Magaz-González, A.M.; Mallo-Fernández, F. y Fanjul-Suárez, J.L. (2017). ¿Es rentable jugar en primera división de futbol? / Is Profitable to Play in Spanish Soccer First Division. Revista Internacional de Medicina y Ciencias de la Actividad Física y el Deporte vol. 17 (65) pp. 1-26. Http://cdeporte.rediris.es/revista/revista65/artrentable774.htm
DOI: http://dx.doi.org/10.15366/rimcafd2017.65.001

ORIGINAL

IS PROFITABLE TO PLAY IN SPANISH SOCCER PREMIER LEAGUE

¿ES RENTABLE JUGAR EN PRIMERA DIVISIÓN DE FUTBOL?

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Código UNESCO / UNESCO code: 5312 Economía sectorial / Sectorial economics; 5312.99 Otras (Deporte profesional) / Other (Professional Sports).
Clasificación Consejo de Europa / Council of Europe Classification: 1. Administración organización y gestión del deporte / Administration and management of sport organization.

Recibido 13 de marzo de 2014 **Received** March 13, 2014
Aceptado 26 de junio de 2014 **Accepted** June 26, 2014

ABSTRACT

The paper presents the first phase of a Spanish football study. The aim is to determine if it is profitable to play in 1ªD league for any professional team and if all clubs in 2ªA division should aspire to climb. Various results are compared in the selected population and also in two groups identified: equipment that have remained in 1ªD and “elevator teams”. The economics and sports results are examined by exploratory data analysis. We identify factors that are influence in change and the teams are classified according to these factors. Finally the influence of promotion and relegation in these results is determined. It follows that the "Fear Management" does not always lead to better classification and adds financial stress, “elevator equipment” that perform worse even playing in the same league and its economic and financial stability will most affect promotion and demotion that continued the continuity in a particular category. We conclude: not all clubs suit them military in top division; lower divisions would be restructured and strengthen.

KEY WORDS: Football, Professional Soccer, Financial Economics Valuation; Spanish National Football League, Sports industry, Case analysis, Principal Components Analysis.

RESUMEN

El artículo presenta la primera fase de un estudio del fútbol español, cuyo objetivo es averiguar si es rentable jugar en Primera División de fútbol (1ª) para cualquier equipo profesional y si todos los clubes de 2ªA deberían aspirar al ascenso. Se comparan resultados en la población seleccionada y en dos grupos de la misma: equipos que se han mantenido en 1ª y equipos ascensor. Se examinan mediante análisis exploratorio de datos resultados económicos y deportivos, se identifican factores que influyen en su variación y se clasifican los clubes según dichos factores. También se determina la influencia de ascensos y descensos en los resultados. Se deduce que los equipos ascensor obtienen peores resultados aun jugando en la misma liga. Además, a su estabilidad económico financiera le afecta más el ascenso y descenso continuo que el mantenerse en una categoría concreta. Finalmente, que la "gestión del miedo" no siempre conduce a una mejor clasificación y añade tensión financiera. Se concluye que no a todos los clubes les conviene militar en 1ª división de fútbol, que ésta debe reestructurarse y se debe reforzar la 2ªA.

PALABRAS CLAVE: Fútbol profesional, Análisis económico financiero, Análisis factorial, Liga Nacional de Fútbol Español, Estudio de casos.

INTRODUCTION AND OBJECTIVES

The professional competition of Spanish soccer is characterized by promotions and demotions of teams among the professional divisions. Yet premier league value is higher than other divisions: more sports level and spectacle, more followers and attendance income, because of competition and for merchandising products sales, higher value for broadcasting rights and players, the chance to play for foreign competitions with higher-amount prizes and the teams world wide spreading. This implies income and commercial use greater than lower division. For this reason even if soccer industry is not in for the money, all soccer clubs try to play in premier league and compete to promote and/or to stay. If we add the players market rivalry (talent recruitment: expenses) and followers (result: income) (García, Plácido Szymanski, 2013), it is revealed that the competition in this sector is triple.

To achieve sports success they increase the productivity capacity contracting the best talented players. The soccer players market is characterized for being highly specialized, limited and imperfect replaceability (Magaz 2003). That´s why the input value is high and the sports clubs have to sustain in high investments and costs if they want to contract and pay the soccer-players´ wages. The costs structure in base on the team which makes benefits unsustainable (Barajas, 2004).

Not all teams can support these investments. The rest acquire players getting into huge debts and raising their liability every season in order to promote, or afraid to demote, generating financial stress. When demoting the future possible profits fall making an additional pressure to spend on players. It has been named as “Fear management” reinforcing the conclusion that the main objective is not to maximize benefits but to maximize winning games (Barajas & Rodriguez, 2013) at any cost. Gay Saludas (2009) concludes that the total practice of the clubs in season 2006/2007 to deposit a euro had to spend more than one euro. This indebtedness experimented a worryingly growth in both premier league and lower division in 2008 and 2011 (Barajas & Rodriguez, 2013).

However knowing the different soccer capacity and the financial risk they have to asume all teams want to play in premier league. Other authors identify the problem of financial unbalance in Spanish soccer from the existing potencial to generate resources between clubs who want to continue competing in the same category (Barajas & Urrutia, 2007, Barajas & Rodriguez, 2013) Also there are two competitions in the same league: the first six ones (classified for internationals competitions) and the rest.

Resources generation is conditioned to the appeal of spectacle for the potential buyers: spectators, television…Such interest depends on: sports history, brand image, footballers and distinction of the club (Magaz, 2003) and competitive balance of the league. Besides it should guarantee the competitive balance (CB) to maintain this appeal (Humpreys, 2002 Fort & Maxcy, 2003, Garcia & Rodriguez, 2002, Goosens, 2006, Andreff & Szymanski, 2006, Barajas & Rodriguez, 2010) at least at the edge of the CB value (Pawlowski, Buzinski, 2013) in the last years this CB unevenness has increased (Serrano & Espitia, 2013). Spanish league can identify different strategic groups: leaders –classified for European competitions – challengers: who try to hold positions at international competition classification –

followers: those that do not belong to the other two groups and remain successively in premier league for years, and ascenders – who promote and demote continuously from category – (Magaz, 2003).

Once more this unbalance in the attractiveness and the sportsmanship is tried to destabilize when recruiting talented players increasing the actual debt at the growth of financial risk extended. Without taking economic risks is hard to sustain the competitiveness (Szymanski, 2013). So the difference between "elevator" teams and the rest is in the equality of costs, ascenders obtain less income, on account of their poor attractiveness, provoking different solvency and less financial capacity. Diversity in the income generation is raised in Spanish league by reason of individual negotiation of TV rights. To the modest ones with less appeal they are hindered to acquire enough funds to reinforce the team and consequently the unbalance increases (Barajas & Rodriguez, 2009). Furthermore as they have not assured the term it means a strong barrier if they demote to a lower division. That is to say that the natural Spanish competitiveness entails the costs of demoting which is greater than the indebtedness of reinforcing the team (Barajas & Rodriguez, 2013) what encourages teams to grow their debts so they do not demote. The situation would be worse if the did not have state aids (Ascariy Gagnepain, 2006) and could be solved with issue shares, considerable members contributions, lowering wages and salaries, working to reduce liabilities (Barajas & Rodriguez, 2014).

The situation is alarming and there must be room for asking why instead of taking the risk to demote the goal is to stay in a category in accordance to the current situation of the club and not to promote. In other sectors each organization knows how to identify the strategic alignment based on indicators (Garvin, 1987, Gázquez & Sanchez, 2010) and whereabouts to place their industry and have it in the potential consumers´ minds related to the brand value and the image perceived by consumers (Fajardo, 2008).

