

# INVESTIGATING THE EFFECTS OF INDEXES OF SPORTS PLACES AND FIELDS ON THE LEVEL OF GIRLS' INTEREST IN SPORTS IN THE CITY OF MIANDOAB\*

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**Abstract:** The aim of the present study was to investigate the effects of indexes of sports places and fields on the level of girls' interest in sports in the city of Miandoab. In terms of objective, it is considered as an applied study while also being considered as a descriptive-correlational study. Study population is consisted of the entire 16-60 year old females in the city of Miandoab who used to attend sports clubs during 2016-2017. Using the Cochran's formula, 384 individuals from the former population were selected as the research samples. For the purposes of data collection and measurement of the model's variables, structural equations were incorporated using the PLS software. Results of analysis of the data indicated that the entire assumed aspects including accessibility, safety and security, aesthetics, sporting equipment and facilities, quality of services and, planning of activities have a statistically significant and positive effect on girls' interest in sporting places and clubs.

**Keywords:** Interest. Aesthetics. Safety of places. Quality of services.

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## I. Introduction

Nowadays, sport has been accepted as a social phenomenon both in the whole world and in the country of Iran. As a matter of fact, it has been well-welcomed while showing its place and role in the economy, health, providing a healthy leisure time, establishment of social relationships, prevention of social violence and the spreading ethical deviation in societies in addition to a handful of other functions (Hamidi, 1996). From the view of Ahmadi (2007), currently the promotion of physical activities is one of the most important goals of every state aiming to maintain the overall public health. The reason for this lies in the fact that among the goals that are pursued by states, prevention of diseases caused by inactivity is of crucial importance, just similar to the importance of enhancement of life-styles and, the relationship that lies between health and quality of life (Ahmadi, 2007). During the past decade, the former concept has gained an increasing importance. Regular physical activity is associated with several physiological, psychological and, physical benefits while, playing an exceptional role in prevention of various illnesses. On the contrary, a still life-style is also associated with several social harms while being a serious problem in childhood, adolescence and especially for university students. Physical activity is a great help in terms of curing certain mental disorders including depression while increasing self-reliance as a main criterion of spiritual health. Crawford's (1987) study has showed that ignoring health and physical activity in life-style gains an increasing trend during the adolescence and continues to the university time where more decreases in physical activity are evident. Regular physical activity is an essential act in terms of promotion of health, delaying and, preventing bone disorders including chronic backache, neck-ache as well as reducing the risk of illnesses such as cardiac arrhythmia, high blood pressure, diabetes, obesity and colon cancer.

According to the reports of the center of women's participation affairs, more than half of the population of Iran is consisted of females, however though that we have stepped into the third millennium, we are still witnessing that in most countries the number of females who participate in sporting activities is half the number of males (Motmeni, 2015). Due to the existence of several factors that inhibit the utilization of sporting facilities by women, Iranian

girls and women are faced with a serious inactivity problem. In many countries around the globe, the states' plans are oriented towards enhancement and planning of leisure times and physical activity of women with the aim of improving their activity level and health. On the one hand, today's mechanical life-style has become a major cause of depression while creating several various stresses in humans; therefore we need to have several purposeful recreational plans such as sporting programs so that humans find a way to discharge their emotions and calm their psyche and soul. Experts have continuously confirmed that limitations of sporting and recreational facilities for girls, lack of plans for enhancement of the status of facilities, lack of experienced trainers and cultural barriers and family issues have resulted in unemployment and other problems faced by women (Motmeni, 2015).

Sports clubs and places are amongst the most important sporting spaces in Iranian societies and therefore, these places must have plans that are based on both aesthetic and technical features. The mere existence of sport equipment is not sufficient for participation in sports; rather we are in need of creation of novice design methods for making the sporting spaces even more attractive and effective. In other words, sole existence of equipment is not enough for participation in sport, while in addition to the technical features, the aesthetical features of the sports spaces must be taken into account too (Streszibcher & Ulrich, 2002).

