Muhasebe ve Finansman Dergisi – Temmuz 2022 (95): 135-152

ISSN: 2146-3042
DOI: 10.25095/mufad.1085969

The Financial Performance of Football Clubs During Covid-19: Case of Turkey*

Ebru AYDOĞAN**

ABSTRACT

Financial management inadequacies in the football industry have enlarged concerns about the financial sustainability of clubs during the COVID-19. In this regard, this study aims to compare the pandemic period financial performance analyses and performance rankings of the four football clubs trading on the Borsa Istanbul stock market, with the previous five-year period. The study covers the years between 2016-2020. A method that integrates Criteria Importance Through Intercriteria Correlation (CRITIC) and Gray Relational Analysis (GRA) techniques was used in the study. It was concluded that clubs whose revenues decreased due to the discontinuance of their activities during the pandemic acted more prudently in monetary terms. Additionally, the club with a high average financial performance over the previous years has financially been less affected by the pandemic.

Keywords: Covid-19, Gray Relational Analysis, CRITIC Method, Football Clubs, Financial Performance

Jel Classification: *M41, G30*

Futbol kulüplerinin Covid-19 sürecindeki finansal performansı: Türkiye Örneği

ÖZET

Futbol endüstrisindeki finansal yönetim yetersizlikleri, COVID-19 sırasında kulüplerin finansal sürdürülebilirliği konusundaki endişeleri artırmıştır. Bu bağlamda, bu çalışma, Borsa İstanbul'da işlem gören dört futbol kulübünün pandemi dönemi finansal performans analizlerini ve performans sıralamalarını önceki beş yıllık dönemle karşılaştırmayı amaçlamaktadır. Çalışma 2016-2020 yılları arasını kapsamaktadır. Çalışmada Kriterler Arası Korelasyon Yoluyla Kriterlerin Önemi ve Gri İlişkisel Analiz tekniklerini entegre eden bir yöntem kullanılmıştır. Çalışma sonucunda, kulüplerin pandemi döneminde çalışma sermayesi ve sabit varlık yatırımlarını arttırdığı ve finansmanda daha az yabancı kaynağa yöneldikleri görülmüştür. Ayrıca geçmiş yıllara göre ortalama finansal performansı yüksek olan kulüpler, finansal olarak pandemiden daha az etkilenmiştir.

Anahtar Kelimeler: *COVID-19, Gri İlişkisel Analiz, CRITIC Metodu, Futbol Kulüpleri, Finansal Performans*

JEL Sınıflandırması: *M41, G30*

* **Makale Gönderim Tarihi:** 09.03.2022, **Makale Kabul Tarihi:** 26.05.2022, **Makale Türü:** Nicel Analiz

** Arş. Gör., Bursa Uludağ Üniversitesi, İktisadi ve İdari Bilimler Fakültesi, ebruaydogan@uludag.edu.tr, ORCID: 0000-0003-4377-712X .

1. INTRODUCTION

The coronavirus outbreak (COVID-19), which was declared a pandemic (WHO, 2021) by the World Health Organization on the 11th of March 2020, has caused many governments around the world to take measures restricting education, entertainment and social life. These measures, taken due to the reason that planned or unplanned organizations and activities that bring people together in mass were causing public health problems (Memish et al., 2019: 2073) in addition to their social and economic effects on society, also negatively affected business life and caused financial difficulties in many sectors. During this process, one of the sectors that suffered the most financial difficulties has been the professional football leagues (Hammerschmidt et al., 2021: 8). The closure of sports halls and stadiums, the postponement, limitation or cancellation of national and international sports organizations as part of the measures (Ekolig, 2020: 6) further exacerbated the current financial difficulties of football clubs, that enjoy the highest number of spectators and fans among all sports (Dima, 2015: 118).

One year before the pandemic, in 2018/2019 season, the revenue boosts that happened at huge amounts in each of the five big leagues of Europe, on one hand broadened the overall size of the European football market, while on the other hand the inequality between central leagues and peripheral leagues (Deloitte, 2020: 2; Ekolig, 2019: 7). But then again, the fan-oriented and successful marketing efforts implemented by the big leagues within their globalization strategies in new markets, and their collaborations with different brands have enlarged the revenues of the clubs as well as increasing their brand values (Ekolig, 2019: 11-69). However, despite the revenue increase, clubs' expenditures on player transfers and fees above their revenues have caused costs to surpass profits in many leagues and clubs.[1] In this respect, it is observed that activities in many European leagues have been carried out with substantially low or negative profitability, even before an external market shock such as COVID-19 in 2020 (Deloitte, 2020; 21). The increase in both financial and operational risk of football clubs adversely affected their financial performance. Financial performance has become the main concern for any company in the new post-COVID scenario, where large decreases in consumption are predicted (Alaminos et al., 2020: 1). Concerns about financial performance have augmented even more for football clubs that continue their activities with financial ratio levels that cannot be accepted in any other sector (Deloitte, 2020: 3). In this regard, this study aims to compare the pandemic period financial performance analyses and performance rankings of the four football clubs trading on the Borsa Istanbul stock market. In the literature, there are academic studies examining the financial performance of football clubs in different leagues using various techniques. E.g., models and ratio analysis used to measure financial failure (Güleç et al., 2019; Ika et al., 2020; Karadeniz et al., 2014), regression analysis (Panagiotis, 2009; Rey and Santelli, 2017), neural networks (Alaminos et al., 2020; Güngör, 2014), event analysis (Kırkulak Uludağ and Sigalı, 2016), panel data analysis ((Dimitropoulos and Limperopoulos, 2014) and among multi-criteria decision making techniques Data Envelopment Analysis (Guzmán, 2006), PROMETHEE II (Galariotis et al., 2018), TOPSIS (Sakinc et al., 2017), Grey Relational Analysis (GRA) (Ecer and Boyukaslan, 2014; Oral, 2016; Sakınç, 2014). In this study, unlike other studies, a method integrating Criteria Importance Through Intercriteria Correlation (CRITIC) and GRA

[1] In Europe, only Spain and Germany achieved operating profit. In the Süper Lig, only Galatasaray among the four clubs declared profit (Deloitte, 2020; Sözcü, 2020)

techniques was used. Determination of criterion weights is one of the most important steps in solving evaluation problems. The methods used to determine criterion weights are internally divided into two methods, as subjective methods using the information obtained from decision makers or experts, and objective methods benefiting from mathematical models (Ecer, 2020: 52; Wang et al., 2015: 56). Wang et al., (2015, 56) stated that subjective methods are not always guaranteed to give the correct result, and that this deficiency can be overcome through objective methods. There are also studies conducted in different fields that use the two methods together (Miao et al., 2018; Nguyen et al., 2020; Xu et al., 2020). Another important aspect of the study is that it analyzes the financial impact of the pandemic in a developing country Turkey's football sector, which is one of the fastest growing industries in the world.