This financial insolvency situation similar to Europeans clubs, has made necessary the intervention of the utmost football organization in the country to make clubs keep financial balance (stabilize debits and credits) and demonstrate a healthy finance to have the right to play. Entitled Financial Fair Play (UEFA, 2010). But neither these steps nor Insolvency Spanish Law have being enough to make Spanish clubs to reorganize their accounts. Notwithstanding the law has helped them to increase in short term their debts (Sánchez, 2008, Barajas, 2009, Amilibia, 2012, Barajas & Rodríguez, 2013). In view of these aspects investigation is considered relevant to see how promotion and demotion of a club affects financial balance.

And analyses the convenience or inconvenience of trying to promote or whether is better to get a foothold in a lower rank where mobility barriers are lower and the financial and economic demands are more adequate to the capacity to generate income from some clubs.

It contributes to the comprehension of a sector little efficient, limited capitalization, high debt, dependency on external resources and atypical income, with negative working capital, near cease payment or even with losts that reduce net worth less than half of capital stock (cause of dissolution). It provides useful information to organize Spanish professional football sector. Studies are focused in to analyze the

disparity to create value between 1ªD and 2ªD. However the analyze shown questions if in the top division is also possible to generate value in any participant.

The main objective of this publication is to show if it is profitable for any organization to play premier league. Due to this other aims are: study profitability in premier league clubs, identify factors that determine their results and investigate how promoting or demoting affects the financial and economic outcomes and generation value. In this way it is adopted a probing approach to the financial and economic situation. It must be taken into account that this kind of information is opaque and insufficient (Barajas & Rodriguez, 2009, Barajas & Mareque. 2012).

METHODOLOGY Group

From the identified strategy groups in LNFP (Magaz, 2003) two subpopulations are chosen: control group (G.C) consists of teams which have not participated neither in the Campion League nor European League regularly (leaders and challengers) and stayed in premier league between 7 and 17 rank, followers; and a study group (G.E.) formed by promoted teams which demoted at least one season. The period of the study was 2004 – 2005 to 2010 – 2011. In whole
14 teams are displayed in the following table:

Table 1. Selected clubs for the study

CONTROL GROUP	Athletic Club de Bilbao	Getafe Club de Fútbol	R. C. Deportivo Mallorca
	R. C. Deportivo de la Coruña	R. C. Deportiu Espanyol de B.	R. Racing Club de Santander
	Club Atlético Osasuna		
STUDY GROUP	Levante Unión Deportiva	R. Zaragoza	R. C. Recreativo de Huelva
	Málaga Club de Fútbol	R. Betis Balompié	R. Valladolid Club de Fútbol
	R. Sociedad de Fútbol		

Instrument

Quantitative data is displayed over variable and financial and economic ratios. It is used as a source of information the annual audit accounts, the account book and data base SABI from 2004 to 2011, agreeing that this information is opaque and not always of quality. Only 10% of legal audits done of football clubs are in order (UEFA 2010) and exists valued irregularities in the given information (Barajas, 2004). Two data base are formed: One composed of 197 variables: group, sport classification, sport category, financial-economic variables for each season (table 2), dimensions found (factors) for population and for each group. Another one composed by financial-economic and sport data of each member in order by season (18 variables) plus 48 new variables obtained from analyses of multiple linear regression. For the data treatment it is used the stadistic package SPSS 19 & 21.

Table 2. Variables used in the study

CLUB: Club SAMPLE: Group ROA: Economic Yield	IEP: Operating revenue RDOEXP: EBIT REJ: Year-end balance	RSOL: Solvency ratio RL: Liquidity ratio REND: Liability ratio
OE: Financial Yield GPT: Total Staff Expenses DAI: Investment in players	CD: Sports classification CATEG: Category C: Capital Stock	RAUTF: Financial autonomy ratio VAG: Value added CVAG: Value added growth

For the attainment of the investigation main objective is considered ROA, IEP, GPT, RDOEXP, DAI and brand value as VAG. To analyse the evolution of time in the teams and the influence of promotion and demotion, also, RSOL, REND and RAUF. ROA is considered in account acceptation: dividing net value and total assets: ROA = BN / AT. ROA as well as ROE indicate the efficiency in economic terms in the sports club expressing how much profits are generated with the investment done o with the given resources from shareholders. Although, as said by Rodriguez & Barajas (2009), many clubs declare loss statement which reduces sense to the rates. In addition since 2006 many clubs of the population have accepted the bankruptcy proceedings aspect that modifies some data sense. RDOEXP informs about the operational qualification showing the difference between incomes and operating costs. To estimate the value creation of football clubs some authors establish a vicious cycle related to capital assets (economic results), capital history (sports results) and capital stock (sports values promoted) (Gomez & Opazo, 2007). Barajas (2004), after a review over the methods of companies evaluation opt for a financial model based on the empty cash flow, discount rate and the temporal horizon considering the influence of the sports results, fans and the quality of the team income therefore in the cash flow. In this study the creation of value is VAG. This creation of value is generated when the activities costs in a company are lower than the Price the market is willing to pay for their products o services. An aim for the company would be to manage those activities which add value to the company (Pindado, 2001). The used formula is: VAG = corporation tax + annual balance + staff expenses + fixed asset depreciation + financial and allocated expenses.

Procedure

Exploratory phase consists in the variable behavior observation of population and in each group, in the interrelation precision and to identify and quantify factors which influence in the variation of the results of ROA, RDOEXP and VAG. Namely to check the importance in these factors for the continuity in premier league and how they vary from promotion to demotion. To meet the factorial structure concealed in the variable information given it is used the Principal Components Analysis PCA (Pearson, 1901, Hotelling, 1933, Mallo,1985) exploratory technique of multivariate analysis MA which allows to reduce the data magnitude with the lowest lost of information, simplifying the interpretation of complex data systems. PCA uses the regulate rule (reciprocity matrix) because the measure units in the variables are not homogeneous (Mallo, 1985). PCA holds that in assumption of p-dimensional variable is due to a number of components less than p as a result few components (main) explain the possible maximum of the variable. Normally the searched variables are in practice lineal combinations from the originals

statistically independent. Formally looking for a vectorial variable **Y** = (Y1, Y2…,Yk) (K-dimensional) with independent components built from transformation of the original variable, **X** = (X1, X2,…,Xp) **Y = U´X** lineal main transformation of **X.** Development and solution can be seen inter alia in Mardia et al. (1980) & (Mallo (1985, 141 – 150)

So $\lambda_1 > \lambda_2 > ... > \lambda_k > 0$ are the auto values of the matrix ***V***, quotient $\frac{\lambda_i}{\lambda_1 + \lambda_2 + ... + \lambda_p}$ represents variable proportion explained in the main component

K-esima. The total variation proportion explained in ***K*** first main components represent the “total variation proportion” disclosed by these. Most of the authors who use these techniques consider necessary the main components to explain at leasts the 74% of the total variation showing the *p* original variables. Chosen the number of the main components *k,* after applying rotation PROMAX (useful when observing reciprocity between factors above 0.32 to maximize the reason among high and low charges) proceeding to nominate and interpret each of them according to correlation on each of the principal variables used. Finally the clubs are represented in Euclidean planes generated from two pairs of principal components of mayor and sufficient variable explained and it would be interpret. In the data exploratory analysis (AED) it is also important to gather the analyzed elements, in this case football teams, trying to achieve the mayor homogeneity in each group and the mayor difference among the groups, objective accomplished by the Cluster analysis: CA. Using the Agglomerative Hierarchical Clustering AHC, implemented with the Single linkage method which searches for the mayor likeness between elements or close groups. The Dendrogram is the structure which represents in a natural way a distance matrix between different subjects. It is the ideal visual instrument to interpret the CA results. In the study it is used agglomerative analysis of Euclidean distance matrix calculated by the main components obtained from PCA, given that they form an Euclidean space.

