

HOME ADVANTAGE IN EUROPEAN FUTSAL LEAGUES

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Abstract

The situational-environmental variables and the effect of playing at home the "home field advantage" can influence the final scoreboard because it is considered to affect the psychological mindset of the players. The aim is to study those environmental-situational variables establishing if any relationship between them and the final score exists.

Quantitative study, descriptive, comparative of the best European pro futsal leagues: Spanish, Italian and Russian, during season 2014-2015. Sample rises to 41 teams, 626 matches y 4716 goals.

Playing as local team increases 17.73% of the chances of winning a game, with a 51.27% higher probability than as a visitor. Significant differences have been found between playing as local or visitor in the Russian and Italian league. Scoring the first goal as a local gives a 66.9% more chances of winning a game. 17.3% more than doing it as a visitor. This provides significant differences between Spanish and Russian leagues. When the local team reaches halftime with a scoreboard advantage 76.73% of the matches end up in a win; 7.67% more than as a visitor and if partial scoreboard is not losing chances of winning a local rise to 88.36%, 9.06% more than as visitor teams.

Keywords: Futsal. Goal. Situational variables. Home field advantage

VENTAJA LOCAL EN LAS LIGAS DE FÚTBOL SALA EUROPEAS

Resumen

Las variables situacionales-ambientales y el efecto de jugar en casa la "ventaja de campo local" pueden influir en el marcador final porque se considera que afecta la mentalidad psicológica de los jugadores. El objetivo es estudiar esas variables de situación ambiental estableciendo si existe alguna relación entre ellas y la puntuación final.

Estudio cuantitativo, descriptivo, comparativo de las mejores ligas europeas de fútbol sala: español, italiano y ruso, durante la temporada 2014-2015. La muestra asciende a 41 equipos, 626 partidos y 4716 goles.

Jugar como equipo local aumenta el 17.73% de las posibilidades de ganar un juego, con una probabilidad 51.27% mayor que como visitante. Se han encontrado diferencias significativas entre jugar como local o visitante en la liga rusa e italiana. Marcar el primer gol como local da un 66.9% más de posibilidades de ganar un juego. 17.3% más que hacerlo como visitante. Esto proporciona diferencias significativas entre las ligas española y rusa. Cuando el equipo local llega al medio tiempo con una ventaja en el marcador, el 76.73% de los partidos terminan en una victoria; 7.67% más que como visitante y si el marcador parcial no está perdiendo posibilidades de ganar un aumento local al 88.36%, 9.06% más que como equipo visitante.

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Introduction

Environmental-situational variables includes game aspects related to location, field characteristics, game period, rival skill set, both playing as locals or visitors, scoring the first goal, reaching halftime with a scoreboard advantage, etc. All those aspects can influence in the final result considering it impacts players' psychological mindset and then in their behavior and performance (Goumas, 2014). The combination of these situational variables is a necessary aspect to be studied, it is defined as "home field advantage" (HFA) (Campos et al., 2015).

HFA has been studied for different teams, in individual sports and in teams sports. Jamieson's meta-analysis (Jamieson, 2010) confirmed that HFA occurs in team sports, presenting values around 60% of matches in sports such as soccer and futsal. Specifically, futsal has very few studies that analyze it. The studies that analyze it establish that the effect of the HFA affects the final result between 61-63% of the occasions in the professional futsal leagues of Spain and Brazil (Campos et al., 2015; Molinuevo and Bermejo, 2012; Sampedro and Prieto, 2011).

Many probable causes have been found, like adverse effects of travel fatigue, being familiarized with the context, referees' biased decisions, territoriality, local team's favor rules or crowd noise. Those factors could influence players, coaches and referees' psychological state and their behaviors, partially explaining the HFA (Arrese, Urdiales & Izquierdo, 2013).

