

## **The Relationship between Environmental Knowledge and Sport Event Organizers' Support for Sustainable Management in Sport**

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### **Abstract**

The purpose of the present study was to investigate the relationship between environmental knowledge and sport event organizers' support for sustainable management in sport. The present study is a descriptive-survey and field study. In order to collect data, a researcher-made questionnaire with 40 questions was used. The face and content validity of the questionnaire was confirmed by a survey of professors related to the research topic. The construct validity was confirmed by confirmatory factor analysis of more than 0.3 and its reliability was confirmed by Cronbach's alpha of 0.83. The statistical population of the study consisted of managers and organizers of sport events in ten provinces of the country with approximately 1000 people. The sample size was 278 according to Morgan table, Due to the size, number and difficulty of access, the available sampling method was used to collect the samples and finally 254 questionnaires were returned. Data analysis was performed using SPSS-19 software. The results showed that the level of environmental awareness in the sample was in the range of 0 to 8 and the mean of the total sample was 3.55 with a standard deviation of 1.61. These results indicate a low level of awareness of environmental issues in the sample under study. In the present study, it seems that there is little awareness of environmental issues that may be effective in shaping people's attitudes toward the intention to support environmental issues in sporting events. Since human attitudes are driven by consciousness, it is therefore necessary to change attitudes by providing a context for raising awareness and enabling appropriate behavior. Therefore, determining the level of knowledge and attitude of individuals is the first step in determining and delivering educational programs.

**Keywords:** Awareness, Environmental Management, Support, Sporting events

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## **INTRODUCTION**

The environment refers to all the environments in which life flows. A set of external physical factors and interacting organisms form the environment and affect the growth and behavior of organisms (Asadi, Shaabani Moghaddam, Esfahani, 2013). Environmentalism is a combination of different sciences in science that includes a set of environmental and non-environmental (physical, chemical) factors that affect and affect the life of a person or species. Today, this definition is often related to man and his activities, and the environment can be summarized as a set of natural elements of the earth, such as air, water, atmosphere, rock, plants, etc. (Salehi 2009). Maintaining the overall balance of the earth depends on protecting it. Nature has been able to sustain itself for billions of years by applying the four principles of solar energy, biodiversity conservation, population regulation and the food cycle. These are four lessons we can learn from nature and apply to our lives. Ecological footprint means the effect or burden imposed by humans or humans on the Earth. For example, the ecological footprint of a city means the burden imposed by that city on the environment to meet the needs of raw materials, water and energy. As the human footprint grows larger than the amount of renewable biological capacity, it goes to instability. In fact, people are pressing, both through resource consumption and through the contamination of land with waste, which has been steadily increasing in recent decades (Trendafilova, Babiak, & Heinze, 2013). Like many other activities, exercise can have beneficial or detrimental effects on the environment. The performance of sports managers, teams, and manufacturers of sports equipment and equipment may have consequences that can have an impact on the environment, although sports organizations are not generally regarded as environmental polluting organizations. The decision to do sports does not have much impact on the environment in the first place, but it will be more tangible when a large number of athletes practice, compete, travel to compete or purchase and purchase sports equipment. It can have many consequences, such as carbon dioxide production, waste generation, air pollution, and so forth (Kellison & Mondello, 2012). Sporting events can affect the environmental effects of a particular sport in many ways. Firstly, sporting events generally bring together a large number of people in a specific location over a short period of time; secondly, these events

bring together various sporting activities in a specific location and over a short period of time; Events can cause indirect environmental effects that result in indirect environmental effects that are often similar to those caused by tourism. Events can include a sport (such as a football match) or can be multi-disciplinary events (such as the Olympics); the range of sporting events can vary; they can be local, regional, national or global, there may be different competitors and Get supporters from local areas to the world (Macintosh, Apostolis, & Walker, 2013).

