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Comparison of match performance indicators of successful and unsuccessful teams in the Turkish Super League

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Abstract

This study aims to compare the match performance indicators of the successful and unsuccessful teams in the Turkish Super League in the 2018-2019 season. The study group for this research consists of the top 3 teams in the Super League who also participated in the Champions League and UEFA European League: Galatasaray, Medipol Başakşehir, and Beşiktaş. Additionally, it includes the teams that finished in the last 3 places and were relegated to a lower league: Bursaspor, Erzurumspor, and Akhisarspor. In this study, the match performance variables include the total running distance, high-speed running distance, high-speed running distance with the ball in possession, high-speed running distance with the ball in the opponent's possession, time to win the ball, and team length. The data was analyzed using the SPSS 25 package program, and an independent sample t-test was employed for the pairwise comparison of the data. It was determined that there was a statistically significant difference between the successful and unsuccessful teams in the total running distance parameter in favor of the unsuccessful teams, there was a statistically significant difference in favor of the successful teams in the high-speed running distance when the ball was in possession, high-speed running distance when the ball was in the opponent's possession and time to recover the ball, while there was no statistically significant difference in the team height and high-speed running distance parameters. In conclusion, our study demonstrates a strong correlation between the obtained results and the final league rankings of the teams in the study group at the end of the season.

Keywords: Match analysis, running performance, soccer

Türkiye Süper Liginde başarılı ve başarısız olan takımların maç performans göstergelerinin karşılaştırılması

Öz

Bu çalışmanın amacı 2018-2019 sezonunda Türkiye süper liginde başarılı ve başarısız olan takımların maç performans göstergelerinin karşılaştırılmasıdır. Araştırmanın çalışma grubunu süper ligi ilk 3 sırada bitirerek Şampiyonlar ligi ve UEFA Avrupa ligine katılma başarısı elde eden; Galatasaray, Medipol Başakşehir, Beşiktaş ile son 3 sırada bitirerek bir alt lige düşen Bursaspor, Büyükşehir Belediye Erzurumspor ve Akhisarspor takımları oluşturdu. Maç performans değişkenleri; toplam koşu mesafesi, yüksek hızlı koşu mesafesi, topa sahipken yüksek hızlı koşu mesafesi, top rakipteyken yüksek hızlı koşu mesafesi, topu kazanma süresi ve takım boyu olarak ele alındı. Elde edilen verilerin analizi için SPSS 25 paket programı ve verilerin ikili karşılaştırmalarında bağımsız örneklem t testi kullanıldı. Yapılan tüm değerlendirmelerde anlamlılık düzeyi p<0,05 olarak alınmıştır. Başarılı ve başarısız olan takımlar arasında toplam koşu mesafesi parametresinde başarısız takımlar lehine, topa sahipken yüksek hızlı koşu mesafesi, topa rakipteyken yüksek hızlı koşu mesafesi ve topu geri kazanma süresinde ise başarılı takımlar lehine istatistiksel olarak anlamlı fark olduğu, takım boyu ve yüksek hızlı koşu mesafesi parametrelerinde ise istatistiksel olarak anlamlı fark olmadığı tespit edilmiştir. Sonuç olarak; bizim çalışmamızın sonuçları ile çalışma grubundaki takımların sezon sonundaki lig sıralaması arasında yüksek derecede ilişkisinin olduğu bulunmuştur.

Anahtar Kelimeler: *Maç analizi, koşu mesafesi, futbol*

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INTRODUCTION

The fact that football has become a global sport and its technological requirements increase on a daily basis has caused performance analysis to become significantly important. Running performance is among the important criteria of performance analysis. Both coaches and performance trainers spend a lot of time on running performance analysis (Freire et al., 2020).

Success in football is dependent on the cooperative and competitive interactions between individuals, therefore, in order to identify the factors that lead to success in football, it is necessary to identify performance indicators that significantly distinguish winners from losers. For instance, some studies have reported that running performance is not the best discriminator between successful and unsuccessful teams, while other studies have reported that technical variables are important discriminators between winners and losers. In general, there is a global consensus that technical parameters should be observed as better predictors of success in football than pure physical parameters (Modric et al., 2022).

Match performance indicators are important parameters that help to evaluate the performance of football players during the match. Match performance indicators can be defined as the selection and combination of variables that contribute to achieving athletic performance success. The most frequently used parameters in match performance indicators are known as shots passes, crosses, and dribbling with and without the ball (Modric et al., 2022).