HFA can affect player's psych state. This is taken more into account these days in order to understand what happens during competition and to try to increase performance. So, a player could give different importance to a same event bearing in mind when it happened. Dias & Santana (2006), in their study on goals scored during the 2014 Futsal World Cup, showed the game clock as a variable that could determine certain behaviors related to each of the marked periods. This means that in the final minutes of each period, especially the second period, the players and the teams execute different tactics conditioned by the scoreboard. Molinuevo & Bermejo (2012) in their work over five Spanish futsal seasons study the effect of scoring the first goal of the game over the final score concluding that if the local team scores first they have a 75.93% chance

of winning the match while visitor team has a 55.70% chances of winning if they score first obtaining significant differences in local team's advantage.

Consequently, if scoring the first goal has connection with the final score, reaching halftime with a favorable scoreboard should be a bigger indicator to get points at the end of the game because a non scoring first period is oddly rare. The average number of goals scored per game in Spanish pro futsal league is in between 3.22 and 4 per team/game (Álvarez, Puente, Manero & Manonelles, 2004; Álvarez, Murillo, García & Parra, 2018; Álvarez, Murillo & García, 2018). Álvarez (2011) speaks about the influence of halftime scoreboard over final score in his work made with a Spanish pro futsal team during season 2002-2003, in which, after analyzing halftime scoreboards during the season, 83.3% of the times the team was winning at halftime won the match, and only an 11.3% of the times that the team was losing at the half time, they turnaround the scoreboard, concluding that having an advantage at the end of the half is a high level indicator of the final result.

Study objectives are to analyze the environmental-situational variables named as HFA: playing as local or visitor, scoring the first goal, halftime scoreboard and to determinate if any relationship between them and the final result exist. Also, due to actual futsal's professionalization and globalization the study pretends to establish if the best Euro futsal pro leagues behave the same way.

The expected results will allow better preparation of futsal matches. The coaches will know when the goals are achieved, differentiating whether you play at home or as a visitor. The results of the different leagues will make it possible to get to know European futsal and study rivals in international competitions.

Material and methods**Design of the study**

Quantitative study, descriptive, comparative of the situational variables related to the final result of the best three European pro futsal leagues according to European titles: Spanish, Italian and Russian during 2014-2015 season.

Participants

For this study, the participants are the futsal teams from each league analyzed,

11 teams from the Italian league, 16 teams from the Spanish league and 14 teams from the Russian league. 110 games in the Italian league, 240 games in the Spanish league and 273 games in the Russian league with 14 teams were analyzed, making a total of 623 games, of which 619 of them have been analyzed and 4716 goals (Table 1). The four games not analyzed are due to the fact that the videos of the games are not available.

Table1. Sample characteristics

Population's study justification

Due to actual sport's globalization, Spain is an exporting country of both players and coaches around the world, that raises the question, is any difference between the main European pro futsal leagues?

European's best three futsal leagues have been chosen, according to titles, considering they are the best reference as the object of study. Futsal is a modern sport, UEFA has organized 10 European championships since 1996 to 2016, being the countries with more titles Spain with seven, Italy with two and Russia with one (Spanish Federation of Football, 2009).

Study procedures

The matches were analyzed using the official videos provided by the leagues analyzed through their own broadcast channels. The materials used for the data investigation have been the final acts of the games, which were written requested to one of the federations of the countries. Response obtained, referring to the official websites of all of them, where the data can be read: date, week, location of the match, starting players, summoned players, coaches, referees, yellow cards, red cards, goals, goal time and spectators.

Variables analyzed: playing as local or visitor, goals as local or visitor, which team scores the first goal, halftime scoreboard and its relation to final result.

Data analysis instrumental

SPSS version 22.0 statistic package, for inferential and descriptive statistic in the research of associate relationships between categorical variables. Descriptive data given in frequencies, averages and percentages and inferential statistic through contingency charts using parametric and non parametric Chi-square to establish the relationship between variables giving significant differences when the value is <0.05. The effect size of the chi-square significance is defined as the square root of the quotient between the value of the chi-square statistic (χ²) and the number of cases (Albuquerque et al., 2013). Cohen (1988) suggests that TE values of 0.1 represent a small effect, the value of 0.3 a medium effect and the value of 0.5 represents a large effect.

Table 1: Sample characteristics.

