



Emre GÖLLÜ
Okan University
emregollu@yahoo.com

ORIGINAL ARTICLE

IMPACT OF THE FINANCIAL PERFORMANCES OF INCORPORATIONS OF FOOTBALL CLUBS IN THE DOMESTIC LEAGUE ON THEIR SPORTIVE PERFORMANCES: A STUDY COVERING FOUR MAJOR FOOTBALL CLUBS IN TURKEY

Abstract

All over Europe, professional football clubs have been transformed into profit oriented incorporations and their performances have been judged on and off the field of play. Football has begun to be considered as a business in Turkey mostly as of late 90's. In this study, we investigate the possible impact of the financial performances of incorporations on the sportive performances in the domestic league for the four major football clubs in Turkey, namely Beşiktaş, Fenerbahçe, Galatasaray and Trabzonspor over the period 2002-2009. In order to carry out this study, we use variables from the financial statements of these clubs' incorporations as a measure of their financial performances and sportive results obtained in the domestic league as an indicator of the sportive performance using a Spearman correlation model. The results of this study indicate that it appears to be no correlation between the sportive performances of the clubs and financial performances of their incorporations in the above mentioned period.

Key Words: *Football, incorporation, financial performance, sportive performance, Turkey*

Introduction

Sports industry has passed through a change period in the last two decades in which football has played the leading role. During this period it has been observed that football clubs have been transformed into profit oriented incorporations. Football clubs, in general, need funds to cover their expenses. These funds may come from operations but if the turnover is not high enough then most of the clubs go into debt. In this sense, it can be stated that the greater is the club's wealth, the higher is its ability to spend money. As a consequence, the probability of performing better on the pitch is also higher.

If we consider the financial statements of an incorporation, it is possible to point out that the profit and loss account reflects the capacity that this incorporation has to obtain a surplus from its turnover once all of its expenses are deducted. For this reason, as far as financial results are concerned, it is worth observing the effect of sportive performance on revenues, and the relationship of these revenues with costs. Although both turnover and expenses really depend on managerial skills, the expenses are more easily controlled than turnover because income relates to consumer demand. Control of expenses would lead to profits. If there is no policy for expenses to achieve a margin, there is little chance of profitability.

The motivation for this present study is based on the fact that studies made so far on the Turkish football clubs have not focused on the possible impact of financial performance on the sportive performance and the opposite. Moreover, the progress in Turkish football in terms of both sportive and economic development seems to be an almost untouched area in terms of conducting research on determining causes, effects and future projections. Normally it is expected that incorporation will increase incomes of football clubs, which will make it possible for the clubs to invest more to establish stronger squads, and so sportive success will be achieved. This means that it might be possible to compose a circle of increasing revenues and increasing sportive success in the middle and long term.

In this article, we study this research question whether the financial performances of incorporations have an impact on the sportive performances of their football clubs in the domestic league by taking a sample of four major clubs in Turkey, namely Beşiktaş, Fenerbahçe, Galatasaray and Trabzonspor into account. The structure of this paper is as follows. Section two includes the research conducted previously about financial and sportive performances of football clubs and analysis of sports efficiency through the non-parametric approach. The research question guiding this study is given in section three. Section four describes the methodology utilized to investigate the possible impact of the financial performances of incorporations on the sportive performances of their football clubs. In section five, results obtained through Spearman correlation model are given. Finally, section six consists of conclusions, limitations and recommendations for further studies.

Literature Review

Most research on economic and financial aspects of football analyse the relationship between sports performance and income, expecting it to be positive. And most of the studies about football were mainly focused on English and Spanish leagues.

Szymanski (1998) and Szymanski and Kuypers (1999) described two general principles on the performance in football: i) better league performance leads to higher revenue, and ii) increased wage expenditure leads to better league performance.

