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Identifying factors affecting sustainable development in sports facilities of Razavi Khorasan Province

Identificando los factores que afectan al desarrollo sostenible en instalaciones deportivas de la provincia de Jorasán Razaví

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Abstract: The objective was to identify the factors affecting sustainable development in sports facilities of Razavi Khorasan Province and to design a qualitative model of these factors. The sample of this study consisted of 15 participants (faculty members of sport management, executives of the Ministry of Sport and expert managers of sporting places of Razavi Khorasan Province). In-depth interviews were used as the main data collection tool. In order to analyze the data, the opinions of the experts (text) were coded and categorized. Finally, the identified categories were analyzed according to the conceptual model of research (concepts, components and indicators) and the addition of new components was summarized. This process was carried out with MAXQDA version 18 software. According to the views of the experts analyzed, various factors affect the sustainable development of sports facilities in Razavi Khorasan province. The most important factor was users and the least important factor was privatization. Management, safety, and human resources were also important issues.

Keywords: sustainable development; sport facilities; environment; Iran.

Resumen: El objetivo fue identificar los factores que afectan al desarrollo sostenible en las instalaciones deportivas de la provincia de Jorasán Razaví y diseñar un modelo cualitativo de estos factores. La muestra de este estudio estuvo compuesta por 15 participantes (profesores de universidad de gestión deportiva, ejecutivos del Ministerio de Deportes y gestores deportivos expertos de la provincia de Jorasán Razaví). Las entrevistas fueron la principal herramienta de recopilación de datos. Para analizar los datos, las opiniones de los expertos (texto) fueron codificadas y categorizadas. Finalmente, las categorías identificadas se analizaron de acuerdo con el modelo conceptual de investigación (conceptos, componentes e indicadores) y se resumió la adición de nuevos componentes. Este proceso se realizó con el software MAXQDA versión 18. Según las opiniones de los expertos analizados, varios factores afectan al desarrollo sostenible de las instalaciones deportivas en la provincia de Jorasán Razaví. El factor más importante fue el referido a los usuarios y el factor menos importante fue el de privatización. La gestión, la seguridad y los recursos humanos también fueron cuestiones importantes.

Palabras Clave: desarrollo sostenible; instalaciones deportivas; medio ambiente; Irán.

1. Introduction

The study of the relationship between sport and urban structures confirmed the importance of sustainable development of sport facilities (Li & Luk, 2011, European Commission, 2007). Kozma et al. (2016) underlined the importance of the location of sports areas within cities and of the spatial development of sports facilities. Triantafyllidis & Davakos (2019) emphasized the importance of overcrowding, globalization and urbanization in people's lifestyles, stating that exercise leads to motivation, mental and physical wellbeing, community unity, confidence and sustainable consumer behavior.

Poverty, hunger, widespread financial crisis, unequal employment opportunities and conditions, environmental degradation, loss of biodiversity, CO2 emissions, toxicity to land, air and ocean, health ailments, inactivity, distress, bad nutrition, increased consumption of alcohol and drugs,

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lack of access to resources, uncontrolled growth of technology, increased government conflicts, corruption, scandals and wars are all problems that the nations face when it comes to development. In this context, sustainable sports places and people's participation in physical activity are essential (United Nations, 2016). In fact, exercise affects people, creates a positive mentality, promotes effective communication, provides a platform for development and brings peace, security and compassion (Schulenkorf & Siefken, 2019).

In the United States, Chapin (1999) identified three key stages in the development of 20th-century sports facilities: between 1909 and 1925 a wave of construction of suburban sports facilities occurred in these states; the next phase began in the 1950s and continued through the mid-1980s, with the most prominent feature of this period being the suburbanization of sports facilities; the last stage in the 1990s, when sports facilities were expanded from the suburbs to urban centers. According to Chapin (1999) and Korsgaard (2012), sport has a useful role for renovating suburban areas, and it is a base of sponsors of various companies, including local financial institutions and law firms.

There has always been a close relationship between governments and volunteer sports organizations in the construction of sports facilities. Since World War II, governments created the conditions for building sports facilities in the Scandinavian countries by dividing the work between sport organizations. In Denmark, for example, shooting clubs were supported by the government as they gave special attention to the sense of patriotism and education (Norberg, 1997).

