Research Article

Prioritizing the Factors Involved in the Success of Iranian Sportswomen in International Championships Using AHP

*Azadeh Seyedalinezhad, Sirous Ahmadi

Department of physical education, Hamadan Branch, Islamic Azad University, Hamadan, Iran

*Corresponding Author’s Email: ara5459@yahoo.com

Abstract

Any attempt for winning more medals in international sporting contests, especially the Olympic Games, demands sufficient knowledge on factors involved in such success. Thanks to social, cultural, economic and political differences among world nations, however, it is somehow impossible to develop an all-inclusive model including all factors which may affect one’s success in the international sporting events. Attending to women’s sports, in this regard, is an important issue. This study has aimed at identifying and prioritizing factors most often involved in the success of Iranian sportswomen in international sporting contests. Subjects of the study included sporting champions, coaches, heads of sport federations and finally professors of physical education majoring in sports management. Data-gathering tools of the study were a questionnaire made by the researcher (0.79 of reliability), and the questionnaire of pair comparison. Analyzing the involved factors based on the results, we finally came up with eight major factors affecting the success of Iranian sportswomen in international championships. Results from AHP showed that financial factors, competition and coaching had the greatest effects in the success of Iranian sportswomen.

Key Words: Women’s sports, success, AHP

Introduction

Competition among world nations has always characterized the Olympic Games. Despite frequent objections made by The International Olympic Committee about the ranking of Olympic medals, the number and color of such medals have always been regarded as the criteria for comparing the international sporting success of the world nations. The success of an athlete or sporting team is greatly dependent on the functions and capabilities of the professional sporting system in making efficient use of the available resources for the elite sports development (Kim, 2007). Green (2005), and De Bosscher et. al (2006) have divided the factors affecting the while Morton (2002), Alexander (2008), and Simon (2008) have accounted for the two major factors of population and gross national production of a country as factors most often involved in the international success of more that 50% of sport events.

Women’s sports are so important in this regard that some prosperous countries have always devoted a good portion of their elite sport development programs to that. Many others have had their international sport status raised by the abilities and the success of their sportswomen. In the Olympic Games 2008, for example, China won 100 medals of which 57 ones were by woman athletes, and similarly of the total 110 medals won by Americans, 55 ones were won by the women.

This shows how well such countries have intended for success in their development plans. Unfortunately, no Iranian woman athlete has so far gained any medals in the Olympic Games. In Asian sport events also only 24 medals have so far been won by women, 3 gold medals, 6 silver ones and 15 bronze ones. This proves that women’s elite sports in Iran is in severe need of careful planning based on basic priorities .Also of importance is the fact that in most countries all programs for elite sport development includes those of both men and women, as they are not actually separate entities, and this being actually true about the Olympic Games. Due to special cultural and religious conditions in Iran, however, elite sport of men and women are, in reality, quite distinct areas each needing its own planning and development. Thus, it is absolutely necessary that we separately identify and determine factors involved in the success of both men and women in international contests. Accordingly, the present study aims at posing and answering this question: which factors affect the sporting success of sportswomen in Iran? By identifying and determining such factors, it then wants set their priority and importance with regard to the views of the elite.
Methodology

This is a descriptive (evaluative) study conducted as a case study. As it intends practical aims, this study is also a practical one. The subjects of the study include all the leading women athletes (those with at least one medal in international sport events), their coaches, heads of sport federations and professors of Physical Education, comprising a total of 166 persons purposefully selected to form a statistical community. In order to identify the effective factors of their success, both library studies and a self-made questionnaire were used. That is, we first made a 50-question list of seemingly influential factors by studying such factors about other countries which had been successful in international sporting events and soliciting the views of the experts of the field. For testing the reliability of the questionnaire, it was considered by 15 professors and instructors of physical education departments in universities, who knew about professional sports. We then applied their corrective views upon which the number of questions was reduced to 47 ones. Kronbach alpha was also used for checking its stability (\(\alpha = 0.79\)). In order to find out about the reliability of the questionnaire’s structure, we also used factor analysis, so that we knew which questions (factors) should be left out, and how to classify the left factors. We also used pair comparative questionnaire to prioritizing the classes of the given factors. In the descriptive statistical analysis, and classification of the data, we applied such cases as mean and standard deviation and in the inferential statistical analysis; we used factor analysis in SPSS software. For prioritizing the factors involved in the success of Iranian sportswomen, we used the AHP in Expert Choice software.