2. THE COMMERCIALIZATION OF FOOTBALL

Football has turned into an industry supported by millions of people today with the commercialization process it started to experience in the 1980s. Increasing revenues of football clubs in parallel with their commercialization have revealed the problem of overinvestment, which causes financial instability in the industry to become chronic. Studies on the mechanism behind the overinvestment of clubs despite their consistently poor financial performance reveals that various factors such as the strong correlation between talented footballers and the probability of winning, simultaneous investments, promotion and demotion system, accolades from championships and the growing revenue gaps between hierarchical leagues encourages football clubs to enter the arms race – that is to invest significantly high amounts in talented players for the clubs to make a difference in on-field performance – and to overinvest (Franck, 2010: 110). As a matter of fact, Güngör (2014, 33) confirmed that there is a high level of relationship between athletic success and revenue from professional football activities. In this particular arms race environment, as a football club's competitive position is determined by its spending power rather than its financial profitability; football clubs endanger their liquidity, profitability and financial sustainability (Andreff, (2006) cited by Dimitropoulos & Limperopoulos, 2014:124; Franck, 2010:110; Rohde & Breuer, 2016:245).

Overinvestment, which is the natural result of commercialization and competition form in football (Franck, 2010: 110), has led football clubs to seek new financial resources, and these resources have usually been provided by shareholders acting as investors or bosses (Andreff, 2007: 657). While this situation made the industry attractive for investors, it also increased the importance of football club investment. The administrative structure of clubs in Turkey consists of affiliates under the umbrella of association. Football branch, which is one of the affiliates in big clubs, is in the form of a company trading on the stock exchange (Sezgin, 2016: 10) However, the association structure is not sufficient for clubs to benefit from new financial resources. On the other hand, clubs with a publicly held company structure do not have the ability to create financial resources or inject capital as much as privately owned clubs (Franck, 2010: 113-122). Considering that the fan structure in Turkey is not suitable for foreign investor ownership (Sezgin, 2016: 22), it becomes obvious that Turkish football clubs should attach more importance to innovation, corporate diversification strategies and digital transformation in creating financial resources.

3. POSSIBLE EFFECTS OF THE COVID-19 PANDEMIC ON FOOTBALL INDUSTRY

The COVID-19 pandemic caused an external market shock in the football ecosystem by forcing the fixtures to change for the first time since the Second World War, and also revealed the internal vulnerabilities of football clubs that are susceptible to these shocks (Bond et al., 2020: 1; Mohr et al., 2020: 2; Parnell et al., 2021: 19).

The calendar of sports organizations around the world was changed on the grounds that the structure of sports organizations that bring mass communities together would accelerate the spread of the virus in the community. The increase in influenza infections in the 2002 Winter Olympics and the 2006 FIFA World Cup, the fact that the cities represented in the Super Bowl in the USA experienced an 18% increase in deaths from influenza are among historical evidence of the impact of sports organizations on public health (Reade and Singleton, 2020: 9). While these examples revealed the necessity of the measures taken regarding sports organizations and competitions during COVID-19, they also caused the clubs, whose main field of activity is football matches, to be deprived of their basic revenue sources. Losses in matchday revenues, proceeds that could not be obtained from UEFA competitions, shortfalls in sponsor revenues, lost TV revenues and commercial revenues, etc., have caused unprecedented financial, logistical and legal problems in the football ecosystem (Sartori, 2020: 3).

Matchday, broadcasting rights and commercial revenues, which are the three main income sources of football clubs, are all determined according to the consumption of fans (Deloitte, 2020: 14). Fans devote time and money to support their teams and clubs, by watching the matches or purchasing the team products. COVID, by revealing the rupture between fans and those who profit from football as a result of the commercialization and globalization of football, reminded that fans are directly involved in the value creation process in football. After all, a seat in the stadium is a perishable asset for the football club[2] (Bond et al., 2020: 1-3). The financial impact of games played without spectators will get across depending on the scale and timing of the fans' return to the venues. Even though all clubs will be affected to some extent, smaller league clubs that are more dependent on matchday revenues will be relatively more affected (Deloitte, 2021b: 3). In addition, the revenues obtained from sponsors that advertise towards the fans via company logo, club kit or stadium banners are also of great importance for the clubs (Naidenova et al., 2016: 129). However, the absence of the fans who are the target audience at the stadiums may cause the revenues from the sponsors to decrease. Besides, it can be said that there will be a significant decrease in sponsorship revenues for football clubs, considering the fact that, in addition to the financial difficulties experienced in their own sectors due to the pandemic, business entities first cut their marketing budgets during recession and crisis periods (Yeung and Ramasamy, 2007: 324). That said, smaller league clubs, which often make sponsorship deals with local and small-medium business firms, are also likely to face higher risks (Beiderbeck et al., 2021: 13).