RESULTS

Analysis and graphic representation of different variables

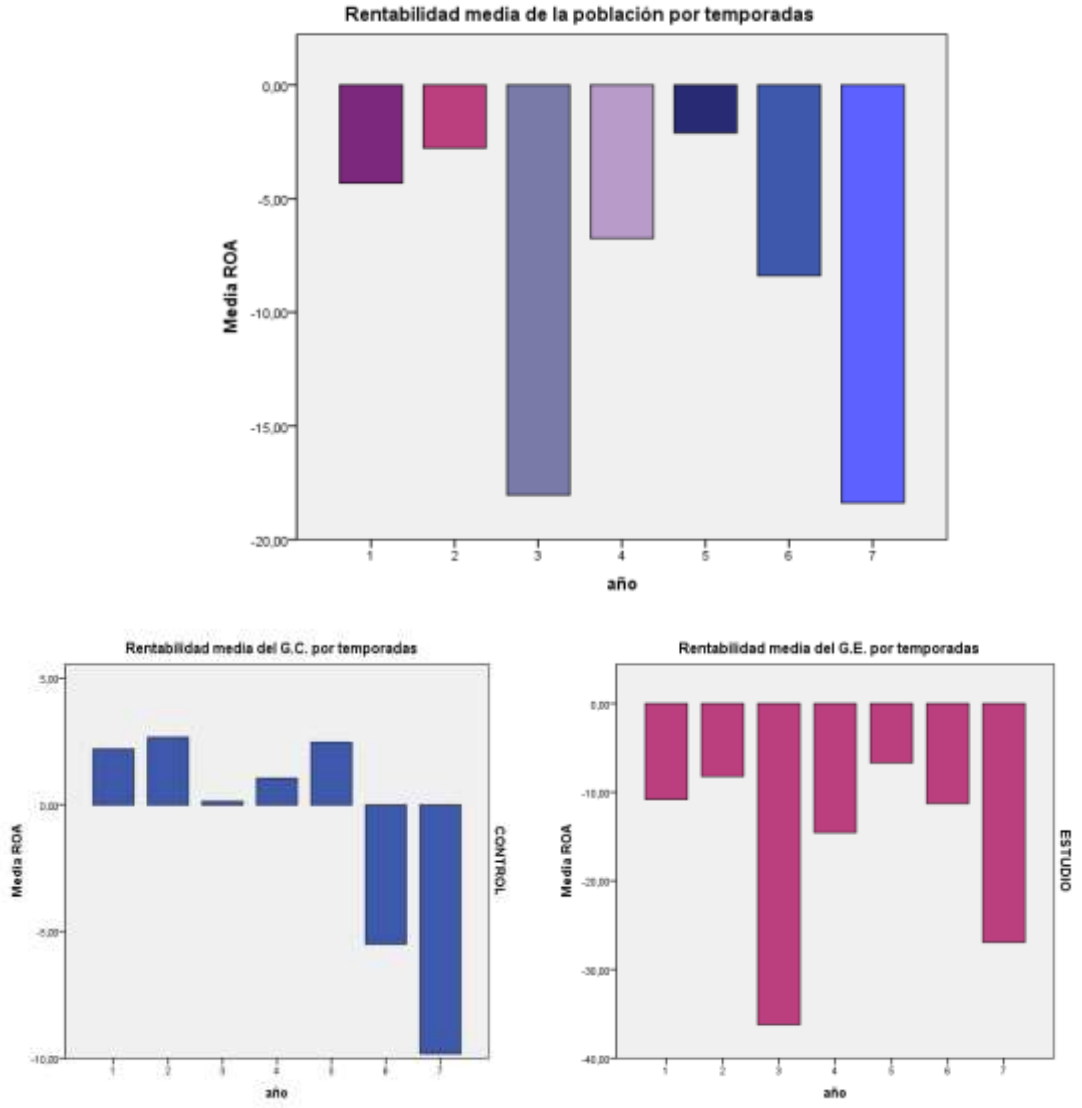
Firstly it was done an extensive univariate analysis which permitted to interpret the given information for each variable considered from the first question. This analysis consisted in the exploration of each season and the magnitude time variation in the population for each group and each club.

On the one hand ROA always resulted in less or zero for the population the highest values were reached in the G.C clubs in the five first seasons and the minor ones always less than zero in the ascender teams independently if there were more or less clubs in premier league. (Graphic 1)

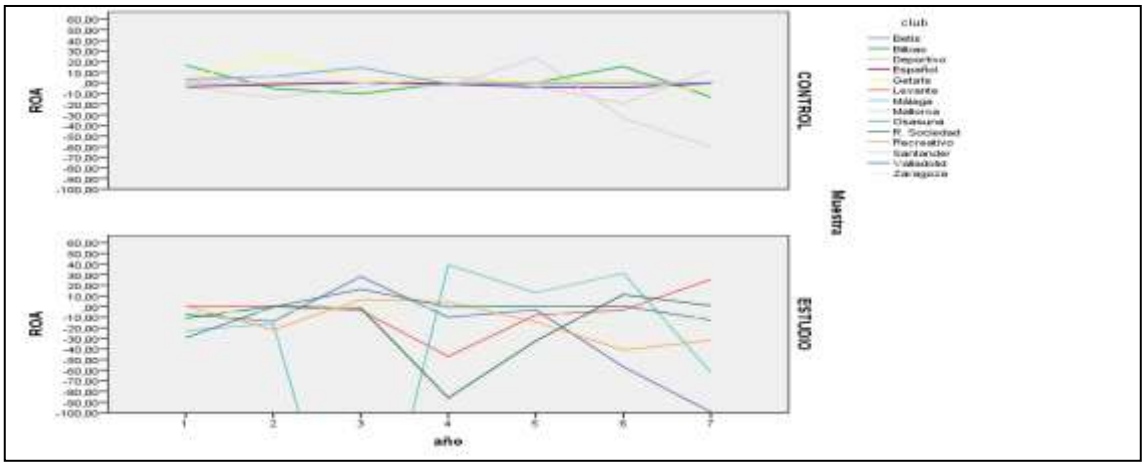
On the other hand it is observed that G.C. clubs have more stable ROA than G.E. in fact those who maintain a constant ROA are teams which have been less time in a lower division (Zaragoza) or less time in premier league (Recreativo & Valladolid). Moreover teams which have been a long time in a lower division are the ones who have worst economic profitability (Graphic 2).

Regarding IEP, GPT & RDOEXP it is detected that IEP represent more than double from one group to another even in a season with more population clubs in premier league and with better classification than those who played in a lower division. On the contrary GPT are similar in both groups. Both indicators fluctuate more in clubs which demote and promote consecutively meanwhile GPT shows less volatility in clubs which remain in premier league or in a lower division. The best RDOEXP and with stability although not ideal are the ascender teams during the years they stand more seasons in the lower division (Recreativo & Valladolid). Investments of fixed assets (DAI) it is almost doubled in G.C.

Graphic 1. Mean Economic Profitability by seasons



Graphic 2. ROA evolution in groups and club



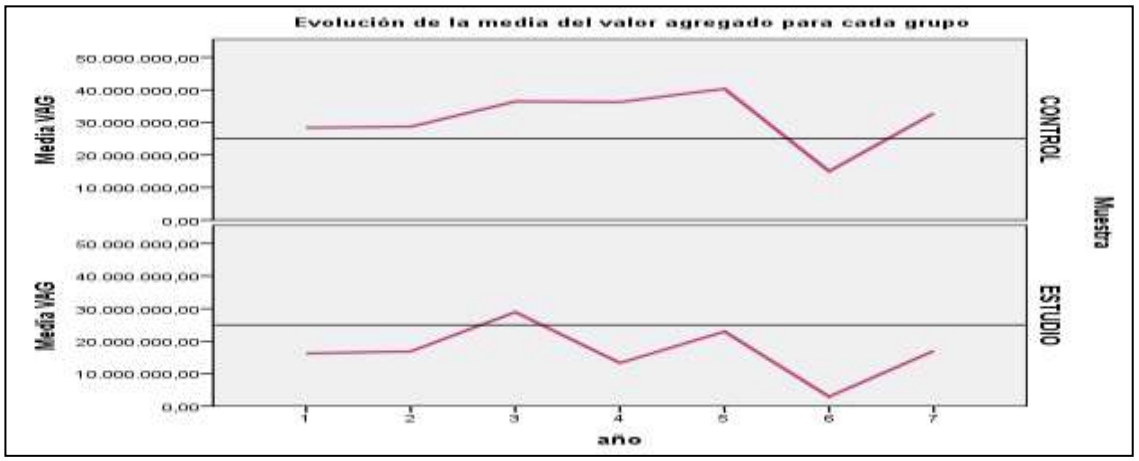
In the analyzed period the capacity to assume debts with the assets (RSOL) fall under the ideal in G.E. teams raising the differences among competitors. The ascender teams are more in debt and are insolvent (all have been to creditor meeting proceedings) However if they remain more time in the category (premier or whatever) RSOL becomes more stable.