Hosting sporting events provides an opportunity for the host city to not only introduce itself to the world and reap its economic benefits, but also leave a legacy of green in some areas and prevent some future challenges. In fact, it can be said that in the cities hosting major sporting events, there is a general effort to improve the environment to create a better view of the city. Also, environmentally friendly sporting events will significantly increase the awareness and participation of people and local communities in the field.

At events such as the Olympics, more than 10,000 athletes from over 200 countries compete in 300 sporting events, and about 7 million tickets are sold to keep people watching the games, so it's always a great sporting event for Improving the image and image of the host country has been used. The most famous example is the 1936 Berlin Olympics, which served Hitler's nationalism. Politically speaking, sporting events bring people together and increase solidarity, but may also lead to discontent and demonstration (Alemagi, Oben, & Ertel, 2006). Events like the Marathon or cycling competitions make the host city more recognizable, improving the city's image and attracting tourists. From an urban development and environmental perspective, major sporting events alter the infrastructure and environment of the host city. The environmental protection strategy is particularly applicable to infrastructure projects. The big events provide the opportunity to develop major infrastructure such as airports, transportation, security and energy supply in the host city. For example, at the 1960 Rome Olympics, a new public transport system as well as a new water supply system for the city were created. At the 1964 Tokyo Olympics, 22 new highways were built, and the city's water and sewage system was completely renovated, and the London 2012 Olympic Games rebuilt and improved the face of Stanford (from London's poor neighborhoods) (Preuss, 2013). Another benefit of

hosting sporting events is job creation. Of course, most of these jobs are temporary in nature and relate to the event phase, and then disappear spontaneously. Occupations that continue in the aftermath of the event (especially in the construction, tourism and leisure sectors) can have significant economic impacts. These jobs are often the direct result of changing the city's image and image and improving tourism infrastructure.

In general, major sporting events significantly increase energy consumption and greenhouse gas emissions. After the sporting event, the area should at least return to its previous state and remain on the outskirts of the city, parks or city streets in the same or better condition. Although the environmental aspects of sporting events are usually not carefully monitored, they usually include environmental protection, air pollution and carbon emission prevention, preservation of the local natural environment, biodiversity conservation, effective water use. Efficient use of resources, the use of alternative energy, waste reduction and waste control and maximizing recycling have been shown to be the case by event managers (Mallen, Stevens, & Adams, 2011). Evaluations of the impact of sporting events on the environment have often been carried out using an ecological footprint method and carbon footprint analysis. These assessments have been able to identify to some extent the environmental impact of the sport. However, research has not yet been able to formulate principles that can lead to environmentally friendly sporting events, which necessitates further research in this area (Mallen et al., 2011).

Forsat (2005) conducted a study entitled "Evaluating Environmental Education in the Higher Education System of the Country". In this study, the statistical population consisted of 5 students from Tehran universities who had entrance exams of 2000-2001 and 2003-2005. The results of this study have shown that the environmental awareness vacuum has been quite tangible and has considerable challenges.

Salehi (2009), in a study entitled "Study of Environmental Point of Views and Behaviors in Iran", concluded that different age groups exhibit different environmental behaviors. This means that older generations with the new generation support more environmental behaviors. From the point of view of education and education, Iran does not have any educational topics in the field of environmental behavior education from

primary school to university. The findings of this study indicate that there is a negative relationship between income and environmental behaviors.

Zahhtab Yazdi (2010) in his thesis titled *Surveying the Knowledge, Attitude and Environmental Behavior of Professors of Tehran Universities* showed that teachers have relatively good knowledge, attitude and behavior towards the environment and the amount of knowledge plays a major role in determining has an environmental attitude. Also, the environmental tendency of teachers is influenced by their behaviors. The results showed that male professors are more aware than female professors but female professors have a more positive attitude and behavior towards the environment than their professors men enjoy.