Sustainable development, from the perspective of Algunaibet et al. (2019), refers to a development that meets the needs of the present without impeding the future generations to meet their needs. In general, the concept of sustainable development has many complexities and many dimensions. The goals of sustainable development for 2030 have the purpose of living and growing in a sustainable and prosperous global human society (United Nations, 2016). Today, more than a half of the world's population lives in cities, being cities one of the focal points of social, economic and judicial development (Faiz et al, 2012). At the same time, cities are also the most suitable places where economic, social and environmental issues and problems arise.

Nowadays, in industrialized and developed countries, usually a proper sports service per capita is required and, therefore, in any urban planning, health, recreation and environmental necessities are required. Sporting places can produce many benefits for the health of people through physical activity (González, Nicolás, & López, 2020; López, López, & Díaz, 2016; Nicolás, González, & López, 2020; Sánchez, Cepeda, Díaz, Smith, & López, 2019; Sánchez, Zauder, & López 2019), but they can have also adverse effects, such as environmental issues and cultural or social problems (Absalyamov, 2015; Mesjasz-Lech, 2014). Although sports places are useful to increase the health of the people, they have also a major impact on the environment. Large facilities, like football stadiums, use resources such as energy, water and materials in different life cycles. Sports managers should be aware of their responsibilities to reduce energy, water consumption and waste generation. Many of the environmental, social and economic impacts and other impacts of sports facilities can cause environmental damage in different forms: air pollution, water, land or noise.

In the socioeconomic dimension, the rapid growth of urbanization, especially in large cities, has led to issues such as unbalanced distribution and inadequacy of services and facilities, sharp difference in the value of land and housing and its living conditions and, ultimately, class divisions and socioeconomic segregation (Oke & Aigbavboa, 2017). Markovic et al. (2013) believe that, in contemporary tourism, sport and health have increasingly become the dominant motive for a trip, as a result of modern life and frequent active holidays. In this context, major sporting events could spread the spirit of unity in the world and promote sustainable development (López et al., 2019).

Knott et al. (2015) and Khodadadi et al. (2019) stated that there was a significant relationship between sustainable development and environmental and economic factors. In Iran, the issue of sustainable development of sports facilities has not yet been adequately addressed. Razavi Khorasan Province has good climatic conditions and a high capacity to establish sports facilities, being one of the provinces in which the authorities need to pay attention to the construction of sports facilities to enrich the leisure time of the population. Furthermore, in Iran, there are a series of issues that needs to be studied in the area of sport management, such as overcentralization of activities and facilities in large cities, inadequate performance of the transportation system, misuse of energy resources and inability of cultural and social planning to inform citizens on how to use resources, increasing rate of waste production, recycling, etc.

Therefore, the objective of this study was to identify the factors affecting sustainable development in sports facilities of Razavi Khorasan Province. Also, this research seeks to help the sport community by identifying these factors and by designing a qualitative model of these factors. The results of this study might be used to create urban and suburban sports places according to scientific standards and resources.

2. Methods

2.1. Participants

The sample of this study consisted of 15 participants (faculty members of sport management, executives of the Ministry of Sport and expert managers of sporting places of Razavi Khorasan Province). The sampling method used in this qualitative research was snowball sampling.

2.2. Design

In the context of interpretive research paradigm, the researchers evaluated and analyzed the research problem with default interpretation, choosing a qualitative approach to solve the research problem. From a strategic point of view, it was a type of research based on data theory and hidden content analysis tactics.

2.3. Interviews

In-depth interviews were used as the main data collection tool. In this way, the researcher collected data in a text for-

mat using the content analysis method of in-depth interviews with experts in the field of sport management.

2.4. Procedure and data analysis

The researcher then coded the data collected to address the categories, characteristics, and dimensions of factors that influence the sustainable development of sports sites. After theoretical saturation, the researcher identified the factors affecting the sustainable development of Razavi Khorasan sports sites by presenting the results to experts to confirm the indices and categories explored in the Delphi method.

Then, in order to calculate the reliability coefficients of the research, test-retest reliability method was used. With this

purpose, several interviews were selected and each was recoded at a specified interval. The specified codes were then compared at two intervals for each interview. Four interviews were selected as follow-up for test-retest reliability and were re-coded within one month after the first coding, and the results were as follows (Table 1).

In order to analyze the data, the opinions of the experts (text) were coded and categorized. Finally, the identified categories (conceptual identities) were analyzed according to the conceptual model of research (concepts, components and indicators) and the addition of new components was summarized. This process was carried out with MAXQDA version 18 software.