By aesthetics it is referred to considering for the beauty of the surrounding environment of sports spaces such as landscapes, gardens and flowers, well-lit internal spaces, using stimulating colors, adding additional spaces such as saunas and etc. developing the policies and strategies of innovations for improving the tendency of people towards sports spaces requires continuous follow-up until it is turned into a fixed and epidemic principle (Bowman, 2004).

In addition, while constructing the sports spaces it is necessary to pay equal attention to the appearance and the quality of service provision. Basically, the quantity and quality of sporting places, facilities and equipment that exist in a city are the representatives of that city and therefore, it is essential to design and develop the appearances of sports spaces consistent with the culture and architectural styles of cities. The sports places, facilities and equipment that are constructed with the aim of training and fulfillment of leisure times, not only should have enough capacity and adequate placement, but also should be easy to use and good-looking as

well (Jalali Farahani, 2009). Izadi (2007) believes that lack of recreational clubs, lack of healthy gyms and lack of sporting spaces are some of issues that people, especially the women wish for their realization. Young women, who will be the future mothers and trainers of the society, are willing to participate in sports in order to obtain desirable social relationships; while sport is in fact the most basic tool for realization of this goal. Hoseini (2008) states that during the past two decades and from after the glorious victory of the Islamic Revolution, several progressions have been made in the field of women's activities; however experiential observations indicate that compared to men, Iranian women have a lower rate of participation in sports. although that during the recent years women's presence in athletic scenes has grown significantly, considering the population ratio of women, this growth is still insignificant compared to the participation rates of men; stating that obtaining a desirable level of participation in sport required more efforts. This truth has been completely accepted that sport activities are publicly essential. In spite the entire evidence regarding the value and place of sports and physical activity in the development of health and well-being; unfortunately we are still observing a lack of recognition of importance and necessity of sports among our societies. For many reasons most of which are sociocultural, throughout the history women have never been able to find a sufficient opportunity to prove their competence for having an active participation in sports and physical activities; mostly because of boundaries that have been consistently drawn against women, representing their social role as a weak being. In many occasions these social impositions have put women in the dilemma of being a woman or participating in sports; a dilemma in which the woman is forced to choose to be a woman since in most humane societies, sport participation has traditionally been exclusive to men. Currently it has been accepted that sports and participation in them are not specific to any class or group, rather sporting is a divine gift that is given to every human with no exception (Motmeni et al, 2015). In his 2007 research, Kashgar has stated that no matter being a man or woman, old or young, everyone can benefit from sports based on their need and capability; however because of the aforementioned reasons, women have always been prohibited from participating in sports, and it is a great plague in today's societies.

While science is continuously unveiling the secrets of sports and shedding more light on its role, at least half of the population of women are suffering from a variety of discomforts and illnesses caused by lack of movement. The materialistic and spiritual cost that governments pay for this incorrect belief is unfortunately exorbitant. This while through a proper culture-building in this regard, as the future mothers and trainers of the future generation, girls can be called upon participation in sports and physical activities while providing the necessary contexts for their participation in sports programs. To this end, we require adequate equipment and opportunities in order to let women play their significant role in maintaining the health and hygiene of the society while keeping their generic and feminine characteristics.

According to the statistics published by the department of women's sport, in different provinces of Iran, the sporting spaces for women are divided into the three categories of governmental sports places that are run directly by the department of physical education; the non-physical-education sports places that are monitored by governmental organizations including various ministries of Oil, municipalities and etc. and; privately held sports places. Based on this categorization, there are 1184 physical-education governmental sports places, 166 non-physical-education sports places and 1170 private sports places in Iran, among which 856 are part-time open until noon while 562 are full-time open to women (Motmeni et al, 2014).

Scientific studies and observations indicate that women are suffering from undesirable states in physical preparedness and body-shape while having additional movement limitation compared to men due to Islamic values and cultural considerations. Experts believe that lack of physical activity and sports result in prohibition of growth and limitation of tension of abdominal muscles, which is the main reason for backaches followed by parturition. In addition, the results of the study conducted by Mirzakhani under the title of "the status of participation of the women of the city of Shazand", the most important factors prohibiting the participation of women in sports activities have been detected as: lack of sporting and recreational spaces exclusive to women; financial issues; lack of privilege of sports in daily activities and, inactivity of the physical education unit of the education department of the city (Mirzakhani, 1999). In a study investigating the relationship between motivation and barriers of women's participation in sports in the city of Isfahan, Naderian (2009) has shown that the factors of personal issues,

psychological issues including lack of emotional readiness for participation in sports, lack of proper physical readiness, lack of required skills, fear of injury and lack of proper access to equipment are the most important motivational issues in terms of the barriers of women's participation in sports.

