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Validation of Provincial Indicators of Competitive Sport Development

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Abstract

Using proper indicators is a must for quantifying the social phenomena and operating various dimensions of competitive sport development. Hence, the purpose of the present study was to codify and validate the development indicators of the competitive sport in Iran's provinces. The study was conducted in two quantitative and analytic-descriptive sections. In the qualitative part, the variables and the indicators of the competitive sport development in provinces of Iran were identified by studying the theoretical framework and the literature of the field. In the analytic-descriptive part, 62 indicators were discovered in seven dimensions of human resources, financial resources, infrastructure and facilities, sport achievements, structure and management, competition hosting, and education and research.

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Then, the detected indicators were made into a questionnaire with a seven-point Likert scale, which was given on purposefully to 38 sport management scholars and experts. Data analyzing showed that the human resources and sport achievement were identified as the most important dimensions of the competitive sport development. Also, it was determined that except three indicators of the financial resources dimension and four indicators of the education and research; the other indicators had the proper and enough validity for being used in the studies of competitive sport development.

Keywords: competitive sport; development; indicator; regional development

1. Introduction

The first and foremost feature of the "IRAN 2026 Vision" which is highly emphasized in the twenty-year vision protocol of the country is development. Sport, like other social fields, should struggle for development, expand its dimensions and perspectives, and is obliged to establish and reinforce itself continuously in order to survive and sustain in the course of time [1]. In the five-year development plans of the country, developing physical education and sport as the basis of providing and training healthy human resources, is considered as a part of the national development plans. The role of sport in various dimensions of life, is so vital that nowadays, not only in Iran, but also in all over the world, the governments seriously and accurately invest in the various sport fields and events.

Developing the competitive sport in any country, is precursor of succeeding in global competitions and Olympic Games. In fact, the goals of competitive sport involves increasing the competitive sport population, improving the quality and winning medals in international events, increasing the sport fields attending the Olympic games, increasing the qualifying athletes to the Olympic games, and maintaining and promoting the national teams' positions in rankings [2]. It is believed that the competitive sport development depends upon the interaction of three processes of selecting athletes and conducting them toward the way to the competitive sport system, athletes' improvement and development, and finally maintaining such athletes. Also, the competitive sport development can be considered as all the strategies that facilitate the systematic improvement of the athlete, which should include all the plans, goals, instruments, managements, sport facilities, coaches, referees, and sport events [3]. In general, one can say that the competitive sport development means improving all the conditions and backgrounds which facilitate the education, training, development, and maintaining of the competitive athletes. If the provincial development of competitive sport is considered as all the factors which indicate the extent of achievement of a given province, then the factors can vary from the number of the competitive athletes to the number of medals won by the athletes in Olympic, global, Asian, and national competitions.

The effect of various aspects of sport on the society, especially its economic effect, is vast that it is regarded as one of the important indicators of economic and social development of every country, and many scholars assume the sport achievements and competitive sport development equal to the economic and social indicators development [4]. The complexity of the socioeconomic subjects and the multi-dimensionality of the concept of development, along with the need for quantification and having a measurable perception of such ideas, have led to the innovation of approaches and techniques for operating and making the qualitative phenomena, tangible

and capable of being evaluated [5]. Codification of development indicators was the most proper instrument for measuring and evaluating these phenomena, which was firstly considered by economists and then by other social sciences experts. The term "indicator", as its name suggests is literally defined in dictionaries as a pointer or an index. The indicators, are single or compound statistics which reflect the important features of a system such as education, healthcare, sport, economy, etc [6]. In other words, the indicator is a statistical expression of the phenomena which makes the comparison and evaluation of the phenomena possible in various times and conditions, and also gives us a chance to predict, make policies/decisions and plans in various fields for organizations and people [5]. Hence, the purpose of regulating the indicators is to have a quantitative and exact recognition of the current conditions in a particular course of time, and the other essential goal is to depict the processes and changes occurred through time in a given society. The innovation of the development' evaluation indicators helped the decision-makers to accomplish operations in order to balance the inequalities and to achieve the balanced and efficient development, by analyzing the spatial dimensions of the development itself. Therefore, using the proper and valid indicators for measuring the extent of development, is the most important principle in the studies of regional development.