In today's football, there are video-based analysis programs (InStat, Optasport and Wyscout etc.) that are widely used both to examine the match performance indicators of football players and to analyze their opponents / own team. These analysis programs are preferred by coaches for both fast data transfer and accuracy of game performances (Aquino et al., 2020).

To address these increasing demands for different running performances, the GPS software system has been widely used to determine their total running distance. It has enabled the athletes to easily obtain a lot of important data that will be useful to the coaches, such as the total running distance physically covered, the acceleration and deceleration numbers of the high-speed running distance, and the team height, team width, and standing in the correct position among the players (Modric et al., 2019).

Football players need high-speed running (20-24 km/h), sprinting (>25 km/h), and running for about 9 to 14 km in total in different speed bands at certain intervals in official

competition. Coaches need training monitoring in competitions to meet these needs. (Freire et al., 2020)

This study aims to compare the match performance indicators (total distance over 20 km running distance, defensive 20 km running distance, offensive 20 km running distance, team length, and time to recover the ball) of the successful and unsuccessful teams competing in the 2018-2019 Turkish Super League according to their league ranking.

METHOD

Participants and design

The study group of this research consisted of Galatasaray, Medipol Başakşehir, and Beşiktaş, which finished in the top three places and participated in the Champions League and UEFA European League, and Bursaspor, Erzurumspor and Akhisarspor, which finished in the last three places and relegated to a lower division in the Sports Toto Super League, which consisted of 18 football clubs in the 2018-2019 season.

In this study, the performance variables of 34 weeks were examined. All technical performance data of the study were obtained using the InStat Kinematics system (Instat, Moscow, Russia). The necessary permissions were obtained from Erzurumspor, which purchased the right to use the data. This system, which monitors the performance indicators of the players in the match, is used by many football clubs as it provides information to the coaches in a fast and reliable way (Rampinini et al., 2009). This system, which uses an automatic algorithm to evaluate the contribution of football players to the team's success, their effective movements in the match, and the general condition of the team, has been widely accepted by football clubs around the world (Modric et al., 2022).

Performance indicators

According to the league ranking, 6 different performance indicators of successful and unsuccessful teams in the match were analyzed. These are;

Total Running Distance: This is the total distance that certain teams have run in each match (week by week) for 34 weeks.

High-Speed Running Distance: The distance teams run at high speed every week over the course of 34 weeks.

High-Speed Running Distance in Possession of the Ball: This is the distance between 20-24 km that certain teams run with the ball in every match (week by week) for 34 weeks.

High-Speed Running Distance while the opponent has the ball: This is the distance, between 20-24 km, that certain teams run with the ball in their opponent's possession in every match (week by week) for 34 weeks.

Regaining the Ball Time: It is the data of the recovery time of the ball in the opponent's team in every match (week by week) for 34 weeks.

Team Length: The data of the distance between the defender at the back and the attacker at the far end in every match (week by week) of certain teams during 34 weeks.

Table 1. 2018-2019 Turkish Super League table of points

Ranking		O	G	B	M	A	Y	AV	P
1	Galatasaray	34	20	9	5	72	36	36	69
2	Medipol Başakşehir	34	19	10	5	49	22	27	67
3	Beşiktaş	34	19	8	7	72	46	26	65
4	Trabzonspor	34	18	9	7	64	46	18	63
5	Evkur Yeni Malatyaspor	34	13	8	13	47	46	1	47
6	Fenerbahçe	34	11	13	10	44	44	0	46
7	Antalyaspor	34	13	6	15	39	55	-16	45
8	Atiker Konyaspor	34	9	17	8	40	38	2	44
9	Aytemiz Alanyaspor	34	12	8	14	37	43	-6	44
10	İstikbal Mobilya Kayserispor	34	10	11	13	35	50	-15	41
11	Çaykur Rizespor	34	9	14	11	48	50	-2	41
12	Demir Grup Sivasspor	34	10	11	13	49	54	-5	41
13	Ankaragücü	34	11	7	16	38	53	-15	40
14	Kasımpaşa	34	11	6	17	53	62	-9	39
15	Göztepe	34	11	5	18	37	42	-5	38
16	Bursaspor	34	7	16	11	28	37	-9	37
17	Büyükşehir Belediye Erzurumspor	34	8	11	15	36	43	-7	35
18	Akhisarspor	34	6	9	19	33	54	-21	27

O: Played matches. G: Matches won. B: Matches drawn. M: Matches lost. A: Goals. Y: Goals conceded. AV: Goals average. P: Points

Data analysis

SPSS v25 package program was used in the analysis of the data obtained from the research. The data obtained are presented as mean and standard deviation. The normality of the data was assessed by Shapiro-Wilks. Independent t-test was used for pairwise comparisons of the obtained data. The significance level was set at $p<0.05$ in all analyses.