The worst indebtedness results (REND) are reflected in G.E. clubs (except for season 7 as any group receives suitable values) especially when demoting. Nevertheless it is observed a steady indebtedness in clubs which have played more seasons in premier or in a lower division.

Exploration of financial autonomy (RAUTF) in the population indicates alarming low values in all seasons and high liabilities in long term getting worse every year. We can see a great lost accumulation and huge difficulties to deal with their debts and short financing capacity with their regular activities. RAUTF is lower in G.E. and in each of the clubs of this group – independently from the category they play in –. In the last two seasons, 6 out of 7 G.E. clubs have debt in long term superior to debt in short term and to their own funds. Likewise it is observed that RAUTF is more stable in G.C clubs and in G.E. with less situations of promotion and demotion (except for Zaragoza).

Finally when less VAG was generated was in the season with more teams in lower leagues. Also C.G. VAG´s is almost double than G.E.´s (Graphic 3).

Graphic 3. VAG Evolution in groups and seasons



Statistic relation among variables ROA, RDOEXP, VAG

Following it was done a pre analysis multivariate for the population and each group with the purpose of identifying possible outstanding correlations. Analysing the dependence among ROA, RDOEXP, VAG, CATEG and the rest variables removing those which have multicollinearity. It is performed a multivariate regression analysis by consecutive step methods which simplifies the model by excluding directly unsignificant variables accompanied with a collineality diagnosis.

In the results of the dependency relation it is observed some special links that make you think in a possible coincidence and its validation would be done in the second confirmatory phase of this investigation.
These special causal relations are gathered in table 3.

Table 3. Relation between population variables and in each group

GROUP	DEPENDENT VARIABLES RELATED TO INDEPENDENT VARIABLES		
POPULATION	ROA - SEASON 5: REJ + CVAG (89,2%) - SEASON 6: CVAG (73,8%)	VAG - SEASON 1: GPT + REND+ CD (97,1%)	CATEGORY - ALL SEASONS: IEP, ROA, RSOL, CD (65,3%)
CONTROL GROUP	ROA - SEASON 3: REJ + CD (99,5%) - SEASON 4: REJ + CVAG (96,8%)	RDOEXP - SEASON 3: DAI + C (96,1%) - SEASON 5: CD (67,8%)	VAG - SEASON 3: DAI + CD (96,9%) - SEASON 5: RSOL (67%)
STUDY GROUP	ROA - SEASON 6: VAG (82,9%)	- SEASON 7: RSOL (70,4%)	ORY - ALL SEASONS: IEP, CD, ROA, C, RSOL (81,7%)

Underlying (factors) structure analysis found and interpretation of teams behavior in the face of these factors

Through Principal Components (CPA) and Aggregation (CA) Analysis determinant factors had been identified in the variation sport – economic multivariate of the population and each subpopulation and subgroups discrimination in the subpopulations. The study extracts 99 factors for population and each group (in every and all 7 seasons). The discussion is focused on the first dimensions that explain at least the 74% of variability. The extracted factors can be classified in four types: productive structure profitability, financial efficiency, economic productivity and other factors. Shown on table 4.

In the population the most important dimensions are those related to a productive structure. Proof of that is the preference given to the sport aspects. The major explanatory components of each group are in productive and financial nature. In G.C. some factors are extracted which are repited several seasons as this group is more stable and is currently influenced by the same components. None factor if explains one type won´t explain other.

Five factors are responsible for the 71.48% of variation of the results in the population in the 7 season explored standing out the ones that reflect financial independence and brand productive activity efficacy (Table 4). The representation in Euclidean plane indicates the G.E. clubs which are further than G.C and between them. Also the follower clubs are usually in the first quadrant: more independent and efficient, with higher economic achievements and financial effectiveness and capital. Highlight that the G.E that has been more time in lower division or less do not stand out in this population graphic.

In G.C the variations in those years are explained in five factors firstly referred to economic and productivity efficiency. The clubs are similar (except for Santander). In G.E. five of the components extracted the heaviest one represent financial independence and the rest sport and productive structure dimensions. It is collated in the graphic G.E. clubs are different compared with each other. Zaragoza and Recreativo clubs with less ups and downs in category outstand less.

In the first season three factors explain the 76.78%: productivity strategy efficacy, financial Independence and investments economic efficiency (table 4). In the graphic analysis it is patented that G.E. are less economic and productivity efficient. Moreover the clubs do not meet simultaneously good financial and productive results. So Recreativo obtains limited brand value but well financial capacity.

In the groups exploration there are three components in each of them in detail (table 4). The factor with more weight gathers information about the productivity strategy in both cases. Represented in the graphic the worst situated clubs are G.E which are in lower division. Recreativo outstands again that with little productive strategy efficacy is financially stronger.

In the second season factors have economic and financial nature (table 4). The representation in the Euclidean plane reveals little or none benefit in their independent investments in a short term and category. The worst financial results

from the principal activity are the low division teams. Which does not mean as they play in premier league they are better.

In G.C. the components extracted are related to policy signing and staff expenses. Meanwhile in G.E. the most important factor reflects the financial structure weight in the clubs.

In the third season (with only two clubs in lower division) the factors firstly made reference to the brand strength and productivity and after short term financial aspects. When analyzing the graphic we see that belonging to one or another category affects in short term liquidity ratio to which are in lower division.

The G.C. structure is explained to a greater extent with factors referred to productivity strategy before financial and economic capacity. In contrast in G.E. the order is inverted having more importance the factor that gathers financial and economic efficiency followed by the efficacy explanation in short term.

In the fourth season F2 refers to staff strategy efficiency and clearly divides teams of each group especially if they are in lower division. Financial Independence is negative in G.E. teams especially if they are in lower division (Graphic 4). The worst results are G.E. teams regardless of being in one or another division distinguishing groups in the same competition.