Most of the studies in the field of sport development and competitive sport are focused on the designing and codification of the development strategies in different levels and at different provinces. The instances of such studies are as follows: "Designing and Codifying the Strategies of the Competitive Sport Development in Sistan and Baluchestan Province" [7], "Designing and Codifying the Strategies of the Competitive Sport Development in Kurdistan Province" [8], "The Strategies of Developing the Competitive Sport System of Iran" [9], and "Designing and Codifying the Comprehensive System of Professional Sport" [1]. In some other studies, the researchers studied the role of privatization and media on the competitive sport development. The authors in [10] investigated the role of privatization in the competitive sport, and afterwards, in three consecutive studies, the role of privatization and various dimensions such as the structure modification and decentralization in competitive sport development were investigated [11-13]. In this regard, in two separate studies the fourfold roles of sport media and the factors causing these roles in the competitive sport development were considered [2,14], and also the role of sport media and spectators in attracting the investments of private sector in competitive sport is studied [15]. Moreover, the SWOT analysis was used for identifying the strengths, weaknesses, chances, and menaces of scouting in competitive sport of Iran, and they presented the problems and challenges they faced. Only in one research on evaluating and comparing the extent of sport development of provinces of Iran [16]. In a study the sport development in Iranian provinces was investigated by means of 20 indicators such as infrastructures, facilities and equipment, individual contribution and partnership, human resources, medals won, and the number of sport events hosted. In the mentioned study, it was shown that more than 93 % of the provinces are deprived of enough sport facilities [4].

Most of the foreign studies in the field have investigated the effective factors underlying the success of countries in international competitions and competitive sport development [17-22], it is also classified these factors in five categories of population-related variables, political variables, economic variables, technological variables and other variables [23]. In addition, the following factors as the ones affecting the competitive sport development of a nation have been introduced in nine pillars: financial support, the political organizations and structures of the sport, establishment and partnership, scouting and development system, post-championship support of the

athletes, sport facilities and constructions, coach selection and development, international competitions and events, and the scientific studies [24].

Using the valid indicators for evaluating the competitive sport development of provinces , enhances the validity of the results in recognition of the developed or undeveloped regions, and helps the policy-makers and managers of the national sport system, in codifying the essential plans and programs in order to achieve a balanced development of competitive sport in provinces. The investigation of the basics and the review of literature showed that the studies in which the sport indicators were used for determining the extent and level of competitive sport development are very limited. Furthermore, the used indicators in these studies are as well rare. For instance, in one of this studies the sport development of the provinces was investigated without separating the different levels of development, and only 20 indicators were used, most of which dealt with the sport infrastructures and facilities (9 indicators) and human resources of provinces (5 indicators) [4]. In other studies also, the sport indicators are limited to the won medals and sport' achievements. Therefore, there is no study in which the validity and appropriateness of the current indicators in competitive sport development are investigated. Perhaps, lack of proper and valid indicators is one of the main reasons for the scarcity of the studies in the field. Hence, the purpose of the present study, is to identify and validate the evaluation indicators of competitive sport development in provinces of Iran.

2. Materials and methods

The present study has two qualitative and analytic-descriptive parts. In the qualitative part, the data gathering technique was using the library, and in this regard, by reviewing the literature of the field, the related articles and the documents available in the Ministry of Sport and the Youth Affairs, the variables and indicators of competitive sport developments were identified for Iranian Provinces. In analytic-descriptive part, 62 identified indicators in seven dimensions of human resources (20 indicators), financial resources (5 indicators), infrastructures and facilities (12 indicators), sport achievement (5 indicators), structure and management (8 indicators), competition hosting (5 indicators), and education and research (7 indicators) were made into a 7-point Likert scale (from absolutely improper to absolutely proper) questionnaire. Then the questionnaires were emailed purposely to 38 scholars and experts of sport management in the country. The aforementioned questionnaires were sent in three steps. From the sent questionnaires in the first step, 23 questionnaires; of the second step, 9 questionnaires (a week after the first row of mailing); and of the third step, 6 questionnaires (a week after the second row of mailing) were replied. For analyzing the data, instruments such as mean, standard deviation, coefficient of variation, and a one-sample t-test in $\alpha = 0.05$ level were used for validating each of the indicators and verifying them for analyzing the problems of competitive sport development. The softwares used in the present study were Microsoft Excel and SPSS V.17.