Table 1. Results of test-retest reliability

| Row | Interview title | Number of codes | Number of Agreements | Number of disagreements | Test-retest reliability |
|-------|-----------------|-----------------|----------------------|-------------------------|-------------------------|
| 1 | P1 | 46 | 37 | 9 | 0.79 |
| 2 | P2 | 35 | 26 | 9 | 0.71 |
| 3 | Р3 | 39 | 30 | 9 | 0.75 |
| 4 | P4 | 50 | 39 | 11 | 0.76 |
| Total | | 170 | 132 | 29 | 0.76 |

3. Findings

The sample distribution of the sample by gender was: 80 % men and 20 % women. Regarding the job position of the experts interviewed, 33 % worked in Razavi Khorasan Province Directorate of Sport and Youth, 47 % were sport management professors and 20% were sport managers. Regarding the education level, 47 % of the interviewed experts had a PhD, 33 % had a Master's Degree and 20 % had a Bachelor's Degree. It was also observed that 13 % of the interviewed experts had at least thirty years of experience, 60 % had an experience of 21-30 years and 27 % of the sample had an experience of 11-20 years (**Table 2**).

The researchers qualitatively analyzed the data to discover and summarize the model of sustainable development of Razavi Khorasan sports sites based on data theory. After analyzing and breaking down the significant units, 183 initial statements with different frequencies were extracted. Eventually these 183 initial statements, with a total of 289 frequencies, were ready to be categorized and formulated. Figure 1 shows the percentage of experts that thought that the

factors analyzed affected the sustainable development in the sports facilities of Razavi Khorasan Province. According to the views of the experts analyzed, the most important factor was users and the least important factor was privatization. Management, safety, and human resources were also important issues.

Table 2. Sample characteristics.

| | | Frequency | Percentage |
|------------|-----------------------------------|-----------|------------|
| Gender | Female | 3 | 20 |
| Gender | Male | 12 | 80 |
| _ | Directorate of Sport and Youth | 5 | 33 |
| Position | University Professors | 7 | 47 |
| | Sport managers | 3 | 20 |
| A 1 · | P.h.D | 7 | 47 |
| Academic | MSc | 5 | 33 |
| Degree | B.Sc | 3 | 20 |
| V C | ≥ 30 | 2 | 13 |
| Years of | 21-30 | 9 | 60 |
| experience | 11-20 | 4 | 27 |

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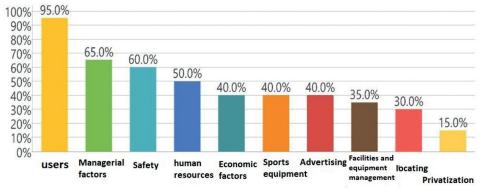


Figure 1. Percentage of experts that thought that the factors analyzed affected the sustainable development in the sports facilities of Razavi Khorasan Province.

The Shannon matrix was then used to explain the categories and sub-categories of the open and axial coding process according to the importance that the experts gave to each factor (Figure 2). After Shannon matrix, Table 3 illustrates the categories, subcategories and basic codes of the factors affecting the sustainable development in sports facilities of Razavi Khorasan Province.

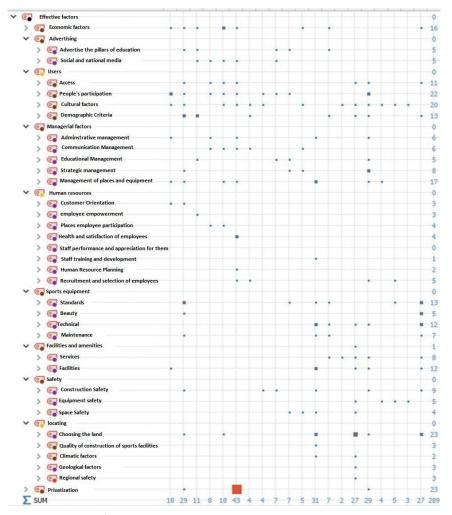


Figure 2. Categories and sub-categories of the open and axial coding process according to the importance that the experts gave to each factor.

