Lucky Champions: Does Calendar Affect Result?

There is massive literature on the relation of injuries and toughness of the calendar (e.g. Ekstrand et.al (2008)). Medical literature offers a strict conclusion of positive dependence of the two factors. Also, there are some attempts to measure the relation between the results of the first games in a season with the final result of a team (i.e. Lago-Penas et.al. (2016)). However, these studies lack the clear solution to the endogeneity problem arising due to the clear interconnection between the results in the first games of a season and the overall strength of the club. In this paper we focus on the relationship between the order of games in a season and the final results of a team.

First of all, we collect the data for the first top ten leagues (by the UEFA ranking) on the transfer value of teams (using transfermarkt.com) and the results by matchday. Then, we clusterize, using k-means method the teams by the categories, using market value of teams and their previous results in the same tournament. Then, we introduce different notions of "hard" tournaments and check how such tournaments affect team performance.

Current results

1. Various types of clusterization of clubs are performed

2. Various definitions of difficulty of a tournament are introduced based on the exogenous assessment of sequence of games at the beginning of the season

3. Regression model of a from

$$Result_i = \beta_0 + \beta_1 Strength_i + \beta_2 Difficultyofcalendar_i + \epsilon_i$$

   is estimated using various proxies of all three variables (e.g. the result is defined as a place of a team, number of points, deviation of final place from the initial market value rank.

4. We see on average that more simple calendar at the start of the competition produces an average better result for any team.

5. For stronger team the less is the number of difficult games in a row the better is the result, while the reverse is true for the weaker teams.

Further research

1. Enlarge data set in both spatially and temporarily

2. Include country-specific parameters into regression, check the difference in the amplitude of the results for different countries

3. Include regressions for the teams of comparable rankings in order to compare results across different rankings.

4. Create a theoretical model that might explain the found phenomena

5. Explain the mechanism of the phenomena

References

[1] *Lago-Peñas, Carlos, et al. "The impact of a good season start on team performance in elite handball."* Journal of human kinetics 50.1 (2016): 195-202.

[2] Ekstrand, Jan, Markus Waldén, Martin Hägglund *"A congested football calendar and the wellbeing of players: correlation between match exposure of European footballers before the World Cup 2002 and their injuries and performances during that World Cup."* British journal of sports medicine 38.4 (2004): 493-497.