Exploiting adequate methods and solutions for attracting more Iranian women to sports and promoting their levels of health and well-being requires the identification of factors and causes that prohibit them from participating in sports or rather limit their participation (Ehsani et al., 2007). On this basis, the main question of the present study is regarding the effects of the indexes of sports places and fields on girl's interest in sports in the city of Miandoab.

## II. Review of the Literature

In the study conducted by Ghahremani et al., (2013), results indicated that there is a high importance associated with sports places exclusive to women, and sport equipment; while lack of each of them results in disorders in the proper execution of sport movements. Ibrahim et al., (2015) conducted a study and concluded that as the quality of the sports equipment and infrastructures provided for the people is increased, the public's sports participation level improves as well. Ibrahim et al., (2016) carried out a research study and concluded that there exists a statistically significant and positive relationship between public's participation in sports and, accessibility, hygiene and maintenance and, aesthetics of sports complexes. In addition, where the levels of education and sporting infrastructures are increased, more participation is also observed. Poor Ranjbar et al., (2016) revealed the importance of managerial components and equipment of sports places for participation of student girls. Providing a variety of sports equipment in addition to an exhilarating space can also be effective on the participation of women in sports. Taibota (2016) indicated that a wide range of personal traits and the factors of sociocultural environment have been labeled as the barriers of participation by the society of research. In this regard it was stated that skill level, confidence, traffic/roads and the support of social networks play significant roles in participation in cycling. The study conducted by Blat et al., (2016) concluded that one important factor for a sustainable participation in sports is ease of

access to the location and the environment of the programs. Pamela et al., (2013) concluded that if the related standards are cared for and the locations are close enough to the people's living place, the participation in sports would eventually become higher. Hallman et al., (2011) concluded that the physical environment can potentially affect the physical activity of people while being able to improve the tendencies of people towards physical activity.

### III. Methods

In terms of purpose, the present study is an applied study and in terms of data collection method, it is considered as a descriptive-correlational study. The population of the study consisted of the 16-60 year old women of the city of Miandoab who used to attend sports clubs during 2016-2017. The Cochran's formula was made use of in order to determine the size of sample and consequently, 384 individuals were selected as the samples of the study. The multistage stratified random sampling method used in the study divided the city of Miandoab into four districts in each of which 110 questionnaires were distributed among the samples through an availability method. After all, 440 questionnaires were distributed among the 16-60 year old women among which, 392 perfect and analyzable questionnaires were collected. It is worth mentioning that the questionnaires were researcher made. Nonetheless, the present study uses quantitative methods for analysis of data using the SPSS and PLS software at descriptive and inferential levels.

### IV. Validity and Reliability of Questionnaires

In order to determine the validity of the questionnaire, the experiences and expertise of several supervisor professors and experts were incorporated and consequently, the questionnaire's validity was confirmed. In addition, the validity of the former questionnaire was also investigated using the convergent validity method. The convergent validity determines factor loads the value of extracted variance and if these values are adequate enough, the validity would be confirmed; otherwise certain questions need to be omitted or midified. As you can see

in the following image, the factor loads of the questions number 18 and 31 are found to be smaller than 0.5 and therefore these questions have been left aside from the final questionnaire.

