

Home-Field Advantage in Soccer: UEFA Champions League and Europa League Evaluation on the 2021-2022 Season

Futbolda Ev Sahibi Olma Avantajı: 2021-2022 Sezonu UEFA Şampiyonlar Ligi ve Avrupa Ligi Değerlendirmesi

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ABSTRACT

Home advantage is considered as an important factor in achieving success in competitions. The aim of this study is to examine the effect of home advantage on technical criteria in the UEFA Champions League and UEFA Europa League, which are organized at club level, played in the 2021-2022 season. Within the scope of the research, a total of 262 football matches, excluding the final matches played at neutral grounds and total of 744 goals scored in these matches were analysed in terms of home and away teams in the UEFA Champions League and Europa League. The goals scored were categorised as the goal minutes intervals, the goal scoring areas (Inside the Penalty Area: IPA; Outside the Penalty Area: OPA), the ways goals were scored (Head Kick; Foot Kick), the number of touches on the ball before the goal (1 Touch: 1T; 2 Touches: 2T; 3 Touches: 3T; 4 Touches + >4T), the direction of attack before the goal and the goals scored from set-pieces (Corner Kick; Penalty Kick and Free Kick) for the home and away teams. The images of the analysed goals were accessed on the UEFA official website with open access permission. Frequency (f) and percentage (%) were calculated for the evaluation of the data obtained, and since the data did not show normal distribution according to the Shapiro-Wilk test results, Kruskal-Wallis test was applied to look at the difference between the groups and the significance level was accepted as $p < 0.05$. According to the results of the analysis, when the goals scored in the 01-15 minutes and 90+ sections of the competitions were examined, it was seen that the number of goals scored with a contact, the number of goals scored from inside the penalty area and the number of goals scored with a header were significantly higher in favour of the home team ($p < 0.05$). There was no significant difference in terms of other variables ($p > 0.05$). According to these results, it is thought that the home teams are more advantageous at the point of scoring goals in the competitions, especially in the first and overtime periods of the matches, the percentage of success in the penalty area is higher and this is reflected in the number of goals, therefore being a home team is an important advantage at this point.

Keywords: Football, Home Advantage, Goal, Video Analys

ÖZET

Bu çalışmanın amacı, kulüpler düzeyinde düzenlenen UEFA Şampiyonlar Ligi ve UEFA Avrupa Liginde 2021-2022 sezonda oynanan ev sahibi olma avantajının teknik kriterler üzerine olan etkisinin incelenmesidir. Araştırma kapsamında UEFA Şampiyonlar Ligi ve Avrupa Liginde tarafsız sahada oynanan final maçları hariç toplam 262 futbol karşılaşması ve bu maçlarda atılan toplam 744 gol ev sahibi ve deplasman takımları açısından incelenmiştir. Atılan goller, golün atıldığı dakika aralığı, golün atıldığı bölge (Ceza Sahası İçi: CSI; Ceza Sahası Dışı: CZD), golün atılış biçimi (Kafa vuruşu; Ayak Vuruşu), gol öncesi topa temas sayısı (1 Temas: 1T; 2 Temas: 2T; 3 Temas: 3T; 4 Temas + >4T), gol öncesi hücum yönü ve duran toptan kaydedilen goller (Köşe Vuruşu; Penaltı ve Serbest Vuruş) olarak ev sahibi ve deplasman takımı açısından değerlendirilmek üzere sınıflandırılmıştır. İncelenen gollere ilişkin görüntülere, açık erişim izniyle UEFA resmi internet sitesi üzerinde ulaşılmıştır. Elde edilen verilere ilişkin değerlendirilmesi için frekans (f) ve yüzde (%) hesaplanmış, Shapiro-Wilk test sonuçlarına göre verilerin normal dağılım göstermediğinden dolayı gruplar arasındaki farka bakmak için Kruskal-Wallis testi uygulanmış ve anlamlılık düzeyi $p < 0.05$ olarak kabul edilmiştir. Analiz sonuçlarına göre müsabakaların 01-15 dakikaları arasında ve 90+ bölümlerinde atılan goller incelendiğinde; bir temas ile atılan gol sayısının, ceza sahası içinden atılan gol sayısının, kafa vuruşu ile atılan gol sayısının ev sahibi takım lehine anlamlı düzeyde yüksek olduğu görülmüştür ($p < 0.05$), diğer değişkenler açısından anlamlı bir fark olmadığı belirlenmiştir ($p > 0.05$). Bu sonuçlara göre ev sahibi takımların, müsabakaların özellikle ilk bölümünde ve uzatmaya giden müsabakalarda gol bulma noktasında daha avantajlı olduğu, ceza sahası içinde başarı yüzdesinin daha yüksek olduğu ve bununla gol sayısına yansdığı dolayısıyla ev sahibi olmanın bu noktada önemli bir avantaj olduğu düşünülmektedir.

