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ABOUT THE SMART SPORTS DEVELOPMENT. EVIDENCE FROM THE UK PREMIERE LEAGUE

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Abstract: *Smart economy implies the development of key factors like global economy growth, competition, economic progress, economic prosperity, innovation. In the European top-level football, like the case of the British Premier League, financial indicators have demonstrated that the factors that define smart economy can be identified. The new rules of the financial fair-play policies and the ever growing revenues for television rights have created a new market in sports economy, one that identifies itself with the criteria identifies in studies regarding smart economy.*

This paper comparatively examines the determinants of four indicators of the football team quality in the British Premier League, in order to find out whether a common set of potential determinants could be effective in improving all four indicators of quality, without worsening any of them. This allows finding what measures undertaken at the level of football teams could raise the football team quality. Considering the subjective and multidimensional nature of the football team quality, we first propose four indicators that might be appropriate to define this latent summative measure. Then we select a number of four potentially common determinants of the football team quality, and finally discuss the empirical results, based on panel generalized least squares regression models. The television broadcasting rights are found to be the most important determinant of the football team quality.

Keywords: Football, quality, TV rights, match day revenue.

1. BACKGROUND

In a smart economy where competition becomes a key factor, the Premier League is becoming a more and more interesting market, in terms of investments and innovative financial strategies. The globalization of football has made British football a popular

competition that is broadcasted in more than 96 countries, including the Asian or American markets.

From a financial point of view, the introduction of the financial fair-play rule by the UEFA, according to which all European football clubs must adjust their financial balance so as to not spend more than they produce, has changed the rules for British clubs who now have to adopt a different strategy when the transfer players, find sponsors, market their brands and construct a general budget. In this context, with higher revenues from TV rights and innovative means that the clubs use in order to balance their expenditures the rivalries will grow beyond sport privileges and expand to an economic driven competition.

The football team quality[1] is an attribute often mentioned in specialist journals, which is followed by all teams, but whose definition and measurement are rather ambiguous and subjective. Over time, many variables have been used to measure the football quality, but the "scientific" literature is rather poor, most references being rather used in sport journals and websites.

At present, the measurement of football quality is even more problematic because many new regulations and complex situations characterize the contemporary football. For instance, UEFA[2] has been launched the financial fair-play, a system that made it mandatory for Premier League clubs to turn loss into profit (Gunardi, 2014). The UEFA Financial Fair Play Regulations (FFP) where agreed to in principle in September 2009 by the Financial Control Panel of football's governing body in Europe (Union of European Football Associations – UEFA). They were established to prevent professional football clubs spending more than they earn (Vopel, 2011). By doing so, it became mandatory for club to cut their losses and to balance their expanses. With this new set of regulations the measurement of football teams quality and performance might improve.

Football finance has been a SUBJECT of interest as early of 1971 when Sloane addressed the matter of how English premier league clubs build their budget. In today sports, the issue of finance in football has increased, as presented by Steven (1981) and Conn (1981). In Great Britain, as football is the main national sport, there is a large interest for the analysis of its specific financial dynamics (Moorhouse, 1986).

[1] For simplicity, the quality of football teams is referred to in this paper as "football quality".
[2] Union of European Football Associations

The football quality has been often addressed to as a major objective of football clubs, since the clubs interests go beyond the win of trophies and champions. For example, Leeds United, which is one of the most awarded club in the Premier League history, is now bankrupt despite of its shining past evolution. Considering all above, we might wonder what really defines quality in football. Is that the football quality comes from the values of players (Goddard and Sloane, 2014), or maybe the match day revenues represent the best indicator of the football quality? In the scientific literature, as well as in specialist journals, a great number of indicators are generally used to measure football quality, such as: the general income of premier league clubs the quality of the players (Guzman and Morrow, 2010), the team's previous results, the marketing awareness, the comfort of the home stadium and the merchandising incomes (Theodorakis, 2011). Quality can also be defined by the increasing value of broadcasting rights, a factor that this paper also considers. The importance of financial fair-play for our research question is given by the influence that debt and loan before taxation has on each of the premier league clubs' turnover. Quality has not been taken into consideration when assessing the financial status of European football, but it has been identified as a factor which can influence the increase of TV rights in other sports (Tainsky, McEvoy, 2012). When taking quality in football into consideration, papers and articles about the German football have identified variables like game importance, the value of the home team and star players to be important factors in having a bigger demand of televised football (Arne Feddersen, 2006).