According to Slack (1997), the analysis of sports efficiency is a main issue in sports management. There are two contemporary approaches to measure efficiency: firstly, the econometric or parametric approach and secondly, the non-parametric. Among the papers adopting a non-parametric approach, we should mention Fazel and D' Itri (1997), who applied the data envelopment analysis (DEA) in order to measure the managerial efficiency of college basketball teams. Also Porter and Scully (1982) studied the managerial efficiency of baseball managers with a non-parametric approach.

Haas (2003) examined the efficiency of the USA Major Soccer League with plain data envelopment analysis (DEA). Espitia-Escuer and Garcia-Cebrian (2004) also used the DEA technique to measure both technical efficiency and scale efficiency of Spanish First Division soccer clubs.

Haas et al. (2004) investigated the efficiency of football teams in the German Bundesliga by data envelopment analysis (DEA) taking data for the season 1999/2000. Their results shows that efficiency scores are not correlated with rank in the league and that medium- and small-sized teams like Ulm often outperform well-known teams like Borussia Dortmund. They decomposed the sources of inefficiency into technical inefficiency and scale inefficiency and tested for the sensitivity of results with respect to different input-output combinations.

Szymanski and Kuypers (1999) stated that the proportion of the change in income during the 1996/97 season is explained by 82% by the English league position in that season. The result increases up to 89% when they work with a longer time period (1978-97). They use the logarithm of the revenues of each club divided by the yearly mean of the revenues of the all clubs as a whole. They conclude that winning teams, in the long term, are likely to attract high incomes.

Murphy (1999a) and (1999b) looked at the relationship between sportive performance and the rising wealth in English and Scottish football. He starts from the widespread idea that concentration of economic resources is inevitably reflected on the pitch and therefore in the performance rankings. He tries to test this hypothesis and whether or not a gap has appeared between the richest and the poorest clubs in the English and Scottish leagues. In the English case, his data do not deny a growing correlation between financial resources and sportive performance – measured by final league positions. However, there are no clear indications that the accumulation of financial resources has broadened the gap between clubs. According to Murphy (1999a), there is a strong likelihood that some clubs from the Premier League will maintain their status whereas the position of others will weaken. As a consequence, these weaker clubs will be more likely to be relegated. Therefore the number of 'yo-yo' clubs increases. In the Scottish case, he observes that the gap – measured by points and goals – between the richest and the worst-off in the Scottish Premier League is narrowing. At the same time, the probability of one of the main clubs – Glasgow Celtic or Glasgow Rangers – winning the league is increasing. To summarise, he concluded that in the Scottish Premier League the relationship between economic results and sports performance is less direct and more complex than we might expect.

Barajas et al. (2005) analysed the relationship between sports performance and the revenues of football clubs as well as the effect of sports performance on the financial results in Spanish professional football. They established a model in which a correlation between league position and seasonal income is analysed in a regression and concluded that there is no explanatory power of sportive performances on the economic results of the clubs.

Guzman and Morrow (2007) investigated the ponderability of efficiency and productivity of professional football clubs through their financial statements. They established a model by extracting information from financial statements and using a non-parametric technique to measure changes in efficiency and productivity both. According to their conclusion, efficiency and productivity of professional football clubs can be measured by applying data envelopment analysis (DEA) to selected financial data.

Barros et al. (2008) put forward the hypothesis that heterogeneity exists among sportive performances of Spanish football clubs due to different unobserved endowments. And by clustering the clubs into segments and investigating their efficiency in a cost function framework, they concluded that a relation exists between cost efficiency and sportive performance of the clubs.

Barros and Garcia-del-Barrio (2008) analysed the heterogeneity exists among sportive performances of English football clubs as various clusters by estimating the stochastic cost frontier using balanced panel data. Their conclusion is that heterogeneity exists among the clubs as clusters which accounts for individual policies to be applied.

Finally, Samagaio et al. (2009) examined influences of sportive performance, financial performance and stock market performance on each other in English football clubs by performing a cross-correlation analysis to measure the strength and direction of correlation between sportive and financial indicators. They concluded that moderate correlation exists between stock market return, financial performance and sportive performance of English football clubs.