Anahtar Kelimeler: Futbol, Ev Sahibi Avantajı, Gol, Video Analiz

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INTRODUCTION

Football is a dynamic and complex sport where competition is intense. This sport has a great competitive environment not only on the field but also off the field. There are various criteria used to evaluate the performance of football teams. However, nowadays, statistical data analysis has become an important tool to put these evaluations on a more scientific and analytical basis (Rampinini et al., 2009). Statistical data analysis provides the ability to objectively measure and analyse the performance of football teams based on quantitative data. By statistically examining factors such as various elements in the game, players' performance, pass success rates, shots, goals, attacking direction before the goal, offensive preferences, success in tactical approaches in using set-pieces, the strengths and weaknesses of the team in defence and offence positions can be determined (Arı & Apaydın, 2022; González-Rodenas et al., 2020; Modric et al., 2022; Tokul, 2017). This data can be used to improve the overall strategies of the team, optimise the performance of the players and gain an advantage over rival teams (Ehrlich & Potter, 2022; Lepschy et al., 2018; Magni et al., 2023; Marek & Vávra, 2020; Pollard et al., 2021; Yi et al., 2020). At this point, developing technology and analytical methods allow football managers and coaches to understand the game in more depth (Gürkan, 2023).

Within the overall game structure in football, on-field behaviour, strategic decisions, emotional states and a number of complex factors are influential. This situation includes important elements that cannot be measured only by numerical data. Factors such as the team's understanding of the game, the tactics of the opposing team and the general dynamics of the game help us to understand the limitations of numerical data. However, the impact of these data on success or failure also depends on various factors inherent in the nature of the game. In this context, one of the most important factors is the situation of the teams playing

at home. Because football is a sport that is shaped not only on the pitch, but also by factors such as the atmosphere in which the match is played, the stadium and fan support (Anwar et al., 2022; Magni et al., 2023).

The level of performance of the teams in home competitions is recognised as an important factor in the dynamics of football. When the football game structure is examined, many factors such as environmental factors, travel distance, fan influence and home field status, as well as factors such as the physical and physiological readiness of the teams and player quality, are considered as important determinants of the performance during the competition (Goumas, 2014; Lago-Peñas et al., 2016; Leite & Pollard, 2018; Njunge et al., 2020; Yi et al., 2020). This can affect the overall success level of teams in both league competitions and international organisations (Yi et al., 2020).