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Table 3. Factors affecting the sustainable development in sports facilities of Razavi Khorasan Province: Categories, subcategories and basic codes.

| Category | Subcategory | Basic codes | |
|---------------------|---|---|--|
| Economic factors | The infusion of credit required through the attraction of non-governmental benefactors and sponsors, economic develop- ment and income generation of sports complexes, injecting funds from government sponsors. | | |
| Advertising | Sports advertising | Use of sports in advertising to earn money, sports stars advertising on personal webs, holding various festivals to advertise and introduce places. | |
| | Social and national media | Advertising and cultural media and broadcasting, national media advertising, use of newspapers to develop places, provincial network news coverage of sports sites development, social media sports advertising | |
| | Access | Allocating urban transportation routes to sports places, applying family sanctions to residential sports places, equal access for men and women to sports places according to the population of each area. | |
| | People's participation | Create a satisfying sense of sports, increase the average hours of use of sports sites, attract athletes and spectators by holding competitions and exercises, facilitating stadiums and places with a participatory approach, identifying and removing barriers to public participation. Plan exciting events, reduce costs of using equipment and facilities, facilitate public transportation to access sports places, use heroes and sports figures to organize events, encourage people to use sports places. | |
| Users | Cultural factors | Considering the cultural geography of the province in the development of places, the positive attitude of the Friday Imams of the cities and the province towards sport in the province, dealing with van- dalism and preventing the spread of vandalism, the attitude of families towards the optimum use of sports facilities and education for children, holding cultural events and festivals in the sports places, creating a sense of responsibility for facilities and equipment, holding workshops to maintain places. Holding school events in sports places, educating in the culture of maintaining sports places, sprea- ding the culture of sport in the community, spreading the desire for sports in different age groups. | |
| | Demographic Criteria | Design and build spaces appropriate for different segments of society, utilize voluntary capacity in securing stadiums, pay attention to the safety of sports places, allocate appropriate crowding in sports places, pay attention to standard entrances and exits to stadiums, pay attention to crisis management tips for controlling the crowds at the stadiums, pay attention to population density in the construction of sports places, pay attention to the possibility of attracting more athletes and spectators. | |
| | Executive management | Assign active and dynamic managers, creativity and innovation to the workforce, pay attention to meritocracy, use of highly motivated and specialized staff in the sports complexes. | |
| | Communication management | Having a sense of responsibility and empowerment to advance sports goals, synchronize and interact with municipal programs, remove political, social, economic barriers, etc., communicate with municipal managers, and interact with other organizations. | |
| Management | Educational management | Staff training in courses and workshops related to sports places, holding scientific and specialized workgroups for scientific management of places, interacting with universities for scientific research in the field of sports, conducting training courses and regular and effective social-sport programs for the citizens of the region. | |
| factors | Strategic management | Monitoring and evaluating sports activities, equipping cultural facilities, trying to formulate cultu- ral policies, establishing and expanding recreational-sport centers, fostering public participation in sports, enhancing the quality of sport places. | |
| | Facilities and equipment management | Providing residents with access to cultural and recreational facilities, developing sports monitoring and evaluation indicators, developing maintenance indicators for the type of sports facilities, paying attention to international standards for maintaining sports facilities, assisting in the reconstruction of sports facilities, increasing the number of sports places and locations, regular construction and supervision of relevant authorities. | |
| | Customer Orientation | Create a positive reflection on the minds of customers, appropriate stadium staff and security forces. | |
| Human | Empowering employees | Employee engagement across the organization, sharing effective employee skills and communication, developing knowledge and employee capability. | |
| resources | Employees participation | Develop strategies to encourage employee engagement in teamwork, design specific employee engagement mechanisms for improvement and innovation, and design mechanisms for employee engagement in teamwork. | |

