

## **Provide a structural model of the role of environmental factors on the development of sporting talent**

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### **Abstract**

The purpose of this study was to model the structural effects of environmental factors on the development of sporting talent. Research method in this research was survey type. The statistical population of the study was all the coaches in Khuzestan province. 200 individuals were randomly selected. The research instrument was a researcher-made questionnaire. The formal validity, content and structure of the questionnaire were confirmed. The reliability of the questionnaire was confirmed by Cronbach's alpha coefficient correlation coefficient. Descriptive statistics were used to examine the demographic characteristics and to determine the significance of variables and to test the normal distribution of data. Data were analyzed using confirmatory factor analysis. The software used was SPSS and LISREL. The findings of the research showed that education and supportive programs, economic and demographic factors, the role of those around them, and cultural and political factors as environmental indicators affect the development of sports talents. Therefore, in order to advance the development of talent, these factors are emphasized.

**Keywords:** culture, economics, education, sports, talent

### **1. INTRODUCTION**

Sports, as an effective power in social and economic development, has an important role in the economy and politics of countries with direct and indirect effects (Abbasi, Karimi and Hosseini, 2016). Identifying brilliant talents in sports refers to the process of identifying athletes with potential to achieve elite performance. On the other hand, the development of brilliant talents, through a series of intervention programs such as physical training, leads to the development of athletes at the world level (Baker & Schorer, 2010). The most important assumption of talent development is that innate talent does not automatically lead to elite status. Therefore, athletes should use inherent characteristics to obtain the key factors of their success (Durand-Bush and Salmela, 2002). Factors such as talent search and talent development, management and planning, budget allocation, professional and efficient coaches, hardware and software facilities and equipment, national and international competitions are the most important factors of progress and success in the field of championship sports (Sif Panahi and Khatibi, 2016). Environmental factors affect the professional performance of athletes and is one of the most important control parts in the development of elite athletes (Martindale, 2007). The development of brilliant talents in sports can be caused by environmental factors. Due to the importance of environmental factors in the development of talented athletes, a small number of studies have been conducted to investigate environmental factors effective in the development of brilliant talents in sports. Therefore, it seems necessary to investigate recent studies and the environmental development process of talent (Martindale et al., 2012).

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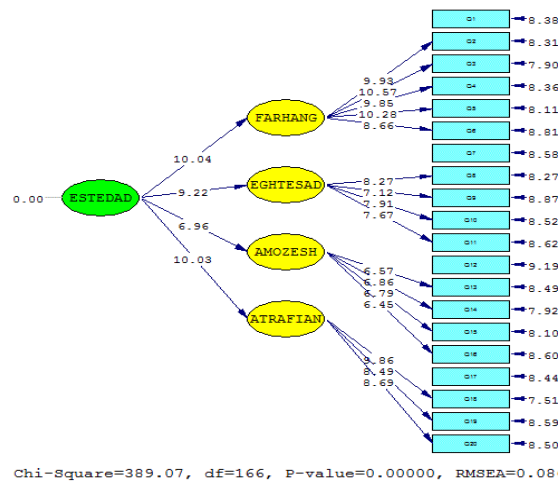
Therefore, a comprehensive review is necessary for researchers to reach a collective understanding of what has been done in this field. Moreover, past studies cannot systematically classify the environmental factors of talent development. The classification of environmental factors affecting the progress and development of talent in sports shows the need of researchers for a practical framework. Therefore, this study aims to structurally model the role of environmental factors on the development of talent in sports.

**2. ANALYSIS**

The research method in this research was a survey type that has been field-based on the structural modeling of the role of environmental factors on the development of talent in sports. The statistical population of the research includes all the coaches of Khuzestan province. 200 people were randomly selected as samples. In this research, a researcher-made questionnaire was used for the role of environmental factors on the development of talent in sports. Due to the lack of a questionnaire related to the research topic, a researcher-made 20-question questionnaire with a 5-point Likert scale (completely disagree = 1; completely agree = 5) during a guided study, was completed by a sample of 30 people and after their analysis, The reliability of the questionnaire was estimated using Cronbach's alpha coefficient, which was 0.82 for cultural and political factors, 0.85 for economic and demographic factors, 0.88 for education and support programs, and 0.87 for the role of others. Finally, 210 research sample questionnaires were distributed, of which 200 questionnaires were collected in a healthy and complete manner and were subjected to final analysis. Descriptive statistics methods were used to investigate the demographic characteristics and also to determine the importance of the variables and to test the normality of the data distribution, the Kolmogorov-Smirnov test was used. Confirmatory factor analysis method was used to confirm the construct validity of the research instrument. The obtained information was analyzed using SPS and Lisrel software.