According to Deloitte's report (2021b, 3), the top 20 clubs in the Football Money League experienced a 12% decrease in their revenues compared to last year. However, when

[2] Perishable assets are fixed assets, the benefit of which is obtained by leasing to customers. Inability to lease the asset for a period of time causes loss of revenue potential(IGI Global, 2021).

examined on club basis, there was a 10% to 20% decrease in the revenues of 18 clubs this year, while only two clubs experienced a decrease in their revenues last year (Deloitte, 2021b: 4). The pandemic has further increased the existing financial difficulties of Turkish football clubs. Pre-pandemic studies revealed that the four big football clubs trading on the Borsa Istanbul are at risk of bankruptcy, their cash generating potential is largely based on debts, and their activities have high financial and operational risks (Beyazgül and Karadeniz, 2019: 620; Karadeniz et al., 2014: 141). In addition, reasons such as the broadcasting rights tender figures and the number of average spectators being lower in Turkey compared to the five big leagues, unsuccessful results in the European Cups, failure to be in the Top 10 of the UEFA club rankings, and fluctuations in the exchange rates also affect the revenue generating capacity of Turkish football clubs (Deloitte, 2021a: 18-52). Furthermore, Güngör (2014, 34) establishes that clubs do not fully use their capacity to create funds through sponsors, their marketing strategies cannot effectively convert their brand value into cash, stadiums are idle in generating revenue outside of football competitions, and the earnings from athletic achievements are not used in tangible fixed assets investments. Clubs that could not provide sufficient cash flow due to some structural conditions and the ineffective use of financial resources, turned towards the support of the fans by organizing various campaigns. Cases such as the decrease in the purchasing power of the fans during pandemic, the increase in the value of debts in foreign currency due to fluctuations in the exchange rate, and the restructuring of existing debts show that financial difficulties will linger in the near future (Deloitte, 2021a: 54).

4. LITERATURE REVIEW

In the last 30 years, football has experienced a rare financial expansion with the increase in the number of spectators watching the matches, broadcast and sponsorship agreements at large amounts, thus creating its own sector and becoming a constantly developing economy (Ecer and Boyukaslan, 2014: 62; Hamil and Walters, 2010: 360). This development towards incorporation has also led to an increase in academic publications on the financial structures and financial performances of clubs. While some studies on football clubs examine athletic performance and financial performance together (Alaminos et al., 2020; Dimitropoulos and Limperopoulos, 2014; Galariotis et al., 2018; Güngör, 2014; Kırkulak Uludağ and Sigalı, 2016; Panagiotis, 2009; Pinnuck and Potter, 2006; Plumley et al., 2017; Rey and Santelli, 2017; Sakinc et al., 2017), some other studies focused only on financial performance (Ecer and Boyukaslan, 2014; Güleç et al., 2019; Guzmán, 2006; Ika et al., 2020; Karadeniz et al., 2014; Sakınç, 2014).

Dimitropoulos (2009), as a result of their study using regression analysis in the Greek Football League between 1994 and 2004, suggested that the profitability of the football league was positively affected by the short-term success of the clubs, but not by the long-term success and the uncertainty of the football league. They also stated that the matches won in the season caused an increase in sales and net profit margin. Similarly, Alaminos et al. (2020) conveyed that the financial performance of clubs is determined by liquidity, leverage and athletic performance. Rey and Santelli (2017), as a result of their study with the football clubs in the Italian Serie A, reached parallel results with the other two studies and claimed that clubs that are financially performant are also substantially successful sports wise. On the other hand, Sakınç et al. (2017) stated that, as a result of their study with 22 European football clubs, they could not provide statistical evidence of a positive correlation between sports

success and financial performance. Unlike other studies, Galariotis et al., (2018) discussed three different performance dimensions together. As a result of their study with 12 French football clubs between 2010 and 2013, they indicated that there is a positive multi-directional relationship between sports performance and business performance, but financial performance affects sports performance in a unidirectional and reverse manner. In other words, clubs with high business performance cannot improve their financial performance while increasing their sports investments thanks to their high earnings.

5. FINANCIAL ANALYSIS

Financial analysis can be defined as obtaining information about the past activities and current financial situation of the enterprise and making financial forecasts and planning for the future, by analyzing and interpreting the data in the financial statements of previous years. Ratio analysis, which is the most commonly used type of analysis when performing financial analysis, is the interpretation of the simple mathematical relationship between any two items in the financial statements (Akgüç, 2011: 20). Ratios created for different purposes of different groups performing the analysis were grouped into five; liquidity ratios, financial structure/leverage ratios, activity ratios, profitability ratios and stock market-performance ratios.

Table 1. The Ratios Used in the Analysis

Group	Financial Ratio	Standard Value	Aim	Code
Liquidity Ratios	Current Ratio	2	Max	L1
	Cash Ratio	0.2	Max	L2
Financial Leverage Ratios	Debt Ratio	0.5	Min	FL1
	Financing Ratio	1	Min	FL2
	Interest Coverage Ratio	8/1 or 7/1	Max	FL3
	Equity Capital Ratio	0.5	Max	FL4
Activity Ratios	Fixed Asset Turnover	-	Max	A1
	Current Asset Turnover	-	Max	A2
	Equity Turnover	-	Max	A3
Profitability Ratios	Return on Equity	-	Max	P1
	Return on Asset	-	Max	P2
	Return on Capital Employed	-	Max	P3

The ratios used in the analysis of the financial performance of football clubs, the standard values determined in the literature, the aim for analysis and the codes used in the analysis are as seen in Table 1.

6. METHOD AND DATA

In this study, which compares the financial performances of four football clubs trading on the Borsa Istanbul, a method integrating multi-criteria decision-making techniques Criteria

Importance Through Intercriteria Correlation (CRITIC) and Grey Relational Analysis (GRA) was applied. The study used the 2016-2020 statement of financial position and statement of profit or loss and other comprehensive income of football clubs. Since the financial statements were not published at the time of the study, the year of 2021 could not be included in the analysis. Financial statements were obtained from the Public Disclosure Platform website (KAP; www.kap.org.tr).

6.1. Criteria Importance Through Intercriteria Correlation

Used in the research (CRITIC) method which is one of the objective criteria weighting methods and was developed by Diakoulaki et al., (1995), takes into account both the standard deviation of the criteria and their correlation with other criteria (Ecer, 2020: 86; Miao et al., 2018: 5). CRITIC method is considered a useful method due to the fact that it does not require expert opinion, does not require pairwise comparisons, and does not contain inconsistencies that may arise as a result of these comparisons (Ayan and Abacıoğlu, 2021: 126).