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| | Employees health and satisfaction | Measuring and evaluating employee satisfaction provides a safe work environment, security and em- ployee well-being. Establishing a coordinated relationship between management and union emplo- yees, informing all employees about strategies and policies. | |
|--------------------------|---|--|--|
| | Employees performance and appreciation | Alignment of compensation policies with resource strategies, designing and developing policies and benefits-based compensation plans, managing employee's performance to achieve goals and strategies, develop reward and appreciation plans to support values and goals. | |
| | Employees training and development | Training staff in sports facilities, providing training for new staff and existing employees, evaluating staff learning, having a comprehensive employees learning plan, regularly analyzing learning needs goals. | |
| | Human resources planning | | |
| | Recruitment and selection of employees | Using specialist coaches in sports places, engaging line managers in the recruitment process, aligning the recruitment process with overall departmental policies, identifying the characteristics and skills required in potential employees. | |
| | Standards | Adaptation of the sports space to the needs of the users, equipment and quality of the sports facilities, parking spaces with appropriate capacity, convenient access to the stadium. | |
| C | Beauty | The quality of the stadium's lighting and colors, the freshness and elegance of the space, the beauty of the equipment used in the places, the quality of the stadium board. | |
| Sports equipment | Technical | Compliance with technical and engineering rules, equipment extensibility, equipment requirements in existing sports places, allocation of adequate space according to standards, optimum temperature, temperature system, seating comfort for spectators, appropriate physical conditions: light, ventilation, flooring, maintenance. | |
| | Maintenance | Ability to service several sports and health facilities: baths and showers, stadium cleaning. | |
| | Services | Accident insurance for all people using the facilities, removing the shortcomings of the sports facili- ties to provide appropriate services, health services, medical equipment and first aid, access to health facilities. | |
| Facilities and amenities | Facilities | Precise control of heating and cooling systems, warehousing of sports equipment, CCTV system, dedicated coaches and referees room, user and staff lockers, construction of sports commercial complexes in stadiums, access to recreational and accommodation centers, amenities and buffet facilities. Parking, providing healthy food service and monitoring buffets. | |
| | Construction safety | Safety considerations in construction and operation, safety standards for entrances and exits, stan- dard walls of playgrounds, ventilation indoors, compliance with flammable gas installation standards, texture restoration in old and worn out sports spaces. | |
| Safety | Safety of equipment | Medical facilities and first aid, fire extinguishers, standard gates for entry and exit, use foam and mats on walls. | |
| | Space Safety | Standard sporting goods, flooring, standard natural and artificial grass, standard sports equipment, free space to control crowding. | |
| | Choosing the land | Distance from main streets, distance from cultural and educational centers, ease of access to sports, neighborhood comfort, low slope, land prices, distance from residential areas, proximity to down-town, reasonable connection between adjacent sports facilities, infrastructure for water and electricity, sewage, water and snow absorption, future development, pedestrian access and public transportation. | |
| Locating | Quality of construction of sports facilities | Surface and flooring quality, interior and exterior lighting, interior design and construction, interior flooring. | |
| | Climatic factors | Climate and regional temperature, wind speed, precipitation, sunshine and temperature, geological factors, natural factors, fault distance, composition, scattering, and subsurface structure. | |
| | Safety of the area | Considering rivers, considering gas pipes, power lines. | |
| Privatization | Cooperation with the municipality for granting mapping and licensing facilities, bank loans with low and adequate par ticipation, providing accurate statistics and information on the status of available properties, identifying and disposing of cheap and appropriate land, granting special legal and administrative facilities by institutions, granting consent to build sites, support legislative and regulatory bodies. | | |

According to the inferred categories and codes based on the research paradigm, the following research model of the factors affecting the sustainable development in sports facilities of Razavi Khorasan Province was created (Figure 3).

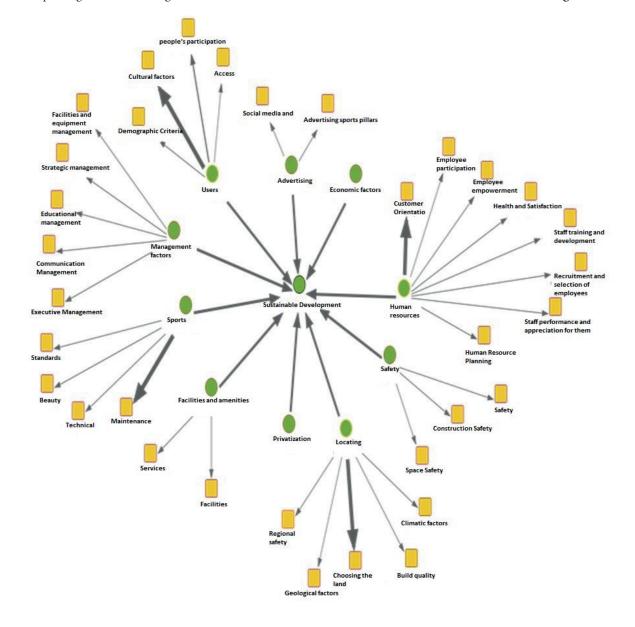


Figure 3. Research model of the factors affecting the sustainable development in sports facilities of Razavi Khorasan Province.