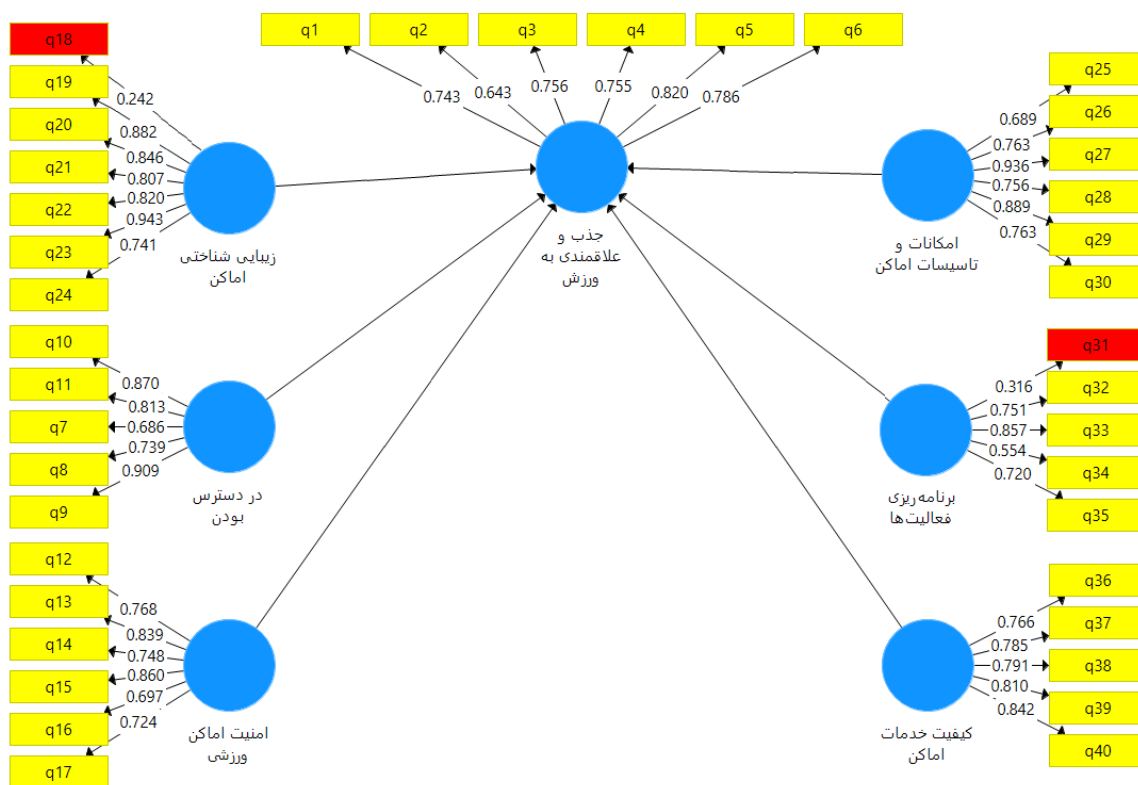


Figure 1, values of factor loads

Nonetheless, the values of extracted variance must also be larger than 0.5; these values are shown in the following table.

Table 1, the values of extracted variance

variables	Mean of extracted variance <sup>1</sup>
Security of places	0.60
Equipment and facilities	0.65
Planning of activities	0.53
Attraction towards sports	0.566
accessibility	0.652
aesthetics	0.71
Quality of services	0.639



The present study has made use of the Cronbach's alpha coefficient method in order to determine the reliability of the former questionnaire. In this regard, primarily and prior to distribution of the questionnaires among the samples, the inventories were first distributed among 30 individuals and the Cronbach's alpha coefficient was calculated for these questionnaires in the SPSS software. As it has been shown in the following table, the entire variables have obtained a value larger than 0.7; confirming that the questionnaire has a suitable reliability.

Table 2, Cronbach's alpha coefficient results

variables	Cronbach's alpha
attraction	0.86
accessibility	0.79
safety	0.82
aesthetics	0.83
Sports equipment and facilities	0.78
Quality of services	0.87
Planning of activities	0.85

## V. Results

In order to analyse research hypotheses, the PLS software has been used so that the research model is understood better. However, the first step in inspection of every model is to inspect its fitness.