Home advantage is defined as the tendency of teams to perform better in terms of technical and tactical requirements of the game against the opposing team in competitions played in front of their own pitch and fans (Goumas, 2014; Nevill & Holder, 1999; Pollard & Pollard, 2005). It is seen that studies have been conducted on the importance of home field advantage in many sports branches such as football (Goumas, 2014; Işıkdemir, 2020; Lago-Peñas et al., 2016; Njunge et al., 2020; Seckin & Pollard, 2008; Staufenbiel et al., 2015; Tütüncü & Yolgörmez, 2021), basketball (Ehrlich & Potter, 2022; Mateus et al., 2021), ice hockey (Guérette et al., 2021), field hockey (Pollard et al., 2021) and American football (Pollard & Pollard, 2005). According to Almeida et al. (2011), their study on home advantage in Brazilian Serie A and Serie B leagues found that, from 2003 to 2009, the home advantage in Serie A was $65\% \pm 2.3$, and in Serie B, it was $69\% \pm 2.3$. These results indicate that home advantage plays a significant role in the success of teams in the Brazilian football leagues, both in the top-level Serie A and the lower-level Serie B. It is stated that home teams have a higher performance in home competitions and this advantage continues consistently. In another study, Pollard et al. (Pollard et al., 2017) examined the home field advantage at the level of Persian Gulf Pro League and Azadegan League which are 1st and 2nd leagues in Iran. They found that the home field advantage was 59.3% (16 seasons) at the level of League 1 and 64.5% (10 seasons) at the level of League 2. These data show that home advantage has a significant effect in Iranian football leagues. It is emphasised that home advantage is statistically significant at both the 1st and 2nd league levels and teams perform better at home grounds. This supports the idea that home field advantage has a significant effect on the results of football competitions.

The most important indicator of technical and tactical components in football is the level of success in goal scoring (Anwar et al., 2022; Işıkdemir, 2020; Magni et al., 2023; Stafylidis et al., 2022; Tütüncü & Yolgörmez, 2021). The research conducted by Anwar et al. (2022) includes an evaluation of offensive variables between successful and unsuccessful teams in the 2021-2022 season of the UEFA Champions League. According to the findings, the successful teams in the organisation exhibited higher levels of offensive behaviour compared to the unsuccessful teams. This indicates that successful teams are more effective in their offensive activities. Another study conducted by Işıkdemir (2020b) examined the performance of home and away teams in the UEFA Champions League in the 2018-2019 season. According to the results of the study, it was stated that home teams won 45.97% of the total number of matches played, while away teams won 32.26%. In addition, it was reported that 57.97% of the goals scored were scored by the home teams and 42.03% by the away teams. These data show that the effect of home advantage on match results is statistically significant. Another study by Mogni et al. (2023) analysed 128 matches played by three different teams in the UEFA Champions League between 2015-2019. According to the results of the study, it was reported that these three teams scored more goals, attempted more shots and had more shots on target in home matches than in away matches. This suggests that the offensive performance of home teams is generally more impressive.

When the research findings are evaluated holistically, some of the important issues emphasised by the researchers are to evaluate the technical and tactical preferences of the teams effectively, to better understand the different parts of the game and to interpret the statistical data correctly for home and away teams. It is seen that the performance level of the teams in home competitions is accepted as an important factor in the dynamics of football. At the same time, it is understood that this situation affects the general success level of the teams both in league competitions and international organisations.

In the light of this information, the main purpose of this study is to analyse the effect of home advantage of the teams on technical parameters in UEFA Champions League and UEFA Europa League competitions. In this framework, the variables such as offensive attacking preferences before the goal, the number of contact with the ball during the goal, the goal scoring area and goal kick preferences will be analysed in detail, taking into account the differences in home and away competitions.

METHOD

Research Design: Descriptive survey model was used to collect the data for the study. Descriptive survey model is defined by Ari & Apaydın (2022) as a model that aims to define a situation or event through observation without any external intervention.

Sample Group: The population of the study consists of 744 goals scored in 262 football matches played in 2021-2022 UEFA Champions League (124 matches / 379 goals) and UEFA Europa League (138 matches / 365 goals). During the research data collection phase, the final matches played on neutral grounds (2 matches) and the matches that were not played due to the disqualification of the teams in the Russian league from the tournaments (2 matches) were excluded from the evaluation. Within the scope of the research, permissions were obtained from Nevşehir Hacı Bektaş Veli University Non-Interventional Clinical Research Ethics Committee (Ethics Committee Document No: 2400002188; Meeting No: 01; Decision No: 02 Meeting Date: 22/01/2024). During the data collection phase, actions were taken in accordance with the Helsinki Declaration.