Table 4. Explanatory factors of the population results structure and seasons

ALL SEASON	All population	Control group	Study group
	5 factors explain 71.48%	5 factors explain 75.42%	
1. RAUT, RSOL, REND^{-}	**Financial Autonomy**	1. REJ, ROA, CVAG **Economic efficacy and brand strength.**	1. RAUTF, RSOL, REND^{-} **Financial autonomy.**
2. GPT, IEP, VAG, CATEG^{-}	**Brand productive activity and category efficacy.**	2. IEP, GPT, VAG **Brand productive activity efficacy**	2. REJ, RDOEXP, ROA, GPT^{-}, VAG **Brand EBIT, year-end balance and economic efficiency**
3. RDOEXP, REJ	**EBIT economic achievement**	3. RSOL, RL, REND^{-}, DAI **Financial and sport capacity in short term**	3. IEP, GPT, VAG, CD **Brand productive activity efficacy without sport yield**
4. ROE, CD^{-}, RL^{-}	**Sport and financial effectiveness at capital liquidity extent**	4. C, RAUTF **Financial structural guarantee**	4. ROE, RL^{-}, CD^{-} **Financial and sport effectiveness at liquidity extent**
5. C	**Capital**	5. ROE, CD^{-} **Sport financial yield**	5. C^{-}, DAI **Corporate sport structure**
SEASON 1	3 factors explain 76.78%	3 factors explain 85.90%	3 factors explain 88.55%
1. VAG, IEP, GPT, DAI	**Brand productive strategy efficacy**	1. RDOEXP^{-}, DAI, VAG, GPT, IEP **Brand productive strategy effectiveness.**	1. VAG, IEP, DAI, GPT, RDOEXP$^{-}_{(0,49)}$ **Brand productive strategy efficacy.**
2. REND^{-}, RSOL, RAUTF, C(0,49)	**Financial autonomy**	2. ROA, REJ, ROE, C^{-}, DAI$^{-}_{0,44)}$ **Efficiency of financial and economic yield operation**	2. REND^{-}, RSOL, RAUTF, C, RDOEXP, ROA$_{(0.46)}$, GPT$_{(0.40)}$ **Corporate operation and financial efficacy.**
3. REJ, ROA, RDOEXP, DAI^{-}	**Investments productive economic yield efficiency**	3. RSOL, RL, REND^{-}, ROE$_{(0.42)}$ **Short term financial capacity**	3. RL, REJ, ROE^{-}, ROA, C$^{-}_{(0.42)}$ **Liquidity and efficacy of financial and economic yield**
SEASON 2	4 factors explain 81.25%.	3 factors explain 78.10%	3 factors explain 83.37%
1. DAI, RL, RDOEXP^{-}, VAG, ROE$_{(0,41)}$, GPT$_{(0,44)}$	**Brand investments effectiveness in short term**	1. DAI, RL, RDOEXP^{-}, VAG, GPT$_{(0,40)}$ **Brand and Investments effectiveness in short term**	1. REND, RSOL^{-}, RAUTF^{-}, ROE, CVAG$_{(0,50)}$ **Financial inefficacy due to leverage**
2. REND^{-}, RAUTF, RSOL, CVAG^{-}, RDOEXP$_{(0.49)}$	**Priority of financial autonomy above brand growth.**	2. REJ, RSOL, REND^{-}, C, ROA **Financial and economic corporate guarantee**	2. RL, GPT, VAG, CVAG^{-}, ROA, IEP$_{(0,45)}$ **Effectivity of staff strategy for liquidity, economic yield and brand strength**
3. REJ, C^{-}, ROA	**Corporate economy efficiency**	3. ROE^{-}, GPT, IEP, VAG, CVAG$^{-}_{0,41)}$ **Brand financial and productive activity effectiveness**	3. RDOEXP, IEP, DAI, REJ$_{(0,48)}$ **Efficacy productive of investments**
4. ROE, IEP, GPT, VAG$_{(0,46)}$	**Brand financial and productive activity efficacy**		
SEASON 3	4 factors explain 82.4%	3 factors explain 82.42%	3 factors explain 86.64%
1. CVAG, REJ, RAUTF, RSOL, VAG$_{(0,49)}$, ROA$_{(0,46)}$, REND$^{-}_{(0.46)}$	**Brand strength and club guarantee of financial sustainability**	1. IEP, VAG, GPT, DAI, RDOEXP^{-}, CVAG **Effectiveness of productive strategy for brand strength at operating results extent**	1. RAUTF, RSOL, CVAG, REND^{-}, ROA, REJ, VAG, C$^{-}_{(0.49)}$ **Financial, economic and brand strength efficiency**
2. DAI, RDOEXP^{-}, VAG, GPT, IEP	**Effectiveness of brand productive strategy at operational result extent**	2. RSOL, REND^{-}, ROE^{-} RL, CVAG^{-} **Financial capacity and without financial yield in short term**	2. RDOEXP^{-}, GPT, RL **Short term efficacy**
3. RL, ROE^{-}, IEP$_{(0,49)}$, C$_{(0,46)}$	**Financial yield in short term**	3. ROA, REJ, RAUTF, CVAG **Financial and economic brand guarantee**	3. DAI, IEP, VAG **Investments productivity efficacy**
4. C^{-}, ROE, ROA, REND^{-}	**Corporate financial and economic efficiency**		

SEASON 4	3 factors explain 79.94%
1. REJ, RDOEXP, RL^-, ROE, ROA, VAG	**Brand EBIT effectiveness at liquidity expense**
2. GPT, C^-, DAI, VAG	**Brand corporate efficacy with staff strategy**
3. RAUTF, RSOL, $REND^-$ CVAG	**Financial autonomy and brand strength**

	3 factors explain 76.82%.
1. GPT, C^-, IEP, VAG, RL^-	**Brand corporate productive activity effectiveness at liquidity expense**
2. REJ, ROA, ROE, $CVAG_{(0,42)}$	**Financial and economic yield of year-end balance**
3. RSOL, $REND^-$, RL	**Financial capacity in short term**

	3 factors explain 85.96%
1. ROE, RL^-, RDOEXP, REJ, VAG, $CVAG_{(0,501)}$	**Brand financial yield, EBIT and year-end balance effectiveness at liquidity expense**
2. GPT, IEP, DAI, VAG, C^-	**Brand productive strategy efficiency**
3. RAUTF, RSOL, $REND^-$, CVAG	**Financial autonomy and brand strength**

SEASON 5	4 factors explain 81.44%
1. GPT, IEP, VAG, DAI, $CVAG_{(0,42)}$, $ROE_{(0,40)}$	**Brand productive strategy efficacy**
2. RAUTF, $REND^-$, RSOL	**Financial autonomy**
3. ROE, REJ, ROA	**Financial and economic yield**
4. RDOEXP	**EBIT**

	3 factors explain 84.20%
1. $RSOL^-$, $RAUTF^-$, REND, GPT, VAG, RL^- IEP, $C^-_{(0,49)}$	**Brand productive activity effectiveness at financial unbalance expense**
2. REJ, ROA, ROE, CVAG, $VAG_{(0,42)}$, $GPT^-_{(0,46)}$	**Year-end balance and brand strength**
3. RDOEXP, IEP	**Productivity efficiency**

	3 factors explain 80.79%
GPT, $RDOEXP^-$, VAG, DAI, IEP	**Brand productive strategy effectiveness at operating results expense**
2. RAUTF, $REND^-$, RSOL, $C^-_{(0,47)}$, $CVAG_{(0,40)}$	**Financial autonomy**
3. ROA, CVAG, REJ	**Brand strength EBIT and economic yield efficiency**

SEASON 6	3 factors explain 75.93%
1. REJ, CVAG, VAG, ROA, RDOEXP, ROE^-, DAI^-	**Economic productivity and brand strength efficiency in the investments at financial yield expense.**
2. RAUTF, RSOL, $REND^-$, RL	**Financial balance**
3. IEP, GPT, DAI, $RL^-_{(0,42)}$	**Productive strategy volume / intensity**

	3 factors explain 86.63%
1. RAUTF, RSOL, RL, $REND^-$, ROA, REJ, $CVAG_{)0,41)}$	**Financial and economic balance**
2. IEP, GPT, RL^-, VAG, CVAG, RDOEXP, $ROA_{(0,46)}$	**Brand strength productive activity and EBIT effectiveness at liquidity expense**
3. ROE, C^-, DAI^-	**Corporation financial and investments efficiency**

	3 factors explain 86.46%
1. ROA, CVAG, VAG, REJ, ROE^-, DAI^-, RDOEXP, $IEP_{(0,48)}$	**Economic productivity and brand strength efficiency in the investments at financial yield expense**
2. C, REND, $RSOL^-$, $RAUTF^-$:	**Financial inefficacy**
3. IEP, GPT, $RDOEXP^-$, DAI	**Productive strategy effectiveness at EBIT expense**