Findings

In order to identify the factors affecting the success of Iranian sportswomen, we used factor analysis, the results of which pointed out 8 factors falling into the two general classes of human-managerial area and supportive-structural one (due to lack of space we will not mention the results of factor analysis). For prioritizing the identified factors, we consulted the views of 25 professors of physical education well-aware of elite sports, and the heads of professional sports federations. Figure 1 shows the results on pair comparison about the relative importance of human-managerial area and the supportive-structural one.

<table>
<thead>
<tr>
<th>Area</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human-managerial</td>
<td>0.629</td>
</tr>
<tr>
<td>Supportive-structural</td>
<td>0.371</td>
</tr>
<tr>
<td>Inconsistency ratio</td>
<td>0.02</td>
</tr>
</tbody>
</table>

Figure 1: the relative importance of major areas involved in the sporting success of Iranian sportswomen

As we can see from the figure, the human-managerial area weighing 0.629 and supportive-structural one weighing 0.371 have the most decisive effects on the sporting success of the Iranian sportswomen. Inconsistency ratio was also calculated to be 0.02 which is less 0.1 and as such acceptable. After determining the weights affecting such success, we next estimated the relative importance of each area. Figure 2 shows the results of weighing the factors related to human-managerial area and figure 3 those of the supportive-structural one.
As we observe, from the factors related to the human-managerial area, those of coach weighing 0.276, competition weighing 0.266, facilities weighing 0.165, talent weighing 0.154, and participation in sports weighing 0.149, and among the factors related to supportive-structural one, those of job and financial support weighing 0.457, unified approach toward the professional sports of women weighing 0.293, and scientific researches weighing 0.225 have the greatest roles in the success of Iranian sportswomen in international sporting events. As we have calculated the relative weight of each area and their related factors, one should multiply that relative weight by the relative weight of its related area to come up with their total weights. The total weights of factors are given in Table 1 below.

**Table 1: Results from pair comparison of the factors affecting the sporting success of Iranian sportswomen.**

<table>
<thead>
<tr>
<th>Factors</th>
<th>weight</th>
<th>Weight</th>
<th>weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Local weight</td>
<td>Area weight</td>
<td>Total weight</td>
</tr>
<tr>
<td>Coaching</td>
<td>0.276</td>
<td>0.629</td>
<td>0.174</td>
</tr>
<tr>
<td>Participation</td>
<td>0.149</td>
<td>0.629</td>
<td>0.094</td>
</tr>
<tr>
<td>Talent</td>
<td>0.154</td>
<td>0.629</td>
<td>0.097</td>
</tr>
<tr>
<td>National and international competition</td>
<td>0.266</td>
<td>0.629</td>
<td>0.167</td>
</tr>
<tr>
<td>Facilities</td>
<td>0.165</td>
<td>0.629</td>
<td>0.104</td>
</tr>
<tr>
<td>Scientific researches</td>
<td>0.225</td>
<td>0.371</td>
<td>0.083</td>
</tr>
<tr>
<td>Comprehensive approach</td>
<td>0.293</td>
<td>0.371</td>
<td>0.109</td>
</tr>
<tr>
<td>Financial resources</td>
<td>0.489</td>
<td>0.371</td>
<td>0.179</td>
</tr>
</tbody>
</table>

As we see, among all the factors from both area, those of financial support, coach and competition, weighing 0.179, 0.174, and 0.167, respectively, are the most influential factors affecting the sporting success of Iranian woman athletes.