4. Discussion

The Shannon Matrix results indicated that the top 10 categories of factors affecting the sustainable development of sports facilities in Razavi Khorasan Province included: economic factors, advertising factor (sport and national media advertising), user factor (accessibility, public participation, cultural factors and demographic criteria), managerial factors (executive management, communication management, training management, strategic management and management of sports facilities), human resources factor (customer orientation, staff empowerment, employee participation, employee health and satisfaction, employee performance and satisfaction, training and development of personnel, planning and human resources, recruiting and selecting personnel, operating sports equipment nutrition, beauty, tech & maintenance), welfare & accessories (services & facilities), safety (construction safety, equipment safety & space safety), location factor (land selection, quality of sporting places, climatic factors, geological and safety factors of the area) and, ultimately, the privatization factor.

It should be noted that, after extracting the core categories and by continually studying the research literature, each of the core categories were a sub-set of four main indicators of the sustainable development process, including economic factors, environmental factors, social factors and government institutions. As a result, sustainable development is a process that makes the desired future for human societies, where conditions of life and use of resources will satisfy the human needs without harm to integration, beauty and stability of vital systems. In fact, sustainable development offers solutions for the structural, social, economic and environmental patterns of development and can tackle issues such as the destruction of natural resources, the destruction of biological systems, pollution, climate change, unnecessary population growth, injustice and poverty.

Therefore, it is necessary to pay attention to all aspects of sustainable development, being sustainable development also very important in the development of sports places, as sports places are very important spaces that are used by a large number of community members. It should be noted that many factors can affect the sustainable development of sport facilities. In this study, we investigated the factors affecting the sustainable development of sports facilities in Razavi Khorasan Province. The results showed that several factors are involved.

Chapin (1999) also used the opportunity to equip sports facilities in the United States, turning urban areas that had become ruins into solvent places for companies and building agents. It is clear that all human activities today require some sort of cost, and sports facilities are not an exception, and require a great deal of funding to build and equip. Therefore, part of these costs should be provided by injecting the necessary funds through the attraction of donors and nongovernmental sponsors, the economic development and monetization of sports complexes, as well as the financing of government sponsors. In addition to government resources and charitable donations, there are various income-generating ways in which they can provide part of the financial and economic needs of the sector while improving the social status of sustainable development. In this regard, it is essential that a large part of the financial resources, especially in order to preserve and retain these places, which are sometimes accompanied by heavy costs, can be provided through advertisements. For example, advertisements in the sports spaces, sports stars advertising on personal webs, holding various festivals to advertise, or advertisements on social and national media.

Furthermore, it should be noted that the social factor can be the most important component of sustainable development because all activities aligned with sustainable development are aimed at improving the social status of individuals and their satisfaction (alongside other factors). It may be for this reason that the most important identified factor contributing to the sustainable development of sports facilities in the province is the user factor. This finding is consistent with the results of Algunaibet et al. (2019), who stated that the development of sports facilities should meet the needs of users. The United Nations (2016) also emphasized the need to consider human welfare. The importance of this factor can be traced back to the fact that sport facilities are created and equipped with the purpose of meeting users' needs, and therefore, the needs and desires of users should be considered more than anything else. In this regard, it is necessary to consider important elements such as access, public participation, cultural factors and demographic norms. In fact, it is necessary to facilitate the transit of urban transport routes in the direction of sports facilities and facilitate the traffic of users. Also, it is important to provide families access to sports areas, as well as equal access for men and women to achieve a proper distribution of sports spaces according to the population of each area.

Moreover, some cultural factors have a significant impact on the sustainable development of sports places. For example, positive Friday Imams' attitudes toward provincial sports and appropriate treatment of vandalism and prevention of vandalism should be taken into account. In fact, special attention should be paid to the development of sports facilities in the province considering the cultural geography of the area.

Another key indicator of the sustainable development of Razavi Khorasan sports facilities refers to governmental institutions. This indicator is important because in Iran, except for a small percentage of sports facilities (most of which are fitness clubs), sports areas are under the management and supervision of the government, being the main responsible for the development of places. Accordingly, it is essential that the different government elements and components act in line with sustainable development. In this regard, three factors were identified: management, human resources and privatization.