Malen et al., (2011) in their paper addressed the fundamental question of how exercise can play a role in environmental protection. To answer this question, they focused on sports facilities associated with a Professional Football League (MLS). This paper focuses on conservation principles such as the use of recyclable resources, minimization of resources and recycling as key focus points for environmental protection. The results showed that facility managers should incorporate environmental protection activities into the daily operations of sports facilities.

Kellison and Kim, (2014) examined environmental, social and economic benefits and environmental incentives. They found that professional sports organizations place particular emphasis on increasing environmental awareness amongst viewers as well as attracting new customers.

Sport and the environment are closely linked so that environmental pollution affects the health and efficiency of individuals during training and endangers the health of athletes. It is also the nature of some sports that leave a huge footprint on the environment. These environmental effects have been extensively investigated in overseas research (Bono, Degan, Pazzi, Romanazzi, & Rovere, 2010). In-country research has mainly focused on the nature and status of sports stadiums and sports venues in the country, with no attention being given to the effects of sports and related venues on their surroundings. Given the importance of environmental impacts of sporting events and the lack of sufficient scientific research in the field at home, further research on the

environmental impacts of sport is needed (Padash, Padash, Soltan Hoseini, Naderian, 2011).

Understanding the attitude of sporting event managers helps to identify their beliefs, values, and plans for effective environmental management in order to identify their strengths and weaknesses. In the present study, we intend to identify the methods of controlling the negative effects of these events on the environment by examining the attitude of managers of sporting events towards the environment.

## **METHOD**

This research is a descriptive-survey research and has been done in the field. Due to the lack of reliable and accurate tools to measure the variables studied in the present study, a researcher-made questionnaire containing 40 questions was used through studying the theoretical foundations of the study as well as interviews with experts familiar with the two categories of sport and the environment. The face and content validity of the questionnaire was confirmed by a survey of professors related to the research topic. The construct validity was confirmed by confirmatory factor analysis of more than 0.3 and its reliability was confirmed by Cronbach's alpha of 0.83. The statistical population of the study consisted of managers and organizers of sporting events in several provinces of Iran (Tehran, Alborz, Isfahan, East Azerbaijan, West Azerbaijan, Khuzestan, Khorasan Razavi, Kurdistan, Lorestan, Kermanshah) with approximately 1000 people. The researcher applied the maximum number of participants in conventional disciplines in Iran, depending on the extent of the audience, the type of activity, and the approximate amount of environmental impact. The sample size was 278 according to Morgan table, Due to the size, number and difficulty of access, the available sampling method was used to collect the samples and finally 254 questionnaires were returned. Descriptive statistics (frequency, percentage, mean and standard deviation) and inferential statistics were used to describe and evaluate the research data. According to the purpose of the study, statistical calculations were performed by SPSS software (version 19).

## **RESULTS**

As shown in Table 1, out of the returned questionnaires, 254 were accepted, of which 182 were male and 72 were female. As shown in the table above, the highest percentages of undergraduates with a bachelor's degree are 46.1% and the lowest for doctoral education with 7.1%.

**Table 1:** Descriptive Findings of the Research

Demographic features	Scale	frequency	percentage
Sex	Female	72	28.3
	Male	182	71.7
Marital status	Single	100	39.4
	Married	154	60.6
Education level	Diploma and associate degree	59	23.2
	Bachelor's degree	117	46.1
	Master's degree	59	23.2
	PhD	18	7.1

Table 2 presents the mean and standard deviation of the variables under study. The results of the statistical analysis are presented in Table 3 to determine the relationship between environmental awareness and behavioral intention.

**Table 2:** Mean and standard deviations of the variables under study

Variable	Minimum	Maximum	Mean	Standard Deviation
Environmental awareness	0	8	3.55	1.61
Intent to support green sports events	10	16	14.53	1.45

The results of the statistical analysis are presented in Table 3 to determine the relationship between environmental awareness and behavioral intention. The results of Table 3 show that there is a correlation coefficient of 0.15 between environmental awareness and behavioral intention to support sporting events, which is significant at  $P < 0.01$  level. The environment is associated with the behavioral intention to support sporting events.