3. Results

Examining the demography of the participants in the present study showed that in case of academic degree, most of the participants were the assistant professor of universities and institutions of higher education (68.4%). Other descriptive data about the participants is given in Table.1.

Table 1. The Participants' Descriptive Data

Variable	Number	Percentage
Gender		
Male	30	21.1
Female	8	78.9
Academic Degree		
Professor	1	2.6
Associate Professor	11	28.9
Assistant Professor	26	68.4

In order to investigate the fact that how useful and proper the used indicators are in competitive sport planning, and how applicable they are, three statistical instrument, that are the mean, the coefficient of variation, and a one-sample t-test were used. Considering that in evaluating the indicators, the responses varied from 1 to 7, for each indicator, it should be noted that, according to the mean, those indicators could be used in testing the competitive sport development, whose mean responses were higher than 3.5 . However, in the present study, the range of variation for the responses were considered rather higher, and the proper indicators, were the ones whose mean responses were higher than 4. Since the mean responses do not necessarily show the distribution of the participants' comments, and it is possible that because of the high variance among the responses, a wrong conclusion in process of indicator evaluation be made; therefore, the standard deviation of the responses were taken into consideration, so that the difference in attitude and comments of the participants in evaluating each indicator would be calculated ,and also for the same reason , the coefficient of variation which is called Williamson's factor , was calculated by dividing the standard deviation of the responses by their mean. The lower the coefficient of variation is, the more invariable are the related responses [25]. Therefore, in analyzing the indicators' coefficient of variation, it is said that the indicator with lower changes and variations, is more valid. Also, a one-sample t-test was used for evaluating the distance of the responses from the desired standard (the mean higher than 4) in each indicator. The significance of t-test amount ($P \leq 0.5$) shows the significant distance of the participants' mean responses from the standard amount. In the following table, the data about each indicator's status in each and every dimension is given separately.

Table 2. The Statuses of the Human Resources' Indicators and their Properness in case of Evaluating the Competitive Sport Development

One-sample t-test		Indicator	Mean	Standard Deviation	Coefficient of Variation	Indicator's Status
Significance Level	T-test Statistic					
0.001	8.42	The ratio of organized female athletes	5.83	1.75	0.32	Proper

		to the female population of the province				
0.001	8.82	The ratio of organized male athletes to the male population of the province	5.92	1.34	0.23	Proper
0.001	5.31	The ratio of female coaches to the population of female organized athletes	5.38	1.62	0.3	Proper
0.004	3.06	The ratio of male coaches to the population of male organized athletes	4.82	1.64	0.34	Proper
0.001	5.67	The ratio of female referees to the population of female organized athletes	5.24	1.34	0.26	Proper
0.001	7.72	The ratio of male referees to the population of male organized athletes	5.45	1.16	0.21	Proper
0.001	6.25	The ratio of teachers of physical education to the pupils	5.29	1.27	0.24	Proper
0.001	4.66	The ratio of organized athletes to the population at the age of competitive sport	5.37	1.81	0.34	Proper
0.009	2.78	The ratio of active referees to the population of the province	4.75	1.73	0.36	Proper
0.008	2.8	The ratio of active coaches to the population of the province	4.84	1.85	0.38	Proper
0.044	2.08	The ratio of female lifesavers to the population of female organized athletes	4.71	1.47	0.31	Proper
0.010	2.71	The ratio of male lifesavers to the population of male organized athletes	4.74	1.67	0.35	Proper
0.003	3.16	The ratio of national team coaches to the trained coaches	5	1.95	0.39	Proper
0.050	1.98	The ratio of employees of the Youth and Sport Office to the population at the age of competitive sport	4.56	2.04	0.45	Proper
0.001	3.77	The ratio of national team athletes to the organized athletes	5.21	1.98	0.38	Proper
0.001	3.53	The ratio of athletes called up for national teams to the organized athletes	5.11	1.93	0.38	Proper
0.001	7.09	The ratio of athletes attending	5.55	1.35	0.24	Proper

