	6.5
disease outbreak patterns and the emergence of new variants	4.4	8.3
hygienity status of Isfahan province in terms of disease transmission capability	5.4	6.1
Renovation and strengthening of sports tourism infrastructure in the province	6.3	6.2
Creativity and innovation in sports tourism activities in the province	4.8	6.7
Diversity in tourist attractions and sports tourism activities of the province	5.6	6.1
Diversity and availability of other types of tourism in the province	6.8	5.9
Orientation of investments in sports tourism	4.1	7.9
economic and financial support of government to the sports tourism industry	4.3	7.3
Business Support (Support Packages, Loans, Subsidies, Facilities, Grants, Insurance)	4.9	7.7
Freedom in the activities of support businesses	4.5	6.3
Competition and collaboration among businesses	3.9	5.1
Dynamics and flexibility of business models to adapt to new situations	4.6	6.1
Considering elements of market segmentation and marketing mixture	4.5	4.9
Developing and equipping competitive tourism destinations	5.9	5.3
promoting the standard of service centers (hotels, restaurants, travel agencies, tours, etc.) based on the standards of service in the periodic of the disease	4.9	7.3
Dependence of the host community on sports tourism revenues	6.5	6.3
Orientation of the country's macro-tourism policies to maintain the sports tourism market during the disease	4.8	8.5
Preparation of institutions and organizations to deal with crises caused by Covid-19	4.3	6.6
Coordination and Integration of institutions related to sports tourism	3.9	6.7
Smart policy-making in controlling the supply and demand of sports tourism after each new wave of disease	4.1	7.3
Orientation of sports organizations towards the development of each type of sports tourism	5.5	6.5
Decision on how to hold sporting events in line with the Covid-19 outbreak	6.1	6.2
Decision on the work of stadiums and sports centers in accordance with the waves of Covid-19 outbreaks	6.5	6.6
Type of supervising the activity of sports tourism destinations	4.9	7.9
Efficiency and effectiveness of rules for controlling Covid-19 as an illness	4.2	7.6
The process of Iran's sanctions by international sports committees and federations	4.8	3.5
The process of environmental degradation caused by sports tourism	7.4	5.9

Driver's Name	Average Certainty of Driver	Average Significance of Driver
Presence of environmental activists as health ambassadors in sports tourism destinations	4.3	5.3
Development of online technologies, applications and virtual services (metaverse world, face detection, artificial intelligence)	7.5	8.2
Development of technology and information infrastructures (robots, bandwidth, Internet networks)	7.1	7.9

Based on the two assumptions in the four critical uncertainties, a total of 16 scenarios were created out of which 8 scenarios are similar to scenarios 1 and 2, and 6 scenarios are among the intermediate scenarios. In this study, there was no inconsistent scenario due to the distinction of drivers and their integration in the form of macro-trends since the assumption of

scenarios is completely different in nature (Table 8).

Ideal Scenario (No. 1)

Disaster Scenario (No. 2)

Intermediate scenarios (Nos. 5, 6, 9, 10, 11 and 12)

**Table 7- Assumptions behind Key Drivers**

Social responsibility of sports tourists		
Low Recognition and responsibility	Sports tourists' perceptions of the dangers of Covid-19	High Recognition and responsibility
Normalization and non-compliance with protocols	Observance of health protocols by tourists and the host community	Observance of health protocols
Non-welcoming untact tourists	Welcoming the culture of Contactless tourism	Welcoming untact tourism
Reduction of disease or continuation of the current trend	The trend of disease outbreak and the emergence of new variants	Escalation of the disease
Investment and economic support		
Non-supporting sport tourism	Orientation of investments in sports tourism	Supporting sports tourism
Reduction of support or continuation of current trends	economic and financial support of government to the sports tourism industry	Increase of contributions over time
Decrease in supporting businesses	Business Support	Increase in supporting businesses
Demotion of Quality and continuation of current trends	promoting the standard of service centers	Improving quality of service
Policy-making and monitoring of sports tourism destinations		
Ignoring sports tourism market	Orientation of the country's macro-tourism policies	Protecting sports tourism market
Passive and emergency policy making	Smart policy-making in controlling the supply and demand of sports tourism	Flexible and intelligent policy making
Inefficient and ineffective supervising	Type of supervising the activity of sports tourism destinations	Coherent, purposeful and effective monitoring

