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Comparing Management Performance of Belgian Football Clubs

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Inhalt

Abbildungen

Tabellen

Comparing Management Performances of Belgian Football Clubs

Stefan Késenne

Introduction

Over the last decade, Belgian football has been suffering, both on a national and on a club level. For the first time in many decades, the Belgian national team did not qualify for the World Cup and the UEFA EURO. The team did not participate in the World Cup 2006 in Germany, was absent at EURO 2004 in Portugal and will not be present at EURO 2008 in Austria and Switzerland. Fortunately, the Belgian football federation was the co-organizer of EURO 2000 together with the Netherlands, so that both countries were qualified without playing the qualification rounds. Also, for the first time in many years, no Belgian club qualified for the UEFA Champions League in 2006–2007.

Many reasons have been put forward to explain this débâcle. The Bosman verdict of the European Court of Justice in 1995 seems to be the main scapegoat. It is not so much the abolition of the transfer system, but rather the opening of the European player market by abolishing the so-called "3+2 rule", which limited the number of foreign players that could be fielded, that has had a major impact. Opening the European player market, and leaving the European product market closed, is asking for trouble.[1] All former top clubs in the small European countries have experienced an exodus of all their best players to larger countries such as England, Spain, Italy, and Germany; a process that has been enforced by the media rights explosion in the these countries. This obviously weakens the playing qualities of the teams, and can also explain the weak performances of the national team. With few exceptions, many Belgian

[1] Késenne (2007).

players on foreign teams end up on the bench or on the B-team, losing their competitive edge.

In our opinion, things went wrong after 1995 because of the slow move of the football clubs, as well as the Belgian football federation (KBVB), to professional management. Belgian football clubs faced serious financial problems after the Bosman verdict because club managers offered and paid higher player salaries when there was no money for any general salary increase. In addition to this short-sighted management reaction, the general neglect and the low quality of youth training and formation are also to blame. After Bosman, and the abolition of the transfer system, many club managers considered it useless to spend money on youth training because if a promising young player were to show up, he would be hired by a larger and better paying club without any compensation. Instead, they turned to the transfer market and tried to attract many low-paid foreign players. What they overlooked is that, if one out of ten young players runs off, there are still nine to stay and to strengthen the team.

In this contribution, we concentrate on management performances. We try to compare the management performances of the Belgian first division teams. Is Anderlecht, by far the richest Belgian club, a well-managed club compared with its Belgian competitors; does the club perform according to its potential? This analysis does not pretend to conclude anything regarding the absolute quality of Belgian club management.

The Model

In many applications, the total season budget, or the total season revenue, of a club is considered as the most relevant indicator of its potential playing strength. In a liberalized player market, a rich club can attract the best players by offering the highest salaries. If one compares the average season budgets of the Belgian first-division teams and the number of points in the final ranking over a period of eight years, one finds a correlation coefficient of 0.90. The ordinary least squares (OLS) estimation of the linear relationship between these two variables, with the t-values in parentheses, results in:

Wins = 35.7	+1.8 *Revenue*	$R^2 = 0.81$	n = 13	
(13.1)	(6.9)			
				(1)

The residuals of this estimation result can reveal which clubs are doing better than average in terms of winning given the size of their budget, assuming that the budget of a club is an indicator of the potential talents they can afford. Some teams are clearly performing better than expected given the size of their budget. The assumption is that these deviations are caused by the differences in management performance. The striking result of this first estimate was that in the ranking Brugge ended on top and Anderlecht ended eleventh or almost last.

However, analysing management performances, the size of the budget of a club cannot be considered as an exogenous variable; it is also one of the results of the quality of club management. So, we start from a more general model to derive and compare the management qualities of the clubs. The simple model tries to describe the main relationship of the industry. It starts from the size of the local market of a club as the main determinant of the strength of a team. All empirical results show that the market size, or the drawing potential of both players and supporters, is the main determinant of a club's budget and its winning record.[2] So, the market size has a positive impact on both the playing talents and the season attendances of a club. But the relationship between these variables is affected by the club's management performances, such as their talent development programs, their pricing policy and promotion efforts. These and the following relationships, with its associated management functions, are presented in Figure 1.