League	Teams	Matches	Goals	%	Half goals/match
Calcio a5 - Italy	11	109	735	15.6	6.67
Superliga - Russia	14	273	2226	47.2	8.16
LNFS - Spain	16	240	1755	37.2	7.37
Total	41	619	4716		

Table 2: Final scores as local/visitor.

LOCAL	SPAIN	%	RUSSIA	%	ITALY	%	TOTAL	%
FV	125	52.74	136	49.63	60	52.17	321	51.27
FT	30	12.65	38	13.56	27	23.47	95	15.17
FD	82	34.59	100	36.49	28	24.34	210	33.54
TOTAL	237	100	274	100	115	100	626	100
VISITOR	SPAIN	%	RUSSIA	%	ITALY	%	TOTAL	%
FV	82	34.59	100	36.49	28	24.34	210	33.54
FT	30	12.65	38	13.56	27	23.47	95	15.17
FD	125	52.74	136	49.63	60	52.17	321	51.27
TOTAL	237	100	274	100	115	100	626	100

FV: final victory; FT: final tie; FD: final defeat.

Table 3: Goals scored as local and as visitor.

	Local	%	Visitor	%	Total
	Goals	%	Goals	%	Total
Spain	961	54.8	794	45.2	1755
Russia	1175	52.8	1051	47.2	2226
Italy	418	56.9	317	43.1	735
Total	2554	54.2	2162	45.8	4716

Results

Playing as local or visitor - final result

Table 2. Final scores as local/visitor

No significant differences have been found playing as local or visitor.

Spanish league: No significant differences have been found playing as local or visitor.

Russian league: Significant differences (p) have been found (.04) when related to playing as local or as visitor.

Italian league: Significant differences (p) has been found (.02) when related to playing as local or as visitor.

Goals as local - visitor

The highest percentage of goals scored among the leagues is as a local, not finding significant differences between them.

Table 3. Goals scored as local and as visitor

Scoring the first goal as local or visitor

The results obtained show how the highest percentage of the first goals scored are at home, compared to those scored first as a visitor.

Table 4. First goal scored as local/visitor

Scoring the first goal as local or visitor - final result

Scoring first at home gives a very high percentage of winning the game, and in case of not winning the game, it allows scoring.

Table 5. Scoring the first goal and final score

Relating variables scoring first goal-final result as local-provides significant difference (p) in both cases (.000)

Table 6. Scoring first goal and get points at the end of the game

Very significant differences (p) found (.000) in first goal variable and obtaining points as local in the Spanish and Russian league but not for the Italian league (.073)

Very significant differences (p) found on each league as visitor, Russian and Spanish (.000) and Italian (.014)

Scoreboard at halftime

Almost in half of the games the home team reaches the break with a favorable score. The visiting team reaches the break winning a much lower percentage of occasions.

Table 7. Scoreboard at halftime

Scoreboard at halftime - final result

The chances of winning the game are much higher when you play at home,

Table 4: First goal scored as local/visitor.

	Goals	%
Local	347	56.1
Visitor	272	43.9
Total	619	100

Table 5: Scoring the first goal and final score.

	Local		Visitor	
	Goal	%	Goal	%
Victory	232	66.9	135	49.6
Tie	46	13.3	49	18
Defeat	69	19.9	88	32.4
Total	347	100	272	100

Table 6: Scoring first goal and get points at the end of the game.

Local		Final score		
		Rate	n	%
Local	Total	Rate	278	80.1
	N=347	Not rate	69	19.9
	Spain	Rate	109	78.4
	N=139	Not rate	30	21.6
	Russia	Rate	115	79.3
	N=145	Not rate	30	20.7
Visitor	Italy	Rate	54	85.7
	N=63	Not rate	9	14.3
	Total	Rate	137	67.6
	N=272	Not rate	88	32.4
	Spain	Rate	67	68.4
	N=98	Not rate	31	31.6
Visitor	Russia	Rate	115	70.3
	N=128	Not rate	38	29.7
	Italy	Rate	27	58.7
	N=46	Not rate	19	41.3

Table 7: Scoreboard at halftime.