Table 2. The Steps of CRITIC Method

1st Step: Creating the Decision Matrix	$X = \begin{matrix} \\ A_1 \\ \vdots \\ A_m \end{matrix} \begin{matrix} C_1 & \cdots & C_n \\ \end{matrix} \begin{bmatrix} X_{11} & \cdots & X_{1n} \\ \vdots & \vdots & \vdots \\ X_{m1} & \cdots & X_{mn} \end{bmatrix}$
2nd Step: Normalization the Decision Matrix	$r_{ij} = \frac{X_{ij} - X_j^{min}}{X_j^{max} - X_j^{min}}$ *(For benefit type criteria)* $r_{ij} = \frac{X_j^{max} - X_{ij}}{X_j^{max} - X_j^{min}}$ *(For cost type criteria)* *J= 1,2,…,n*
3nd Step: Creating the Relationship Coefficient Matrix	$\rho_{jk} = \frac{\sum_{i=1}^{m}(r_{ij} - \overline{r_j})(r_{ik} - \overline{r_k})}{\sqrt{\sum_{i=1}^{m}(r_{ij} - \overline{r_j})^2 \sum_{i=1}^{m}(r_{ik} - \overline{r_k})^2}}$ *j,k = 1,2,…,n*
4nd Step: Calculation of C_j Value	$\sigma_j = \sqrt{\frac{\sum_{i=1}^{m}(r_{ij} - \overline{r_j})^2}{m-1}}$ $C_j = \sigma_j \sum_{k=1}^{n}(1 - \rho_{jk})$ *j = 1,2,…,n*
5nd Step: Calculation of Criteria Weights	$W_j = \frac{C_j}{\sum_{k=1}^{n} C_j}$

6.2. Grey Relational Analysis

Grey Relational Analysis is one of the fields included in Grey Systems Theory, which was introduced by Deng (1982) to find solutions to problems with minor sample and weak information. The term gray was used to refer to uncertain systems with incomplete or insufficient information. This lack of information may be due to the deficiency of parameters, information about the structure of the system, information about the boundaries of the system, and information about the behavior of the system (Sifeng et al., 2011: 1-3). GRA, as a classification and grading technique based on Gray Relational Degree, offers easier solutions than mathematical methods in cases of uncertainty. The method allows to determine the level of correlation between each factor in a gray system and the reference series being compared. Each factor is defined as a series and the degree of influence between factors is defined as gray relational degree. GRA enables the determination of basic relationships between system components with much less data (Ecer and Boyukaslan, 2014: 65; Özbek, 2021: 166). The steps of GRA method implementation are as follows (Albayrak, 2021: 47):

1st Step: Creating the Decision Matrix: It is the creation of the "mxn" decision matrix, where "m" indicates the alternatives and "n" indicates the criteria. Here, $x_i(j)$ indicates the value "i." alternative receives for the "j." criterion.

$$X = \begin{bmatrix} X_1(1) X_1(2) \cdots X_1(m) \\ \cdots \quad \cdots \quad \cdots \quad \cdots \\ X_n(1) X_n(2) \cdots X_n(m) \end{bmatrix} \qquad (i=1...,n \text{ ve } j= 1,\ldots,m) \qquad (1)$$

2nd Step: Normalization (Standardization): The standardization operation can be performed in three different ways according to the benefit (2), cost (3) or the most suitable (optimum) (4) situation of the series.

$$X_i'(j) = \frac{X_i(j) - \min_{i=1}^{n} X_i(j)}{\max_{i=1}^{n} X_i(j) - \min_{i=1}^{n} X_i(j)} \qquad (2)$$

$$X_i'(j) = \frac{\max_{i=1}^{n} X_i(j) - X_i(j)}{\max_{i=1}^{n} X_i(j) - \min_{i=1}^{n} X_i(j)} \qquad (3)$$

$$X_i'(j) = 1 - \frac{|X_i(j) - X_{idl}(j)|}{\max\{max_{i=1}^{n} X_i(j) - X_{idl}(j), X_{idl}(j) - min_{i=1}^{n} X_i(j)\}} \qquad (4)$$

$X_{idl}(j)$ indicates the optimum value.

3rd Step: Creating the Normalized Decision Matrix and Reference Series: Using the data obtained in Step 2, normalized decision matrix and reference series are created.

$$X' = \begin{bmatrix} X_1'(1) X_1'(2) \cdots X_1'(m) \\ \cdots \quad \cdots \quad \cdots \quad \cdots \\ X_n'(1) X_n'(2) \cdots X_n'(m) \end{bmatrix} \quad (i=1...,n \text{ ve } j= 1,\ldots,m) \text{ (Decision matrix)} \quad (5)$$

$$X_0' = X_0'(1), X_0'(2), \ldots, X_0'(m) \qquad \text{(Reference serie)} \qquad (6)$$

4th Step: Creating the Absolute Value (Difference) Matrix: It is calculated by subtracting the reference series from the normalized decision matrix.

$$\Delta_{0i}(j) = |X_0'(j) - X_i'(j)|$$

$$\Delta = \begin{bmatrix} \Delta_{01}(1)\Delta_{01}(2)\cdots\Delta_{01}(m) \\ \cdots \quad \cdots \quad \cdots \quad \cdots \\ \Delta_{0n}(1)\Delta_{0n}(2)\cdots\Delta_{0n}(m) \end{bmatrix} \quad (i=1...,n \text{ ve } j=1,\ldots,m)$$

5th Step: Calculation of Gray Relation Coefficients: The gray relation coefficient is calculated for all values in the difference matrix.

$$\gamma_{0i}(j) = \frac{min_{i=1}^{n} min_{j=1}^{m} \Delta_{0i}(j) + \zeta * max_{i=1}^{n} max_{j=1}^{m} \Delta_{0i}(j)}{\Delta_{0i}(j) + \zeta * max_{i=1}^{n} max_{j=1}^{m} \Delta_{0i}(j)}$$

The ζ ($0 \leq \zeta \leq 1$) in the formula is expressed as the distinctive coefficient. Generally, it takes the value $\zeta = 0.5$ as it offers moderate distinctiveness and good stability.