Obtaining Data: The video recordings of all matches played in the group stage, last 16 round, quarter-finals and semi-finals of the UEFA Champions League and UEFA Europa League in the 2021-2022 season were accessed from the official websites of UEFA which is the organiser of the competitions. <https://www.UEFA.com/UEFAchampionsleague/history/seasons/2022/> (Last accessed on 10.04.2023). <https://www.UEFA.com/UEFAeuropaleague/history/seasons/2022/> (Last accessed on 10.04.2023).

The obtained numerical data and video recordings were monitored, analysed and classified by two football coaches trained in match analysis. All the data obtained during the evaluation were recorded simultaneously in microsoft excel programme and by paper and pencil observation method.

Classification of Data: The data of the matches played in UEFA Champions League and UEFA Europa League were grouped into two different classifications as home and away teams. The number of wins, losses and draws of home and away teams in 262 football matches, the distribution of goals scored according to the sections of the match (01-15 min; 16-30 min; 31-45 min; 45+ min; 46-60 min; 61-75 min; 76-90 min; 90+ min; 91+ (overtime)), the number of touches of the player who scored the goal before the goal (1 Touch: 1T; 2 Touches: 2T; 3 Touches: 3T; 4 Touches + >4T), the area where the goal was scored (Inside the Penalty Area: IPA; Outside the Penalty Area: OPA; Figure 1), the way the goal was scored (Head kick; Foot kick), the direction of attack before the goal (Figure 1). The 88 goals scored with a penalty kick were not included in the criteria of the area where the goal was scored.