LOCAL	BV	%	BT	%	BD	%	N
Spain	109	45.99	53	22.36	75	31.64	237
Russia	122	44.52	57	20.8	95	34.67	274
Italy	61	53.04	26	22.6	28	24.34	115
Total	292	46.64	136	21.72	198	31.62	626
VISITOR	BV	%	BT	%	BD	%	N
Spain	75	31.64	53	22.36	109	45.99	237
Russia	95	34.67	57	20.8	122	44.52	274
Italy	28	24.34	26	22.6	61	53.04	115
Total	198	31.62	136	21.72	292	46.64	626

BV: break victory; BT: break tie; BD: break defeat

in the three leagues analyzed. In addition, when the score is favorable at the break of the game, the chances of winning the game increase, especially in the Spanish league.

Table 8. Scoreboard at halftime-final result

Spanish League

Table 9. Spanish league halftime scoreboard-final result local/visitor

Russian League

Table 10. Russian league halftime scoreboard-final result local/visitor

Italian League

Table 11. Italian league halftime scoreboard-final result local/visitor

Discussion

It is important to note that there are very few studies about futsal (Moore, Bullough, Goldsmith & Edmondson, 2014), making it a difficult subject of study.

Table 8: Scoreboard at halftime-final result.

	Local	%	Visitor	%
BV-FV	223	76.37	136	68.70
BV-FT	35	11.99	21	10.60
BV-FD	34	11.64	41	20.70
Total	292	100	198	100
BT-FV	57	41.92	40	29.41
BT-FT	39	28.67	39	28.67
BT-FD	40	29.41	57	41.92
Total	136	100	136	100
BD-FV	41	20.70	34	11.64
BD-FT	21	10.60	35	11.99
BD-FD	136	68.70	223	76.37
Total	198	100	292	100

BV: break victory; BT: break tie; BD: break defeat; FV: final victory; FT: final tie; FD: final defeat.

Playing as local or visitor - final result

The results of this study have established the chances of winning at home (HFA) in 51.27% of the times, 15.17% to draw and 33.54% to lose. It is found that there is a 17.73% more chance of winning at home than as a visitor. No significant differences were found between the leagues.

The few Futsal's HFA study results are higher than the ones obtained here, established between 61-63% in favor of the home team. Sampedro & Prieto (2011) analyze Spanish pro futsal league during fifteen seasons and find out that the local advantage value was 61.54%, Molinuevo & Bermejo (2012) study 5 seasons from the same league and obtained 62.27%. Campos et al. (2015) analyzes three seasons from Brazilian pro futsal league, from 2012 to 2014 and establishes the percentage in 63.8%, been higher when teams travel longest distances, losing games those teams that probably would not lose without the consequences of a long travel (Pace & Carron, 1992; Snyder & Purdy, 1985). In the Brazilian league, HFA is generally higher for North Northeast and south of Brazil, and lower for Midwest teams (Pollard, Silva & Medeiros, 2008). However, travelling long distances as an advantage for the local team is inconclusive. A study in Australian football showed there was no relation between travel time, stadium capacity, crowd total and HFA phenomenon (Goumas, 2014). More studies are needed to keep studying the effect of travel, type of travel, fatigue generated and time elapsed until the game variables.

When comparing playing as local or visitor in each of the leagues no significant statistical differences have been found in the Spanish league, despite having 18.15% higher chances of winning as a local team than as a visitor; This has been found in the Russian league (.04), with 13.14% and Italian league (.02) with a 27.83% more chances. Those results show HFA is more important in Italy than in Russia and in Spain. A different result from that found by Goumas (2014) that does not find HFA as a determining factor in the final result.

The case of the Russian league is exceptional, due to its vast geography, which carries longer distances to play futsal games. They use a double round system, which means during the same weekend, in less than 48 hours, two games are played in the same scenario against the same team. It will be really interesting to analyze its effects because depending on the development of the first game (reaching halftime winning or losing) can allow us to start thinking about how the first game result affects the second, apart from how situational factors like sleep, eating out for a few days, etc can affect the result.

Double round system is implement on the spanish league also, but only during playoffs for the tittle, so it could be interesting for the teams who will fight for it.