In Turkey, academic studies on local football clubs did not directly consider the relations between financial performance and sportive performance. They were mainly focused on the relation between sportive performances and stock market values and prices of the football clubs which are public offered. Devecioğlu (2004) investigated the relationship between the sportive performances and stock market prices of public offered football clubs considering Beşiktaş and Galatasaray which have been the first Turkish football clubs that went public at the same date. He took the sportive performances of both clubs in the domestic league in 2002-2003 season and examined their possible impact on the stock market price using Finnet 2000 stock exchange analysis program. He concluded that it is possible to express that there is a significant relation between the results these clubs obtained in football matches and their stock market prices.

Berument et al. (2006) assessed the effect of soccer success on stock market returns after certain characteristics of the stock market are controlled for using a GARCH-M process. They concluded that according to the empirical evidence provided from Turkey, Beşiktaş's wins against foreign rivals in the Cup Winners' Cup increased the stock market returns. The same effect is not present for the other two major Turkish teams, namely Fenerbahçe and Galatasaray.

In summary, it is possible to point out that several studies were performed to investigate the efficiency of football clubs in terms of the relationship between their sportive performances and financial performances or economic results. Most of them indicate that a relationship exists between sportive performance and financial performance, even though no explanatory power of sportive performance on the economic results was found in one study.

Despite there are studies conducted as explained above, it is possible to point out a gap as that in the previous studies on Turkish football clubs, possible impact of financial performance on the sportive performance and the opposite were not investigated. This study aims to fill the gap existing in prior literature by investigating the impact of financial

performances of incorporations of four major Turkish football clubs in the domestic league on their sportive performances.

Research Question

We formulated the research question for this study as follows: “Do the financial performances of incorporations have an impact on the sportive performances of their football clubs in the Turkish domestic league?”

Methodology

In order to carry out this study, we obtained the financial data from balance sheets and income statements of incorporations of Beşiktaş, Fenerbahçe, Galatasaray and Trabzonspor for the period 2002-2009 from www.imkb.gov.tr, the official web site of Istanbul Stock Exchange. Accordingly, we took sportive data from the statistics of Turkish Football Federation for the period 2002-2009 from the official web site www.tff.org.tr.

As financial performance indicators for the incorporations of football clubs we selected net profit, net sales revenue, total liabilities/equity capital, current rate (Vause, 2009) and calculated them for the determined period of 2002-2009. In addition to these all financial performance indicators, we added management change to the model as a dummy variable. And the indicator for sportive performance we determined as ranking in the domestic league considering different previous studies in the literature.

Considering that a football season in Turkey ends in May and a fiscal year ends at the end of December, we took such kind of a lag into account in the matching of data. This lag is based on the expected relation between the sportive performance at the end of the season and its expected effect on the financial performance of the incorporation from both sides positively and negatively by creating revenue in the sales of seasonal tickets, revenues from sponsorships, revenues from TV broadcasting rights and payments to new transfers. For instance, to determine the relation between the financial performance of the incorporation and sportive performance of the selected football clubs in 2007, we considered the ranking in the domestic league in May 2007 at the end of the season and financial indicators at the end of December 2007.

In order to analyse the financial data, we selected Spearman rank correlation coefficient as the measurement method here. Because our data are in a limited number as eight per club and they have a non-Gaussian distribution, we can say that selection of Spearman rank correlation coefficient is an appropriate method for this analysis.

Results

We put selected financial performance indicators and domestic league ranking for the measurement of sportive performance into Spearman rank correlation for each of our four clubs separately using SPSS. Obtained results are given below club by club.