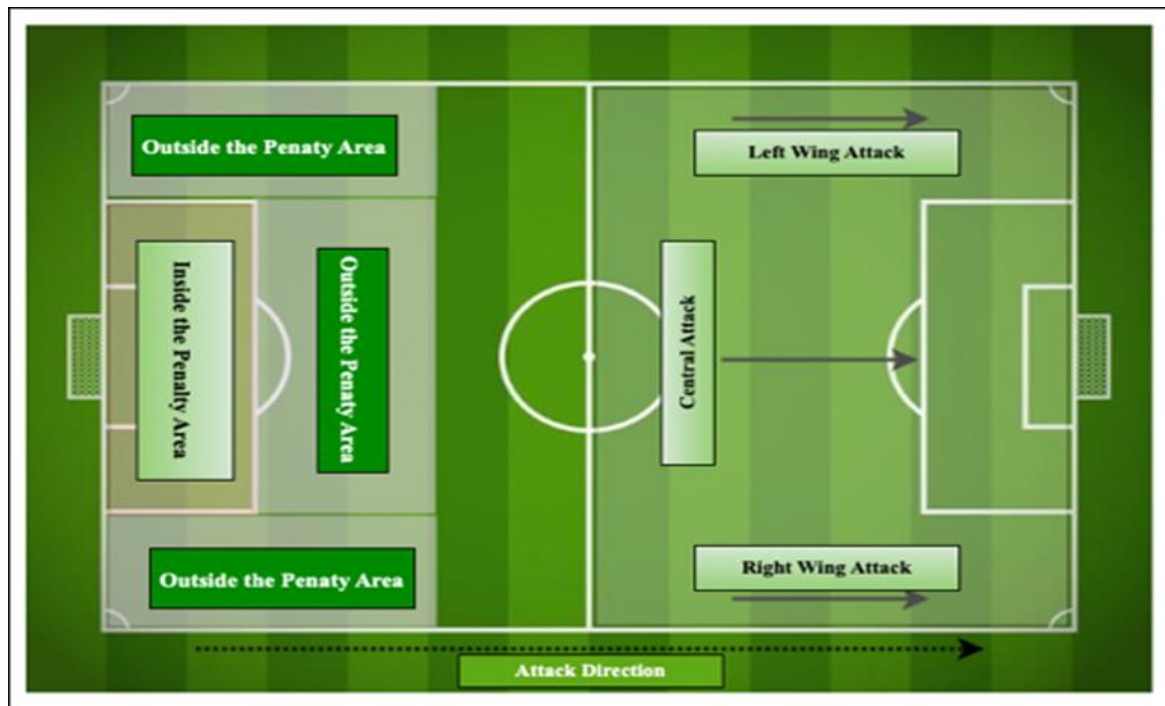


Figure 1. Playing Field, Attack Direction and Goal Scoring Area

Analysing the Data: Jamovi Project (Version 2.3-Computer Software) analysis programme was used for data analysis. Frequency (f) and percentage (%) were calculated in the evaluation of the obtained data. Whether the data related to all variables showed normal distribution was analysed by using Shapiro-Wilk test. Since the data did not show normal distribution, the nonparametric Kruskal-Wallis test was applied to look at the difference between the groups and the significance level was accepted as $p < 0.05$.

Ethics committee permission: Permissions were obtained from Nevşehir Hacı Bektaş Veli University Non-Interventional Clinical Research Ethics Committee (Ethics Committee Document No: 2400002188; Meeting No: 01; Decision No: 02 Meeting Date: 22/01/2024)

RESULTS

According to the data obtained from the research findings, in 124 matches played in the UEFA Champions League, the winning rate of the home team was 45.16%, the winning rate of the away team was 33.87%, while 20.97% of the matches ended in a draw. In 138 matches played in the UEFA Europa League, the winning rate of home team was 41.30%, the winning rate of away team was 30.43%, while 28.26% of the matches ended in a draw. In general, 43,13% of the 262 matches played in UEFA Champions League and UEFA Europa League were won by home team and 32,06% by away team, while 24,81% of the matches ended in a draw.

Table 1 shows the statistical findings related to the goals scored by the home and away teams in the sections of the match. According to these results, it is seen that the home teams scored statistically significantly more goals than the away teams in the first 15 minutes of the match (01-15 minutes) and in the matches that went into overtime (91+ overtime). In the other parts of the match, although there are proportional differences, the results obtained are not statistically significant.

Table 1. Comparison of Goal Scoring Minutes Intervals in Terms of Home and Away Teams

Goal Minutes Intervals	Team	N	f	Sd.	p
01-15 Min	HT	262	60	0.447	0.03*
	AT	262	41	0.407	
16-30 Min	HT	262	58	0.476	0.70
	AT	262	52	0.422	
31-45 Min	HT	262	62	0.485	0.69
	AT	262	58	0.468	
45+ Min	HT	262	5	0.137	0.29
	AT	262	9	0.182	
46-60 Min	HT	262	66	0.477	0.19
	AT	262	52	0.427	
61-75 Min	HT	262	61	0.475	0.43
	AT	262	53	0.456	
76-90 Min	HT	262	56	0.463	0.59
	AT	262	62	0.493	
90+ Min	HT	262	25	0.307	0.42
	AT	262	19	0.260	
91+ Extra Time	HT	262	5	0.137	0.02*
	AT	262	0	0.000	

* $p < 0.05$; **HT**: Home Team; **AT**: Away Team, **Note**: Own goals scored by Home (Own Goal: 8 goals) and Away (Own Goal: 13 goals) teams are considered for the opposing team.

In Table 2, statistical findings related to the number of touches of the player who scored the goal for home teams and away teams during the goal kick are given. According to the results obtained, it is seen that the number of goals scored with 1 touch during the goal kick in home teams is statistically higher than in away teams but there is no statistically significant difference in goals scored with 2 touches, 3 touches and ≥ 4 touches.