6th Step: Calculation of Gray Relation Degree: When the values obtained in Step 5 are multiplied by the relevant criterion weight and added for each alternative, the gray relation degree is obtained.

$$\Gamma_{0i} = \sum_{j=1}^{m} [W(j) x\, \gamma_{0i}(j)], \sum_{j=1}^{m} W(j) = 1$$

In the formula w(j), j. indicates the weight of the criterion.

7. RESULTS

7.1. Financial Analysis Results

The five-year average of the financial ratios obtained from the 2016-2020 balance sheets and income statements of the four football clubs analyzed, and their situation during the pandemic are as seen in Table 3 and Table 4.

Table 3. Average Financial Ratios of Football Clubs between 2016-2020

Team	L1	L2	FL1	FL2	FL3	FL4	A1	A2	A3	P1	P2	P3
Beşiktaş	0,88	0,00	1,78	-0,43	-0,05	-0,78	1,73	1,27	-0,89	0,19	-0,15	-0,78
Fenerbahçe	1,02	0,01	1,52	-0,33	0,33	-0,52	3,79	0,53	-0,86	0,26	-0,14	-0,55
Galatasaray	0,47	0,08	1,41	-0,26	0,48	-0,41	0,83	1,99	-2,03	0,36	-0,18	0,24
Trabzonspor	0,32	0,05	1,94	-0,48	0,22	-0,94	0,66	3,07	-0,60	0,29	-0,30	-0,25
Average	0,67	0,03	1,66	-0,38	0,25	-0,66	1,75	1,71	-1,09	0,28	-0,19	-0,34

When Table 3 and Table 4 are compared: It is seen that the strength of three clubs other than Fenerbahçe to meet their short-term obligations has increased during the pandemic period. Akgüç (2011, 29) stated that due to low liquidity and institutional inadequacies in developing countries, businesses tend to turn to short-term resources, and therefore, a current ratio of 1.5 in such countries is considered sufficient. Considering that Turkey is a developing country, it can be said that Beşiktaş's current assets are quite sufficient to meet its short-term debts. Even though Galatasaray and Trabzonspor have displayed a positive development in the cash ratio, which is a stricter ratio compared to other liquidity ratios (Akgüç, 2011: 30), it is seen that all four clubs will have difficulty in meeting their obligations if their sales cease and they cannot collect their receivables. In addition, the financial structure ratios show that although their financial structures are mostly foreign-sourced, the clubs give more weight to financing with equity during the pandemic. This situation has enabled all clubs, especially Galatasaray, which presented the highest improvement, to be more successful in meeting their financial expenses compared to the average of the last five years.

Table 4. Financial Ratios of Football Clubs During Pandemic

Team	L1	L2	FL1	FL2	FL3	FL4	A1	A2	A3	P1	P2	P3
Beşiktaş	2,25	0,00	1,78	-0,44	0,31	-0,78	1,68	0,29	-0,32	0,24	-0,18	-0,10
Fenerbahçe	0,72	0,00	1,37	-0,27	0,45	-0,37	2,69	0,28	-0,69	0,20	-0,07	0,29
Galatasaray	0,77	0,27	1,33	-0,25	1,34	-0,33	0,34	1,38	-0,82	0,58	-0,19	-0,21
Trabzonspor	0,65	0,19	1,74	-0,42	0,64	-0,74	0,57	1,75	-0,59	0,38	-0,28	-0,25

Since there is no standard ratio in the literature on activity ratios, when the sector average is taken into account, it is seen that the current and fixed asset turnover rate in all clubs has decreased considerably. It can be said that football clubs, which did not see a rise in their sales during the pandemic, increased their working capital and fixed asset investments. The fact that the clubs turned to less foreign resources in financing increased the efficiency of the equity capital and caused the equity turnover rate to increase. Besides, the profitability ratios demonstrate that there is a general improvement, albeit small, in the return on equity, and the return on capital employed increases in Fenerbahçe while it decreases in Galatasaray.

7.2. Ranking The Football Clubs According to Their Financial Performances

The analysis results aimed at ranking the four football clubs trading on the Borsa Istanbul according to their financial performances are summarized in Table 5 and Figure 1. Table 5 shows the results of the GRA method applied using the criterion weights determined by the CRITIC method.

Table 5. Performance Ranking of Football Clubs

Team	2016	Rank	2017	Rank	2018	Rank	2019	Rank	2020	Rank	2016-2020	Rank
Beşiktaş	0,565	**4**	0,507	**4**	0,574	**4**	0,550	**4**	0,512	**3**	0,504	**4**
Fenerbahçe	0,576	**3**	0,634	**2**	0,684	**1**	0,667	**1**	0,611	**2**	0,677	**2**
Galatasaray	0,592	**2**	0,660	**1**	0,632	**2**	0,659	**2**	0,678	**1**	0,701	**1**
Trabzonspor	0,695	**1**	0,623	**3**	0,580	**3**	0,578	**3**	0,469	**4**	0,555	**3**

The results demonstrate that Beşiktaş football club has the worst financial performance in almost each of the years and five-year average in terms of financial performance ranking.

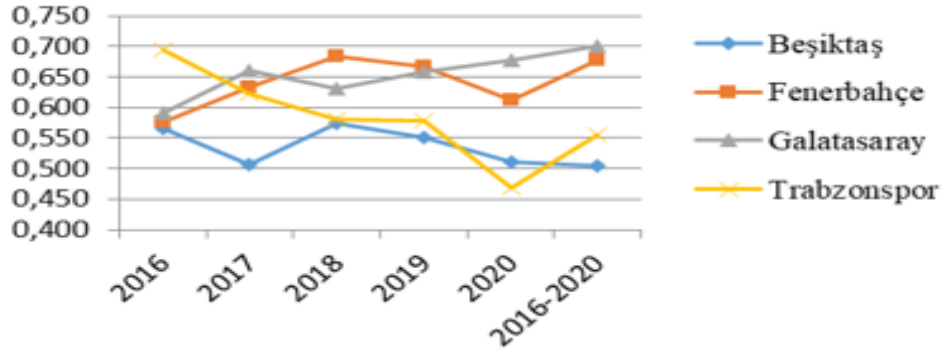

Figure 1. Performance Ranking of Football Clubs

Despite the fact that Galatasaray is the football club with the best financial performance in the general ranking, there is not a big difference between them and Fenerbahçe. It is clearly seen in Figure 1 that Trabzonspor and Beşiktaş clubs have worsened in performance management in the last five years. Table 6 and Table 7 demonstrate the performance rankings of football clubs on the basis of ratio groups in the five-year average and during the pandemic

.