Lack of efficiency and effectiveness	Efficiency and effectiveness of rules for controlling Covid-19 as an illness	Increase efficiency and effectiveness
Technology development		
Lack of development or continuation of the current trend	Development of online technologies, applications and virtual services	Significant development of online technologies
Lack of development or continuation of the current trend	Development of technology and information infrastructures	Significant improvement of infrastructure development

**Table 8- Morphology of scenarios and their similarity and incompatibility**

scenarios	Social responsibility of sports tourists		Investment and economic support		Policy-making and monitoring of sports tourism destinations		Technology development	
	High responsibility	Low responsibility	Improve investment	Lack of Improve investment	Effective policy making	Passive and ineffective policy making	Accelerated and high-quality development	Slow and poor-quality development
First								
Second								
Third (similar to the first)								
Fourth (similar to the second)								
Fifth								
Sixth								
Seventh (similar to the second)								
Eighth (similar to the first)								
Ninth								
Tenth								
Eleventh								
twelfth								
Thirteenth (similar to the first)								
Fourteenth (similar to the second)								
Fifteenth (similar to the first)								
Sixteenth (similar to the second)								

## Discussion

So far, tourism has gone through various crises, but Covid-19 has been more devastating than any other tourism crisis in contemporary history (Gretzel et.al, 2020). Covid-19 is a new and persistent situation with an unknown period of duration (Gossling et.al, 2020) and unlike other crises that have a definite duration, there is a lot of uncertainty regarding its control (WHO, 2020). It seems that the sports tourism industry, like other industries and businesses, needs some kind of adaptation in the face of the epidemic crisis. Therefore, here we follow the discussion in several main areas.

First, what will be the sustainability of tourist destinations during the outbreak of Covid-19 disease. As the results of recent studies show, the disease has caused a recession in businesses and great economic damage to tourism industry and related businesses such as retails, restaurants, hotels, and services (UNWTO, 2020; Mogaji, 2020). This means that the economic sustainability of sports tourism destinations will face double crises. The results of the present study, while confirming the previous studies, showed that there are several economic drivers for sports tourism during the Covid-19 outbreak, the most important of which are the direction of investments and business dynamics to adapt to the pandemic conditions. In the meantime, government assistance to affected businesses and, conversely, the ability of businesses to adapt to new conditions are among the factors affecting the economic sustainability of tourist destinations during the Covid-19.

Implementing economic strategies to save tourism industry from crisis requires policy-making at the national level. These policies should, in principle, have an institutional aspect. That is, it depends on the legal capacity of the institutions and not on the will of the managers and persons in charge. In this way, through the right institutional policies, this industry can be made more adaptable in times

of crisis. The results of the available evidence in Iran show that the country's policies in the first three years of the outbreak of the disease were confusing and based on trial and error that affected sports tourism. Delayed vaccination, closure of stadiums and sports centers for a long time (exactly from the early 2020 to the end of 2021), failure to control the peaks and waves of the disease, failure to prevent the spread of new variants and inefficiency of many decisions made in The Covid-19 National Headquarters (including the ban on night traffic and the ban on inter-provincial traffic) were among the policies that directly harmed sports tourism. In the morphology of the scenario space, it is likely that in the next 10 years, assuming the continuation of the Covid-19 pandemic, we will continue to see such passive and emergency policies. In fact, in the case of policy-making, it seems that the occurrence of intermediate scenarios, especially scenarios 2 and 9, is more probable.

Implementing many diseases control and reduction policies requires support of online technologies and hardware infrastructure. Recent studies show that sports tourism businesses should be presented mainly in the context of information technology, including digital menus, online services, applications and smart control, etc., in order to have fewer physical interactions and less probability of transmission (Le & Phi, 2021). Also new compatible technologies in cyberspace such as up-to-date information systems and technologies such as face recognition, artificial intelligence and robots, etc must be called to help (Lau, 2020). Technological advancement is basically one of the certainties of the future. However, based on the evidence in this paper, which was also rightly emphasized by the experts, in Iran and Isfahan province, the current trend of infrastructure and software development of this macrotrend is frustrating.

