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An Analysis of Home Advantage in Iranian Football Super League

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Abstract

Aim: The purpose of this study was to investigate home advantage in Iranian Football Super League.
Methods: The information regarding wins, losses, goals for, goals against, yellow cards, red cards and gained points in matches at home and away of Super League teams of Iran was obtained using the internet website *www.Soccerway.com* and was analyzed.
Results: The results showed that the mean of wins, goals for and points gained from matches in the home have been more than matches away, but in matches away, the mean of losses, yellow cards, red cards and goals against have been higher. Also, the percentage of home advantage in Iranian Football Super League was close to international norms.
Conclusion: According to the results, sport psychologist, coaches and people who are involved in football are recommended to pay more attention to this advantage and make short and long term plans to do psychological readiness and competitive performance.

Keywords

Home advantage, Super League, Football, Home competition

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INTRODUCTION

Many various sport events are held all over the world which have attracted numerous fans. However, football matches are among the world's most important sport events to which a great number of people pay special attention. Home advantage is a phenomenon which has been demonstrated well in sport researches (Gelade, 2015). This phenomenon has been reported as a success factor in many sports and the successful performance of sport teams at home indicates this (Poulter, 2009). Home advantage has a significant role in football and this is evident and quantifiable (Pollard & Pollard, 2005 a).

Football teams often gain more success in home competitions. Pollard (1986) defines home advantage as a native reaction which emerges in response to the away team players' reaction when faced with the uncommon conditions of the unfamiliar environment. He assumes home advantage as a worldwide phenomenon. The reasons why hosting is an advantage is not clear (Gould & Wineberg, 2014).

Reviewing the studies done on this issue shows that the most effective factors on home advantage are support of crowd (the number of people present), travel effects, familiarity with match field, referee bias, local bias and psychological effects (Pollard & Pollard, 2005 b). In addition, Cournya and Carron (1992) proposed the four factors of crowd support, field familiarity, distance and the match rules as the causes of that (Smith, Ciacciarelli, Serzan, & Lambert, 2000; Courneya & Carron, 1992). Nevill, Balmer & Williams (2002) in a review study proposed the presence and support of crowd as the major reasons. Peñas and Ballesteros (2011) also suggested familiarity with the field and game conditions as an important factor and proposed that the teams make less use of home advantage as a result of changing the stadium and playing in a new stadium.

The increasing growth of access to the information gained from football matches between host teams and guest teams has caused the research road concerning home advantage become more paved. In football leagues of different world countries, there is a variety regarding making use of home advantage in a way that sometimes home advantage reverses and functions against the host team (Gould & Wineberg, 2014).

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The rate of this advantage in the Balkan countries is high, in a way that more than 70% of the scores are gained by home teams (Pollard & Pollard, 2005b). Analyzing the information related to English super league, Jacklin (2005) showed that the home team had a statistically significant superiority in all attack indices compared with the away team. Previous researchers also reported such a situation in English league (Waters & Lovell, 2002; Thomas, Reeves & Davies, 2004).

Seckin (2006) did a similar study about the professional league of Turkey and it was revealed that its home teams make good use of home advantage and have a better performance when playing at home rather than away. Vergin and Sosic (1999) stated that the American football league teams win 51% of their home competitions. However, Bray and Martin (2003) studied 52 skiers and showed that there is no significant difference in the athlete's performance in home and away competitions.

The studies done in Iran show such results as well. Rahnama, Sadeghipour and Bambaeichi (2006) compared the performance of Iranian super league in home and away competitions and reported that the number of wins, goals for and the scores gained at home are significantly more than those away. Moreover, the number of losses in away competitions is significantly more than that at home and the goals against in home games are less than that of away games.

Furthermore, Rahnama, Sadeghipour, Bambaeichi and Khayambashi (2006) reported the existence of home advantage phenomenon in the performance of effective teams of Asian football leagues and stated that the highest home advantage is in eastern, south-eastern, western and south-western Asian countries, Indonesia (65.3%) and Saudi Arabia (60.6%), respectively.

Also, Tahmasebi, Vazienitaher, Salehsedeghpour, and Hatamie (2010) by examining home advantage indicated that it is 61% in Iran which resembles to that of English and Turkish leagues. Besides, factors such as weather conditions and travel are in favor of home teams. Nevertheless, goals for and the crowd do not affect home advantage.

Asgari, Eydi and Ziaei (2015) examined home advantage on the performance of home countries in continental sport events. The results showed that there is a significant difference between the relative share of total medals and the number of gold medals when at home and away (relative share of total medals and the number of gold medals of the home country in previous and next tournaments).