Table 2. Comparison of the Number of Goal Scorer's Touch to the Ball Before the Goal for Home and Away Teams

Number of Ball Touch	Team	N	f	Sd.	p
1T	HT	262	293	1.016	0.006*
	AT	262	231	0.937	
2T	HT	262	57	0.474	0.581
	AT	262	69	0.577	
3T	HT	262	23	0.284	0.256
	AT	262	18	0.282	
$\geq 4T$	HT	262	25	0.319	0.564
	AT	262	28	0.322	

* $p < 0.05$; **HT**: Home Team; **AT**: Away Team; **1T**: 1 Touch Before Scoring Goal; **2T**: 2 Touches Before Scoring Goal; **3T**: 3 Touches Before Scoring Goal; **$\geq 4T$** : 4 and More Touches Before Scoring Goal

In Table 3, the statistical findings related to the goal zones of home teams and away teams are given. According to these results, it is seen that the number of goals scored by the home teams from inside the penalty area is statistically higher than the number of goals scored by the away teams from inside the penalty area, but there is no statistical difference in goals scored from outside the penalty area.

Table 3. Comparison of Goal Scoring Ares in Terms of Home Team and Away Team

	Team	N	f	Sd.	p
IPA	HT	262	312	1.094	0.032*
	AT	262	264	1.072	
OPA	HT	262	38	0.374	0.378
	AT	262	48	0.443	

* $p < 0.05$; **HT**: Home Team; **AT**: Away Team; **IPA**: Inside the Penalty Area; **OPA**: Outside the Penalty Area

Note: 82 goals scored from penalties are not included in the statistics of the goal scoring zone.

Table 4 shows the statistical findings regarding the difference between the number of goals scored by the home and away teams with foot and header strike. According to these results, while there is no statistically significant difference between the number of goals scored by the home and away teams with a shot ($p > 0.05$), there is a statistically significant difference in the number of goals scored with a header, in favor of the home teams ($p < 0.05$).

Table 4. Comparison of Home and Away Teams in Terms of the Way Goals are Scored

	Team	N	f	Sd.	P
Shot	HT	262	319	1.156	0.262
	AT	262	298	1.186	
Header	HT	262	79	0.522	0.004*
	AT	262	48	0.425	

* $p < 0.05$; **HT**: Home Team; **AT**: Away Team

Table 5 shows the statistical findings related to the difference between the home and away teams' preference for the direction of attack before the goal. According to the results obtained, it is seen that there is no statistically significant difference between home and away teams in terms of their preference for the direction of attack before the goal (left wing attack; central attack; right wing attack).

Table 5. Comparison of the Direction of Attack Before Goal for Home and Away Teams

	Team	N	f	Sd.	p
Left Wing Attack	HT	262	74	0.515	0.083
	AT	262	72	0.540	
Central Attack	HT	262	146	0.841	0.662
	AT	262	139	0.751	
Right Wing Attack	HT	262	85	0.579	0.946
	AT	262	67	0.580	

P>0.05; HT: Home Team; AT: Away Team

Table 6 shows the statistical findings regarding the difference between the number of goals scored by home and away teams from set-pieces (penalty; corner kick; free kick). According to the results obtained, it is seen that there is no statistically significant difference between the number of goals scored from set-piece variables (penalty, corner kick and free kick) between home and away teams.