On the other hand, one of the most important dimensions of the sustainability of sports

tourism in Isfahan province is to increase the social responsibility of individuals, i.e., sports tourists and members of the host community against the disease. In fact, this dimension refers to social sustainability in the theory of sustainable development. During Covid-19 epidemic, due to the high level of perceptual risk of sports tourists and the host community, major travel behaviors are limited and individuals have very little inclination to travel (Bratić et.al, 2022). In fact, they lose social trust in travel (Kock et.al, 2020; Khosravi et.al, 2021). Conversely, recent studies show that the attitude of most people in the host community towards the presence of tourists during the Covid-19 outbreak is negative. as the study MirtaghianRoudsari et.al, 2020 shows that more than 80% of the respondents had a negative attitude towards the free travel of tourists in the condition of Covide-19 diseas. But 50% agreed with the controlled entry of tourists, provided that health protocols are followed.

However, other studies emphasizing the dependence of the host community's livelihood and economy on tourism have shown that the host community can be receptive to tourists during disease outbreak (Ratten, 2020; Hall et.al, 2020). This is where the importance of the social responsibility of sports tourists and the host community, as one of the important drivers, becomes more and more prominent. In fact, the level of agreement of the host community with the arrival of tourists, the degree of compliance with health protocols, accommodation accommodation of tourists, patterns of transportation to tourist destinations, the type of visiting groups and preferences of sports tourists are patterns of participation in activities which contributes to social sustainability of sports tourism destinations. Overall, current studies show that corporate social responsibility can be explained by the culture of "untact tourism".

These studies have probed the individualism of

today's society and technology-based perspectives. According to the study of Lee & Lee, 2020, a significant part of customers with individualistic tendencies welcome contactless services as a valuable service channel in modern society. Also, the study of (Bae & Chang, 2020) shows that the attitude, mental norms and perceived behavioral control of tourists towards contactless tourism have a positive effect on the behavioral intention of tourists towards this type of tourism. Based on this, it can be concluded that the development of technology in terms of software and hardware is the most important precondition for untact tourism.

Based on all the issues raised and considering the morphology of the scenarios, it seems that in Isfahan province, the realization of intermediate scenarios as well as pessimistic scenarios is more probable. Especially due to the conditions prevailing the policy-making and crisis management environment of the country, as well as the social and economic situation of Iranian society, the second, seventh, and fourteenth scenarios are more likely to occur. In these types of scenarios, people's social responsibility is gradually increasing and improving, and technology development is moving forward, but slowly. However, economic investments and institutional policies are at their worst, so we will witness the current trend in economic orientation and policy-making, and disease control will be harder and more delayed than other tourism destinations.

## Conclusion

In this study, we focused on the question that to what extent can Covid-19 pandemic make sports tourism in Isfahan province unsustainable or bring it closer to sustainability? Based on the findings, it can be concluded that the interaction of factors and drivers affecting the tourism system of Isfahan province is much intertwined and causes the vulnerability of the province to increase as a tourist destination and its stability is shaken by



various dimensions, especially economic ones. Perhaps the most significant problem of Iran's sports tourism destinations is the lack of a smart policy model in controlling the pandemic, which is in turn due to the flawed structure of crisis management in Iran. In this defective structure, all policies and actions are adopted in an emergency and passive manner, and due to the lack of institutionalization, they are generally dependent on the decisions of individuals, the ruling political powers and the tastes of the managers. This flawed structure of policy and crisis management affects the orientation of other sectors such as investment, sports venue management, infrastructure development, and tourist destination updating. Therefore, the first step in adapting the country's sports tourism destinations to the conditions of the Covid-19 epidemic is to review policies and crisis management models. This review will probably lead to the sustainability of these goals and the consistency of revenue for the local community.