Table 6. Performance Rankings of Football Clubs in the Five-Year Average

Team	Liquidity	Rank	Financial Leverage	Rank	Activity	Rank	Profitability	Rank
Beşiktaş	52,05	**3**	39,02	**3**	51,72	**3**	51,01	**3**
Fenerbahçe	68,47	**2**	65,99	**2**	68,85	**2**	62,10	**2**
Galatasaray	69,35	**1**	100	**1**	40,65	**4**	89,64	**1**
Trabzonspor	43,45	**4**	37,56	**4**	77,78	**1**	47,09	**4**

When the two tables are compared, the most striking factor regarding the liquidity ratios during the pandemic period is that Fenerbahçe club performed quite poorly in meeting its liabilities compared to previous years. Beşiktaş and Trabzonspor partially strengthened their current asset structure to meet their liabilities compared to previous years. Despite the fact that Galatasaray ranks first by a small margin for the COVID-19 period, it can be said that its performance has worsened compared to previous years. In terms of balancing the financial structure, Beşiktaş club is in a very bad situation compared to both other clubs and previous years. While Fenerbahçe showed good progress in this area, Trabzonspor remained at the level of the previous years' averages. Being the most balanced club in terms of constituting the financial structure, Galatasaray can be considered as the club with highest financial independence.

Tablo 7. Performance Rankings of Football Clubs During Pandemic

Team	Liquidity	Rank	Financial Leverage	Rank	Activity	Rank	Profitability	Rank
Beşiktaş	66,67	**2**	33,33	**4**	62,38	**1**	41,47	**3**
Fenerbahçe	33,92	**4**	73,30	**2**	57,93	**3**	77,78	**1**
Galatasaray	67,55	**1**	100	**1**	44,38	**4**	60,45	**2**
Trabzonspor	47,87	**3**	37,12	**3**	61,27	**2**	38,43	**4**

When the activity rates are analyzed, it is seen that the performance order changes in the opposite direction. In terms of asset use efficiency, Fenerbahçe and Trabzonspor performed worse compared to the previous years. Galatasaray club, which exhibits the worst performance in this regard, needs to improve in terms of capital use efficiency, working capital and keeping fixed asset investments at an optimum level. In terms of profitability, Fenerbahçe club achieved the highest success, contrary to the five-year average performance. Galatasaray club has experienced a significant decline in profitability compared to previous years.

8. DISCUSSION AND CONCLUSION

Despite the fact that the revenues that have grown with the commercialization process of football have increased the sports investments of the clubs, athletic success has caused more cash flow and athletic success has necessitated a low level of indebtedness (Güngör, 2014: 31), football clubs have entered a cycle in which financial success is ignored. This situation reveals the importance of financial management and performance analysis in football clubs. In addition, the importance of the issue increases even more for football clubs that had to take a break from their activities due to the postponed competition calendar during the pandemic. For this reason, this study focuses on financial performance analysis and performance rankings of four football clubs trading on the Borsa Istanbul in the five-year period between 2016-2020 and during the pandemic period.

According to the financial performance ranking results of football clubs, unlike the previous studies which used the same data set (Ecer and Boyukaslan, 2014; Sakınç, 2014), football club displayed the best financial performance in both the five-year average and the pandemic period. When the Gray Relational Coefficients in Table 6 are examined, it is observed that Galatasaray also delivered the overall highest financial performance of the past five years during the pandemic period. This shows that the club, which had a high average financial performance for the past five years, was less affected by the pandemic financially. Unlike the other years, Trabzonspor was the club with the worst financial performance during the pandemic period. The finding that is common with other studies in question is that Beşiktaş club displayed the worst financial performance on average. This shows that Trabzonspor and Beşiktaş clubs are likely to be exposed to more severe financial difficulties while continuing their activities. Fenerbahçe club, on the other hand, has shown a better financial performance over the years.

The results establish that the football clubs trading on the Borsa Istanbul have an incorrect or inadequate financial management approach. In general, problems in liquidity and

investments exceeding revenues increased the debt levels of clubs and caused their activities to be carried out through high financial and operational risk. Clubs that cannot provide sufficient cash flow due to reasons such as structural problems and ineffective use of financial resources are recommended to turn to new investments to increase their liquidity, considering that the spectator demand will reduce even after the stadiums are fully opened due to the risk of infection in the post-COVID-19 era, the sponsors will cut the sponsorship budgets (Beiderbeck et al., 2021: 14; Hammerschmidt et al., 2021: 8; Reade and Singleton, 2021: 10), thus causing a decrease in the main activity revenues of the clubs. For instance, activities such as portfolio diversification through esports events, sponsorship agreements with new brands, personalized advertising (Beiderbeck et al., 2021: 14) may create new cash flow sources. In addition to creating new resources, it is thought that clubs need a professional financial management approach such as effective use of existing assets, preferring financing with lower debt and higher equity ratio, and good analysis of existing risks. Also, the Law on Sports Clubs and Sports Federations, which was proposed on the grounds of financial problems experienced by sports clubs due to recurring budget deficits and net term losses and high financing costs, and put into force on April 22, 2022,(*Spor Kulüpleri ve Spor Federasyonları Kanunu*, 2022) is thought to be effective in solving the financial problems of football clubs.

The limitation of the study is that the analysis is limited to four football clubs trading on the Borsa Istanbul. This is because the financial statement data of the other football clubs in the Süper Lig cannot be accessed as they are not listed on the stock market. It is thought that the use of different football leagues in future studies in this field will be beneficial in terms of comparing the financial impact of the pandemic on the football sector in different countries.

REFERENCES

Akgüç, Öztin (2011), Finansal Yönetim, 9. Baskı, Avcıol Basım Yayın, İstanbul.

Alaminos, David - Esteban, Ignacio - Fernández-Gámez, Manuel A. (2020), "Financial Performance Analysis in European Football Clubs", Entropy, 22(9), pp.1–16.