Table 6. Comparison of Goals Scored from Set Piece (Penalty, Corner Kick and Free Kick) in terms of Home and Away Teams

	Team	N	f	Sd.	p
Penalty	HT	262	48	0.416	0.068
	AT	262	34	0.379	
Corner Kick	HT	262	32	0.351	0.183
	AT	262	22	0.291	
Free Kick	HT	262	13	0.218	0.838
	AT	262	12	0.209	

P>0.05; HT: Home Team; AT: Away Team

DISCUSSION

According to the findings obtained as a result of the research, when the goals scored by the home and away teams in UEFA Champions League and UEFA Europa League are evaluated in terms of technical criteria, statistical differences are observed. It is seen that there are significant differences in the level of goals scored by home teams compared to away teams in the beginning period (1-15 minutes; EST= f: 60 goals - 8,1%; DT=41 goals - 5,5%) and the ending period (90+ overtime; EST= f: 5 goals - 0,7%; DT=0 goals - 0,0%) of the match (Table 1 / Graph 1). However, no statistically significant differences were observed between the home and away teams in other parts of the match, especially in the middle periods. Considering the results obtained, it can be said that home advantage is effective in scoring goals at the beginning and end periods of the match, while this situation is more balanced for home and away teams in the other parts of the match. Magni et al. (2023) stated that Real Madrid, Atletico Madrid and Barcelona teams had a statistically significant advantage over the away teams in goals, shots and shots on target rates in home matches in the UEFA Champions League 2015-2016, 2016-2017, 2017-2018, and 2018-2019 seasons. In addition, in the same study, it was reported that home teams scored more goals in the first and last 15 minutes of the matches according to the sections of the match. Stafylidis et al. (2022) analysed 222 goals scored in 91 matches in the Greek Super League and emphasised that there were significant differences in terms of tactical criteria in defence and attack due to home advantage. In particular, it was reported that there were significant differences between home and away teams in terms of possession, total shots, total shots on target and total inaccurate shots in favour of the home team.

When the number of touches of the scorer on the ball before the goal was analysed, it was observed that there was a statistically significant difference in the distribution of goals scored by the home teams (f:293 goals; 73,6%) and DT (f:231 goals; 66,8%) with 1 touch (Table 2 / Graph 2). Especially in the goal areas, it can be thought that the scorer in the home teams touches the ball less before the goal and this situation provides a significant increase in the number of goals. In addition, from a technical point of view, it can be said that the last pass is usually an assist pass and the last player to touch the ball is more likely to convert this pass into a goal for the home teams. When this situation is evaluated from a tactical point of view for away teams, it is possible to prevent the opponents from scoring easy goals at a certain level by creating the playing strategies of the teams in this direction and preferring more dominant defensive approaches especially in the goal areas.

When the goal scoring area (IPA and OPA) was analysed in terms of home and away teams, it was observed that home teams scored significantly more goals from inside the penalty area (EST=f: 312 goals, 89,1%; DT= 264 goals, 76,3%) than away teams (Table 3/Graph 3). This situation can be interpreted as that the home teams showed a more successful offensive performance in terms of entering the penalty area and scoring goals in the attacks they entered, but it can also be evaluated as that the desired defence against the opponents in the penalty area could not be done sufficiently for the away teams. It can also be considered that especially the home teams played a more dominant game in defence and successfully defended to prevent the opponents from entering the penalty

area and scoring goals. In particular, it can be considered that home teams play a more dominant game in defence and are successful in preventing the opponents from entering the penalty area and scoring goals. Although the areas where goals are scored have been analysed in many studies, this factor has not been addressed in terms of home and away teams. In this sense, research on the entry into the penalty area and the goals scored by home and away teams contributes to the uniqueness of our research.

When we analyse the way the goal was scored, it is seen that there is a significant difference between the home and away teams in the number of goals scored with a header (EST= f: 79 goals, 10,6%; DT= f: 48 goals, 6,5%), while there is no significant difference between the goals scored with a shot (Table 4/Graph 4). This situation can be explained by the fact that the home teams had the advantage over the away teams in the air ball battles inside the penalty area and at the same time the away teams were not successful in defence. Although the way goals are scored has been analysed in many studies in the literature (Hugnes and Franks, 2005; Wright et al., 2011; Göral and Saygın, 2012; Michailidis et al., 2013; Mitrotasios et al., 2019), no comparison has been made regarding the way goals are scored for home and away teams. Therefore, it should be considered as an important criterion in terms of the way the goal is scored at the point of analysing the goals scored by home and away teams in the literature.