For this purpose, the three indices of rms Theta, NFI and SRMR will be used. The SRMT index indicates the extent of synchronization between the conceptual model and the experimental data. SRMR helps with the question whether the data approve the mentioned hypotheses (the effectiveness of hidden variables on each other) or not. The value of SRMR is ranged between 0 and 1. As the factor loads become weaker and more insignificant, the value of SRMR gets larger. The red line of this index is 0.08. As the value of the index increases above this number, it is evident that the model has fundamental issues. In the present study, the SRMR index is approximately equal to 0.067 which is a desirable value. In other words, the model has a suitable fitness. On the other hand, the rms Theta index shows the effective residual covariance matrix from the external model. This index of fitness is only suitable for evaluation of reflective

models, because in these models the residue of the external model would not be significant for the combined model. The acceptable value of this index is agreed as 0.121. In addition, the NFI index's value should be higher than 0.9 so that it would be accepted. In our calculations, the NFI value was obtained as 0.93 which is a desirable value.

Table 3, indices of model fitness

Fit indices	quantity	Desirable value
SRMR	0.067	-0.08
Rms Theta	0.121	-0.12
NFI	0.93	+0.9

The main hypothesis of the study claims that the indexes of sports places and fields are effective on the girls' interest in sports in the city of Miandoab. As it is evident in the following image, the entire values obtained for the fitness indices are acceptable. On this basis, the model fitness has been validated and now, we can move on towards testing the main research hypothesis. Two general modes of effectiveness of indexes of sports places and fields on the girl's interest in sports would be focused on. In the first mode which is also known as the standard mode, the regression coefficient or the route coefficient would be calculated.