**Discussion and conclusion**

Results from AHP show that the factor of job and financial support is the most important factor affecting the sporting success of Iranian women athletes. And as we know, financial resources are certainly one the most important factors leading to such success. Many cases prove that government’s investments in elite sport have brought about remarkable improvements in the sports of their related countries. Such situations usually follow their failures in international sport events. Hogan and Norton (2000) have found a parallel relation between amount of money spent on the elite sport development and the number of medals won, with a proportion of 37 million dollars for each medal. Also, of importance is the fact that countries with extensive investment in elite sport are those which success more in the Olympic Games. Not only are such investments and financial resources important, it is also as much significant when to do them. That is, the intended budgets should be assigned and given to responsible authorities in advance. There must also be a working proportion in spending such resources. If, for instance, it is just spent in sending the athletes to the games and not in preparing them, it would misused.
In Iran, most of the budget for sports, especially that of the national Olympic committee, is given from the general budget of the country. In 1390 (2011), however, a year before the London Olympic games, when there has been a great demand for budgetary resources, the government has agreed on only 240 billion rials (approximately 2 million dollars), while the committee has actually asked for 820 billion. This amount was only 180 billion in the year 1386 (2007), and 20 billion rials in 1378 (1999). Also, this money is usually provided in the form a general budget package of which a small portion would be spent on women’s sports. Therefore, it seems quite necessary that a separate budget be devoted to the case of women.

The second important factor affecting the sporting success of sportswomen in Iran, based on our findings, is the coach. This is an indispensable fact that no one can deny. Gould et al. (1999), in their study, “Factors Influencing Olympic Performance”, concluded that coaches were among the most important factors involved in sporting success. Sotiriaduo et al. (2009) have also affirmed that coaches were the heart and soul of championships. Australian Basketball Federation (2000) also claimed that their basketball coach had so unaccountably enhanced the performance of their team that they won the silver medal of Sidney Olympic Games. The same coach had also won the third position of the world basketball competitions in 1998, and the Olympics of 1996. Regarding the role of coaches in teams’ success, we shall say that the mere quantity of them can never lead to the success of women athletes, but the quality of their work and having them as full-time trainers is as much important. We, thus, suggest that authorities in charge of sports in Iran send the sport coaches abroad to be professionally trained, evaluate their performance, select and promulgate the successful coaches so as to encourage the others, and finally employ foreign coaches for the national sports teams of women so that we they might have optimal performance.

Competition is another important factor in the sporting success of sportswomen. It certainly is an essential factor which helps the athletes keep their expertise and shape intact, and make more progress. High-level contests improve the general standards in internationally expert athletes, and add to their experiences both in games and in going to international fields. Not only do the participation of internationally experienced athletes in the national competitions, it also highlights the promising athletes to be chosen for future events and championships. In fact, many sports organizations consider the national competitions as a building block of success in international sport fields (Baker & Logan, 2007).

Many scholars believe that hosting important international events can greatly affect the development and growth of sports of the host countries (Bernard & Busse, 2000; Johnson & Ali, 2002). Therefore, holding regular leagues from one side, and holding various tournaments, and taking part in international sports competitions, from the other can help the athletes measure their abilities against those of their rivals and attend the important events with greater qualifications and self-confidence. Therefore, these three mentioned factors, together with other affective ones, should be observed so that the necessary conditions for the success of Iranian sportswomen could be achieved. In large-scale planning, however, more intense attention should be paid to the three factors of job and financial support, coaching and competition. No need to say that other factors such as population, cultural, religious and political conditions, and at a larger level, genetics, parents and friends, and at smaller levels media, sponsors and fans are as much influential in the sporting success of sportswomen. And as such factors cannot be directly controlled or changed by the officials at charge of sports, they have not been considered in this study.

***This article has been distracted from a research project conducted by the financial support of Islamic Azad University, Hamadan Branch, Hamadan, Iran.

References