		national competitions , leagues and Olympiads to the organized athletes				
0.001	4.2	The ratio of athletes attending international competitions to the organized athletes	5.39	2.05	0.38	Proper
0.001	3.90	The ratio of athletes attending national competitions to the organized athletes	5.13	1.79	0.35	Proper
0.001	5.21	The ratio of possessing international seats in sport to the population of the province	5.34	1.62	0.3	Proper

Table3. The Statuses of the Indicators of the Financial Resources Dimension and their Properness for Evaluating the Competitive Sport Development

One-sample t-test		Indicator	Mean	Standard Deviation	Coefficient of Variation	Indicator's Status
Significance Level	T-test Statistic					
0.822	0.23	Per capita budget allocated by the federation to the sport commissions	4.08	2.15	0.32	Improper
0.941	0.08	Total per capita budget of the sport commissions of the province	4.03	2.18	0.54	Improper
0.038	2.12	Per capita expenditure credits of the Youth and Sport Office in the general budget of the province	4.75	1.73	0.36	Proper
0.018	2.47	Per capita seasonal construction credits of physical education in the general budget of the province	4.84	2.10	0.43	Proper
0.373	0.9	The ratio of the number of financial resources (financial supporters, donations, etc.) of the sport commissions to the number of the sport commissions	4.37	2.52	0.58	Improper

As it is evident in Table 2, the three indicators "The ratio of employees of the Youth and Sport Office to the population of the province", "The ratio of female lifesavers to the population of female organized athletes", and "The ratio of male lifesavers to the population of male organized athletes", have lower means and higher coefficient of variations than others, and also the t-test statistics in them is closer to insignificance; therefore, they are regarded as the indicators relatively proper for evaluating the development level. Other indicators of this dimension were considered as proper, as they had rather high means, low coefficient of variation and significant t-test statistics.

Table 3 shows that t-test statistics in three indicators were not significant. Considering the fact that the indicators "Total per capita budget of the sport commissions", "Per capita budget allocated by the federation to the sport commissions", and "The ratio of the number of financial resources (financial supporters, donations, etc.) of the sport commissions to the number of the sport commissions" have lower means and higher coefficient of variations, they were classified as improper indicators.

Table.4. The Statuses of the Indicators of the Infrastructures and Facilities Dimension and their Properness for Evaluating the Competitive Sport Development

One-sample t-test		Indicator	Mean	Standard Deviation	Coefficient of Variation	Indicator's Status
Significance Level	T-test Statistic					
0.016	2.53	The ratio of the sport facilities being built to the population at the age of competitive sport	4.66	1.55	0.33	Proper
0.027	2.43	The ratio of the open sport facilities' area to the population at the age of competitive sport	4.59	1.51	0.32	Proper
0.041	2.08	The ratio of the covered sport facilities' area to the population at the age of competitive sport	4.54	1.69	0.37	Proper
0.029	2.48	The ratio of the number women sport facilities to the population of female organized athletes	4.73	1.75	0.37	Proper
0.033	2.21	The ratio of the women sport facilities' area to the population of female organized athletes	4.63	1.76	0.28	Proper
0.019	2.45	The ratio of the open pools' area to the population at the age of competitive sport	4.71	1.78	0.38	Proper