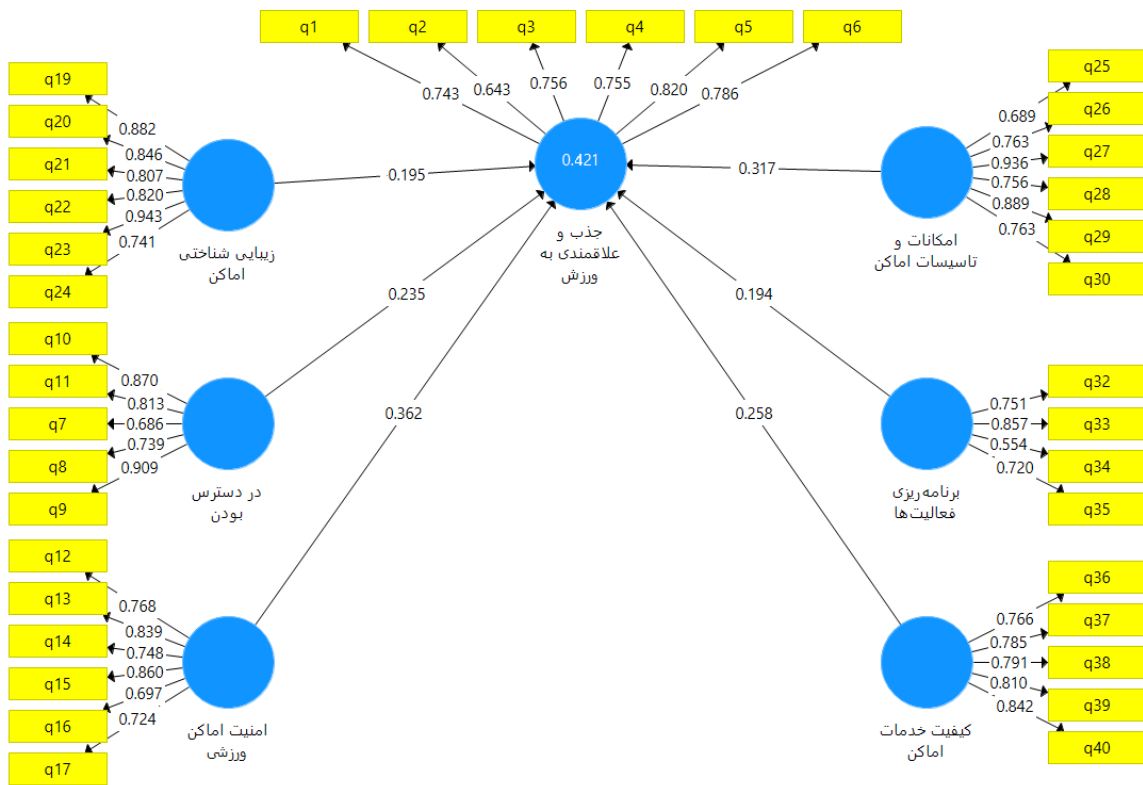


Diagram 2, result of the main hypothesis in standard mode

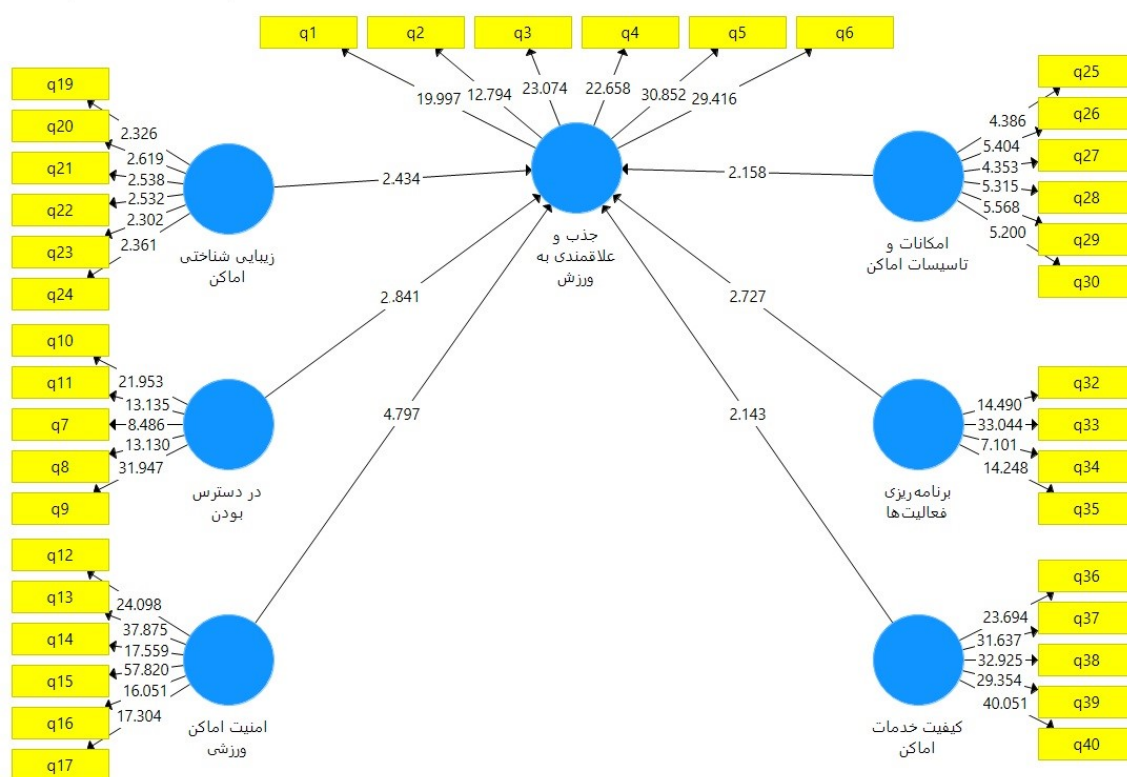


Diagram 3, result of the main hypothesis in significance mode

In the second mode that is also known as the significance mode, the focus is shifted on the t coefficient. In this mode, the obtained t coefficient is larger than 1.96 which is significant at 0.05 error level.

Table 4, results of analysis of subsidiary hypotheses

The effect of the anticipator variable on the criterion variable	Standard coefficient	T statistic	significance
Accessibility > attraction	0.235	2.841	0.002
Security > attraction	0.362	4.797	0.000
Aesthetics > attraction	0.195	2.434	0.012
Equipment > attraction	0.317	2.158	0.007
Quality of services > attraction	0.258	2.143	0.000
Planning > attraction	0.194	2.727	0.000

Results show that the main hypothesis of the study is statistically significant. In addition the results related to the subsidiary hypotheses have been shown in table 4. Results relating to the subsidiary hypotheses indicate that the entire factors of accessibility, security, aesthetics, equipment, quality of services and planning are effective on the girls' interest in sports in the city of Miandoab. On this basis, the indexes security, equipment, quality of services, accessibility, aesthetics and planning are found to be the most effective factors on the girls' interest in sports in the city of Miandoab.