FINDINGS

Table 2. General descriptive parameters

	N	Min.	Max.	X̄	sd
Total Distance (Km)	204	98	120	109,86	4,00
High-Speed Running Distance >20 km/h	204	4094	10659	6920,52	1139,84
Team Length (m)	204	26	36	32,03	1,55
High-Speed Running Distance in possession of the Ball >20 km/h	204	2164	3812	2629,21	234,83
High-Speed Running Distance while the opponent has the ball >20 km/h	204	1940	3088	2456,34	203,47
Recovering the Ball Time (secs.)	204	7,4	20,7	12,330	2,63

*p<0.05

Table 1 shows the general descriptive characteristics of the participants.

Table 3. Match performance indicators of successful and unsuccessful teams

Variable	Success Status	N	X̄± sd	t	p
Total Distance (km)	Successful	102	109.21±4.29	-2.367	**0.019***
	Unsuccesful	102	110.52±3.60		
High-Speed Running Distance >20 km/h	Successful	102	7040.20±1096.66	1.504	0.134
	Unsuccesful	102	6800.85±1174.62		
Team Length (m)	Successful	102	31.92±1.39	-0.994	0.322
	Unsuccesful	102	32.14±1.68		
High-Speed Running Distance in possession of the Ball >20 km/h	Successful	102	2665.85±157.76	2.251	**0.025***
	Unsuccesful	102	2592.57±288.50		
High-Speed Running Distance while the opponent has the ball >20 km/h	Successful	102	2532.65±165.98	5.766	**0.000***
	Unsuccesful	102	2380.04±209.53		
Recovering the Ball Time (sn)	Successful	102	11.462±2.38	-4.983	**0.000***
	Unsuccesful	102	13.198±2.58		

*There are significant differences between successful and unsuccessful teams ($p<0.05$).

Table 2 shows a comparison of the match performance indicators of the participating teams. It was found that there was a difference between the successful and unsuccessful teams when evaluating the unsuccessful teams in terms of total distance match indicators and the successful teams in terms of attack, defense> 20 km/h, and ball recovery time measurement as general statistics ($p<0.05$).

DISCUSSION AND CONCLUSION

The main purpose of this study is to compare the match performance indicators of successful and unsuccessful teams in the Turkish Super League. The results show that there is a statistically significant difference between successful and unsuccessful teams in total running distance, running > 20 km/h in attack and defense, and ball recovery time.

The reason why teams that perform poorly in terms of running distance parameter tend to run more is believed to be due to their lower ball possession compared to successful teams. When analyzing world football, it is observed that all teams ranking high in the league standings recover the lost ball in a shorter time and have a higher high-speed running distance in both defense and offense compared to lower-ranked teams, just like the results of our study.

It will not be a correct approach to compare the success and failure of the teams only with the match performance indicators, because the common feature of the top 3 teams in the league ranking is that they are the teams located in Istanbul and they pay great attention to this feature when making their team selection. Another important factor is that successful teams have much higher revenues from advertising, sponsors, and fans and the right management structure.

When reviewing the literature, it has been found that many parameters such as physical parameters, match internal load, external load, opponent's ranking, home and away factors and type of tournament affect the match results in studies that support both our study and the studies in the literature (Logo et al., 2010; Augusto et al., 2021; Barrera et al., 2021).

When examining the championship of the Croatian national team, it was found that there was a serious relationship between match performance indicators and on-field results (Modric et al., 2019). In another study, which examined the running performance of teams in the Bundesliga, it was found that there was no relationship between the total running distance and the result. It can be seen that the results of this study and our study support each other. Therefore, it can be stated that there is a significant relationship between total running distance and possession of the ball (Hoppe et al., 2015).