0.008	2.78	The ratio of the covered pools' area to the population at the age of competitive sport	4.71	1.58	0.33	Proper
0.039	2.26	The ratio of sport places' area belong to the Youth and Sport Office to the population at the age of competitive sport	4.57	1.27	0.27	Proper
0.001	5.27	The ratio of sport places' area belong to the governmental sector to the population at the age of competitive sport	5.37	1.60	0.3	Proper
0.001	3.63	The ratio of sport places' area belong to the private sector to the population at the age of competitive sport	4.78	1.47	0.3	Proper
0.001	4.09	The ratio of sport complexes to the population at the age of competitive sport	5	1.51	0.3	Proper
0.001	4.66	The ratio of the number of competitive athletic sites to the organized athletes	5.34	1.78	0.33	Proper

According to Table 4, it can be inferred that all the indicators related to the dimension of infrastructures and facilities, are valid enough for competitive sport development studies (significance of one-sample t-test, mean higher than 4, and rather low coefficient of variation rather). Nevertheless, among the indicators, "The ratio of sport places' area belong to the governmental sector to the population at the age of competitive sport" and "The ratio of the number of competitive athletic sites to the organized athletes" had rather higher means than other.

Table5.The Statuses of the Indicators of the Sport Achievements Dimension and their Properness for Evaluating the Competitive Sport Development

One-sample t-test		Indicator	Mean	Standard Deviation	Coefficient of Variation	Indicator's Status
Significance Level	T-test Statistic					
0.002	3.27	The ratio of won medals in national competitions to the athletes sent	5.95	1.79	0.30	Proper
0.009	2.47	The ratio of the won medals in Asian games to the athletes sent	5.92	1.07	0.18	Proper

0.021	2.41	The ratio of the won medals in world champions to the athletes sent	5.97	1.49	0.25	Proper
0.0004	3.03	The ratio of the won medals in international competitions to the athletes sent	6.11	1.25	0.2	Proper
0.002	3.36	The ratio of the won medals in Olympic and Paralympics games to the athletes sent	5.24	1.27	0.24	Proper

The data from Table 5 shows that all the indicators of this dimension are proper for evaluating the competitive sport development of the provinces. These indicators possessed high means, low coefficient of variation and significant t-test statistics, verifying their validity for evaluating the development of the competitive sport in provinces. Furthermore, "The ratio of the won medals in international competition to the athletes sent" had the highest mean among all the sport indicators of this dimension and other dimensions, which shows the importance of this indicator in the eyes of the participants.

Table 6. The Statuses of the Indicators of the Structure and Management Dimension and their Properness for Evaluating the Competitive Sport Development

One-sample t-test		Indicator	Mean	Standard Deviation	Coefficient of Variation	Indicator's Status
Significance Level	T-test Statistic					
0.003	3.18	The ratio of the number of the teams in national subdivision league to the number of active sport commissions	4.74	1.43	0.3	Proper
0.001	4.59	The ratio of the number of the teams in national second division league to the number of active sport commissions	5.11	1.49	0.29	Proper
0.001	3.5	The ratio of the number of the teams in provincial league to the number of active sport commissions	4.82	1.41	0.29	Proper
0.007	2.85	The ratio of the number of the teams in provincial subdivision league to the number of active sport commissions	4.68	1.47	0.31	Proper

0.001	6.81	The ratio of the number of the active sport commissions to the organized athletes	5.42	1.29	0.42	Proper
0.001	3.59	The ratio of the active coach committees to the number of the coaches	4.78	1.49	0.31	Proper
0.016	2.58	The ratio of the active referee committees to the number of the referees	4.66	0.6	0.34	Proper
0.024	2.51	The ratio of the number of informative websites of the sport commissions of the province to the number of active sport commissions	4.59	1.75	0.41	Proper

The significance of the one-sample t-test, the mean higher than 4, and low coefficient of variations of the indicators shown in Table 6 demonstrates that all the indicators related to the dimension of structure and management are valid enough for evaluating the competitive sport development studies. However, among them, "The ratio of the number of informative websites of the sport commissions of the province to the number of active sport commissions" has lower mean and higher coefficient of variations than other. Therefore, we should consider this indicator as a relatively proper indicator for evaluating the competitive sport development of the provinces.