## VI. Discussion and Conclusion

The purpose of the present study was to investigate the effects of indexes of sports places and fields on the girls' interest in sports in the city of Miandoab. The first research hypothesis states that accessibility of sports places and fields is effective on the girls' interest in sports in the city of Miandoab. With respect to the results of analyses, it can be concluded that this hypothesis is accepted. While interpreting the obtained findings it can be stated that considering the growth of population and increase of the humans' need for sports and recreations, the sporting, recreational and tourism equipment are beginning to occupy wider and wider areas, in the meantime they make it necessary to make macro investments while putting a special method in charge of the utilization of spaces, a method by which the separation of these equipment from the residence or even work places becomes impossible. Nowadays, every health related organization throughout the world is striving to unveil the manners of designing sports and recreational places and spaces that provide people with the possibility to participate in sports in easier and more enjoyable ways. Various studies have shown that people will tend towards undertaking physical activities if they have an easy way of accessing these so-called sporting spaces, places parks and etc. the studies of the american association of CDC has concluded that creating and spreading places suitable for physical activity can result in a 25% increase in public's level of sports participation. Other researchers' studies have shown that those who have a better access to a variety of artificial and natural equipment and facilities are more tending to do 30 minutes of exercise per day. Results of this hypothesis are consistent with the results of studies

conducted by Abdul Hussein Ibrahim & Associates (2015), Ghahremani, Moharamzadeh and Sa'idi (2013), Sohrabi et al. (2011), Ash-qali (2010), Blat et al. (2016), Pamela et al. (2013), Humphreys and Rossky, Cleland et al. (2009), Giles and Donovan (2002).

The second research hypothesis claims that the security and safety of sports places and fields are effective on the girls' interest in sports in the city of Miandoab. The obtained results validate this hypothesis. Considering the fact that sports places and fields are the contexts for execution and implementation of sporting events and activities and their qualities and quantities directly affect the former implementation, the scholars of sports-related sciences are worried for the anticipator variables including the design and construct of sports spaces and places needed by the Iranian youngsters. Constructing sporting places requires high amounts of precision since errors in planning, design, construction and exploitation of unsuitable sporting spaces or equipment result in irreparable damages and losses in addition to loss of budgets, time and energy while having a negative effect on the future performance of sports organizations. Some findings show that the current status of the sports places and fields is described by low quality. It is necessary to create an international network of experts of security in sports and to make documentations and to reach mutual agreements for maintaining the global movement of sports as well as development of the technology of sports and understanding of the specific behavioral issues with respect to local characteristics. Security organizations collaborate with the police and other security units and make continuous planning and efforts in order to equip sports saloons and stadiums against possible catastrophic events. However, still we are witnessing a lack of adequate security in stadiums and sports saloons and many athletes and coaches go the fields while worried for their safety. Results of this hypothesis are consistent with the findings obtained by Ehsani et al., (2007); Ibrahim et al., (2016); Jahromi & Hashemi (2008) and; Pamela et al., (2013).

The third subsidiary hypothesis states that aesthetics of sports places and fields is effective on the girls' interest in sports in the city of Miandoab. Findings indicate that aesthetics do affect the girls' interest in sports in the city of Miandoab. Aesthetics is involved with human perception and feelings. In broad specifications, the aesthetics science investigates the manners in which the environment is felt. This word has a Greek source and means perception. Since the

era of Socrates, aesthetics has remained a complex issue for philosophers, artists and architects. Nowadays, aesthetics have been paid attention to by environmental managers and constructors as well. A mental image is related to the manner of organization of the space and receiving mental calmness from the atmosphere. The former is a feature that causes people to select a specific space for a walk, training or filling the leisure times. Results of analysis of this hypothesis are consistent with the results obtained by studies carried out by Ibrahim et al., (2016); Karimollahi (2013) and; Colland et al., (2009).

