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CONNECTION OF SPORT RESULT WITH SPORT CONSUMER

Abstract:

Contemporary sport and in particular football has become a wide range of today's social life, which is embedded in all the vital elements of the social structure, especially economic elements. Therefore arose a great need for scientific research of "this phenomenon" as it can be found in the literature. Sport - economy - society has a diverse and changing mutual relations in accordance with the present time. In order to increase the sports market, it is necessary for sport teams to be present in the communication with their consumers on social networks. The primary objective of this paper is to analyze the connection between sport result as a sport product to the final sport consumer on the example of football clubs and their fans. This connection is sought through social networks.

The paper also aims to show that sport result is not the only criterion of proximity to the sports consumer, and that the result itself does not provide the largest number of consumers, for example the 'fives" in football at least when it comes to social networks. Through regression analysis it is shown that consumers via social networks are not fully connected with the result that clubs realize, at least when it is viewed by selected characteristics used in this paper in a single time point. Definitely for searching more reliable connection of results with sport consumers through social networks, must be used an extended period of time and several indicators which can be the subject of some future research. It should be noted that economic elements are increasingly affecting the sport itself but also the sport result, especially the top one.

Keywords:

sports result, sports consumer, football

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Introduction

Contemporary sport is an important factor in world sports market clients which consists of more than one billion people across the globe. Sport as a quaternary sector of activities in the modern economy and in the organization of society is increasingly becoming a factor of production of newly values [1]. Sport of today has evolved from the past times and from simple entertainment into a respectable economic branch and has become an integral part of many of the developed economies of the world [2]. Today it can be said that contemporary football represents an important factor in the world. Football is the most common and the most popular sport in the world, and represents the first association in connection with the concept of sport. In addition to its importance in the sports aspect, it has a great importance in the global market, because this is also the place where the largest amount of money rotates. Football clubs, with the aim of their development as well as the existence, must in addition to athletic performance achieve also the economic results and behave commercially. The market comprises all potential customers who share a particular need or desire and who would be willing and able to involve in the exchange in order to meet those wishes and needs [3].

When we talk about the concept and importance of social networks today, and in the sport, great attention is turning to Facebook and Twitter. Two huge social networks that have found their place in the field of sports, ie. Football. Social character is indispensable nowadays. These two networks are the most common in the world, football culture, football and other values are promoting through them. Informations are shared faster and more efficient among fans, it is given greater support, mobility is increased because nowadays when everyone has smart device informations themselves literally come to you.

Sports product in this study is defined as a sports result that some clubs achieve. It is in dematerialized form and, as such, meets the market needs and desires of potential consumers of sports, to a certain extent. Clubs are focused on sports customers, club fans and club members ie costumers of their products.

It is a fundamental objective of this paper to analyze the connection between sports results as a product with the final sports consumer in the case of football clubs and their fans or consumers. The fundamental problem of this work is reflected in the fact that in today's contemporary sport public perception is that only a very successful racing result gathers mass, and the media promotes and enable the sport consumers to experience success, joy, victory and happiness. The paper also aims to show that the result is not the only criterion of proximity to the sports consumer, and that the result itself does not provide the largest number of consumers. Sport and sport influence on certain aspects of society can characterize sports product as much wider range.

Through regression analysis using the example of top-level football league, league of fives, will be examined whether there is a significant correlation between sports results and selected indicators of rating ie fate in clubs. Data for the top 5 leagues in the world (German, Italian, French, English, Spanish league) was collected through technical literature and internet for 25 February in the football season 2014/2015 for current football clubs in that period. „League of fives“ is popular name for the top five leagues in the world. As restrictions in this work that can be prominent are reliability and validity of the data variables used in the research part of the work.

Method

Examinee sample

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Clubs sample represents 97 entities, where entities are 'clubs of league of fives' - football clubs 5 most powerful leagues (Spanish, Italian, English, German and French League) season 2014/2015.

Official league titles are:

1. Spain Football League - Liga de Futbol profesional, processed a total of 20 clubs
2. The Italian Football League - Liga Serie A, processed a total of 20 clubs
3. English Football League - FA Premier liga, processed a total of 20 clubs
4. German Football League - Bundesliga, processed a total of 17 clubs
5. French Football League - Ligue 1, processed a total of 20 clubs

Variable sample

The sample of variables consisted a set of 15 variables:

PŠP - Ranking in Spanish league, standings of the Spanish soccer league for 25.02.2015.

FŠP - Facebook followers in the Spanish league, the number of Facebook followers of the Spanish soccer league for 25.02.2015.

TŠP - Twitter followers in the Spanish league, the number of Twitter followers of the Spanish soccer league for 25.02.2015.

PEN - Ranking in English league, standings of the English football league for 25.2.2015.