Table 7. The Statuses of the Indicators of the Sport Competition Hosting Dimension and their Properness for Evaluating the Competitive Sport Development

One-sample t-test		Indicator	Mean	Standard Deviation	Coefficient of Variation	Indicator's Status
Significance Level	T-test Statistic					
0.012	2.66	The ratio of the number of the national events hosted to the number of active sport commissions	5.89	1.08	0.18	Proper
0.009	2.73	The ratio of the number of the student competition hosted to the number of active sport commissions	4.75	1.89	0.39	Proper
0.001	3.90	The ratio of the number of the national camps hosted to the number of active sport commissions	5.16	1.07	0.21	Proper
0.001	8.82	The ratio of the number of the	5.95	1.38	0.23	Proper

		international events hosted to the number of active sport commissions				
0.001	3.95	The ratio of the number of the provincial matches held to the number of active sport commissions	4.65	1.56	0.34	Proper

According to the data from Table 7, it is observed that all the indicators related to the dimension of the sport competition hosting are valid enough for competitive sport development studies , as three statistical values were proper, that is; significance of t-test statistic, mean higher than 4, and low coefficient of variation. However, in the eyes of the participants, the indicators "The ratio of the number of the national events hosted to the number of active sport commissions" and "The ratio of the number of the international events hosted to the number of active sport commissions" are more important.

Table 8. The Statuses of the Indicators of the Education and Research Dimension and their Properness for Evaluating the Competitive Sport Development

One-sample t-test		Indicator	Mean	Standard Deviation	Coefficient of Variation	Indicator's Status
Significance Level	T-test Statistic					
0.057	1.93	The ratio of the number of the in-service education and training hours of the employees of the Youth and Sport Organization of the province to the employees of the Youth and Sport Office	4.49	1.38	0.33	Improper
0.892	0.14	The ratio of the number courses and workshops held for the coaches, referees, managers and the sport experts to the employees of the Youth and Sport Office	3.87	1.55	0.4	Improper
0.046	2.06	The ratio of the number of completed scientific research and studies to population of the province	4.61	1.81	0.39	Proper
0.059	1.87	The ratio of the number of underway scientific research and studies to population of the province	4.48	1.29	0.28	Improper
0.055	1.98	The ratio of the number of the	4.5	1.56	0.35	Improper

		scientific workshops and seminars held to population of the province				
0.001	4.81	The ratio of the number of the coaching classes held to the organized athletes	5.08	1.38	0.27	Proper
0.001	3.58	The ratio of the number of the refereeing classes held to the organized athletes	4.84	1.44	0.3	Proper

In Table 8, although the t-test statistic is significant in all the indicators, the indicators "The ratio of the number of the in-service education and training hours of the employees of the Youth and Sport Organization of the province to the employees of the Youth and Sport Office", "The ratio of the number courses and workshops held for the coaches, referees, managers and the sport experts to the organized athletes", "The ratio of the number of uncompleted scientific research and studies to population of the province", and "The ratio of the number of the scientific workshops and seminars held to population of the province" were not recognized as having enough validity for evaluating the competitive sport development. Furthermore, most of the indicators of this dimension, especially "The ratio of the number of completed scientific research and studies to population of the province" had rather low mean and high coefficient of variations, so they can be classified as improper indicators. In general, examining the importance of each dimension of competitive sport development indicators (Figure 1), shows that the human resources and sport achievement indicators are the most important, and financial resources and education and research indicators are the least important for investigating the competitive sport development of the provinces.