**3. ALTERNATIVES, RECOMMENDATION AND DISCUSSION**

The descriptive findings of the research showed that 69% of the examined sample were men and 31% were women. The largest sample age (45%) is related to the age group of 30 to 40 years and the highest education of the statistical sample of the research is related to the bachelor's degree (43%). Also, based on the descriptive findings of the research components, the highest average is related to education and support programs and the role of those around you, and the lowest average is related to economic and demographic factors.



**Figure 1.** Confirmatory factor analysis of the second stage in the significance mode.

The output of the model showed that the fit of the chi-square index to the degree of freedom ( $\chi^2/df$ ) is equal to 2.34, the comparative fit index (CFI) is equal to 0.92; goodness of fit index (GFI), equal to 0.93; The normative fit index (NFI) is equal to 0.92 and the adaptive goodness of fit index (AGFI) is equal to 0.93, as well as the root mean square error estimate (RMSEA) is equal to 0.86. This means that the research model has a suitable fit, and in other words, the data supports and confirms the theoretical model of the research.

**Table 1.** Second order factor validation results

| <b>Direction</b>                        | <b>Effect coefficient</b> | <b>Significance coefficient</b> |
|---|---------------------------|---------------------------------|
| <b>Cultural and political factors</b>   | 0.59                      | 10.04                           |
| <b>Demographic and economic factors</b> | 0.66                      | 9.22                            |
| <b>Training and support program</b>     | 0.77                      | 6.96                            |
| <b>The role of others</b>               | 0.66                      | 10.03                           |

The findings of Table 1 show that cultural and political factors with an effect coefficient of 0.59, demographic and economic factors with a coefficient of 0.66, education and support programs with a coefficient of 0.77 and surrounding people with a coefficient of 0.66 have an effect on the development of sports talent. Also, the output of the model in a significant state shows that all routes are not within the range of  $\pm 1.96$ . Therefore, it can be concluded that all these factors have a positive and significant effect on the development of sports talent.

#### **4. CONCLUSION**

The findings of the research showed that demographic and economic factors, education and support program, the role of people around and cultural and political factors have an effect on the development of talent in sports. The important point is that each of these factors contributes a lot to the development of talent, which we will examine and discuss about these factors:

**Training and support program:** The research findings point to the positive and significant effect of training and support programs in the development of sports talent. This effect was more than other cases and points to the need to pay attention to education and support and training programs in order to develop sports talent. The findings of this section are in line with the research results of Larsen et al. (2013). Sports skills are acquired through successful adaptation to environmental constraints or factors as well as experience in training and competition (Phillips et al., 2010). According to the findings of the research and the results of previous researches, it can be concluded that the factors of education and support program such as increasing the access of sports programs and educational facilities, providing a flexible and balanced education system, providing sports science, creating continuous opportunities and encouraging athletes to be responsible Flexibility has an effect on the development of talent

**Demographic and economic:** The findings of the research showed that one of the most important and fundamental factors affecting the development of sports talent is the demographic and economic factor. This research finding is consistent with the results of a number of researchers, including Hyman et al. (2011). Therefore, we conclude that factors such as financial obstacles, the amount of income, the athlete's economic class, the population of the athlete's place of residence and the facilities of the athlete's place of residence have an effect on the development of his sports talent. It is clear that the facilities of any region can affect sports progress and the more these facilities are, the more opportunities there are for the growth and flourishing of sports talents.

**The role of the people around:** The findings of the research showed that the people around the athlete can be recognized as an important element in the development of talent. These findings are consistent with the results of Carlson (2011). In order to optimize the path of growth and

development of the athlete, as the people around them are perceived by the athletes, they should cooperate with the individual in a supportive way (Harinkson, 2013). In general, parents provide necessities and social-emotional support for their children (Carlson, 2011). Therefore, according to the findings of the research and the results of previous researches, the promotion of effective communication between athletes and coaches, the motivational and supportive role of parents, the encouragement and persuasion of athletes from friends and peers, and the companionship of brothers and sisters as those around athletes are effective in the development of their sports talent.

Cultural and political factors: these factors in turn affect the development of sports talent. In previous studies, researchers have investigated these factors one-dimensionally, and their results are equal to the findings of this study. Riba, Stambilova and Schink (2013), believe that environmental culture in organizations and club levels has a significant impact on the development of athletes' talent. Therefore, it is necessary to consider sports culture in the development of sports skills. According to the findings of the research and the results of previous researches, it can be concluded that social media, social culture, government support, popularity of sports, environment security and coordination of different institutions can have an effect on the development of sports talent.

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