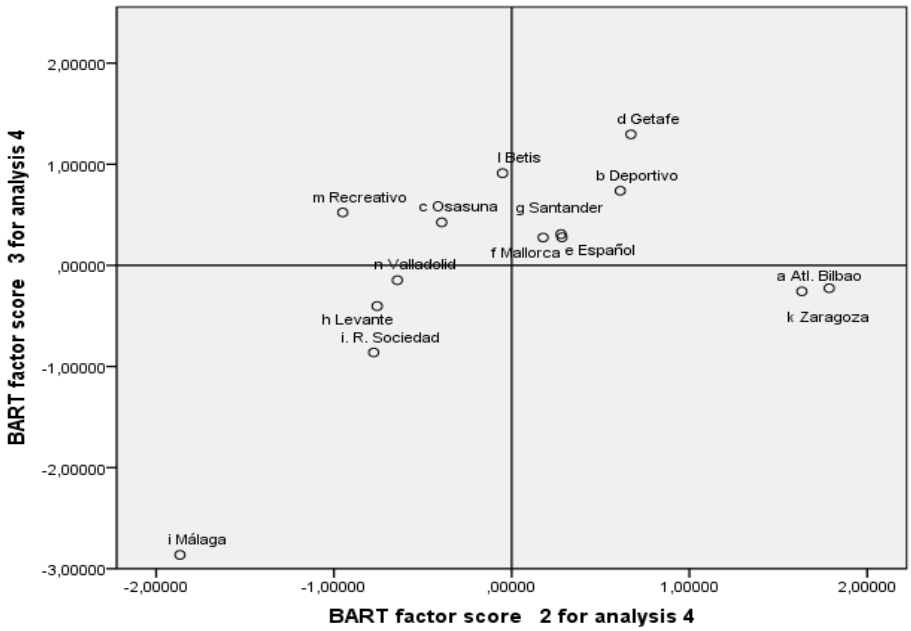
SEASON 7	3 factors explain 79.03%
1. RL, CVAG, RAUTF, RSOL, $REND^-$, ROA, C, $REJ_{(0,41)}$, $VAG_{(0,42)}$	**Corporation financial and economic strength**
2. C^-, DAI, RDOEXP, REJ, $ROA_{(0,41)}$, $GPT_{(0.41)}$	**Corporation invest efficiency in the year-end balance**
3. IEP, GPT, VAG	**Brand productive activity efficacy**

	3 factors explain 85.69%
1. CVAG, REJ, ROA, RDOEXP,$REND^-$, RSOL, ROE^-, $VAG_{(0,40)}$	**Brand strength, operating economic yield and solvency**
2. RL, RAUTF, RSOL, C, $REND^-_{(0.47)}$	**Financial balance and social guarantee**
3. IEP, GPT, ROE, VAG	**Brand productive activity and financial result efficacy**

	3 factors explain 87.28%
1. $REND^-$, RSOL, ROA, RAUTF, VAG, REJ, $IEP_{(0,43)}$	**Financial and economic brand guarantee**
2. IEP^-, GPT^-, DAI, RDOEXP, $VAG^-_{(0.44)}$	**Yield operating efficacy in the productive strategy**
3. ROE, C, RAUTF, $RDOEXP_{(0,45)}$	**Corporate financial guarantee**

ROA: Economic Yield; ROE: Financial Yield; GPT: Total Staff Expenses; DAI: Investment in Players; IEP: Operating Revenue; RDOEXP: EBIT; REJ: Year-end balance; C: Capital Stock; RSOL: Solvency Ratio; RL: Liquidity Ratio; REND: Liability Ratio; RAUTF: Financial Autonomy Ratio; VAG: Value added; CVAG: Value added growth.

Graphic 4. Population teams distribution according to factors 2 & 3 Season 4



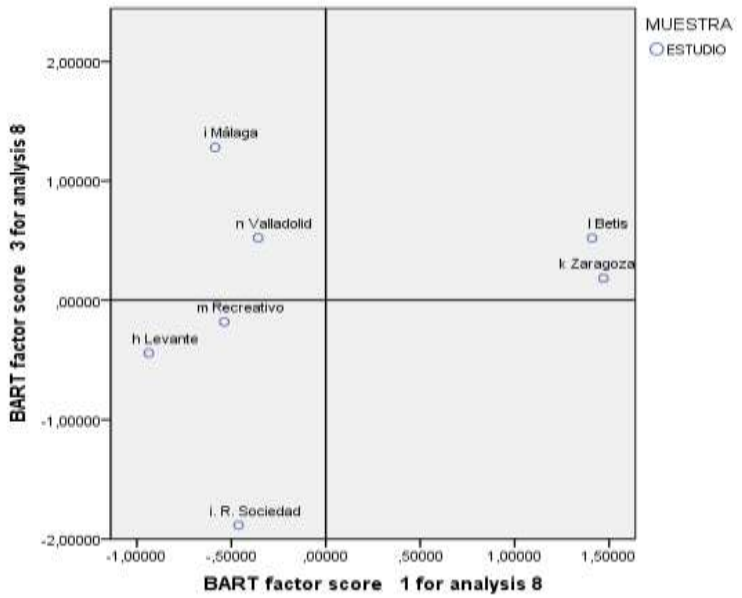
In G.C. Euclidean factors representation reflect the equality among clubs. In G.E. the component with mayor explanatory capacity gathers financial and liquidity information. The teams in lower division are financially weaker. Also they are more sensitive to the extracted factors the teams with more ups and downs in category and less the ones that have been more time in a division. Therefore the best behaved ones are Betis, Zaragoza and Valladolid (with more years in low division to present time).

PCA of fifth season extract four components similar to other seasons: productive strategy efficacy, financial independence, financial economic result and net income result. The G.C clubs are efficient and generate value but not G.E. regardless category.

In Euclidean planes representation of G.C representatives factors we observe that these clubs try to keep control of their financial balance although they generate less value. Neither G.E. clubs are effective when generating brand value with their productive strategy. If they have been more seasons in premier league they have more value (graphic 5).

The sixth season had more clubs in lower division (4). The factorial structure that underlies in the variable have financial nature in both population and in each group. The behavior of G.C. clubs to the factors is homogeneous and better to G.E. clubs. In G.C. the financial balance dimension explains 50% of variability. The G.E. clubs present more inertia to each other and with G.C., regardless category. When representing the factors in Euclidean plane most of G.E. clubs hold positions in the negative value quadrant although there are teams economically efficient and with financial balance. Also it is perceived that the population has decreased the effectiveness in sport activity and increased their indebtedness.

Graphic 5 G.E. teams distribution according to factors 1 & 2 Season 5



In season 7 the largest weight component refers to financial and economic strength in the corporation. The rest are related to productive structure. Once more we notice that G.C. are stronger financially and economically and G.E have little efficacy with their productive activity and generate little value above all if they are in lower division.

In G.C. the 48% of variation is explained by the brand strength and the economic yield. All have similar ideal behavior except for Santander. In G.E the PCA indicates that the financial aspect is essential above productivity. There is inertia among the teams in this group and as well as the financial and economic strength and the productive strategy efficacy does not matter when playing in premier or other leagues.

Point out special cases identified in cash diagrams representations in Euclidean planes of factors and aggregations: Recreativo in low division obtains adequate financial yield, Zaragoza who has only been relegated once did not get worse yields, Santander has the G.C. worst behavior, Deportivo de la Coruña and Athletic de Bilbao differentiate in G.C. group.

DISCUSSION AND CONCLUSION Discussion of the analysis in every variable

1. - For the ROA population set resulted to be less or equal to zero what indicates that playing in premier league is not profitable. In contrast the fact that ROA values have behaved much better in G.C clubs and had achieved the worst values, always negative, for the ascender teams independently from the number of clubs in premier league it seems to indicate that the fact that there are more teams in premier league does not necessarily make the profitability better in G.E.