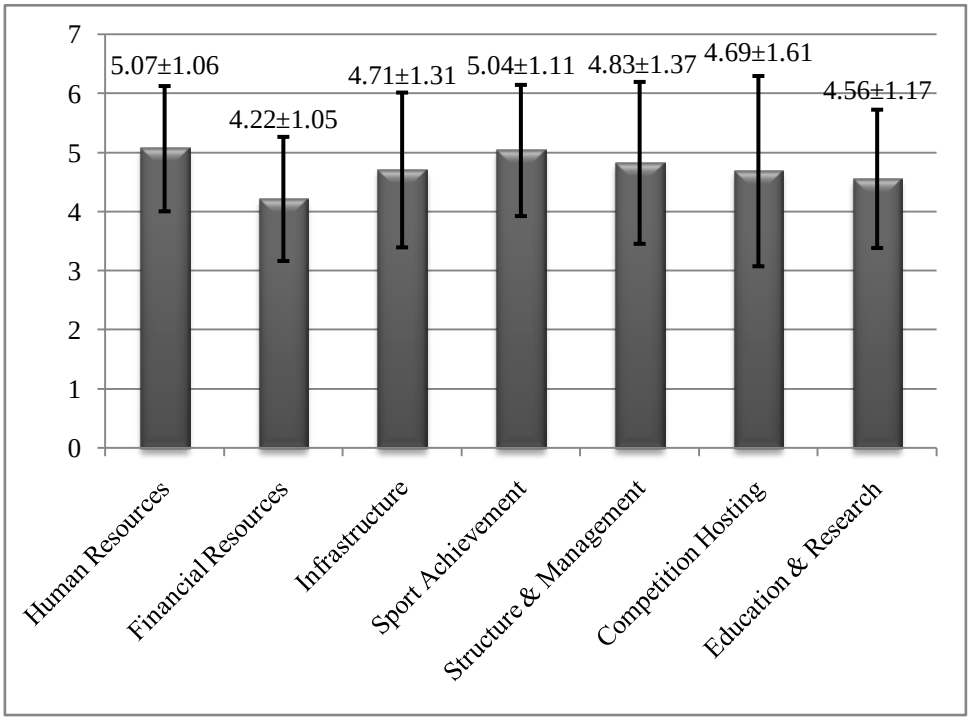

Figure 1. The Importance rate of dimensions of competitive sport development

4. Conclusion

The pervasiveness of sport and its importance in international connections have attracted the attention of the governments to this phenomenon. The success of countries in international sport competitions and competitive sport development, besides having social and economic effects, is considered as a symbol of consolidation and multilateral power of those countries. Determining the level of competitive sport development of the provinces of a country, can facilitate planning and strategy designing processes for improving the competitive sport and also for having a balanced development of the provinces. In order to reach these goals, using the proper indicators, quantifying the phenomenon of sport, and operating the different dimensions of competitive sport development are indispensable. In the present study, 62 indicators of competitive sport development were identified and their level of properness for evaluating the development of the provinces, were investigated.

The data analysis of the study showed that the dimensions of the competitive sport development are human resources, sport achievements, competition hosting, structure and management, infrastructures and facilities, education and research, and financial resources. Also, the "human resources" was introduced as the most important dimension of the competitive sport development indicators. Human resources which involve athletes, coaches, referees, and other active members of sports field, is the main pillar of competitive sport. The quality, quantity and distribution of these resources, have direct influence on the rise and fall of the sport of a country [26]. The recognition of the indicators related to human resources as the most important indicators of the competitive sport development evaluation, verifies and highlights their roles, especially the role of athletes in the competitive sport development. The high means of two indicators "The ratio of organized female athletes to the female population of the province" (5.83±1.75) and "The ratio of organized male athletes to the male population of the province" (5.92± 1.34) as well shows the importance of athletes as the core of the human resources in sport. In addition, in the present study, the indicators related to the dimension of sport achievement, had the highest mean and importance among all the identified indicators. One of the important factors of recognizing the rate of important and development of competitive sport, emphasized in various studies, is the success of the countries in international sport fields and winning medals in Olympic or world competitions [17-24]; as this issue shows the apex of performance and the result of sport systems' efforts. Accordingly in this research, indicators "The ratio of the won medals in international competition to the athletes sent" (6.11± 1.25) and "The ratio of the won medals in world champions to the athletes sent" (5.97±1.49) had the highest means among all other indicators of competitive sport development. In the provincial studies of competitive sport development, besides winning medals in international and world competitions, winning national competitions medals should also be considered; since most of the talented athletes who are later called up for national teams, have succeeded in national competitions. In the present study, the indicator "The ratio of won medals in national competitions to the athletes sent" (5.95± 1.79) is recognized as the third indicator in case of importance, which highlights the role of the national competitions in evaluating the competitive sport development of the provinces.