Although there are numerical differences in the pre-goal attacking direction preferences of the home and away teams (right wing attack, left wing attack, centre attack), the results do not show a significant difference (Table 5/Graph 5). Inferring that the offensive attacking preferences of the teams within the match organisation have similar characteristics may support this result. When the distribution of goals scored by home and away teams after set-pieces is examined, it is seen that although there are quantitative differences in favour of home teams, this is not a statistically significant result (Table 6/Graph 6). In the total number of goals scored from set-pieces, especially in the ratio of goals scored from penalty kicks, the home teams are in the forefront. This situation can be considered as a result of the fact that the home teams play a pressurised game with the advantage of playing a match in their own field and the away teams play a more contact defence in order to prevent the opponents from scoring.

In the literature, there are many studies in which home advantage is analysed through won and lost matches. However, it is seen that goals are not evaluated according to the home advantage and therefore there is not enough information in the literature about the effect of being home and away team on game tactics. When the studies are reviewed, it is seen that having home advantage is an important factor in winning matches (Anwar ve ark., 2022; Marek ve Vávra, 2020; Işıkdemir, 2020; Lago-Peñas ve ark., 2016; Göral, 2015; Armatas ve Pollard, 2014).

Marek and Vávra (2020) analysed 19 different leagues from 11 different countries between the seasons 2007-2008 and 2016-2017 and found that the highest level of home advantage was in the Greek Super League and the lowest level of home advantage was in the English Football League-2. In the study conducted by Armatas and Pollard (2014) investigating home advantage in the Greek Super League, 2160 matches were analyzed, revealing that home teams had more shots, corner kicks, interceptions and goals compared to away teams. Additionally, by evaluating at least four seasons of home advantage data, they determined that the points advantage for home teams ranged from 60.14% to 74.54%. Göral (2015) analysed 3060 matches in 10 different seasons between 2004-2005 and 2014-2015 seasons in the Turkish Super League and stated that the home-field advantage was 60.07%. Njunge et al. (2020), in their study on the American Major League between 2012-2017, observed that the home advantage varied between 62% and 72% in terms of selected technical criteria. In the study conducted by Pollard and Gomez Ruano (2014) by analysing 157 football leagues, it is stated that home advantage is observed in all continents, although it shows differences across countries. In the study conducted by Leite (2017), which analyzed 3223 matches played during the 2015-2016 season across 10 European leagues, it was found that teams playing at home gained an advantage by earning over 50% of the points in all the analyzed leagues. In the study conducted by Arı et al. (2022) covering the 2021-2022 season in the UEFA Champions League, UEFA Europa League and UEFA Conference League, it was stated that home field advantage is an important factor in the ranking in the group stage. According to the results of the study conducted by Lago-Peñas et al. (2016) on five major European leagues, it was determined that the home advantage was 57.8%. In the same study, when examining home advantage on a league basis, it was highlighted that it stood at 61.84% in the German Bundesliga, 59.98% in France's Ligue 1, 58.17% in the English Premier League, 57.58% in Spain's La Liga, and 56.85% in Italy's Serie A. The data obtained as a result of different studies support the conclusion that being the home team is an advantage in the competition that emerged in our research.

Conclusion: As a result of the findings of our research, it can be stated that being a home team in football creates advantages in many different aspects. As it can be understood from the researches in the literature, being a home team is considered as an important advantage in terms of reaching the result in technical and tactical terms against away teams. Considering that the decisive factor in football is the goal, it can be said that home teams have a significant difference compared to away teams in terms of scoring goals in certain time periods of the competition. It can be stated that this situation is more effective especially at the beginning and end of the match. The information based on the numerical data obtained in this research will provide important information to coaches and technical teams on how teams can increase team performance tactically and technically at critical moments of the match, taking into account both home and away teams.

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