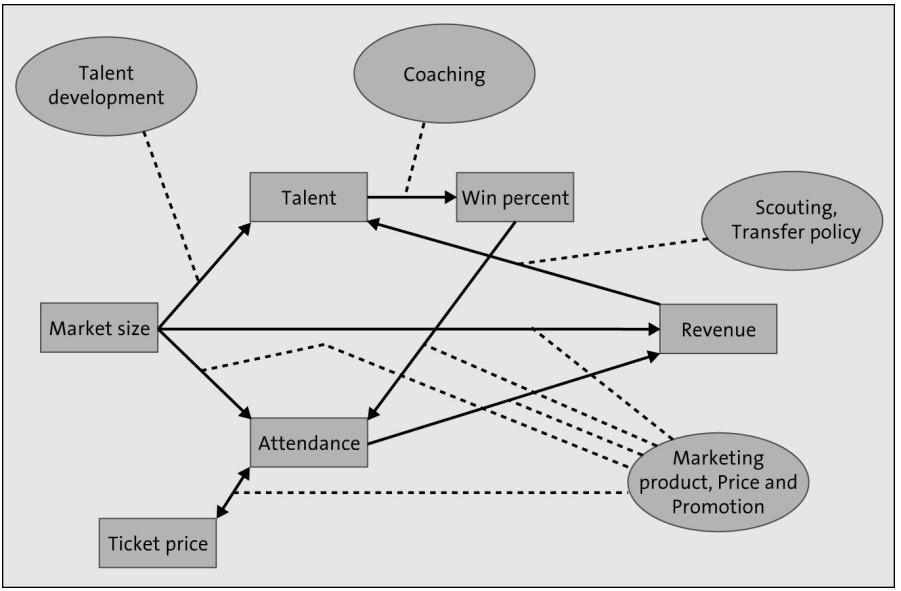
Obviously, the talents of a club will affect their winning percentage, but this can be enhanced by the coaching quality. Another important result from the empirical research shows that winning percentage is an important determinant of stadium attendance. The level of the ticket price can also be expected to have a negative effect on stadium attendance. If prices can be set by the club as a local monopolist, the ratio of the stadium capacity (supply) and

[2] Noll (1974), Quirk/Fort (1992), and Szymanski (2003).

the average match attendances (demand) affect the optimal price. Again, the marketing policy of the club managers does affect these relationships.

Stadium attendance seems to be a good predictor of the total budget of the league. For Belgium, we found a correlation coefficient of 0.91 between season attendance and season revenue of a club. Indeed, all other club revenue sources besides gate receipts, such as sponsorship and other commercial revenue, as well as media rights, can be expected to be correlated with the popularity of the team. Besides its indirect effect on revenue, the size of the market can also directly affect the opportunities of a team to raise all sorts of commercial revenue.

Figure 1: Basic Model



Finally, the total budget or season revenue of a club will allow the team managers to room the national and international player market. Because huge transfer fees and salaries are paid for attracting the best players, the size of the budget will have an impact on the playing talents of the team. This relation-

ship will clearly be affected by the quality of the scouting and transfer policy of the managers.

Due to a lack of reliable data for Belgian football, we had to simplify this model considerably. One of the problems is to measure talent. If one assumes that the player talent market is efficient, the total payroll can be a proxy for the total playing talent of a team. However, data on payrolls or the clubs' wage-turnover ratios are not available in Belgium. So we have to skip the relationship between market size and talent and jump from market size to winning percentage. Skipping talent, season revenue will also affect the winning percentage directly. We also left out the ticket pricing policy because the stadium capacity utilization in Belgian's first division is on average only 60 %. Moreover, most empirical research shows the price elasticity to be very small and/or insignificant.