Sanchez, Garcia, Leo, Pollard and Gomez (2009) analyzed home advantage top two Spanish professional football leagues and reported home advantage in first and second divisions equal to 66.3 and 65.6 respectively and there was no significant difference between home advantage of these two leagues. The results also indicated that home advantage had a significant decline after the 3-point system was proposed.

In addition, Peñas and Ballesteros (2011) in a study titled "Game Location and Team Quality Effects on Performance Profiles in Professional Soccer" reported that the number of goals, shoots, goal assisting shoots, attacks, successful passes and dribbles, etc. in home teams is significantly more than away teams.

There are other evidences which show referee bias might be another effective factor on home advantage (Pollard & Pollard, 2005 a, Boyko, Boyko & Boyko, 2007). Nevill et al. (2002) studied the effect of variables of crowd size and experience on referee decisions concluded that referees call less fouls (15.5%) against the home team when there is a large crowd compared to the silent conditions. Therefore, crowd as one of the home advantages can affect referee performance in favor of the home team and consequently can affect the game conclusion.

Balmer et al. (2003) studied home advantage in five sports in 1191-1991 Olympic Games. The results showed that there was a high home advantage for the conclusion of boxing, gymnastics and team sports (which were based on referees' mental decisions) when competing at home while there was not such an advantage in away competitions. This shows that referees with regard to size and density of the crowd, have considered relatively higher advantages for the athletes of the country hosting Olympic Games. However, as it can be seen, in this study home advantage in just a few sports is referred to, and detecting the reasons why home countries have had better performance is emphasized.

On the other hand, in the domain of psychological and environmental factors there are some evidences which show testosterone increase of home team players leading to their better performance (Neave and Wolfson, 2003; Carre, Muir, Belanger and Putnam, 2006).

One of the effective means of developing Iranian football, whether league or national teams, is to have a scientific approach to this popular sport. The existence of many potential capacities such as motivation and talent of Iranian football players and coaches on one hand, and the important role of this sport in economic, social, cultural and political development of the country on the other hand, have necessitated the use of a scientific way originated from scientific research results for developing football in every aspect. Unfortunately, despite the researches done during recent years, football is scientifically very much far from that of the countries good at football, like England, Germany, Brazil and even Asian countries like Japan and South Korea. Most of the countries have focused their home advantage research on the factors affecting this phenomenon. Therefore, with regard to the spread of football in Iran and the importance of home advantage, conducting a comprehensive study seems necessary. The present study is thus aimed at investigating home advantage in Iranian Football Super League.

METHOD

Sample

Population and sample of the present study were 16 Iranian super league teams. The criterion for the teams to be studied was attending the super league. Also, the teams ought to continue the league until the last week.

Procedure and Data Collection

The information about the number of wins, losses, draws, goals for, goals against at home and away, and the gained scores in 2014-2015 season were obtained through *www.soccerway.com* website. There are two or more teams in every league that have a common stadium. When these teams play with each other, one of them is considered as the home team and another is the away team in order to make the required balance. Although this case makes some doubts about the existence of home advantage (since in such matches there is no real home advantage for each team), there are two reasons for not excluding such teams from our analysis process. First, excluding these matches from the statistical analysis makes the league structure unbalanced. Second, the number of teams having a common stadium is relatively low. As a result, the number of such matches compared to the whole sample is trivial and does not increase the probability of research partiality.

Analysis of Data

Descriptive and inferential statistical indices were used in the present study. All values are expressed as means ± SD. Before parametric analyses were done, the normality of distribution of the data was assessed with Shapiro Wilk tests. Considering the data normality, paired t test was run to compare the variables in home and away competitions (Tabachnick, & Fidell, 2007).

Besides, in this study, home advantage percentage was calculated through checking gained scores in home competitions and followed Pollard's (2006) procedure. In a way that the total gained score in home matches (wins multiplied by 3+draws multiplied by 100) was divided by the total obtainable score at home. All statistical analyses were conducted using the Statistical Package for the Social Sciences (SPSS for Windows; SPSS 18.0, Inc., Chicago, IL).

RESULTS

In Table 1 the results gained from the variables of wins, losses, draws, goals for and goals against in home and away matches are presented.