FEN - Facebook followers in the English league, the number of Facebook followers of the English soccer league for 25.02.2015.

TEN - Twitter followers in the English league, the number of Twitter followers of the English soccer league for 25.02.2015.

PNJ - Ranking in German league, standings of the German football league for 25.02.2015.

FNJ - Facebook followers in the German league, the number of Facebook followers of the German soccer league for 25.02.2015.

TNJ - Twitter followers in the German league, the number of Twitter followers of the German soccer league for 25.02.2015.

PIT - Ranking in Italian league, standings of the Italian football league for 25.02.2015.

FIT - Facebook followers in the Italian league, the number of Facebook followers of the Italian soccer league for 25.02.2015.

TIT - Twitter followers in the Italian league, the number of Twitter followers of the Italian soccer league for 25.02.2015.

PFR - Ranking in French league, standings of the French football league for 25.02.2015.

FFR - Facebook followers in the French league, the number of Facebook followers of the French soccer league for 25.02.2015.

TFR - Twitter followers in the French league, the number of Twitter followers of the French soccer league for 25.02.2015.

Data processing methods

Result processing methods included the calculation of descriptive statistical parameters: arithmetic mean (AS), standard deviation (SD), minimum value (Min) and maximum value (Max), coefficient of variation (V), asymmetry degree (Skew) and curvature degree (Kurt).

In order to determine whether there is a significant correlation between sports results and selected indicators was used regression analysis. So sports result is used as a criterion while the followers on social networks are used as predictors. (R) multiple correlation coefficient is calculated what is that maximum level of possible connection of all predictor variables (as one variable) with criteria variable. The significance of R has been tested with F test. (R2) determination coefficient is calculated, or the proportion of explained variance criterion variable based on a set of predictor variables. It is also calculated Beta coefficient (partial regression coefficients) which represents

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the size of the contribution of individual predictor variables in prediction results in the criterion variables. That is the importance of each predictor for success in the criteria. Data were analyzed by statistical package STATISTICA 12.0.

Results and discussion

Basic descriptive statistics

The basic statistic parameters have been calculated using descriptive statistics and results can be seen in Table 1.

	AS	SD	MIN	MAX	V	SKEW	KURT
FŠP	9.162.495	25.287.999	5.161	83.094.484	275,99	2,85	6,87
TŠP	1.678.880	4.431.105	3.100	14.900.000	263,93	2,86	6,96
FEN	10.073.672	17.808.223	2.240	65.000.000	176,78	2,08	4,00
TEN	3.343.135	9.928.063	5.000	44.900.000	296,97	4,26	18,65
FNJ	2.646.160	6.811.801	387	27.439.733	257,42	3,34	11,46
TNJ	307.278	547.177	1.000	1.910.000	178,07	2,47	5,22
FIT	2.897.581	6.421.987	14.464	24.726.625	221,63	2,82	7,68
TIT	394.715	607.897	14.500	2.420.000	154,01	2,61	6,74
FFR	543.902	1.079.288	1.660	4.172.317	198,43	2,64	7,03
TFR	312.042	508.571	1.100	1.990.000	162,98	2,65	6,93

Table 1. Descriptive indicators measuring variables

AS-arithmetic mean, SD-standard deviation, MIN-minimum value, MAX-maximum value, V-coefficient of variation, SKEW-asymmetry degree, KURT- curvature degree

From Table 1. it can be seen that the clubs in all leagues have averaged more followers on Facebook than on Twitter. It stands out the most followers in the English league (10,073,672) and in Spain (9,162,495), which was expected. By looking at the two best monitored leagues it can be emphasized more variation in the Spanish league, which tells us that the followers of the English league, by the clubs, are more homogeneous. Generally it can be seen that those leagues, with a maximum average value of the number of escorts, have the highest range of the results, which is confirmation of the great dispersion of results. Spanish League has the highest standard deviation and the largest maximum value of the followers. It can be seen that the smallest number of Facebook followers has the French Football League, and that the difference in Twitter followers and Facebook followers of that league is very small. General is quite a big difference in the number of followers on social networks. Facebook is in four leagues more present than Twitter. These are all positive asymmetric

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distributions while curvature measure shows that all variables are leptokurtic what is confirmation of small dispersion results in all variables.

Regression analysis

The initial matrix is processed by regression analysis and is shown in Table 2.

	b*	b	t	p
Facebook	-0,5068	0,0000	-3,4926	0,0007
Twitter	0,1144	0,0000	0,7883	0,4325

R	0,4256
R^2	0,1812
F (2.94)	10,3984
p	0,0001

Table 2. Regression analysis, all leagues

b-partial regression coefficient, **b**-regression coefficient, **t**-the t-test value, **p**-significance level, **R**-multiple correlation coefficient, R^2-determination coefficient, **F**-the F-test result*

Multiple correlation coefficient value in Table 2. is relatively small (R = 0,42), which is a significant error with p = 0,00, according to the F-test as well as multiple correlation coefficient of determination (R^2=0,18). However, it can be seen from Table 2 that the only serious impact on the criterion variable has predictor of Facebook (b* = 0,506, p = 0.00), while the regression coefficient of the predictor variable Twitter is much smaller and not statistically significant.