2. - Concerning to the relation in ROA with the clubs promotion and demotions it is to say that the fact is G.C. are more stable ROA than G.E. and the teams which have been more years in lower division are not the ones with worse economic profitability demonstrates the continuity in a category permitting better control, stability and balance in ROA than when promoting and demoting constantly.

3.- Many studies exist where IEP are more than double from one group to another (Gay, 2009 a, b, CSD 2011) highlighting the present study this is so even in clubs with premier league population and with better classification than the ones in low divisions. If we add to the previous that the GPT are similar in both groups we should conclude that with similar expenses in productive assets G.E. clubs obtain less IEP. In addition the clubs with major continuity in premier or lower division present a GPT less volatile. All this conducts us to deduce that G.E. spends more in producing a sport spectacle than what they profit.

4. - The elevated DAI converts into an entrance barrier in G.C.

5.- It is true that ascender teams are more in debt and are insolvent is important to outstand that as much longer the continuity in the category it has a more stable RSOL.

6. - The results indicate that what influence negatively in REND is the constant promotion and demotion and not the continuity in one or another category. It is necessary to watch carefully REND as a reduction in equity under capital stock generates an early alarming state (Sanchez, 2008, Barajas & Plácido, 2009).

7.- In concern to RAUTF the results show that in most of the population clubs exist huge difficulties to face debts and little capacity to finance their regular activities. In most of the cases the clubs survive with public assistance and or renegotiating to long term their debt entrusting to recover their EIP with a possible promotion or classification in Europeans leagues. Barajas and Rodriguez conclude the same (2013). Even in 2010 and 2011 several clubs were in a state of insolvency. By contrast as usual in most of the indicators RAUTF is more stable in clubs with more continuity in a category.

8. - Finally all clubs when producing sport spectacle is wanting to generate added value to amateurs, shareholders, fans, distributors, etc…, as a reflection of the operational qualification. When less VAG was generated was in a season with more teams in low division. It seems more adequate for the brand to play in the maximum category. Also the VAG in G.C is almost double than G.E. In this variable it influences the fact of demotion as well as staying in low division.

Discussion of the statistic relation among ROA, RDOEXP, VAG variables

From the results in table 3 it is concluded that the G.E. clubs have little power to generate economic value from the productive activity. We also observe that is important to have enough capital stock as it influences in the category the play in. In G.C. ROA depends on the club´s good progress in time expressed in CVAG. The presence of CD value generation is logic because a good CD

raises the interest for the team translated in a superior additional value which fans are willing to pay. In the analyzed literature it is not found a possible relation between solvency and VAG. But this relation can indicate the importance of good management of the club to improve the economic value from the principal activity.

The results in table 3 also display that in all teams is important as well as the classification the solvency, indebtedness control, a good signing policy and the value preservation in time.

Discussion of factorial structure analysis underlying found

Due to factorial structure analysis underlying to the data we stand out:

1. - The clubs with worst profitable return are G.E. regardless category the play in. Related to the financial yield all population investigated obtain low results although is worst in G.E. teams specially if they have been in other division. Population economic productivity efficacy as a whole is low which means receiving little yield from the spectacle. An aspect to have in mind to design strategies. All of them specially the ascender teams which have liquidity problems particularly if they are in low divisions.

2. - In G.C. the dimensions explain in a greater extent the variability in the results refer to productivity of football business: strategy of staff expenses, investment, income, EBIT and year-end balance. But since 2009 – 2010 increases the weight of the financial and economic factors. In G.E. in most seasons the explanation dimensions have financial nature: solvency, indebtedness, financial autonomy, liquidity.

3. - When there are more G.E. teams in premier league the extracted factors referred to the financial efficiency and efficacy and brand strengthening but even though there is little liquidity. When there are more teams in low division they referred to financial inefficacy or results based on liquidity. Moreover it is perceived more the risk and fall into more staff expenses even having more clubs in other divisions.

4. - When analyzing how clubs behave before the factors according to category and how promotion, demotion or continuity affects them in a league it is proved that logically demotion affects productivity intensity, yield productivity and financial yield: its financial efficacy and liquidity deteriorate. In consequence of promotion the yield productivity improves but to a lesser extent financial and liquidity. It is also seen that the continuity in other division is negative for the brand value (VAG). The Euclidean representation displays that if they remain in this division even if the yield (or intensity) productivity is reduced VAG stays and the financial and economic yield are rebalanced and even get better. Do not overlook that through all years the clubs in G.E analyzed have been in state of insolvency.

CONCLUSIONS

Besides football industry has not the aim of maximizing benefit all participants want to play in premier league to increase it. However the fact is that promotion does not guarantee better economic results.

As proved in this investigation competing in premier league does not imply necessarily a greater growth, financial autonomy or economic efficiency neither financial efficacy or short term investments effectiveness. Not all participants for taking part in premier league guarantees better productive yield, nor brand, nor financial nor economic. Nonetheless they all make great financial efforts to promote and to remain.

Promote implies to increase income but also to increase expenses as the main barrier is the investment cost in players. As it is an open league demotion signifies a strong exit barrier considering that it proved that the income decreases but not the expenses neither indebtedness. Mainly due to the fact of keeping the level of competitiveness by acquiring talents. Besides not having guaranteed the continuity the ups and downs in categories affects negatively the exploitation results the indebtedness and the financial autonomy and endangers the survival of the club. From this perspective it is not profitable to play in premier league for all teams.

In this investigation it is proved how the continuity in a category allows to control better the factors that affect profitability, result and value. It provides more stability and balance to these variables than when promoting and demoting constantly and the financial strain. As a conclusion constant promotion and demotion influence negatively and not so much persistence in a category. The fluctuations between competitions endangers the survival of the club due to the financial performance to manage the no demotion (fear management). Moreover when there are more teams in other divisions the financial aspects have more explanation weight. This reflects the importance of the financial structure in ascender clubs.

Likewise the study reveals that the G.E. teams have difficulties to generate value and are more operating inefficient than G.C. even playing in the same category. Just like the difference between premier league clubs that are growing in the period of the study. It means that in premier league there are two different competitions. The different competitive balance increases the financial risk of
the “elevators” teams as the sector demands the indebtedness of the clubs in a high percentage to maintain the competitive level. That´s why we can conclude that open leagues are more unstable sport and financially speaking than closed ones. And it is considered convenient to remodel professional competition. Better than fear management it should be pursuit alignment management. Seeking adequate alignment to the club´s structure should be over promotion. It is believed through this that it could be achieved competitiveness balance and adjust financial risks with yield. A coming investigation will focus on this factor: ideal alignment for clubs according to efficiency about the identified significant factors.

On the one hand is necessary to reinforce other divisions to increase value and rebuild premier league to make it more balanced and consequently raise the attractiveness of the sector. In this way the clubs won't feel forced to promote at any cost because in low divisions they obtain little value and the risky financial behaviors will decrease. We agree in this point with several authors that it would be convenient to encourage the most modest and help them financially with part of the profits from the strongest teams: more balance distribution in TV rights, cooperative maintenance of the clubs to compensate when demoting (already done in LFP). Or follow other leagues example and have wage cap or talent distribution. Not forgetting the principle of free marketer which operates in Europe.

On the other hand these performances should be accompanied by a rebuilding of the competitiveness from the top: leader and challenger teams. The proposal is to modify, relaunch and become independent from European league where the leaders compete given that competition among these teams is more balanced.

Furthermore reinforcing challengers and followers league more competitively balanced between them making a more attractive Spanish premier league helping the most modest ones who usually promote and demote so it is more balanced and exciting. Finally the weakest teams (ascenders) should consider if it is worth to risk finance to promote or if it is better to get a foothold in other division more adequate to their real capacity and market.