Table 1. General results of home and away competitions

Team/Parameter	Home						Away					
	Win	Draw	Loss	Goals for	Goals against	Score	Win	Draw	Loss	Goals for	Goals against	Score
Sepahan	10	5	0	27	10	35	7	3	5	19	17	24
Teraktorsazi	9	4	2	31	18	31	8	3	4	27	16	27
Naft of Tehran	10	3	3	21	8	33	6	7	2	24	20	25
Zob-Ahan	10	4	1	27	11	34	4	6	5	19	15	18
Follad	8	4	3	17	11	28	7	3	5	16	13	24
Esteghlal	8	3	4	19	14	27	5	5	5	21	20	20
Saipa	7	5	4	23	13	26	4	3	8	13	21	15
Pesepolis	4	6	3	15	17	18	5	3	7	16	18	18
Saba Qom	6	3	5	15	15	21	2	7	6	10	19	13
Padideh Khorasan	3	8	6	12	11	17	3	7	5	11	14	16

Gostaresh-Foolad	6	5	4	20	18	23	0	8	7	10	21	8
Rah Ahan	5	4	4	14	19	19	3	3	9	13	29	12
Malavan	4	9	6	15	13	21	2	3	10	11	21	9
Esteghlal Khuzestan	3	8	4	19	22	17	1	7	7	16	14	10
Peykan of Tehran	2	6	7	9	18	12	2	8	5	7	11	14
Naft Masjed-Soleyman	3	6	6	13	21	15	0	7	8	6	18	7

As cab be seen in Table 1, Sepahan became champion in this league and experienced no loss in home matches, and gained more wins at home than away. Also, teams of Sepahan, Naft of Tehran and Zob-Ahan have gained the most wins at home and Peykan the least. In addition, Teraktorsazi has achieved the most wins in away matches. Further, Naft of Masjed-Soleyman and Gostaresh-Foolad of Taberiz haven't succeeded to win any away matches.

Sepahan has not experienced any loss at home. Zob-Ahan also, has only one loss at home. Having lost seven times, Peykan of Tehran has the most losses at home. Sepahan has gained the highest score in home matches and Peykan has the least score. Furthermore, Teraktorsazi comes first and Naft Masjed-Soleyman the last, in terms of gained score in away matches. Other results can be observed in Table 1.

The mean of goals for and the score in home competitions is more in away matches. Moreover, in away games, mean of goals against and losses has a higher value. Additionally, in away matches, lower means of wins, goals for and score were observed. The mean of yellow and red cards was less at home than away as well (Table 2).

Table 2. Descriptive statistical results of the variables in home competitions and away

Parameter	Home		Away	
	M	SD	M	SD
Win	6.12	2.8	3.68	2.49
Loss	3.62	1.89	6.18	2.00
Draw	5.25	1.91	5.12	2.02
Goals for	18.50	6.11	15.43	6.86
Goals against	14.81	4.18	18.68	4.81
Yellow card	2.31	1.54	2.84	1.20
Red card	0.58	0.23	0.67	0.34
Scores	23.62	7.10	16.37	6.42

The In the remaining of the study, conclusions of wins, losses, draws, goals for, goals against,yellow cards, red cards and scores at home and away were compared (Table 3). The results showed that there is a significant difference in terms of the variables of wins, losses, goals for, goals against, red and yellow cards, and scores in Iranian super league ($p<0.05$). Also, as reported in Table 3, the variable of draws in home and away competitions does not have significant differences in Iranian super league ($p>0.005$).

Table 3. Comparison of variables in home and away competitions

Variable	Mean	SD	t	df	p
Win (home-away)	2.43	1.99	4.878	15	0.001
Draw (home-away)	0.12	2.68	0.187	15	0.855
Loss (home-away)	-2.56	2.15	-4.747	15	0.001
Goals for (home-away)	3.06	4.00	3.057	15	0.008
Goals against (home-away)	-3.87	4.68	3.306	15	0.005
Yellow cards (home-away)	-5.53	3.72	4.031	15	0.003
Red cards (home-away)	-3.31	2.18	3.543	15	0.005
Score (home-away)	7.25	4.76	6.082	15	0.001

In another section of the study, home advantage was dealt with in super league teams. Table 4 shows the findings of this section. As is evident, Sepahan has the highest home advantage percentage in football super league and the least home advantage percentage is related to Peykan (26.6%). Also, eight teams enjoy the home advantage above 50%.

Table 4. Home advantage percentage in the Iranian super league

Team	**home advantage %**
Sepahan	77.7
Teraktorsazi	68.8
Naft of Tehran	73.3
Zob-Ahan	75.5
Follad	62.2
Esteghlal	60
Saipa	57.7
Pesepolis	37.7
Saba Qom	46.6
Padideh Khorasan	37.7
Gostaresh-Foolad	51.1
Rah Ahan	42.2
Malavan	46.6
Esteghlal Khuzestan	37.7
Peykan of Tehran	26.6
Naft Masjed-Soleyman	33.3
Iranian super league (Total)	**52.5**

Studying home advantage in the whole Iranian super league showed that the home advantage percentage is above 50 (52.5% exactly). This shows that home advantage exists in almost the whole Iranian super league.