From the above it can be concluded that the achieved sports result has relevant impact on the number of followers on the social network Facebook while with Twitter followers this is not the case or at least in this research has not shown. Looking at all leagues of fives together, it can be concluded that the result is not fully connected to the number of followers on social selected networks. These are the results taking into account all leagues together. To determine whether the same results can be obtained also in other leagues partially it is created regression analysis for all 5 leagues.

	b*	b	t	p
FŠP	-2,5540	0,0000	-0,5156	0,6127
TŠP	1,9966	0,0000	0,4031	0,6919

R	0,5648
R^2	0,3190
F (2.94)	3,9821
p	0,0382

Table 3. Regression analysis, Spain League

b-partial regression coefficient, **b**-regression coefficient, **t**-the t-test value, **p**-significance level, **R**-multiple correlation coefficient, R^2-determination coefficient, **F**-the F-test result*

The value of the coefficient of multiple correlations in Table 3 is (R = 0,56) and is statistically significant with mistake p = 0,0382, according to the F-test.

Obtained results in Table 3. indicate that in the Spanish league overall, the result is associated with a number of followers on selected social networks. This result is most influenced by two football clubs, Real Madrid and Barcelona who are one of the most popular clubs in the world. By each winning trophies and new transfer, they 'collect' more people on their social network. Spain League is actually the strongest example of the connection between

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number of followers and social networks, maybe because it does not have so many dispersion of titles invaders, at least in recent years as in other leagues. Nevertheless, these two clubs including another 3-4 from Primera traditionally are predominant in their results as, at the end, withdraws a large number of followers on social networks. Probably the dominance of Primera clubs in the last few years affected on the number of followers on social networks.

However by partial looking at individual predictors, achieved sports result of Spanish clubs has no relevant impact on the number of followers on social networking site Facebook as well as Twitter.

	b*	b	t	p
FEN	-1,1428	0,0000	-3,8680	0,0012
TEN	0,5770	0,0000	1,9529	0,0675

R	0,7364
R^2	0,5422
F (2.94)	10,0684
p	0,0013

Table 4. Regression analysis, English League

b-partial regression coefficient, **b**-regression coefficient, **t**-the t-test value, **p**-significance level, **R**-multiple correlation coefficient, R^2-determination coefficient, **F**-the F-test result*

The value of the coefficient of multiple correlations in Table 4. is relatively high, amounts (R = 0,73), is significant with mistake p = 0,00, according to the F-test, as well as the determination coefficient of multiple correlation (R 2 = 0,18). It means that with 54% can be described the proportion of explained variance of the criterion variable based on a set of predictor variables.

Obtained results in Table 4. indicate that in the English league watching in total, sports result is associated with the number of followers on selected social networks. It may be noted that the English league shared a similar approach with the Spanish league when it comes to the connection between followers and results. Precisely all fans of football confirm noted observations as a common dilemma between the English and the Spanish leagues as a „winner" of strongest football league in the world. Yet looking partially, results imply that English clubs result has relevant impact on the number of followers on the social network Facebook while on Twitter has not.

	b*	b	t	p
FNJ	-0,4092	0,0000	-0,6253	0,5412
TNJ	0,0708	0,0000	0,1082	0,9153

R	0,3444
R^2	0,1186
F (2.94)	1,0095
p	0,3879

Table 5. Regression analysis, German League

b-partial regression coefficient, **b**-regression coefficient, **t**-the t-test value, **p**-significance level, **R**-multiple correlation coefficient, R^2-determination coefficient, **F**-the F-test result*

The value of the coefficient of multiple correlations in Table 5. (R = 0,34) is not statistically significant, with mistake p = 0,3879, according to F-test, as well as the determination coefficient of multiple correlation which is relatively small and is (R^2 = 0,11).