The fourth subsidiary hypothesis claims that the equipment and facilities of sports places and fields are effective on the girls' interest in sports in the city of Miandoab. The obtained results confirm this hypothesis. In order to obtain the preset goals in every sporting space, not only it is necessary to have experienced coaches and motivated and talented trainees, but also a suitable set of equipment is also required. It is natural that the more the equipment are adequate and desirable, more people will benefit from these equipment and resultantly, if the equipment are used based on plans and in peoper manners, a suitable efficiency is observed. Basically the people of every society seek standard and well-equipped sporting spaces while one of the boldest duties of the corresponding managers is to provide sporting facilities and equipment suitable for the current and future needs and expectations of the society. With respect to the roles of physical-education, suitable sporting places can provide the necessary contexts for social growth and obtaining other goals. Results of analysis of this hypothesis are consistent with the results obtained by Ibrahim et al., (2016); Poor Ranjbar et al., (2016); Abdul Hussein Ibrahim et al., (2015); Ghahremani & Moharam Zadeh & Sa'idi (2014); Kashef & Iraqi (2012) and; Humphries et al., (2010).

The fifth subsidiary hypothesis states that quality of services provided by sports places and fields is effective on the girls' interest in sports in the city of Miandoab. Obtained results manifest that the quality of the services provided by sports places and fields are in fact effective on the girls' interest in sports in the city of Miandoab. Sports clubs can be successful only when they can successfully attract people and this is only possible through the satisfaction of the customers by the provided services' system. Since during the past two decades the issue of marketing has become more competitive than it ever was, researchers and scholars have tried to

investigate the factor of quality of services since the field of marketing's focus has recently change from internal performance to the customers' perception of quality of services. Studies have shown that the interest in the domain of quality of services has also found its way to the domain of sports in the past two decades. Quality of services is one of the most important determinants of success in service providing organizations in today's competitive world. In fact any reduction in satisfaction due to low quality of services is a cause of worry for service providing companies. in the domain of sports management, several papers have been written focusing on the service environment of sports and the quality of services; showing that factors effective on the quality of a service including facilities, cleanness and hygiene, equipment and, safety issues are crucially important. Results of analysis of this hypothesis are in consistence with the results obtained by Hashemi (2007); Ibrahim et al., (2016); Ash-Qali (2010) and, Alidoost & Ahmadi (2012).

The sixth subsidiary hypothesis claims that planning of the activities of sports places and fields is effective on the girls' interest in sports in the city of Miandoab. The obtained results verify and validate this hypothesis. As long as no goals have been set for an organization, the organization wouldn't know to where it is going and if the goal was set and no plans were made, the organization wouldn't know how to reach that goal. On this basis, for every system to become successful, first of all it is necessary to have a goal, and then the manners of obtaining that goal should also be specified so that the possible deviations are detected and eliminated. In today's changing world, the environment is extraordinarily turbulent and a high level of competition exists. In order to be successful, organizational systems must benefit from a sort of planning that is futuristic and environment-oriented in a way that in addition to the detection of environmental issues, their effects on the long-term landscape of the organization is also clarified. In this regard, Iranian sports related organizations have also realized the importance of having a strategic planning in sports. Results of this hypothesis are in consistence with the results obtained by Rashid Lamir (2013), Khosravi Zadeh (2008), Goodarzi and Henry (2007), Hamidi et al. (2010), and Seif Panahi (2011).

The main hypothesis states that the indexes of sports places and fields are effective on the girls' interest in sports in the city of Miandoab. The findings have indicated that the indexes



of sports places and fields are in fact effective on the girls' interest in sports in the city of Miandoab. The PLS software was used for analysis of this hypothesis and to this end, Two general modes of effectiveness of indexes of sports places and fields on the girl's interest in sports would be focused on. In the first mode which is also known as the standard mode, the regression coefficient or the route coefficient would be calculated. In the second mode that is also known as the significance mode, the focus is shifted on the t coefficient. In this mode, the obtained t coefficient is larger than 1.96 which is significant at 0.05 error level. Results manifested that the main hypothesis of the study is statistically significant and the indexes of security, equipment, quality of services, accessibility, esthetics and planning are respectively the most effective factors on the girls' interest in sports in the city of Miandoab.

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