DISCUSSION

One of the main factors which affects the athletes' performance to a great extent, specifically in football critical competitions, is home advantage. Accordingly, doing research in sport psychology field for identifying important and effective variables in order to contribute to athletes and sport teams, seems necessary and unavoidable. Considering all this, in the present study the effect of home advantage on Iranian super league teams' performance was investigated.

In general, the results of the present study showed that the means of wins, goals for, goals against and scores in home matches are more compared to those in away ones. However, in away matches, means of losses, yellow and red cards as well as goals against were more. Sepahan also had such conditions and enjoyed the home advantage properly. These findings are in line with the studies by Jacklin (2005), Seckin (2006), Vergin and Sosic (1999), Sanchez et al. (2009) and Rahnama et al. (2006). According to the studies done on home advantage it was determined that the teams in their related leagues gain better conclusions and have less losses and goals against. For instance, Jacklin (2005) in English super league showed that home team is prior in terms of goals for, score and wins. Also, Seckin (2006) showed that home team in Turkish professional league have a better performance when playing at home rather than away. In addition, Rahnama et al. (2006) by studying Iranian football super league reported that the number of wins, goals for and the rate of gained score were higher in home competitions compared to away matches.

In another section of the present study, the difference between wins, losses, draws, goals for, goals against, yellow cards, red cards and scores was investigated. The results revealed that there is a significant difference between home and away competitions in terms of the above-mentioned variables in all of the leagues. These findings were in accordance with Goldman's (2009), Peñas, and Ballesteros's (2011) and McEwan et al.'s (2012). Investigating home advantage in American hockey professional league, Goldman (2009) showed that there is a significant difference between wins at home and away. Additionally, Peñas and Ballesteros (2011) reported that the number of goals, goal assisting shoots is more among home teams of football professional league than visiting teams. Also, McEwan et al. (2012) examined the effect of home and away competitions on wins and losses of Canadian hockey professional league teams and reported that one of the home advantages is the significant difference between the competitions at home and away in terms of wins and losses which indicates more wins and less losses at home. Then, the results showed just for the variable of draws there exists no significant difference. These findings are generally in line with the previous literature. To explain that, it can be said when the teams play at home or away, they might have balance in attack

and defense lines. There is also another probability that defensive play of some teams and being contented with one score may be the cause. Additionally, it can be said that the sensitivity of some matches may be a factor for not presenting a good play.

It was also shown in another section of this study that the home advantage patterns of teams are relatively similar. In this regard, analyzing home advantage in Spanish professional league, Sanchez et al. (2009) reported the home advantage to be 55.6% which is in line with the results of this research. Also, Tahmasbi et al. (2010) demonstrated that home advantage is 61% in Iranian football supper league and considering the fact that in this study the home advantage percentage of the whole league is above 50. These results are consistent with each other. Another research on this issue is that of Seckin (2006). The researcher showed that home advantage is 61.5% in Turkey which is in line with the results of the present study. Studying home advantage in Australian football league, Clark (2005) reported that it is 60% which is consistent with the present study as well.

In explaining the findings related to the home advantage phenomenon, some sources consider the presence of a crowd advocating a team as one of the most important and effective factors. Furthermore, there are new evidences which show referee bias might be one of the factors affecting home advantage (Pollard & Pollard, 2005; Boyko et al., (2007). Nevill et al. (2002), studying the variables of crowd size and experience on referee decisions concluded that referees call less fouls against the home teams when there a is large crowd compared to when there is silence. Hence, crowd can affect referees' performance and consequently the conclusion in favor of the home team. On the other hand, the factor of familiarity with the field and game situations can interfere with this phenomenon (Caudill & Mixon, 2007). Bray and Martin also proposed familiarity with the field as one of the most important causes of better achievements of home teams. Moreover, psychological factors might be other causes (Pollard & Pollard, 2005 b). Many studies have reported that players have more self-confidence and self-efficacy in home competitions and undergo less stress (Bray & Martin, 2003).

CONCLUSION AND SUGGESTIONS

Although the causes of effectiveness of home games have not yet been clarified definitely, all of the studies suggest that this phenomenon is effective on gaining better results. In this study, the number of spectators was not taken into account and this is among the limitations of the study which should be considered in further research. The effect of this phenomenon in other leagues, tournaments and sports are among the topics which can be further studied. It can be concluded from the present study that home advantage phenomenon positively affects football performance in Iran like other countries of the world.

Considering what was stated, researchers have emphasized the role of coaches and psychologists in maximizing home advantage through creating psychological preparation and decreasing negative pressure (Goldman, 2009). In addition, short and long-term planning for this phenomenon can provide athletes with psychological comfort and improve their performance considerably. In practice as well, sport psychologists and coaches can effectively train athletes using these results, and prepare them for competitions by getting familiar with its importance and role to give appropriate exercises and mediations.

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