**Table 3:** Pearson correlation coefficient test results to investigate the relationship between environmental awareness and behavioral intention

Predictive variable	Correlation coefficient with intention to support	Significant level
Environmental awareness	0.15	0.01

## DISCUSSION

Organizing sporting events has a significant impact on the environment. Athletes, coaches, officials, companions and spectators who travel to a sporting event with a variety of means such as aircraft, trains, buses and

cars can create greenhouse gases that can contribute to climate change. Selling sporting goods and equipment requires the use of natural resources. All of this in relation to sporting events will have environmental consequences such as increased waste production, land use, climate pollution and the natural environment. In recent years, new approaches have been proposed for environmentally responsible use and climate change prevention, such as the construction of sports venues with the least harmful to the environment, the use of environmentally friendly air-conditioning equipment. Renewable energy sources were among those. Despite these efforts, we are still at the starting point of environmentally friendly behavior by managers and users of sporting events.

The results showed that there is a positive relationship between the level of awareness of environmental issues and the behavioral intention to support sporting events. That is, the higher the environmental awareness, the greater the behavioral intention to support sporting events, and the lower the environmental awareness, the less the behavioral intention to support sporting events. These results are in line with research by Grant (2008) who showed in his research that people's interest in environmental protection issues is increasing and factors such as rising environmental pollution news, global warming, waste disposal problems, ozone piercing, Contamination of food and, as a result, increasing community knowledge of environmental issues have raised concerns and sensitized them, and continuous evaluation of products based on green criteria has made it necessary, and a Mei, Ling, and Piew study (2012) showed that in their research, knowledge Environmental and Environmental Attitudes and Governmental Pressures Significant Impacts on Green Buying Intention Among Egypt There are Malaysian losers, but there is no significant relationship between environmental labeling and green purchase intention, and also Casper, Pfahl, and McSherry (2012), who examined the most important environmental threats on the Gold Coast. They conclude that customers support environmental change on the coast if they are aware of it and understand well that this is a natural process.

In the present study, it seems that there is little awareness of environmental issues that can be effective in shaping people's attitudes toward environmental issues at sporting events and given that most



respondents were literate. It is assumed that due to the new environment in Iran and the lack of environmental content in the Iranian education system, firstly, the level of environmental awareness is low and secondly, those who are highly educated can expect responsible behavior towards the environment in particular in the field of exercise.

The results of the present study indicate the necessity of developing an Olympic education book and its various aspects (environmental, political, economic, etc.) at different levels of education.

In this study, only questionnaires were used for data collection and the study was conducted on a limited statistical population in half of the provinces of the country. Also, there were no exactly similar sources on the subject of this study.

Factors such as lack of understanding of environmental management by employees and lack of optimism among researchers due to failure to use the results to solve problems in the organization and staff mental state when filling out questionnaires and allowing time for collaboration. With researchers it may influence the research results. In addition to the above, the role of other variables such as:

- Investigate the variable role of childhood experiences in open environments on environmental behavior.
- Investigate the variable role of environmentally friendly sports venues on environmental behavior.
- To examine the variable role of direct contact with nature during environmental life on environmental behavior.

It is recommended that further studies be conducted to evaluate the effectiveness of environmental behavior model of managers in environmental and organizational conditions. Other types of organizations, such as non-profit organizations, are selected to test the model, and the impact of environmental conditions and organizations on variables is examined.

## **CONCLUSIONS**

Since human attitudes are driven by consciousness, it is therefore necessary to change attitudes by providing a context for raising awareness and enabling appropriate behavior. Therefore, determining the level of knowledge and attitude of individuals is the first step in determining and delivering educational programs. But the most effective step in preserving the environment is to evaluate people's behavior and

performance in order to achieve the basics of sustainable living, which means that people must evaluate their behavior in an environmentally friendly way to achieve a sustainable nature and coexist with nature. Biology can have a significant impact on enhancing environmental culture and achieving sustainable development goals. Therefore, in order to achieve sustainable development, a development that preserves environmental values, one must change the bio-culture of the communities that constitute the people. Communities adapt their attitude to the sustainability and dynamics of nature.