It is no secret that organizations today can be successful in managing efficiently and effectively because all the programs and activities of the organization are managed and supervised by managers. The final indicator affecting the sustainable development of Razavi Khorasan sports facilities was the environmental factor. Knott et al. (2015) suggested that there is a positive and significant relationship between the environmental factor and the sustainable development of sports facilities. In this regard, it should be noted that sports facilities are usually structures that are built for long-term use, so it is essential to carefully build them respecting the environmental factor, considering the climate, geology and safety factors of the area. It is especially important to consider in the location factor the safety of the area, as sport places are often crowded with athletes and spectators and, therefore, their safety and security should be one of the main concerns of the sports managers.

At present, one of the most important problems in Iran is improper distribution of sports spaces and lack of access for many people. To solve this problem, it is necessary an adequate planning and management. Determining the optimal location of sports spaces is one of the tasks of urban planners and decision makers. Given that around 70% of the sports budget is allocated to the development and construction of sports facilities, these places must be located in a way that citizens can easily access them. Therefore, it is important to consider sports, users, physical divisions, access radius, distribution pattern and capacity (athlete-spectator) as key issues. In this regard, it is necessary to pay attention to the fact that, in addition to constructing the physical part of the sports facilities, equipping them with the necessary equipment constitutes the second part of the work.

The equipment used in sports facilities is also subject to standardization, beauty, technical use and maintenance. It is therefore necessary to conform to the needs of the users and to the quality of international standards. In addition, sports places also need parking lots and easy access. Also, the quality of the lighting and colors, the freshness and elegance of the space, the beauty of the equipment used in the places, and the quality of the stadium's board must be confirmed by experts too. In addition to the above mentioned items, adequate space allocation should be provided in accordance with the applicable technical and engineering laws and regulations, allocating sufficient space in accordance with standards, equipping the heating system and comfort of the seats, etc. The ability to offer several sports, health facilities, and the cleanliness of the stadium can be used too to attract more users and make an optimal use of the sports facilities.

6. References

- Absalyamov, T. (2015). The influence of cultural and sport mega-events on sustainable development of the city. *Procedia-Social and Behavioral Sciences, 188*, 197-201.
- Aigbavboa, C. O., Oke, A. E., & Edward, L. D. (2017). Improving sustainable construction practices through facility management. In *International Congress and Exhibition "Sustainable Civil Infrastructures: Innovative Infrastructure Geotechnology*" (pp. 30-39). Cham, Switzerland: Springer.
- Algunaibet, I. M., Pozo, C., Galán-Martín, Á., Huijbregts, M. A., Mac Dowell, N., & Guillén-Gosálbez, G. (2019). Powering sustainable development within planetary boundaries. *Energy & environmental science*, *12*(6), 1890-1900.
- Chapin, T. (1999). The political economy of sports facility location: An end-of-the-century review and assessment. *Marquette Sports Law Journal*, 10, 361.
- 5. European Commission (2007). *White Paper on Sport.* Luxembourg, Luxembourg: Publications Office of the European Union.

Sport facilities should be located in such a way that the people have an easy access to them. Also, the safety factor is very important. Sport places create appropriate opportunities for emotional, cognitive and social development of different community groups. Therefore, creating a safe place for users of sports facilities is one of the most important tasks for managers. The term "safety at work" in sports facilities should also be placed on the agenda of sport managers. Nonstandard and dangerous barriers and equipment, including the use of obsolete and outdated equipment, will undoubtedly cause bodily injury and, in some cases, deaths of users. While some of these risk factors can cause damage over time, others can cause severe damages at certain times and, in some cases, irreparable financial and material damage that can lead to litigation. It is also important to improve the safety and security of visitors to sports places, considering the distance to the river, gas pipes and power lines.

Therefore, it is recommended that the sports managers and authorities of Razavi Khorasan Province take into account all these elements in order to improve the sustainable development in the sports facilities of Razavi Khorasan Province.

5. Conclusion

According to the views of the experts analyzed, various factors affect the sustainable development of sports facilities in Razavi Khorasan province. The most important factor was users and the least important factor was privatization. Management, safety, and human resources were also important issues. Since the sample of this research was composed of experts in this field, our results can be applied in the development of sports facilities in this province. Therefore, using the mentioned factors will contribute to sustainable development of sports facilities in Razavi Khorasan province.