So the model we have estimated consists of only three equations:

$a = f_1(m, w)$	$w = f_2(m, r)$	$r = f_3(a, m) + cl_{-1}$
(2)	(3)	(4)

where a is season attendances, m is the local market size, w is the season winning percentage, r is the season revenue, and cl_{-1} is the money received by playing in the UEFA Champions League (UCL). This last variable is added as an exogenous variable because Belgian teams can qualify for the UCL and earn a lot of money compared with the size of their budget. The lag is justified by the fact that the UCL money is paid at the end of the season. The money from participating in the UEFA Cup is left out here because no significant amounts of money are left over after subtracting the additional costs of participation. The marketing efforts of the club managers can increase attendances in Equation (2), and the clubs' budgets in Equation (4). The relationship between the explanatory variables and the winning percentage in Equation (3) is affected by the management qualities in terms of talent scouting, youth development and coaching.

The model is clearly a simultaneous model; the three equations are identified, so both the reduced and the structural form parameters of the model can be estimated.

The Data

We have estimated this model with Belgian panel data for eight seasons, from season 2000/01 until 2006/07, and the 13 clubs that have been in the first division during that period. We started in 2000 because we wanted to give the teams time to adjust to the new market situation after the Bosman verdict and the introduction of the License System of the Belgian football federation, mainly checking if clubs have paid their debts.

The market size of a team, or the drawing potential for spectators and playing talent, was approached by the population in town and adjusted for the presence of another top team in town.

The total season revenue of a club is given by the newspapers' and magazines' rough estimations of the club's total budget. These data are known to be rather unreliable but that is all there is.

The season winning percentage is measured by the number of points in the final ranking. This is better than using the winning percentage itself because of the possibilities of ties in football. Because spectators prefer one win to two ties, the point system grants three points for a win and one point for a tie.

The attendance figures are the average number of spectators per game, based on the estimations of sports journalists familiar with the size of the stadium. Again, these figures are not always very reliable. In Table 1, some basic statistics are presented for these data. One can observe that there is a huge difference in market sizes and club revenues.

Table 1: Statistics

Mean	**Mean**	**Std. Dev.**	**Min**	**Max**
Market Size (x 1000)	136	131	33	500
Revenue (in million Euro)	8.5	6.25	2.3	29
Win Percent (points)	51	15	14	83
Average Nr of Spectators	11 506	6 874	4 247	25 329

Table 2: Correlation Matrix

	Market Size	Revenue	Win Percent.	Attendance
Market Size	1.00			
Revenue	0.66	1.00		
Win Percent.	0.52	0.72	1.00	
Attendance	0.54	0.91	0.73	1.00

In Table 2, the correlation matrix of these four variables is given. If the correlation between attendance and club revenue is as high as 0.91, the correlation coefficient between market size and winning percentage is not higher than 0.52. This is remarkable, and calls for some further investigation and a comparison between the clubs' management performances.

Estimation Results

Assuming that the final objective of Belgian football clubs is to maximize the winning percentage, rather than to maximize season profits, the most relevant reduced-form equation to compare the qualities of general club management is the one explaining the winning percentage as a function of all predetermined variables in the model, that is,

$$w = w(m, cl_{-1}) \tag{5}$$

Based on a panel data set consisting of 13 first-division clubs and eight seasons (2000–2007), a random-effects model is estimated. The random-effects model is more suitable than the fixed-effects model if the number of teams is larger than the number of time periods. We also assume that the random effects are independent of the explanatory variables. The predetermined variables are assumed to have a common effect in all clubs because they measure the average effect of these variables on the winning percentage. The linear model that is estimated is then:

$$w_{it} = \alpha_i + \beta m_{it} + \gamma cl_{i,t-1} + \varepsilon_{it}$$
$$\text{with:} \quad \alpha_i = \alpha + \mu_i$$
$$\text{so:} \quad w_{it} = \alpha + \beta m_{it} + \gamma cl_{i,t-1} + (\mu_i + \varepsilon_{it}) \qquad (6)$$

Because the error term is serially correlated, the model is estimated with Generalized Least Squares (GLS). The results are given in Table 3. The market size has a positive and significant effect on wins, but surprisingly, the Champions League money earned by a few clubs over these years, (Anderlecht, Club Brugge and Genk) has had no significant effect on their performances in the national competition.