Goals as local - visitor

As a local, 54.2% of the goals are scored and 45.8% as a visitor. The highest percentage of goals scored among the leagues is as a local, not finding significant differences between them. Only Grela (2013) refers to goal total for visitors and for locals, although without speaking about percentages, once obtained, over 5 Spanish pro futsal seasons establish a range between 54.23-56.021% for local teams, opposed to 43.999-45.77% for visitors. Results which match the ones from this study.

Campos et al. (2015), when studying Brazilian pro futsal during three seasons, 2012-2014, concludes that local teams scored a 25% more goals than the visitors, values over the ones obtained in this study which establishes 8.4% more. Those differences could be due to different styles of play compared to European leagues, which can be another subject of study to establish if there is any difference between Brazilian and European leagues.

Table 9: Spanish league halftime scoreboard-final result local/visitor.

LOCAL	BV	%BV	TM%	BT	%BT	TM%	BD	%BD	TM%	TM	TM%
FV	91	83.48	72.8	21	39.62	16.8	13	17.33	10.4	125	52.74
FT	7	6.42	23.33	17	32.07	56.66	6	8	20	30	12.65
FD	11	10.09	13.41	15	28.3	18.29	56	74.66	68.29	82	34.59
Total	109	100	45.99	53	100	22.36	75	100	31.64	237	100
VISITOR	BV	%BV	TM%	BT	%BT	TM%	BD	%BD	TM%	TM	TM%
FV	56	74.56	68.29	15	28.3	18.29	11	10.09	13.41	82	34.59
FT	6	8	20	17	32.07	56.66	7	6.42	23.33	30	12.65
FD	13	17.33	10.4	21	39.62	16.8	91	83.48	72.8	125	52.74
Total	75	100	31.64	53	100	22.36	109	100	45.99	237	100

BV: break victory; BT: break tie; BD: break defeat; FV: final victory; FT: final tie; FD: final defeat; TM: total matches

Table 10: Russian league halftime scoreboard-final result local/visitor

LOCAL	BV	%BV	TM%	BT	%BT	TM%	BD	%BD	TM%	TM	TM%
FV	92	75.4	67.64	23	40.35	16.91	21	22.10	15.44	136	49.63
FT	17	13.93	44.73	12	21.05	31.57	9	9.47	23.68	38	13.56
FD	13	10.65	13	22	38.59	22	65	68.42	65	100	36.49
Total	122	100	44.52	57	100	20.8	95	100	34.67	274	100
VISITOR	BV	%BV	TM%	BT	%BT	TM%	BD	%BD	TM%	TM	TM%
FV	65	68.42	65	22	38.59	22	13	10.65	13	100	36.49
FT	9	9.47	23.68	12	21.05	31.57	17	13.93	44.73	38	13.56
FD	21	22.10	15.44	23	40.35	16.91	92	75.4	67.64	136	49.63
Total	95	100	34.67	57	100	20.8	122	100	44.52	274	100

BV: break victory; BT: break tie; BD: break defeat; FV: final victory; FT: final tie; FD: final defeat; TM: total matches

Table 11: Italian league halftime scoreboard-final result local/visitor

LOCAL	BV	%BV	TM%	BT	%BT	TM%	BD	%BD	TM%	TM	TM%
FV	40	65.67	66.66	13	50	21.66	7	25	11.66	60	52.17
FT	11	18.03	40.74	10	38.46	37.03	6	21.42	22.22	27	23.47
FD	10	16.39	35.71	3	11.53	10.71	15	53.57	53.57	28	24.34
Total	61	100	53.04	26	100	22.6	28	100	24.34	115	100
VISITOR	BV	%BV	TM%	BT	%BT	TM%	BD	%BD	TM%	TM	TM%
FV	15	53.57	53.57	3	11.53	10.71	10	16.39	35.71	28	24.34
FT	6	21.42	22.22	10	38.46	37.03	11	18.03	40.74	27	23.47
FD	7	25	11.66	13	50	21.66	40	65.67	66.66	60	52.17
Total	28	100	24.34	26	100	22.6	61	100	53.04	115	100

BV: break victory; BT: break tie; BD: break defeat; FV: final victory; FT: final tie; FD: final defeat; TM: total matches