In the study in which Gürkan et al. (2020) examined some parameters of the teams in the Champions League at the time of the match, it was found that the teams that won the UEFA Champions League recorded more passes, positive passes, shots, positive shots and had more time with the ball. It can be said that coaches should pay more attention to these parameters to win competitions (Gürkan et al., 2020). In addition to this information, the study that examined the physical and technical performance of teams in the Chinese Super League found that the time of possession of the ball increased the probability of teams winning and the quality of the team. It was found to be one of the important determinants (Gai et al., 2018).

In the study that examined the relationship between technique, tactics, and movement time in 2018 World Cup matches, it was found that the winning rate of the team that scored the first goal during the match was 96% and there was a relationship between the total number of goal attempts and the number of goals, between the total number of shots and the number of goals, and between the number of key passes and the number of shots. They found that there was a statistically significant and positive relationship (Bilgin et al., 2020).

In the study that examined the match performance indicators of Serie A teams, it was reported that the top-ranked teams had higher total running distance, ball possession time, and fast running distance than the bottom-ranked teams, and it was said that this situation was related to the technical-tactical plans of the coach. In addition, these teams touched the ball more, completed more short passes, and were more successful in doubles than the lower-ranked teams (Rampinini et al., 2009).

It has also been reported that the total running distance of English Premier League players during the competition was below average, but the high-speed running distance and the technical components (accurate forward passing and total number of passes) were well above average (Taylor et al., 2008). In the study that examined the technical performance of the match location (home and away), the quality of the opponent, and the match results of English local

teams, it was found that the duration of the game did not affect the match results, but it did affect the match results of the set balls (corner, ball out, free kick) (Modric et al., 2021).

In the study investigating the analysis and evaluation of physical performance parameters in the Turkish Spor Toto Super League, it was found that the players in the Super League covered a distance of about 10 km in a match and the time for the Super League teams to win the ball was quite short (Polat & Gürkan, 2020).

In the study that examined the relationship between the running performance of the teams competing in the Champions League and offensive and defensive play in the 2020/2021 season, it was found that there was a significant relationship between both defensive and offensive play and player positions, and the second relationship was between central defenders, defensive backs and central midfielders. It was found that the total running distance of these players in the team was higher than that of players in other positions in the team (Brito et al., 2020).

In the study that examined the relationship between fast running distance (>18 km/h and 21 km) and points scored according to ball possession and team position, it was found that there was a positive relationship between fast running distance and points scored (Di Salvo et al., 2009; Santos et al., 2017). There are also studies that focus on offensive tactics. In one of these studies, which reviewed the research on running distance and points scored, it was shown that there was a relationship between running distance at the time of ball possession and points scored (Barreira et al., 2014; Sapp et al., 2018). In the study that examined the running performance of the teams that were successful in the league ranking, it was found that there was a significant relationship between the field results and the offensive running performance (Di Salvo et al., 2007; Errekagorri et al., 2022).

In the study by Errekagorri et al. which investigates the physical and technical performances and positions of semi-professional female footballers in the Spanish second league, it was found that there was a decrease in the parameters of high-speed running and total distance in the last parts of the 90-minute match (60-75 minutes), and a positive relationship with the physical and tactical parameters, especially in the first and last minutes of the match (0-15, 60-75 and 75-90 minutes) (Hooper et al., 1995).

In the study in which elite female footballers were examined for match load and fitness levels in World Cup matches and friendly matches, it was found that there was a statistically low relationship between World Cup matches and friendly matches in the total running distance parameter. The internal load and external load of World Cup matches were higher than in

friendly matches, but it was found that the friendship match was higher in the match. The reason for the higher internal and external loads could be that the physical demands of very important tournaments such as the World Cup are very high even compared to regular league competitions (McLean et al., 2010; Malone et al., 2015; Malone et al., 2015; Thorpe et al., 2016).

As a result, we found that there was a high correlation between the league position of the teams in our study group at the end of the season and the results of our study. The reason for this is likely to be that the players in the more successful teams are better.

GENİŞLETİLMİŞ ÖZET

GİRİŞ

Maç performans göstergeleri futbolcuların müsabaka esnasındaki performansını değerlendirmeye yardım eden önemli bir parametredir. Maç performans göstergeleri atletik performans başarısına ulaşmaya yardımcı olan değişkenlerin seçimi ve kombinasyonu olarak tanımlanabilir. Maç performans göstergelerinde en sık kullanılan parametreler şutlar, paslar, ortalar, toplu ve topsuz top sürme, dripling olarak bilinmektedir. Genel olarak, performans göstergelerini teknik, taktik ve fiziksel teknik göstergeleri diye 3 bölüme ayırabiliriz (Modric ve ark., 2022).