- Faiz, A., Faiz, A., Wang, W., & Bennett, C. (2012). Sustainable rural roads for livelihoods and livability. *Procedia-Social and Behavioral Sciences*, 53, 1-8.
- González-Carcelén, C. M., Nicolás López, J., & López Sánchez, G. F. (2020). Levels of physical activity in people with diabetes residing in Spain. *Atena Journal of Public Health*, 2(2), 1-21.
- Khodadadi, M. R., Abdavi, F., & Pashaie, S. (2019). Structural modeling in explanation components of sustainable development of sport places on urban environment. *Applied Research of Sport Management*, 7(3), 1-14.
- Knott, B., Swart, K., & Visser, S. (2015). The impact of sport megaevents on the quality of life for host city residents: reflections on the 2010 FIFA World Cup. *African Journal of Hospitality, Tourism and Leisure, 4*, 1-16.
- 10. Korsgaard, O. (2012). *Kampen om folket: Et dannelsesperspektiv på dansk historie gennem 500* år. Copenhagen, Denmark: Gyldendal.
- 11. Kozma, G., Pénzes, J., & Molnár, E. (2016). Spatial development of

SPORT TK: Revista Euroamericana de Ciencias del Deporte ISSN edición web: 2340-8812 / vol. 9, n.º 2 / Murcia / Julio 2020 / Págs. 115-124 Identifying factors affecting sustainable development in sports facilities of Razavi... SPORT TK, 9(2), 115-124 sports facilities in Hungarian cities of county rank. *Bulletin of Geography. Socio-economic Series*, 31(31), 37-44.

- Li, Y., & Luk, Y. M. (2011). Impacts of the 4th East Asian games on residents' participation in leisure sports and physical activities–the case of Macau, China. *Acta geographica Slovenica*, 51(2), 377-390.
- López-Sánchez, G. F., López-Sánchez, L., & Díaz-Suárez, A. (2016). Efectos de un programa de actividad física en la coordinación dinámica general y segmentaria de niños con TDAH. *Journal of Sport and Health Research*, 8(2), 115-128.
- López Sánchez, G. F., Gordon, D., Hodgson, L., Stubbs, B., Gardner, B., & Smith, L. (2019). The effect of the 2016 Rio de Janeiro Olympics on spectators' physical activity. *Atena Journal of Sports Sciences*, 1(1), 1-8.
- 15. Markovic, J. J., & Petrovic, M. D. (2013). Sport and recreation influence upon mountain area and sustainable tourism development. *Journal of Environmental and Tourism Analyses*, 1(1), 81-90.
- Mesjasz-Lech, A. (2014). Municipal waste management in context of sustainable urban development. *Proceedia-Social and Behavioral Sciences*, 151, 244-256.
- Nicolás López, J., González Carcelén, C. M., & López Sánchez, G. F. (2020). Barriers to physical activity in people with diabetes residing in Spain. *Atena Journal of Public Health*, 2(3), 1-20.
- 18. Norberg, J. R. (1997). A mutual dependency: Nordic sports organiza-

tions and the state. *The international journal of the history of sport, 14*(3), 115-135.

- 19. Oke, A. E., & Aigbavboa, C. O. (2017). Sustainable value management for construction projects. Cham, Switzerland: Springer.
- 20. Sánchez-Castillo, S., Cepeda-Quintanar, S., Díaz-Suárez, A., Smith, L., & López-Sánchez, G. F. (2019). Actividad física en personas con EPOC residentes en España: Diferencias según sexo y edad. *Journal of Sport and Health Research, 11*(Supl 1), 59-68.
- 21. Sánchez García, C., Zauder, R., & López Sánchez, G. F. (2019). Analysis of body composition and physical fitness of futsal players at school age according to their level of physical activity, diet and body image. *Atena Journal of Sports Sciences, 1*(4), 1-20.
- Schulenkorf, N., & Siefken, K. (2019). Managing sport-for-development and healthy lifestyles: The sport-for-health model. *Sport Management Review*, 22(1), 96-107.
- Triantafyllidis, S., & Davakos, H. (2019). Growing Cities and Mass Participant Sport Events: Traveling Behaviors and Carbon Dioxide Emissions. C—Journal of Carbon Research, 5(3), 49.
- 24. United Nations. (2016). *Transforming our world: The 2030 agenda for sustainable development.* New York City, New York, USA: United Nations.

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