More important here are the estimated random effects, which are ranked according to size in Table 3. Two clubs stand out in comparison with the rest, Club Brugge and Genk. Anderlecht, by far the richest club in Belgium, is only fourth in the ranking. Comparably, the club with the smallest budget, Westerlo, is doing remarkably well. The poorest managers can be found in Charleloi and Beveren.

The estimated random effects in the reduced form only indicate the differences in general management performance, that is, all management functions together, and does not reveal anything about the disaggregated management functions that are listed in Figure 1. One might be interested in where things have gone wrong for Anderlecht; the richest club which has always claimed to be the best-managed club in the country. This can partly be detected by estimating the structural-form equations.

Table 3: Reduced-form Estimation

Variable	Coefficient	t-Statistic
C	42.82	11.53
Market	0.06	3.25
Champions League	-0.47	-0.72
Random Effects: Measuring General Management Quality		

Variable	Coefficient	t-Statistic
Brugge	17.8	
Genk	11.7	
Standard	5.5	
Anderlecht	2.7	
Lokeren	1.7	
Westerlo	1.4	
Mouscron	0.2	
Gent	-1.0	
Lierse	-3.9	
St-Truiden	-4.1	
GBA	-9.0	
Charleroi	-10.3	
Beveren	-12.8	
Unweighted statistics including random effects		
R-squared	0.66	
DW	1.86	
Number of Obs	104	

The quality of the clubs' marketing policies can be detected by looking at the structural-form equations for attendance and revenue. They were comparable to the results found in the reduced form and are not presented here. The structural-form equation for the winning percentage reveals more about another important management quality. As mentioned above, the random effects in Equation (3) indicate how well a club is managed in terms of talent scouting, youth training and coaching. These results are presented in Table 4. From this, it turns out that Anderlecht has been doing a poor job, because it ranks only ninth and is performing worse than average in the first division. This does not come as a surprise for most football adepts. Over the last decade, Anderlecht has attracted and bought many expensive players on the transfer market who did not perform. They have also hired and fired many coaches, sometimes

three in one season, whereas many empirical studies have shown that changing coaches mid-season is ineffective and a waste of money.[3]

Table 4: Structural-form Estimation

Variable	Coefficient	t-Statistic
C	37.4	13.51
Market	0.02	0.95
Champions League	1.36	4.24
Random Effects: Measuring General Management Quality		
Brugge	8.3	
Genk	4.3	
Standard	3.1	
Anderlecht	2.5	
Lokeren	1.3	
Westerlo	1.1	
Mouscron	-1.2	
Gent	-1.5	
Lierse	-1.8	
St-Truiden	-2	
GBA	-2.6	
Charleroi	-3.5	
Beveren	-7.9	
Unweighted Statistics including Random Effects		
R-squared	0.64	
DW	1.93	
Number of Obs	104	

[3] Koning (2003).

Conclusions

One of the conclusions from this oversimplified analysis is that the four richest football clubs in Belgium are also the best-managed clubs. However, one can see that Brugge and Genk are clearly outperforming Anderlecht, which is by far the club with the largest market and budget. Also, a few clubs with very small markets, such as Lokeren and Westerlo, are performing quite well. The main weakness of Anderlecht is its performance in training, coaching, scouting and transfer policy. With less money, its main competitor, Brugge, has done a much better job between 2000 and 2007.

Obviously, more research is necessary to derive robust conclusions; more variables have to enter the analysis to correct for their impact on the playing performances of teams. However, there is a dramatic lack of data, information, and openness concerning the Belgian football clubs, and even the data that are available are unreliable. But, if one cannot turn the wind one must turn the mill-sails.

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