Beşiktaş

bnp is the net profit of Beşiktaş at the end of fiscal year, btl is the ratio of total liabilities to equity capital of Beşiktaş at the end of fiscal year, bnetsal is the net sales revenue of Beşiktaş at the end of fiscal year, bcurrent is the current rate of Beşiktaş at the end of fiscal year, branks is the domestic league ranking of Beşiktaş at the end of the season and bman is a dummy variable representing the management change. For Beşiktaş, we considered the management change as of the election of Mr. Yıldırım Demirören as club president in 2004.

Table 1. Results of Spearman rank correlation for Beşiktaş

		Correlations						
		btl	bnp	bnetsal	bcurent	branks	bman	
Spearman's rho	bnp	Correlation	,405	1,000	-,286	,738*	-,128	-,756*
		Coefficient						
	btl	Correlation	1,000	,405	-,190	,143	,179	,252
		Coefficient						
	bnetsal	Correlation	-,190	-,286	1,000	-,762*	-,600	,252
		Coefficient						
	bcurent	Correlation	,143	,738*	-,762*	1,000	,230	-,756*
		Coefficient						
	branks	Correlation	,179	-,128	-,600	,230	1,000	,270
		Coefficient						
	bman	Correlation	,252	-,756*	,252	-,756*	,270	1,000
		Coefficient						

*: Correlation is significant at the 0.05 level (2-tailed).

The results indicate that there is no significant relationship between branks and the financial performance indicators. On the other hand, negative correlations are determined between bman and both bnp and bcurent.

Fenerbahçe

fnp is the net profit of Fenerbahçe at the end of fiscal year, ftl is the ratio of total liabilities to equity capital of Fenerbahçe at the end of fiscal year, fnetsal is the net sales revenue of Fenerbahçe at the end of fiscal year, fcurent is the current rate of Fenerbahçe at the end of fiscal year, franks is the domestic league ranking of Fenerbahçe at the end of the season. There is no dummy variable for management change put in the model for Fenerbahçe because there has not been any change in the management of Fenerbahçe in the period of our investigation, Mr. Aziz Yıldırım kept his position as club president.

Table 2. Results of Spearman rank correlation for Fenerbahçe

		Correlations					
		fnp	ftl	fnetsal	fcurent	franks	
Spearman's rho	fnp	Correlation	1,000	,000	,833*	,310	-,175
		Coefficient					
	ftl	Correlation	,000	1,000	,000	-,857**	,426
		Coefficient					
	fnetsal	Correlation	,833*	,000	1,000	,286	-,050
		Coefficient					
	fcurent	Correlation	,310	-,857**	,286	1,000	-,676
		Coefficient					
	franks	Correlation	-,175	,426	-,050	-,676	1,000
		Coefficient					

*: Correlation is significant at the 0.05 level (2-tailed).

** : Correlation is significant at the 0.01 level (2-tailed).

The results show that there is no significant relationship between franks and the financial performance indicators.

Galatasaray

gnp is the net profit of Galatasaray at the end of fiscal year, gtl is the ratio of total liabilities to equity capital of Galatasaray at the end of fiscal year, gnetsal is the net sales revenue of Galatasaray at the end of fiscal year, gcurrent is the current rate of Galatasaray at the end of fiscal year, granks is the domestic league ranking of Galatasaray at the end of the season and gman is a dummy variable representing the management change. For Galatasaray, we considered the management as of the election of Mr. Adnan Polat as club president in 2008.

Table 3. Results of Spearman rank correlation for Galatasaray

			Correlations					
			gnp	gtl	gnetsal	gcurrent	granks	gman
Spearman's rho	gnp	Correlation	1,000	,333	,695	,143	-,233	,756*
		Coefficient						
	gtl	Correlation	,333	1,000	,371	-,786*	,209	,630
		Coefficient						
	gnetsal	Correlation	,695	,371	1,000	-,084	,105	,760*
		Coefficient						
	gcurrent	Correlation	,143	-,786*	-,084	1,000	-,246	-,378
		Coefficient						
	granks	Correlation	-,233	,209	,105	-,246	1,000	,000
		Coefficient						
	gman	Correlation	,756*	,630	,760*	-,378	,000	1,000
		Coefficient						

*: Correlation is significant at the 0.05 level (2-tailed).