## References

- [1] Abdinia, F. (2017). Analysis of the state of sports tourism in the adventure activities of Isfahan province using the SOAR model. Master's thesis on tourism development planning, Sheikh Baha'i University
- [2] Asgharpour, M.J. (2016). Group decision making and game theory with an operations research perspective, University of Tehran Publications
- [3] Bae, S.Y., & Chang, P.O. (2020). The effect of Covid-19 disease risk perception on behavioural intention towards 'untact'tourism in South Korea during the first wave of the pandemic (March 2020), *Current Issues in Tourism*, 24 (7), 1-19
- [4] Bakas, F.E., Duxbury, N., & de Castro, T.V. (2019). Creative tourism: catalyzing artisan entrepreneur networks in rural Portugal, *International Journal of Entrepreneurial Behavior & Research*, 25 (4), 731-752
- [5] Biggs, D., Hall, C.M., & Stoeckl, N. (2012). The resilience of formal and informal tourism enterprises to disasters: Reef tourism in Phuket, Thailand, *Journal of Sustainable Tourism*, 20 (5), 645-665
- [6] Bratić, M., Radivojević, A., Stojilković, N., Simović, O., Emil, J., Lesjak, M., & Podovšovnik, E. (2021). Should I Stay or Should I Go? Tourists' COVID-19 Risk Perception and Vacation Behavior Shift, *Sustainability*, 13 (6), 1-19
- [7] Daghestani, S. (2012). Tourist attractions: concepts, management and planning, Mahkaameh Publications, Tehran. Iran
- [8] Duglio, S., & Beltramo, R. (2017). Estimating the economic impacts of a small-scale sport tourism event: The case of the Italo-Swiss Mountain trail CollonTrek, *Sustainability*, 9 (3), 343: 1-17
- [9] Emery, P. (2010). Past, future major sport event management practice: The practitioner perspective, *Sport Management Review*, 2 (1), 28-14
- [10] Gossling, S., Scott, D., & Hall, CM. (2020). Pandemics, tourism and global change: A rapid assessment of COVID-19, *Journal of Sustainable Tourism*, 29 (1), 1-20
- [11] Gozalova, M., Shchikanov, A., Vernigor, A., & Bagdasarian, V. (2014). Sports tourism, *Polish journal of sport and tourism*, 21 (2), 92-96
- [12] Gretzel, U., Fuchs, M., Baggio, R., Hoepken, W., Law, R., Neidhardt, J., Pesonen, J., Zanker, M., & Xiang, Z. (2020). e-Tourism beyond COVID-19: a call for transformative research. *Information Technology & Tourism*, 22 (1), 187-203
- [13] Hall, C.M. (2010). Crisis events in tourism: Subjects of crisis in tourism. *Current Issues in Tourism*, 13 (5), 401-417
- [14] Hall, CM., Scott, D., & Gossling, S. (2020). Pandemics, transformations and