Günümüz futbolunda futbolcuların hem maç performans göstergelerini incelemek için hem de rakip/kendi takım analizinde yaygın olarak kullanılan video temelli analiz programları (InStat. Optasport. Wyscout) bulunmaktadır. Bu analiz programları hem hızlı veri aktarımı hem de oyun performanslarının doğruluğu açısından antrenörler tarafından tercih edilmektedir (Aquino ve ark., 2020).

Futbolcular resmi müsabakada belirli aralıklarla yüksek hızlı koşu (20-24 km/s), sprint (>25 km/s) ve farklı hız bantlarında toplam 9-14 km arası koşu gereksinimine ihtiyaç duymaktadırlar. Bu ihtiyaçları karşılayabilmek için antrenörler hem antrenmanlarda hem de resmi müsabakalarda antrenman monitörizasyonuna ihtiyaç duymaktadırlar (Freire ve ark., 2020).

YÖNTEM

Araştırmanın çalışma grubunu 2018-2019 sezonunda 18 futbol kulübünün oluşturduğu spor toto süper liginde ilk 3 sırada bitirerek Şampiyonlar ligi ve UEFA Avrupa ligine katılma başarısı elde eden; Galatasaray, Başakşehir, Beşiktaş ve son 3 sırada bitirerek bir alt lige düşen Bursaspor, Erzurumspor ve Akhisarspor takımları oluşturmuştur.

Bu çalışmada 34 haftanın performans değişkenleri incelenmiştir. Çalışmanın bütün teknik performans verileri InStat Kinematik sistem (Instat. Moscow, Russia) aracılığıyla alınmıştır. Futbolcuların maç içerisinde ki performans göstergelerini takip eden bu sistem. Hızlı ve güvenilir bir şekilde antrenörlere bilgi verdiği için birçok futbol kulübü tarafından kullanılmaktadır (Rampinini ve ark., 2009).

Başarılı takımlar için tanımlanan kriter sezon sonunda ilk 3 sırada yer alarak ülkemizi Avrupa Kupalarında temsil etmek (Şampiyonlar ligi ve UEFA avrupa ligi), başarısız takımlar için ise tanımlanan kriter sezon sonunda son 3 sırada yer alarak gelecek sezon bir alt ligde mücadele ediyor olmak olarak belirlenmiştir.

Araştırmadan elde edilen verilerin analizinde SPSS v25 paket programı kullanılmıştır. Elde edilen veriler, ortalama ve standart sapma olarak gösterilmiştir. Elde edilen verilerin ikili karşılaştırmalarında bağımsız t testi kullanılmıştır. Performans parametrelerinin ilişkisel değerlendirmelerinde ise pearson korelasyon testi kullanılmıştır. Yapılan tüm değerlendirmelerde anlamlılık düzeyi 0,05 olarak alınmıştır.

BULGULAR

Araştırmadan elde edilen sonuçlara göre, takımların maç performans göstergeleri karşılaştırılmıştır. Başarısız takımların toplam mesafe maç göstergelerinde, başarılı takımların ise hücum, savunma > 20 km/s ve top kazanma süresi ölçümlerindeki gözlemleri genel istatistik olarak değerlendirilerek başarılı ve başarısız takımlar arasında fark olduğu tespit edilmiştir ($p<0,05$).

TARTIŞMA VE SONUÇ

Bu çalışmanın amacı, Türkiye Süper Ligi'ndeki başarılı ve başarısız takımların maç performansı göstergelerini karşılaştırmaktır. Sonuçlar göstermektedir ki, başarılı ve başarısız takımlar arasında toplam koşu mesafesi, hücum ve savunmada > 20 km/s koşu ve topun geri kazanım süresinde istatistiksel olarak anlamlı bir fark olduğu tespit edilmiştir.

Aslında takımların başarı ve başarısızlıklarını sadece maç performans göstergeleri ile karşılaştırmak doğru bir yaklaşım olmayacaktır çünkü lig sıralamasında ilk 3 sırada yer alan takımların ortak özelliği İstanbul takımı olmaları ve takım tercihlerini yaparken bu özelliğe çok dikkat etmeleridir. Bir diğer önemli faktör ise başarılı takımların reklam, sponsor ve taraftar gelirlerinin çok daha yüksek olması ve doğru yönetim yapısına sahip olmalarıdır.