The third important dimension in the competitive sport development indicators was the competition hosting, whose one of important indicators was "The ratio of the number of the international events hosted to the number of active sport commissions" (5.95 ± 1.38). Hosting competitions is a beneficial factor in success of many

sports, and the successful performance of the sport teams in home matches, confirms this fact [27]. Also, other studeis emphasized the importance of hosting sport competitions on the success and development of a country's sport [4,21,22,27]. Although, the reason for the effectiveness of home matches and events is not completely known, the studies of the field have always admitted its considerable importance and influence. However, it should be noted that the hosting of the competitions, especially the international events, requires developing infrastructures, and equipping primary facilities and sport spaces, which are the other positive aspects of hosting competition in developing the competitive sport; since after the competitions finish, athletes can use the best facilities remaining from the events and also the newest infrastructure are prepared for the competitive sport system of a country.

In the present study, all the identified indicators for evaluating the level of development of competitive sport of the provinces, except the three indicators of the financial resources dimension and also the four indicators of the education and research, dimension, were valid enough in the eyes of the participants. In general, according to the participants, the indicators related to the financial resources, had the least validity and importance. Some studies and documents were emphasized on the importance of the financial resources and the education and research in sport development [4,24,26]. Presumably, the lack of accurate financial statistics and data of state institutions in recent years has led the participants to underestimate the indicators of this dimension, and give low credit to its indicators in evaluating the competitive sport development of the provinces. the weaknesses of the data systems and also improper ways of using the information in sport organizations have been regarded as the failures of the sport system in Iran [28]. Also, It has been emphasized on the importance of existence and availability of enough information and statistics considering the indicators used in the study [29]. On the other hand, the reason for not recognizing the indicator "The ratio of the number courses and workshops held for the coaches, referees, managers and the sport experts to the organized athletes" as a proper one, can be due to its very general characteristic, while the indicators of this dimension, that were valid enough and were more related to the competitive sport, were confirmed by the participants.

Furthermore, in this study, the participants were asked to suggest other indicators, if possible. Among the suggested indicators by the subjects, "the athletic position of the province in the ranking of Ministry of Sport and Youth Affairs", "the number of sent the coaches and referees to the supplementary courses abroad", " the number of sport experts managing the sport affairs in the province", "the number of the sport veterans", "the number of employees of the commissions educated in physical education field", "the number of sport places belonging to the Ministry of Education", "the number of tutors of coaching and refereeing courses", "the income per capita from leasing the sport places", and " the number of sport spectators and supporters", can be mentioned. Although these indicators are proper enough for evaluating the competitive sport development, due to the lack of information and accurate statistics related to them, they hardly can be used for evaluating the competitive sport development of the provinces.

The indicators selected for the present study, are the most important and valid indicators of evaluating the development of competitive sport in provinces. Nevertheless, some of the indicators can be used for evaluating the development in other levels of sport as well. An important issue here is that the information and statistics related to the indicators are highly available for the ones interested in the field. Therefore, the indicators can be

used in further studies of competitive sport development by the other researchers and scholars. Furthermore, the indicators can be put together with the social and economic development indicators of provinces, and their reciprocal effects on the competitive sport development can be studied. The information obtained by means of these indicators, can determine the weak and strong points of each province in case of competitive sport development, which in turn can contribute to the design of an accurate pattern and proper plans for promoting the qualitative and quantitative levels of competitive sport in provinces. In addition, determining the development of the competitive sport in provinces can be very helpful in strategic and macro-level planning of the national competitive sport and it can also be very helpful in preparing the five-year program of sport development.

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