The results found in the local teams can probably be explained by the pressure of the crowd, travel fatigue for the visitors team and group support, referees, field knowledge, etc. for the local team. Fan support could be one of the most important (Nevill, Balmer & Williams, 1999). Teams who have the crowd close to the field can intimidate referees and visitor players (Campos et al., 2015). Then, public density has a significant influence for the game's final result, with an advantage for the local team (Agnew & Carron, 1994). Regarding that factor, a referee's biased decisions could be influenced in local team's favor. Books show already that referees' decision based on team's favoritism is real (Sutter & Kocher, 2004). Referees tend to make decisions that favor the local team, due to the crowd pressure over the decision (Nevill & Holder, 1999). On this matter, Wallace, Baumeister & Vohs (2005) said that when a team plays in front of their crowd, this could either have a positive or a negative effect. When teams play in its own field, crowds tend to augment players performance through their support, however pressure can also drive to a worse performance due to a stressful situation. When a team plays in their own field, players tend to have bigger confidence than visitors (Carré, Muir, Belanger & Putnam, 2006). Being familiarized with the field, the environment, reference points as lines, monochrome or colored beams, big or small exit areas, distance to the fence are factors which generate confidence in the local team and can help the team's performance.

Scoring first goal as local or visitor

Results obtained show how 56.1% of the first scored goals are as a local, as opposed to 43.9% scored first as a visitor. There are no specific studies that analyze these data to be able to compare them.

A higher percentage of first scored goals for the local team could be due HFA

factors, crowd, game environment together with the desire of please your home crowd in the early minutes could have a positive psychological effect over local players increasing their expectations and the chances of scoring first (Courneya & Carron 1992).

Scoring first goals as local or visitor - final result

Scoring first as local gives a 66.9% chances of winning the match, a 17,3% more than as a visitor and an 80.1% of chances of obtaining points, a 12,5% more than as a visitor with a 67.6%, obtaining significant differences (.000). Same case for each and every one of the analyzed leagues.

Scoring the first goal of the game is a strong indicator of the final result. So, it's vital for teams to begin the game highly focused, either to avoid being scored, or begin with the strongest starting five to be ahead on the score.

Flashing the results of the Italian league, which obtains the highest value, 85.7% of the chances of obtaining points at the end as a local if the team scores first. This result could be due to the use of a game style based on trying to be ahead on the score as soon as possible and then fold to use the counterattack scheme as base game plan. On the other hand, as visitor, highlight results of Russian league with 70.3% of chances of winning if scoring the first goal could be explained for been a more offensive league than the Italian, which is proved with the highest goal average with 8.16 goal per game as opposed to the 6.67 goals per game in Italy (Table 1). New studies would be necessary to relate those variables.

Significant differences obtained (.000) in scoring the first goal and then getting points as locals in the Spanish and the Russian league but not for the Italian league.

Molinuevo & Bermejo (2012) conclusions offer inferior results than the present study with a 75.93% for locals and 55.77% for visitors, same as Grela's (2013), with 71% and 59% respectively.

Kacem, Guemri, Naffeti & Elloumi (2016) study 2012 Eurocup goals and, although there is no data, concluded that, teams who won tended to score in the first 10 minutes of each half are more likely to be winners at the end. It shows the importance of max focus when beginning a match and with taking advantage as soon as possible. Without any doubt it will produce a great psychological reinforce to face the game with bigger winning guarantees.

Scoreboard at the half

From game total (626) on 46.64% of the times it is the local team who reaches halftime with scoring advantage, 15.02% more than as a visitor. There are no specific studies that analyze these data to be able to compare them.

Italy obtains highest results with 53.04%, 7.05% more than in Spain and 8.52% more than Russia. This data could point to a bigger influence in the Italian league for situational aspects.

The justification for this result is related to what is described above and may be due to factors of HFA, crowd, playing environment, along with the desire to please your local audience in the first minutes of the match. Starting by scoring and holding the lead in the first half could have a positive psychological effect on local players who increase their expectations of winning the match (Courneya and Carron 1992).