Albayrak Karadağ, Özlem (2021), Gri Sistem Teorisi Tabanlı Çok Kriterli Karar Verme Teknikleri ve Uygulama Örnekleri, 1. Baskı, Gazi Kitabevi, Ankara.

Andreff, Wladimir (2006), "Team Sport and Finance", Handbook on the Economics of Sport, (Ed. Andreff, Wladimir - Szymanski, Stefan), Edward Elgar Publishing Limited, England, pp. 689–699.

Andreff, Wladimir (2007), "French Football: A Financial Crisis Rooted in Weak Governance", Journal of Sports Economics, 8(6), pp. 652–661.

Ayan, Büşra - Abacıoğlu, Seda (2021), "CRITIC Temelli Copras ve Edas Yöntemleri ile Finansal Performans Analizi", Çok Kriterli Karar Verme Yöntemleri ile Güncel Uygulamalar, Ed. Fendoğlu Eda, ss. 125–142, Gazi Kitabevi, Ankara.

Beiderbeck, Daniel - Frevel, Nicolas - von der Gracht, Heiko A. - Schmidt, Sacha L. - Schweitzer, Vera M. (2021), "The Impact of COVID-19 on the European Football

Ecosystem – A Delphi-Based Scenario Analysis", Technological Forecasting and Social Change, 165, pp.1-24

Beyazgül, Mehmet - Karadeniz, Erdinç (2019), "Futbol Kulüplerinin Nakit Akış Profillerinin Analizi: Uluslararası Bir Karşılaştırma", Muhasebe ve Vergi Uygulamaları Dergisi, 12(3), ss.605–624.

Bond, Alexander John - Cockayne, David - Ludvigsen, Jan Andre Lee - Maguire, Kieran - Parnell, Daniel - Plumley, Daniel - Widdop, Paul - Wilson, Rob (2020), "COVID-19: The Return Of Football Fans", Managing Sport and Leisure, pp.1–11.

Deloitte (2020), "Annual Review of Football Finance" https://www2.deloitte.com/uk/en/pages/sports-business-group/articles/annual-review-of-football-finance.html

Deloitte (2021a), "2021'e Başlarken Avrupa ' da ve Türkiye ' de Futbol Ekonomisi", https://www2.deloitte.com/content/dam/Deloitte/tr/Documents/technology-media-telecommunications/2021e-baslarken-avrupada-ve-turkiyede-futbol-ekonomisi.pdf

Deloitte (2021b), "Football Money League: Testing Times", https://www2.deloitte.com/uk/en/pages/sports-business-group/articles/deloitte-football-money-league.html

Diakoulaki, Danae - Mavrotas, Georges - Papayannakis, Lefteris (1995), "Determining objective Weights In Multiple Criteria Problems: The Critic Method", Computers & Operations Research, 22(7), pp.763–770.

Dima, Teodor (2015), "Social Media Usage in European Clubs Football Industry. Is Digital Reach Better Correlated With Sports Or Financial Performane?", The Romanian Economic Journal, 55(1), pp.117–128.

Dimitropoulos, Panagiotis E. - Limperopoulos, Vasilios (2014), "Player Contracts, Athletic And Financial Performance of the Greek Football Clubs", Global Business and Economics Review, 16(2), pp.123–141.

Ecer, Fatih (2020), Çok Kriterli Karar Verme Geçmişten Günümüze Kapsamlı Bir Yaklaşım, 1. Basım, Seçkin Yayıncılık, Ankara.

Ecer, Fatih - Boyukaslan, Adem (2014), "Measuring Performances of Football Clubs Using Financial Ratios: The Gray Relational Analysis Approach", American Journal of Economics, 4(1), pp.62–71.

Ekolig (2019), "2017-2018/2018-2019 Sezonu Futbol Ekonomisi Raporu" https://www.aktifbank.com.tr/Documents/Ekolig-Final-11112019.pdf

Ekolig (2020), "COVID-19 Öncesi / Sonrası Futbol Ekonomisi" https://www.aktifbank.com.tr/Documents/aktif-bank-ekolig-covid-19.pdf

Franck, Egon (2010), "Private Firm, Public Corporation or Member's Association

Governance Structures In European Football", International Journal of Sport Finance, 5(2), pp.108–127.

Galariotis, Emilios - Germain, Christophe - Zopounidis, Constantin (2018), "A Combined Methodology For The Concurrent Evaluation Of The Business, Financial And Sports Performance Of Football Clubs: The Case of France", Annals of Operations Research, 266(1–2), pp.589–612.

Güleç, Ömer Faruk - Arda, Işıl - Bektaş, Tucan (2019), "Futbol Endüstrisinde Finansal Performans Analizi Ve Futbol Kulübü Gelir Ve Giderlerinin Incelenmesi", 4. Uluslararası Muhasebe Finans ve Denetim Konferansı, ss.246–263.

Güngör, Ayşegül (2014), "Futbol Endüstrisinde SportiF Başarı Ile FiNansal Performans Arasındaki Ilişkinin Analizi ve Türkiye Uygulaması", İstanbul Üniversitesi Sosyal Bilimler Dergisi, 1, ss.16–36.

Guzmán, Isidoro (2006), "Measuring Eficiency And Sustainable Growth in Spanish Football Teams", European Sport Management Quarterly, 6(3), pp.267–287.

Hamil, Sean - Walters, Geoff (2010), "Financial Performance in English Professional Football: 'An Inconvenient Truth.'" Soccer & Society, 11(4), pp.354–372.

Hammerschmidt, Jonas - Durst, Susanne - Kraus, Sascha - Puumalainen, Kaisu (2021), "Professional Football Clubs And Empirical Evidence From the COVID-19 Crisis: Time For Sport Entrepreneurship?", Technological Forecasting and Social Change, 165, pp.1-10

IGI Global (2021), "Dictionary Search |IGI Global", https://www.igi-global.com/dictionary/?p=perishable+asset

Ika, Siti Rochmah - Udin, Kholik - Nugroho, Joko Purwanto - Koenti, Ishviati Joenaini (2020), "Assessing the Financial Performance of English Football Clubs: Arsenal and Manchester City", Proceedings of the 3rd International Conference on Banking, Accounting, Management and Economics (ICOBAME 2020), 169, pp.57–62.