Over the last 5 years the English Premier League has also been facing fixture congestion. Televised midweek Champions League matches involving English Premier League clubs have substantial adverse impacts on lower division Football League gate attendance. This suggests that affected clubs may have a case for compensation from the Premier League for loss of gate revenue from this source. Scheduling of home games close to one another also has an adverse impact on attendance. Reorganization of fixture schedules and/or redistribution of income would help offset adverse impacts on team revenues from midweek scheduling (Forrest and Simmons, 2002). Therefore if television rights have reached a higher level, there is a list of variables in English Premier League that makes demand of televised games increase. One of the objectives of this paper is to show weather game quality can influence demand in TV rights. Over the years, in the English Football League some

degree of performance equalization has traditionally been achieved by restricting financial competition and through income sharing arrangements (Arnold, Benvenise, 2012). Club results became an indicator of quality and broadcasting rights were handed by means of the place occupied at the end of the season in the league table. This, of course, helped rich clubs become even wealthier. For this reason, this paper considers quality to be more than just an indicator of one team's performance result.

One of the variables that this paper uses in the empirical analysis is the match day revenues. This variable has been previously used as a determinant of football quality, based on data on individual games played in the Premier League (Jaume, Rodriguez, 2002). When taking match day revenues into consideration, the increased broadcasting of games must also be considered. Premier League's neighbor, *the Scottish premier league* has suffered a downfall of 30% supporters in attendance for games which are also broadcasted live (Alland, Roy, 2008).

Economists studying football finance in the EU (Szymanski, Lago and Simmons, 2004) consider that all broadcast rights have a negative impact on clubs turnover at the European level. They argue that overpaying TV broadcasting can determine one club to have an increase in transfer expenditures, and by doing so unbalancing its financial sheet. It is their opinion that all variables above have led European football into a financial crisis. But TV broadcasting has played a major part in developing British football as we know it. The Premier League's decision to assign broadcasting rights to BSkyB[3] in 1992 was risky as at that time as pay television was an untested idea in the United Kingdom. However, a combination of great coverage from Sky, the quality of football and the English fan's insatiable appetite for football saw the value of the Premier League's TV rights soar. By 2012 the Premier League was watched in 212 territories by an audience of 643 million. British football was able to distribute almost £1 billion to English clubs in the same year[4].

This paper aims to shed some light on the definition and measurement of quality in football, by comparatively examining the impact that a set of common measures undertaken at the level of football clubs carry on four indicators of football quality. This empirical analysis uses data from running from 2009 to 2013. We expect to find out whether the set of measures

[3] Sky TV or British Sky Broadcasting, owned by Rupert Murdoch, introduced the first Pay-Per-View system in the world, where viewers had the option to pay for preferred programming.
[4] Brand Finance-Football Brands 2012

would allow improving all the quality measures, or at least some of them, without worsening others. This would finally allow finding measures which could effectively improve the football quality (in an Optimum Pareto sense).

2. METHOD, DATA AND RESULTS

Although the football quality is a very broad concept, we focus in this paper only on the football teams' quality.

Our data come from the Premier League Club Accounts [5]dataset, and cover a number of four years (2009-2013) and 20 teams playing in the English Premier League. Our main variables of interest are the loss-profit sheet, turnover, wage proportion and debt.

In our empirical analysis we define football quality upon four indicators, i.e. the matchday revenues, salaries, commercial rights and TV rights. The set of determinants includes the football teams' net profit, turnover, proportion of salaries into the total budget and the total debt.

Table 1. Determinants of the football team quality

Explanatory variables	Match day revenue Model 1	Salaries Model 2	Commercial rights Model 3	TV rights Model 4
Loss-profit	-0.04 (0.06)	-0.60*** (0.12)	-0.43*** (0.13)	-0.14*** (0.05)
Turnover	0.17*** (0.02)	0.30*** (0.04)	0.17*** (0.04)	0.10*** (0.01)
Wages proportion	-0.62*** (0.16)	-0.28 (0.30)	-0.68** (0.33)	-0.41*** (0.12)
Debt	0.05*** (0.01)	0.06*** (0.01)	0.02 (0.02)	0.05*** (0.008)

*Notes: Cross-sectional time-series FGLS regression; *** p<0.01, ** p<0.05, * p<0.1.*

In Tab. 1 a number of four dependent variables are explained upon a set o common determinants, namely the net profit, the club's turnover, the salaries proportion into the total budget and the clubs debt. Feasible generalized least squares is the technique that allows

5 https://docs.google.com/spreadsheets/d/19ZJ9MwHVLbCehMNfR_1EQSAxrk8umGaEkT56ppoCjuI/edit?hl=en&pli=1#gid=1

estimation of models 1-4 in the presence of AR(1) autocorrelation over time and cross-sectional correlation and heterokedasticity across the football teams.