Scoreboard at the halftime final result

From game total scoreboard at the halftime is:

Locals with the advantage, 46.64% of the times, 15.02% more than as a visitor, then: local team ends up winning in 76.37% of the times, a 7.67% more than as visitor; drawing a 1.39% more as local than visitor and losing 9.06% less as local than as visitor.

Drawing, both as local and visitor, 21.71% from which: final win for local team a 41.92%, a 12.51% more than the visitor team: draw a 28.67% as both local and visitor and lose a 12.51% less as local than as visitor.

Losing as local a 31.62%, 15.02% less than as visitor, from which: Local team ends up winning a 20.7%, 9.06% more than visitor chances: draw a 1.39% less as local than visitor and lose a 7.67% less as local than visitor.

On halftime scoreboard results the Spanish league is highlighted with 14.35% more chances of winning as local than as visitor, and subsequently has 14.35% lower chances of losing as local than as visitor. In the Russian league, 9.85% and in the Italian league 28.7% of higher chances of winning at the end of the game.

Those results are similar to the ones obtained by Alvarez (2011). It should be considered that it is a team study and only the halftime scoreboard is taken into account and not the HFA effect. After analyzing halftime scoreboards during a team's 2002-2003 season, it concludes that from the twelve times (40%) they reached halftime winning, 10 times (83.33%) they won and lost two (16.66%). From the nine times they resulted in a draw (30%) they won four (44.44%), draw three (33.33% and lost two (22.22%); from the nine times they went to halftime losing (30%) they lost six (66.66%), draw two (22.22%) and won one (11.11%). From their results it is concluded that halftime scoreboard is a reinforcer of the same and a good indicator of the final result.

From the times when reaching halftime winning and end up with a win at the end of the game: in the Spanish league an 8.92% more as local with the 83.43% than as visitor with a 74.56%; in the Russian league a 6.89% more as local with a 75.4% than as visitor with a 68.42%; in the Italian league 12.1% more as local with a 65.67% than as visitor with a 53.57%. If we add the draws, chances of getting points at the end of the game rise by a 7.34% more as local for Spanish league, an 89.90% against a visitor's 82.56%; in the Russian league with a 11.44% more as local with a 89.33% than as visitor with a 77.89%; in the Italian league with a 8.71% more as local with a 83.7% than as visitor with a 74.99%.

Those results reinforce the importance of reaching halftime winning or drawing, more than scoring the first goal. Halftime scoreboard will condition future game actions, so coaches must work on schemes and psychological work during trainings to reinforce halftime scoreboard advantages and to try to counter the adversity of reaching halftime losing. Psychological training and the pressure to correctly deal with partial scoreboards will be vital and will mark how psychologically strong, mature, cohesive and confidence a team is as a group.

Without a doubt, the results obtained can help to improve the understanding of the competition and serve to improve the training of the competition's process.

More studies are needed to relate partial scoreboards with HFA, as well as distance, type of transportation, day of visitor's travel, rival's league position...

Conclusion

– Playing as a local team increases a 17.73% of the chances of winning a game, with a 51.27% than as a visitor. Significant differences have been found between playing as local or visitor in the Russian league with a 13.14% more chance as locals than as visitors and in the Italian league with 27.83% more chances.

– Scoring the first goal as locals gives a 66.9% more chances of winning a game, a 17,3% more than doing it as a visitor and 80.1% of obtaining points, 12.5% more than as a visitor with 67.6%, proving significant differences. Significant differences obtained for Spanish and Russian league.

– When halftime is reached with a favorable score as a local the 76.73% end up winning, a 7.67% more than as a visitor and if partial scoreboard is not losing, chances of winning a local rise to 88.36%, 9.06% more than as visitor teams.

– Halftime scoreboard is a bigger indicator for the final result than scoring the first goal.

Disclosure statement

No potential conflict of interest was reported by the authors.

Practical applications

First goal and halftime scoreboard are going to affect future game decisions, so coaches must prepare tactical and psychological specific work during trainings to reinforce favorable scoreboards and also unfavorable ones. Psychological training and pressure to efficiently deal with those situations will be vital and will mark the psychological strength, maturity, group cohesion and confidence as a team.

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