## REFERENCES

- Alemagi, D., Oben, P. M., & Ertel, J. (2006). Implementing environmental management systems in industries along the Atlantic coast of Cameroon: drivers, benefits and barriers. *Corporate social responsibility and environmental management*, 13(4), 221-232. doi:10.1002/csr.106
- Bono, R., Degan, R., Pazzi, M., Romanazzi, V., & Rovere, R. (2010). Benzene and formaldehyde in air of two winter Olympic venues of “Torino 2006”. *Environment international*, 36(3), 269-275. doi:10.1016/j.envint.2009.12.007
- Casper, J., Pfahl, M., & McSherry, M. (2012). Athletics department awareness and action regarding the environment: A study of NCAA athletics department sustainability practices. *Journal of Sport Management*, 26(1), 11-29. doi:10.1123/jsm.26.1.11
- Forsat, M (2005). [*Environmental Assessment Education in Higher education.*] (Dissertation). Islamic Azad University, Science and Research Branch, Tehran, Iran. [In Persian]
- Fried, Gil. (2013). *Managing Sport Facilities* (Asadi, H. Shaabani Moghaddam, K. Esfahani, N. Trans.) University of Tehran Publications: Tehran. (Original work published 2005). [In Persian]
- Grant, J. (2008). Green marketing. *Strategic direction*. 24(6), 25-27. doi:10.1108/02580540810868041
- Kellison, T. B., & Kim, Y. K. (2014). Marketing pro-environmental venues in professional sport: Planting seeds of change among existing and prospective consumers. *Journal of sport management*, 28(1), 34-48. doi:10.1123/jsm.2011-0127
- Kellison, T. B., & Mondello, M. J. (2012). Organisational perception management in sport: The use of corporate pro-environmental behaviour for desired facility referenda outcomes. *Sport management review*, 15(4), 500-512. doi:10.1016/j.smr.2012.01.005

- MacIntosh, E., Apostolis, N., & Walker, M. (2013). Environmental responsibility: Internal motives and customer expectations of a winter sport provider. *Journal of Sport & Tourism*, 18(2), 99-116. doi:10.1080/14775085.2013.838145
- Mallen, C., Stevens, J., & Adams, L. J. (2011). A content analysis of environmental sustainability research in a sport-related journal sample. *Journal of Sport Management*, 25(3), 240-256. doi:10.1123/jsm.25.3.240
- Mei, O. J., Ling, K. C., & Piew, T. H. (2012). The antecedents of green purchase intention among Malaysian consumers. *Asian Social Science*, 8(13), 248-263. doi:10.5539/ass.v8n13p248
- Padash, D., Padash, A., Soltan Hoseini M., Naderian, M, (2011). Environmental Effects of the Sport Places on Urban Environment, *Environment and Development Journal*, 2(3), 31-36. magiran.com/p921596.
- Preuss, H. (2013). The contribution of the FIFA World Cup and the Olympic Games to green economy. *Sustainability*, 5(8), 3581-3600. doi:10.3390/su5083581
- Trendafilova, S., Babiak, K., & Heinze, K. (2013). Corporate social responsibility and environmental sustainability: Why professional sport is greening the playing field. *Sport Management Review*, 16(3), 298-313. doi:10.1016/j.smr.2012.12.006
- Zahhtab Yazdi, Yasser, (2010). [*A Survey on the Knowledge, Attitude and Environmental Behavior of Teachers of Tehran Universities*] (M.Sc. Thesis). Payame Noor University, Ray Branch, Tehran: Iran. 35-52. <https://elmnet.ir/article/10549386-91842/> [In Persian]