Literatür incelendiğinde hem bizim çalışmamızı hem de literatürdeki çalışmaları destekleyen çalışmalarda fiziksel parametreler, maç iç yükü, dış yükü, rakibin sıralaması, ev sahibi ve deplasman faktörleri, turnuva türü gibi birçok parametrenin maç sonuçlarını etkilediği tespit edilmiştir. (Logo ve ark., 2010; Augusto ve ark., 2021; Barrera ve ark., 2021).

Sonuç olarak, çalışma grubumuzda yer alan takımların sezon sonundaki lig sıralamaları ile çalışmamızın sonuçları arasında yüksek bir korelasyon olduğu görülmüştür. Bu durumun nedeninin, başarılı takımların oyuncularının hem daha iyi hem de daha iyi futbol oynamalarından kaynaklandığı düşünülmektedir.

REFERENCES

Aquino, R., Carling, C., Vieira, L., Martins, G., Jabor, G., Machado, J., ... et al. (2020). Influence of situational variables, team formation, and playing position on match running performance and social network analysis in Brazilian professional soccer players. *The Journal of Strength & Conditioning Research*, *34*(3), 808-817.

Augusto, D., Brito, J., Aquino, R., Figueiredo, P., Eiras, F., Tannure, M., … et al. (2021). Contextual variables affect running performance in professional soccer players: A brief report. *Frontiers in Sports and Active Living*, (3), 350.

Barreira, D., Garganta, J., Guimaraes, P., Machado, J., & Anguera, M. T. (2014). Ball recovery patterns as a performance indicator in elite soccer. *Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology*, *228*(1), 61-72.

Barrera, J., Sarmento, H., Clemente, F. M., Field, A., & Figueiredo, A. J. (2021). The effect of contextual variables on match performance across different playing positions in professional Portuguese soccer players. *International Journal of Environmental Research and Public Health*, *18*(10), 5175.

Bilgin, S., & Müniroğlu, R. S. (2022). *2018 World Cup matches statistical analysis of technical, tactical, and movement time relationship* [Doctoral dissertation, Ankara University].

Bradley, P. S., Carling, C., Diaz, A. G., Hood, P., Barnes, C., Ade, J., ... et al. (2013). Match performance and physical capacity of players in the top three competitive standards of English professional soccer. *Human Movement Science*, *32*(4), 808-821.

Brito, D., López, R., Blanco, H., Resta, R., & Del Coso, J. (2020). Association of match running performance with and without ball possession to football performance. *International Journal of Performance Analysis in Sport*, *20*(3), 483-494.

Albuquerque, L., Brito, M. A., Merino-Muñoz, P., Valenzuela-Pérez, D. I., Cerda-Kohler, H., Aedo-Muñoz, E. A., ... et al. (2022). Match running performance of brazilian professional soccer players according to tournament types. *Montenegrin Journal of Sports Science & Medicine*, *11*(1), 53-58.

Di Salvo, V., Baron, R., Tschan, H., Montero, F. C., Bachl, N., & Pigozzi, F. (2006). Performance characteristics according to playing position in elite soccer. *International Journal of Sports Medicine*, *28*(3), 222-227.

Di Salvo, V., Gregson, W., Atkinson, G., Tordoff, P., & Drust, B. (2009). Analysis of high-intensity activity in Premier League soccer. *International Journal of Sports Medicine*, *30*(3), 205-212.

Errekagorri, I., Echeazarra, I., Olaizola, A., & Castellano, J. (2022). Evaluating physical and tactical performance and their connection during female soccer matches using global positioning systems. *Sensors*, *23*(1), 69.

Gürkan, O., Yüksel, Y., & Ertetik, G. (2020). Comparative analysis of the competitions resulted in win, loss, and draw in Uefa Champions League in terms of some parameters. *International Journal of Current Educational Research*, *6*(2), 649-660.

Hooper, L., Mackinnon,T., Howard, A., Gordon, R., & Bachmann, A. (1995). Markers for monitoring overtraining and recovery. *Medicine and Science in Sports and Exercise*, *27*(1), 106-112.

Hoppe, M. W., Slomka, M., Baumgart, C., Weber, H., & Freiwald, J. (2015). Match running performance and success across a season in German Bundesliga soccer teams. *International Journal of Sports Medicine*, *20*(3), 563-566.