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It means that with only 11% can be described proportion of explained variance criterion variable based on a set of predictor variables in the German league. The results from Table 5. show that in the German league no predictor is related to the criteria and achieved sporting results. It can be seen that the Germans have the most loyal football fans. An excellent example is the Borussia Dortmund, which stands out as a football team with unfaithful fans. On their home games in the average was 80,424 spectators, they left behind Barcelona (77,632 viewers), Manchester United (75,335), Real Madrid (73,081), Bayern Munich (72,882). ". Only this information is the best example of regression analysis of the German league. Among the most visited teams on the old continent the German league has the highest number. Perhaps this league is a good indicator of how the result is only one of the important factors of attachment to the club. German clubs attract and retain sports consumers obviously in a different ways.

	b*	b	t	p
FIT	4,0373	0,0000	2,2185	0,0404
TIT	-4,4476	0,0000	-2,4439	0,0257

R	0,6081
R^2	0,3698
F (2.17)	4,9887
p	0,0197

Table 6. Regression analysis, Italian league

b-partial regression coefficient, **b**-regression coefficient, **t**-the t-test value, **p**-significance level, **R**-multiple correlation coefficient, R^2-determination coefficient, **F**-the F-test result*

The value of the coefficient of multiple correlation in Table 6 (R = 0.60) is statistically significant with mistake p = 0,0197, according to F-test, as well as the determination coefficient of multiple correlation which is (R 2 = 0,36).

Unlike the German league the Italian league is completely opposite, it can be seen in the results in Table 6. The results indicate that both selected predictors are significantly associated with the level of sports performance. For Italian fans victory and achievement is dominant predictor of commitment to the club. Research from 2015 shows that Italian football people are the most superstitious. [9]

	b*	b	t	p
FFR	-0,3481	0,0000	-1,5371	0,1438
TFR	-0,3890	0,0000	-1,7177	0,1051

R	0,6471
R^2	0,4187
F (2.94)	5,7621
p	0,0130

Table 7. Regression analysis, French league

b-partial regression coefficient, **b**-regression coefficient, **t**-the t-test value, **p**-significance level, **R**-multiple correlation coefficient, R^2-determination coefficient, **F**-the F-test result*

The value of the coefficient of multiple correlation is presented in Table 7. (R = 0,64) and is statistically significant with mistake p = 0,0130, according to F-test.

The results of Table 7. show that in the French league, just like in the Spanish league, overall result is

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associated with a number of companions on selected social networks.

But also, partially, looking at individual predictors achieved sports results of French clubs have no relevant impact on the number of followers on social networking site Facebook as well as Twitter. For the French league is a known fact that majority of clubs in the history was national champions so the dispersion of this criterion is very high, unlike other leagues.

	AS	SD	Facebook	Twitter
Facebook	5,161.237	14,858,126	1,00	0,77
Twitter	1,234,994	5,001,263	0,77	1,00

Table 8. Correlation between followers on Facebook and Twitter 2

AS - mean, SD - standard deviation, highlighted correlations were significant at p <, 05000, N = 97

Table 8 shows the correlation between the two predictors that were used in the regression analysis. From Table 8 it can be clearly seen that there is a positive correlation between the two predictors and amounts to 0,77 and is statistically significant. This leads us to the conclusion that there is a correlation between the number of followers on Facebook and Twitter but that it is not complete. This fact must be taken into account when interpreting the results. So it can be said that different social networks may represent the different populations, stakeholders or something else.

Conclusion

Sport, especially football nowadays has such an impact on environmental, economic, political and all other spheres that it is hard to imagine what would happen if it did not exist. Through the last few years sport has developed into a dizzying range that it began to cross the European framework, and its popularity began to transfer furthermore on the rest of the world where football is not the primary sport. The market is bigger and bigger, and football has begun to receive more and the popularity with the development of social networks. Proportional to the increase in sports market wishes and needs of sports consumers have also increased. Large sums of money through an incredible increase in the value of the transfer is a reason why clubs are forced to seek new sources for survival, development and financing of investments and repayments.

Sports consumers are extremely important for the success of the club. They buy the products of the club. More consumer means ranging from television rights are higher, and more money in the club coffers.

The results of the work are the best example of the highly integrated nature of sports results and consumers are the Spanish and the English Football League, while German, French and Italian show dispersion connection. English and Spanish have a rich football tradition, successful, which is why they have a lot of instant companion on social networks that accompany them just because they are the most successful clubs in the world. It could be said that the perception of the public is that only a very successful result gathers mass, does not apply to every division. Very many factors come to mind when looking at the connection of consumers and results. German league is a unique indicator where the stadiums are always full, consumption is still high regardless of the result. From the work it can be concluded that the sports result is associated with

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sports consumer, but not to the extent that it depends directly on it. Spain and the English Football League show that the result is associated with the consumer, while the other three leagues do not suggest that. For a number of football news and articles we find that the French, German and Italian league is a football league with 'truer fans''.
Regression analysis shows that consumers are not fully linked with the result, at least when it is viewed by selected characteristics used in this paper in a single time point. Definitely, searching for validity and more reliable connection of results with sport consumers through social networks, it must be used an extended period of time and several indicators, and that can be the subject of future research. The implication is that; if consumers are fully associated with the result then all would root for result-best club, and there already exists a range of other factors (tradition, place of residence, the atmosphere in the stadium, a good marketing team).

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