Ju-Long, Deng (1982), "Control Problems of Grey Systems", Systems & Control Letters, 1(5), pp.288–294.

Karadeniz, Erdinç - Koşan, Levent – Kahiloğulları Selda (2014), "Borsa İstanbul'da Işlem Gören Spor Şirketlerinin Finansal Performansının Oran Yöntemiyle Analizi", Ç.Ü. Sosyal Bilimler Enstitüsü Dergisi, 23(2), ss.129–144.

Kırkulak Uludağ, Berna - Sigalı, Seçil (2016), "Futbol Maç Sonuçlarının 4 Büyüklerin Hisse Senedi Getirilerine Etkisi", Ege Akademik Bakış, 16(4), ss.575–585.

Memish, Ziad A - Steffen, Robert - White, Paul - Dar, Osman - Azhar, Esam I - Sharma, Avinash - Zumla, Alimuddin (2019), "Mass Gatherings Medicine: Public Health Issues Arising From Mass Gathering Religious And Sporting Events", The Lancet, 393(10185), pp.2073–2084.

Miao, Cheng - Teng, Jiakun - Wang, Jun - Zhou, Peng (2018), "Population vulnerability Assessment Of Geological Disasters in China Using CRITIC–GRA Methods", Arabian Journal of Geosciences, 11(268), pp.1–12.

Mohr, Magni - Nassis, George P. - Brito, Joao - Randers, Morten B. - Castagna, Carlo - Parnell, Dan - Krustrup, Peter (2020), "Return to elite Football After The COVID-19 lockdown", Managing Sport and Leisure, pp.1–9.

Naidenova, Iuliia - Parshakov, Petr - Chmykhov, Alexey (2016), "Does Football Sponsorship Improve Company Performance?", European Sport Management Quarterly, 16(2), pp.129–147.

Nguyen, Thi Kim Lien - Le, Hoang Nga - Ngo, Van Hai - Hoang, Bang An (2020), "CRITIC Method And Grey System Theory In The Study Of Global Electric Cars", World Electric Vehicle Journal, 11, pp.1–15.

Oral, Ceren (2016), "Financial Performance Evaluation Of Sport Clubs Traded in Borsa Istanbul by Using Grey Relational Analysis", International Journal of Economics and Finance, 8(5), pp.293–299.

Özbek, Aşır (2021), Çok Kriterli Karar Verme Yöntemleri ve Excel ile Problem Çözümü, 3. Basım, Seçkin Yayıncılık, Ankara.

Panagiotis, Dimitropoulos E. (2009), "Profitability of the Greek Football Clubs: Implications For Financial Decisions Making", Business Intelligence Journal, 2(1), pp.159–169.

Parnell, Daniel - Bond, Alexander John - Widdop, Paul - Cockayne, David (2021), "Football Worlds: Business And Networks During COVID-19", Soccer & Society, 22(1–2), pp.19–26.

Pinnuck, Matt - Potter, Brad (2006), "Impact of On-Field Football Success On The Off-Field Financial Performance of AFL Football Clubs", Accounting and Finance, 46(3), pp.499–517.

Plumley, Daniel - Wilson, Rob - Ramchandani, Girish (2017), "Towards a Model For Measuring Holistic Performance Of Professional Football Clubs", Soccer & Society, 18(1), pp.16–29.

Reade, J. James - Singleton, Carl (2021), "Demand for Public Events in the COVID-19 Pandemic: A Case Study Of European Football", European Sport Management Quarterly, 21(3), pp.391–405.

Rey, Andrea - Santelli, Francesco (2017), "The Relationship Between Financial Ratios And Sporting Performance in Italy's Serie A", International Journal of Business and Management, 12(12), pp.53–63.

Rohde, Marc - Breuer, Christoph (2016), "The Financial Impact Of (Foreign) Private Investors On Team Investments And Profits In Professional Football: Empirical Evidence From The Premier League", Applied Economics and Finance, 3(2), pp.243–

256.

Sartori, Andrea (2020), "An Analysis of the Impact of the COVID-19 Crisis On Football Players' Market Values", https://www.footballbenchmark.com

Sakinc, İlker - Acikalin, Süleyman - Soyguden, Aydoğan (2017), "Evaluation of the Relationship Between Financial Performance and Sport Success in European Football", Journal of Physical Education and Sport, 17(1), pp.16–22.

Sakınç, İlker (2014), "Using Grey Relational Analysis to Determine the financial Performance of Turkish football clubs", Journal of Economics Library, 1(1), pp.22–33.

Sezgin, Cem (2016), "Deloitte Bir Futbol Kulübünde CFO Olmak", https://www2.deloitte.com/content/dam/Deloitte/tr/Documents/finance-transformation/deloitte-bir-futbol-kulubunde-cfo-olmak.pdf

Sifeng, Liu - Forrest, Jeffrey - Yingjie, Yang (2011), "A Brief Introduction to Grey Systems Theory", Proceedings of 2011 IEEE International Conference on Grey Systems and Intelligent Services, pp.1–9. https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6044018

Sözcü (2020), https://skor.sozcu.com.tr/2020/08/11/4-buyukler-mali-bilancolarini-acikladi-iste-toplam-zarar-1518368/

Wang, Qi - Wu, Chong - Sun, Yang (2015), "Evaluating Corporate Social Responsibility of Airlines Using Entropy Weight and Grey Relation Analysis", Journal of Air Transport Management, 42, pp. 55–62.

WHO- World Health Organization (2021), "Director-General's Opening Remarks at the Media Briefing on COVID-19 - 11 March 2020", https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020

LXu, Tianyu - Liu, Xiaojing - Zhang, Zeling (2020), "Simplified Likelihood Estimation of Ship Total Loss Using GRA and CRITIC Methods", Transportation Planning and Technology, 43(2), pp.223–236.

Yeung, Matthew - Ramasamy, Bala (2008), "Brand Value and Firm Performance Nexus: Further Empirical Evidence", Journal of Brand Management, 15(5), pp.322–335.