Lago, C., Casais, L., Dominguez, E., & Sampaio, J. (2010). The effects of situational variables on distance are covered at various speeds in elite soccer. *European Journal of Sports Science*, *10*(2), 103-109.

Malone, J., Di Michele, R., Morgans, R., Burgess, D., Morton, J. P., & Drust, B. (2015). Seasonal training-load quantification in elite English premier league soccer players. *International Journal of Sports Physiology and Performance, 10*(4), 489-497.

McLean, B. D., Coutts, A. J., Kelly, V., McGuigan, M. R., & Cormack, S. J. (2010). Neuromuscular, endocrine, and perceptual fatigue responses during different length between-match microcycles in professional rugby league players. *International Journal of Sports Physiology and Performance, 5*(3), 367-383.

Modric, T., Versic, S., & Jelicic, M. (2022). Monitoring technical performance in the UEFA Champions League: differences between successful and unsuccessful teams. *Montenegrin Journal of Sports Science & Medicine, 11*(2), 3-11.

Modric, T., Versic, S., Drid, P., Stojanovic, M., Radzimiński, Ł., Bossard, C., ... et al. (2021). Analysis of running performance in the offensive and defensive phases of the game: is it associated with the team's achievement in the UEFA Champions League?, *Applied Sciences, 11*(18), *8765*.

Modric, T., Versic, S., Sekulic, D., & Liposek, S. (2019). Analysis of the association between running performance and game performance indicators in professional soccer players. *International Journal of Environmental Research and Public Health, 16*(20), 4032.

Polat, B., & Gürkan, O. (2020). Analysing and evaluating the physical performance parameters of Turkish sports toto super league. *International Sports Science Student Studies, 2*(1), 48-59.

Rampinini, E., Impellizzeri, F. M., Castagna, C., Coutts, A. J., & Wisløff, U. (2009). Technical performance during soccer matches of the Italian Serie A league: Effect of fatigue and competitive level. *Journal of Science and Medicine in Sport, 12*(1), 227-233.

Santos, P., Lago-Peñas, C., & García-García, O. (2017). The influence of situational variables on defensive positioning in professional soccer. *International Journal of Performance Analysis in Sport, 17*(3), 212-219.

Sapp, R. M., Spangenburg, E. E., & Hagberg, J. M. (2018). Trends in aggressive play and refereeing among the top five European soccer leagues. *Journal of Sports Sciences, 36*(12),1346-1354.

Taylor, J. B., Mellalieu, S. D., James, N., & Shearer, D. A. (2008). The influence of match location, quality of opposition, and match status on technical performance in professional association football. *Journal of Sports Sciences, 26*(9), 885-895.

Thorpe, R. T., Strudwick, A. J., Buchheit, M., Atkinson, G., Drust, B., & Gregson, W. (2016). Tracking morning fatigue status across in-season training weeks in elite soccer players. *International Journal of Sports Physiology and Performance, 11*(7), 947-952.

Yang, G., Leicht, A. S., Lago, C., & Gómez, M. Á. (2018). Key team physical and technical performance indicators indicative of team quality in the soccer Chinese super league. *Research in Sports Medicine, 26*(2), 158-167.

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Fikir ve Kavramsal Örgü *Idea or Notion*	Araştırma hipotezini veya fikrini oluşturmak *Form the research hypothesis or idea*	Gökhan ATASEVER Kemalettin SEREN
Tasarım *Design*	Yöntem ve araştırma desenini tasarlamak *To design the method and research design.*	Kemalettin SEREN Hasan Hüseyin YILMAZ
Literatür Tarama *Literature Review*	Çalışma için gerekli literatürü taramak *Review the literature required for the study*	Gökhan ATASEVER Hasan Hüseyin YILMAZ
Veri Toplama ve İşleme *Data Collecting and Processing*	Verileri toplamak, düzenlemek ve raporlaştırmak *Collecting, organizing and reporting data*	Kemalettin SEREN Hasan Hüseyin YILMAZ
Tartışma ve Yorum *Discussion and Commentary*	Elde edilen bulguların değerlendirilmesi *Evaluation of the obtained finding*	Gökhan ATASEVER Kemalettin SEREN Hasan Hüseyin YILMAZ

Destek ve Teşekkür Beyanı/ *Statement of Support and Acknowledgment*

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