**: Correlation is significant at the 0.01 level (2-tailed).

The results show that there is no significant relationship between granks and the financial performance indicators. On the other hand, positive correlations are determined between gman and both gnp and gnetsal.

Trabzonspor

tnp is the net profit of Trabzonspor at the end of fiscal year, ttl is the ratio of total liabilities to equity capital of Trabzonspor at the end of fiscal year, tnetsal is the net sales revenue of Trabzonspor at the end of fiscal year, tcurrent is the current rate of Trabzonspor at the end of fiscal year, tranks is the domestic league ranking of Trabzonspor at the end of the season and tman is a dummy variable representing the management change. For Trabzonspor, we considered the management as of the election of Mr. Sadri Şener as club president in 2007.

Table 4. Results of Spearman rank correlation for Trabzonspor

		Correlations						
		tnp	tıl	tnetsal	tcurrent	tranks	tman	
Spearman's rho	tnp	Correlation Coefficient	1,000	,405	,976**	,333	-,265	,732*
	tıl	Correlation Coefficient	,405	1,000	,429	-,429	,096	,507
	tnetsal	Correlation Coefficient	,976**	,429	1,000	,310	-,337	,732*
	tcurrent	Correlation Coefficient	,333	-,429	,310	1,000	-,675	-,169
	tranks	Correlation Coefficient	-,265	,096	-,337	-,675	1,000	,000
	tman	Correlation Coefficient	,732*	,507	,732*	-,169	,000	1,000

*: Correlation is significant at the 0.05 level (2-tailed).

** : Correlation is significant at the 0.01 level (2-tailed).

The results show that there is no significant relationship between tranks and the financial performance indicators. On the other hand, positive correlations are determined between tman and both tnp and tnetsal.

Conclusion

With regard to the results obtained for each of the four clubs, we can say as a general conclusion that domestic league rankings of four major football clubs in Turkey do not depend on the financial performances of their incorporations. Oppositely, financial performances of incorporations do not have any impact on the domestic league rankings.

For instance; Beşiktaş became the third place in 2008, even its loss increased and current rate decreased its sportive performance increased. Beşiktaş became champions in 2009, even its total liabilities to equity capital ratio was lower than zero.

Fenerbahçe was champions in 2007. Eventhough its net profit increased, they dropped to the second place in 2008.

Net profit, net sales revenue and current rate of Galatasaray increased from 2006 to 2007 but ranking of the team in the domestic league decreased from first to third place.

Similarly, net profit and net sales revenue of Trabzonspor increased from 2007 to 2008 but ranking of the team in the domestic league decreased from fourth to sixth place.

As a general conclusion for the clubs except Fenerbahçe we can say that there is no significant relation between management change and ranking in the domestic league. However, management change has shown an increase in the total liabilities in Beşiktaş, Galatasaray and Trabzonspor. This increase in total liabilities in which a continuity is observed dragged these clubs to the vicious circle of debt and transfer. There might be two main reasons for the outcomes being received as not expected. First, a more detailed investigation might be necessary and secondly, other factors affecting the sportive performance might be considered and examined.

With regard to the vicious circle of debt and transfer, we recommend to investigate funding methods generally observed by the club as taking debts from presidents and executives and their affects on sportive performance in the middle and long term. In addition, interest might be shown in the financial criteria of UEFA that are going to be applied as of 2013 and their impacts on Turkish football clubs.

In this study, we had three limitations. Investigation was made only for four major clubs. This investigation covered only the sportive performances in the domestic league. Also analysis of financial and sportive performances were made for the period 2002-2009.

Further studies could be conducted on the impact of sportive performance on financial performance. Also, impact of results obtained in the European Cups can be added to the investigation; impact of public offering to the sportive performance can be investigated; and impact of sportive performance on the stock market value changes can be investigated as well.

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