REFERENCES

- Amilibia, G. (2012). El fútbol español y la reforma de la ley concursal: condenados a entenderse. Iusport, Marzo. Recuperado de http://www.iusport.es/php2/index.php?option=com_content&task=view&id=1959&Itemid=33

- Andreff, W.; Szymanski, S. (2006). Handbook on the Economics of Sport. Massachusetts: Edward Elgar Publishing. https://doi.org/10.4337/9781847204073

- Ascari, G. y Gagnepain, P. (2006). Spanish Footbal. Journal of Sports Economics, 7(l), 76-89. https://doi.org/10.1177/1527002505282869

- Barajas, A. (2004). Modelo de valoración de clubes de fútbol basado en los factores clave de su negocio. MPRA Paper 13158, Munich: University Library of Munich.

- Barajas, A. (2005). El valor económico del fútbol. Radiografía financiera del fútbol espa-ol, Navarra: Eunsa.

- Barajas, A. y Urrutia, I. (2007). The economic impact of support in Spanish professional football. International Journal of Sports Marketing & Sponsorship, issue 8(3). https://doi.org/10.1108/IJSMS-08-03-2007-B007

- Barajas, A. (2009). ¿Es la Ley Concursal el nuevo salvavidas del fútbol? La voz de Galicia, opinión. Recuperado de http://www.lavozdegalicia.es/opinion/2009/03/27/0003_7616895.htm?utm_source=buscavoz&utm_medium=buscavoz.

- Barajas, A. y Mareque, M. (2012). La calidad de la información financiera en el fútbol espa-ol. Estrategia Financiera. 293(Abril), 30-35. [Localizador Web: DT0000179669].

- Barajas, A. y Rodríguez, P. (2009). Situación financiera del fútbol profesional: crisis y Ley Concursal. Revista de Derecho de Deporte y Entretenimiento, 3(27), 65-85.

- Barajas, A. y Rodríguez, P. (2010). Spanish Football Clubs Finances: Crisis and Player Salaries. International Journal of Sport Finance, 5(1), 5266.

- Barajas, A. y Rodríguez, P. (2013). Spanish Football in Need of Financial Therapy: Cut Expenses and Inject Capital. International Journal of Sport Finance, 9, 73-90.

- Barajas, A. y Rodríguez, P. (2013). Spanish Football in Need of Financial Therapy: Cut Expenses and Inject Capital. International Journal of Sport Finance, 9, 73-90.

- Barajas, A., & Rodriguez, P. (2014). Spanish football in need of financial therapy: Cut expenses and inject capital. International Journal of Sport Finance, 9(1), 73-90. Retrieved from www.scopus.com.

- Consejo Superior de Deportes (2011). Balance de la situación económico financiera del fútbol español 1999/2011. Madrid: Ministerio de Educación, Cultura y Deporte.

- Fajardo, O. (2008). El concepto de Posicionamiento en las empresas y estrategias para su desarrollo. Friendly Business, enero. Recuperado de http://fbusiness.wordpress.com/2008/01/05/el-concepto-de-posicionamientoen-las-empresas-y-estrategias-para-su-desarrollo/

- Fisher, R.A. (1936). The Use of Multiple Measurements in Taxonomic Problems. Annals of Eugenics, 7 (2), 179-188. https://doi.org/10.1111/j.1469-1809.1936.tb02137.x
- Fort, R. y Maxcy, J. (2003). Competitive balance in sports leagues: An introduction. Journal of Sports Economics, 4, 154-160. https://doi.org/10.1177/1527002503004002005
- Gázquez, J.C. y Sánchez, M. (2010). Poder competitivo, preferencias del consumidor y posición competitiva. Revista Europea de Dirección y Economía de la Empresa, 19(1), 165-184.
- Garvin, D. A. (1987). Competing on the Eight Dimensions of Quality. Harvard Business Review, 65, 101-109.
- Gay Saludas, J. Mª. (2009). La economía de la Liga de las estrellas (I). Radiografía patrimonial y financiera del fútbol español (temporada 2006/2007). Partida Doble, 209(abril), 62-89.
- Gay Saludas, J. Mª. (2009). La economía de la Liga de las estrellas (II). Radiografía patrimonial y financiera del fútbol español (temporada 2006/2007). Partida Doble, 210(mayo), 62-87.
- García, J. y Rodríguez, P. (2002). The Determinants of Football Match Attendance Revisited: Empirical Evidence From the Spanish Football League. Journal of Sports Economics, 3(February), 18-38. https://doi.org/10.1177/152700250200300103
- García, J., Rodríguez, P. y Szymanki, S. (2013). ¿El fútbol está en crisis? El país, deportes. Recuperado de http://deportes.elpais.com/deportes/2013/12/24/actualidad/1387905845_792983.html
- Gómez, S. y Opazo, M. (2007). Características estructurales de un club de fútbol profesional de élite. IESE Business School, DI, septiembre, nº 705.
- Grossens, K. (2006). Competitive Balance in European Football: Comparison by Adapting Measures: National measure of seasonal imbalance and top 3. Rivista di Diritto ed Economia dello Sport, II(2), 77122.
- Hotelling, H. (1933). Analysis of a complex of statistical variables into principal components. Journal of Educational Psychology, 24(6), 417-441. https://doi.org/10.1037/h0071325
- Humpreys, D. (2002). Alternative measures of competitive balance in Sports Leagues. Journal of Sports Economics, 3, 133-148. https://doi.org/10.1177/152700250200300203
- López, A., Barajas, A., Gallardo, L. (2011). Variables relevantes en el modelo de gestión de los clubes de fútbol profesional españoles vistas desde un grupo de expertos. En Barajas, A., Fraiz, J.A. y Sánchez, P. (eds), Economía del deporte en el siglo XXI: una visión plural, (pp. 116-118). Ourense: Facultad de Ciencias Empresariales y Turismo de Ourense.
- Magaz, A.M. (2003). Una aproximación al Análisis del Sector de Fútbol Profesional desde la Perspectiva de la Economía Industrial. Análisis de Casos. León: Junta de Castilla y León.
- Mallo, F. (1985). Análisis de componentes principales y técnicas factoriales relacionadas. León: Universidad de León.
- Pawlowski, T., & Budzinski, O. (2013). The monetary value of competitive balance for sport consumers: A stated preference approach to European

professional football. International Journal of Sport Finance, 8(2), 112-123. Retrieved from www.scopus.com
- Pearson, K. (1901). On lines and planes of closest fit to systems of points in space. Philosophical Magazine, 2(11), 559-572. https://doi.org/10.1080/14786440109462720
- Pindado, J. (2001). Gestión de tesorería en la empresa: Teoría y aplicaciones prácticas. Salamanca: Universidad de Salamanca.
- Sánchez, L.C. (2006) ¿Son compatibles el <bolsillo> y el <corazón>? El caso de las Sociedades Anónimas Deportivas Españolas. Revista de Contabilidad y Tributación, 66, 131-172.
- Sánchez, G. (2008). La aplicación de Mecanismos de Alerta Temprana de la Insolvencia en el ámbito deportivo. Revista Jurídica del Deporte, 22, 67-84.
- Serrano, R., Espitia, M. (2013). Cambio estructural y equilibrio competitivo en la liga española de fútbol. En Pablo Burillo, Jorge García, Benito Pérez y Javier Sánchez (eds), Reinventando la economía del deporte (pp. 151-154). Madrid: Universidad Camilo José Cela.
- Szymanski, S. (2013). "Sin correr riesgos económicos es difícil sostener la competencia". El País, deportes. Recuperado de http://deportes.elpais.com/deportes/2013/06/17/actualidad/1371492643_749069.html
- UEFA (2010). Club Licensing and Financial Fair Play Regulations. Ed. 2010. Recuperado de http://es.uefa.com/MultimediaFiles/Download/uefaorg/Clublicensing/01/50/09/12/1500912_DOWNLOAD.pdf.

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