The net profit has been a subject of change in European football because of the financial fair play rules. As presented earlier, the financial fair play rules stated by the UEFA board make it mandatory for each club to have a clean sheet and make profit at the end of each season. Therefore clubs that used to be on loss, because of expensive transfers and high paid salaries can no longer find themselves in such a situation. It is for this reason that in our model the net profit variable has a negative impact on all four models. Clubs find themselves in the need of decreasing salaries and therefore commercial rights will also decrease as companies do not tend to associate their name with teams that bring in cheaper players. Valuable players will not be interested in playing where salaries are low, and players of lesser value means a decrease in match day revenue and TV rights.

The increase of football teams' turnover has a positive impact on all four dependent variables, but with a lower significance in the case of commercial rights. A higher turnover allows football clubs investing more in better players and stadiums. This could raise the overall quality of football games, which is likely to also generate higher match day revenues, commercial rights and TV rights.

The proportion of salaries into the budget has a significant influence only three of our dependent variables (models 1, 2 and 4). These empirical findings should be correlated with a recent tendency in the British football, namely the maximization of football clubs' profit[6]. This has an important role in the regression studied above, as salaries, especially those of players and managers have increased in the last 4 years due to the overall financial increase in British Football (Thornton, 2012). As the salaries proportion increases, clubs have less money for investment. Because of the financial fair-play, clubs can no longer increase all their expenditures. Expenditures with commercial rights do tend to decrease but it also must be stressed out that higher wage proportion means higher paid players. Higher wage proportion means a negative impact on TV rights, as TV rights will increase depending on the value of the team, not necessary the wages of certain players. Increased wages can mean less investment in other areas of the club, and thus TV rights interest can be damaged.

[6] After the introduction of the Financial Fair Play Rules by FIFA, clubs could no longer have a season objective just that of sport performance, making profit, like any company also became an objective for clubs to take into consideration

Finally, debt has a positive impact on three of the dependent variables (models 1, 2 and 4). Debt has decreased in the last four years in the Premier League and fans tend to be more attracted in attending games when the club is safer from a financial point of view. It is for this reason that debt has a positive impact on match day revenues. Salaries will also have the potential to increase if debt decreases, while clubs that are low in debt and have the possibility to invest in players, football management, stadium development and other criteria will naturally attract high paid TV rights.

3. DISCUSSION AND CONCLUSIONS

Quality of football clubs was the main research issue examined in this paper. The empirical findings suggest that despite the multidimensionality, subjectivity and relativity involved by the definition of this concept, standard measures undertaken at the clubs' level would generate similar effects on its three measures, thus enhancing their effectiveness in targeting a higher quality.

The amounts collected by football clubs from TV rights determine the increase of the match day revenues, salaries and commercial rights, as well as the increase of football clubs' turnover. Although both the TV rights and the turnover are significant determinants for all three quality measures, the TV rights variable is a more powerful measure. The increase of the football clubs' net profit causes the decrease of salaries and commercial rights, without significantly affecting the match day revenues, while the salaries proportion into the budget produces contrary effects on the match day revenues and salaries.

This spectrum of measures that could lead to the football quality improvement could be definitely extended. Our empirical analysis, which is based on available data from the British Premier League has revealed that the TV rights and turnover play a significant role in stimulating the football clubs' quality. Also relevant is the finding that the proportion of salaries into the budget has only a marginal role in the football clubs quality.

Financial football has also become an interesting field of study. Recent developments due to in growing revenues from broadcasting rights, transfer fees and market pools have increased the budget of the Premier League club to such an extend in which these clubs have become corporations of a new globalized economy. From this point of view, economy in sports has taken a step forward and can already be considered party of the newly an increasing

phenomena of smart economics where innovation, competition and appealing to a globalized markets are some of the criteria that are taken into consideration when developing a well structured, long-term financial strategy.

CONFLICTS OF INTEREST AND PLAGIARISM: The authors declare no conflict of interest and plagiarism.

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