- tourism: Be careful what you wish for, *Tourism geographies*, 22 (3), 577-598
- [15] Hambira, W.L., Stone, L.S., & Pagiwa, V. (2021). Botswana nature-based tourism and COVID-19: transformational implications for the future, *Development Southern Africa*, Available at: <https://doi.org/10.1080/0376835X.2021.1955661>
- [16] Holger, P., Benoit, S., & Norm, R. (2007). Profiling mager sport event visitors: The 2002 commonwealth games, *Journal of Sport & Tourism*, 12 (1), 5-23
- [17] Hua, K.P., & Chiu, L.K. (2013). Multiculturalism: Issues of Malaysian female sport tourists inevent-based sport tourism. *Procedia-Social and Behavioral Sciences*, 91 (1), 270-287
- [18] Iran Tourism Information Bank (2022). Tourist attractions of Isfahan province, available at: <http://www.satrap.org/eghamatibankgardeshgari.aspx>
- [19] Khosravi, E., Naderi, N., Rezaei, B., & Azadi, H. (2021). Presenting a safe tourism model for the continuation of tourism businesses in the Covid-19 crisis, *Journal of Geography and Environmental Hazards*, 10 (2), 147-165 [In Persian]
- [20] Kock, F., Nørfelt, A., Josiassen, A., Assaf, A.G., & Tsionas, M.G. (2020). Understanding the COVID-19 tourist psyche: The evolutionary tourism paradigm, *Annals of tourism research*, 85 (1), 1-13
- [21] Kumar, D. (2018). Sport Tourism: A New Educational Concept for Sustainable Development. *Multidisciplinary Higher Education, Research, Dynamics & Concepts: Opportunities & Challenges for Sustainable Development*, 1 (1), 69-75
- [22] Lau, A. (2020). New technologies used in COVID-19 for business survival: Insights from the Hotel Sector in China, *Inf Technol Tourism*, 22 (1), 497-504
- [23] Le, D., & Phi, G. (2021). Strategic responses of the hotel sector to COVID-19: Toward a refined pandemic crisis management framework, *International Journal of Hospitality Management*, 94 (1), 1-5
- [24] Lee, S.M., & Lee, D. (2020). "Untact": a new customer service strategy in the digital age, *Service Business*, 14 (1), 1-22
- [25] Mason, P., Grabowski, P., & Du, W. (2005). severe acute respiratory syndrome, tourism and the media. *International Journal of Tourism Research*, 7 (1), 11-21
- [26] Mirtaghian Rudsari, S.M., Farokhian, F., & Naghavi, M. (2020). Investigation of Residents' Behavior towards Tourists during COVID-19 Outbreak, *Tourism Management Studies*, 15, Qovid-19 Special issue: 115-143 [In Persian]
- [27] Mogaji, E. (2020). Consumers' Financial Vulnerability when accessing Financial Services, *Research Agenda Working Papers*, (3), 27-39
- [28] Mokras-Grabowska, J. (2016). Sports Tourism: Terminological Discussion. *Turyzm*, 26 (1), 13-18
- [29] Rafika, K., Rym, K., Souad, S.B., & Yousef, L. (2016). A public actor awareness for sustainable development, *Procedia-Social and Behavioral Sciences*, 216 (1), 151-162
- [30] Ratten, V. (2020). Coronavirus and entrepreneurship: changing life and work landscape, *Journal of Small Business & Entrepreneurship*, 32 (5), 503-516
- [31] Thomas, M.J., Lal, V., Baby, A.K., Rabeeh, M., James, A., & Raj, A.K. (2021). Can technological advancements help to alleviate COVID-19 pandemic? a review, *Journal of Biomedical Informatics*, 117 (1), 1-22
- [32] Trendafiova, S., Ziakas, V., & Sparvero, E. (2019). Linking corporate social responsibility in sport with community development: an added source of community value, *Sport in Society Cultures, Commerce, Media, Politics*, 20

- (7), 938-956
- [33] Uglis, J., Jęczmyk, A., Zawadka, J., Wojcieszak-Zbierska, M.M., & Pszczoła, M. (2022). Impact of the COVID-19 pandemic on tourist plans: a case study from Poland, *Current Issues in Tourism*, 25 (3), 405-420
- [34] UNWTO (2020), COVID-19: Putting people first. UNWTO, Available at: <https://www.unwto.org/tourism-covid-19>
- [35] Weed, M. (2020). The role of the interface of sport and tourism in the response to the COVID-19 pandemic, *Journal of Sport & Tourism*, 24 (2), 79-92
- [36] World Health Organization (2020), Coronavirus Disease (COVID-19) outbreak, Available at: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
- [37] Yan, Y., Ibrahim Shah, M., Sharma, G.D., Chopra, R., Fareed, Z., & Shahzad, U. (2022). Can tourism sustain itself through the pandemic: nexus between tourism, COVID-19 cases and air quality spread in the 'Pineapple State' Hawaii, *Current Issues in Tourism*, 25 (3): COVID-19 and Tourism: 421-440
- [38] Yu, M., Li, Zh., Yu, Zh., He, J., & Zhou, J. (2021). Communication related health crisis on social media: a case of COVID-19 outbreak, *Current Issues in Tourism*, 24 (19), 2699-2705
- [39] Zhang, K., Hou, Y., & Li, G. (2020). Threat of infectious disease during an outbreak: Influence on tourists' emotional responses to disadvantaged price inequality, *Annals of Tourism Research*, 84 (1). 1-11
- [40] Zhong, L., Sun, S., Law, R., & Li, X. (2021). Tourism crisis management: evidence from COVID-19, *Current Issues in Tourism*, Available at: <https://doi.org/10.1080/13683500.2021.1901866>