ISSN 2042-678X
Volume **7** Number **2** 2017

Sport, Business and Management

An International Journal

Performance strategies for meeting multiple objectives: the case of professional sport teams

Guest Editors: Rob Wilson and Christos Anagnostopoulos

Access this journal online
www.emeraldinsight.com/loi/sbm

EDITORIAL ADVISORY AND REVIEW BOARD

Dr Angel Barajas
Universidade de Vigo, Spain

Dr Rui Biscaia
Coventry University, UK

Dr Tim Breitbarth
Bournemouth University, UK

Professor Ziv Carmon
INSEAD, Singapore

Professor David Carter
University of Southern California, USA

Professor Dae Ryun Chang
Yonsei University, South Korea

Professor Cary L. Cooper CBE
Manchester Business School, UK

Professor Antonio Davila
IESE Business School, Spain

Professor Mikkel Draebye
SDA Bocconi School of Management, Italy

Professor Eduardo Fernandez-Cantelli
IE Business School, Spain

Dr Leah Gillooly
Alliance Manchester Business School, UK

Dr Michael Goldman
University of San Francisco, USA

Dr Larena Hoeber
University of Regina, Canada

Dr Roger Levermore
University of Liverpool, UK

Dr Hibai Lopez-Gonzalez
University of Deusto, Spain

Dr Brian McCullough
Seattle University, USA

Professor Heath McDonald
Swinburne University of Technology, Australia

Dr Nicolas Scelles
University of Stirling, UK

Professor Aaron Smith
RMIT University, Australia

Professor Sten Soderman
Stockholm University, Sweden

Professor Harry Arne Solberg
Norwegian University of Science and Technology, Norway

Professor Leigh Sparks
University of Stirling, UK

Dr Mark Stewart
RMIT University, Australia

Dr Troels Troelsen
Copenhagen Business School, Denmark

Dr Cleopatra Veloutsou
University of Glasgow, UK

Professor Steven Vos
Eindhoven University of Technology, Netherlands

Dr Nefertiti Walker
University of Massachusetts, USA

Dr Marvin Washington
University of Alberta, Canada

Professor Darin W. White
Samford University, USA

Dr Robert Wilson
Sheffield Hallam University, UK

Professor Mohammed Yamin
Manchester Business School, UK

Sport, Business and Management:
An International Journal
Vol. 7 No. 2, 2017
p. 113
© Emerald Publishing Limited
2042-678X

Guest editorial: performance strategies for meeting multiple objectives

The case of professional sport teams

Introduction

The world of contemporary sport, at its elite end at least, presents a complex challenge for sport management as the product it delivers to participants and fans is so idiosyncratic (Smith and Stewart, 2010). This claim can accompanied by the view that while professional sport is in large part just another form of business, it has a range of special features that demand a customised set of practices to ensure its effective operation (Smith and Stewart, 2010). As such, professional sport is much more than just a business and is influenced by its rich history, emotional connections, tribal links and social relevance. Factors such as these are difficult to objectively measure yet they will have a bearing on the business performance of sporting teams.

When we consider professional sport teams in particular we find that the research activity which surrounds it has been heavily linked to the field of economics and principally the concepts of uncertainty of outcome, competitive balance and profit and utility maximisation (e.g. Buraimo *et al.*, 2015; Fort, 2015; Kesenne, 2015; Leach and Szymanski, 2015; Sloane, 2015; Vrooman, 2015). These factors are important as professional sport teams ultimately operate under multiple objectives. The two most prominent of these are generally: to maintain a high level of on-field performance and, to maximise off-field commercial business operations in the pursuit of revenue gains. For the latter, the concept of corporate social responsibility has started playing an increasingly important role (Breitbarth *et al.*, 2015; Kolyperas *et al.*, 2016). It is widely acknowledged in academia that these objectives are linked yet there is no clear consensus as to which is the cause and effect. Normally, in business the fundamental aim is to make profit. However, this situation is not as straightforward in the professional sport industry and, particularly sport teams, which make them an interesting and contemporary research focus in the sport management industry.

The intertwining of these factors creates a practical management dilemma for professional sport teams. They must strategically position themselves to maximise performance both on and off the pitch whilst simultaneously satisfying a number of different stakeholders. As previous research suggests, reconciling the "on-field/off field" dichotomy in professional team sport is not easy and it has proved a highly contentious issue in recent years (Chadwick, 2009) and often transcends into discussion around the "twin" objectives of professional sport teams (e.g. Plumley, Wilson, and Shibli, 2017). One is financial, in relation to business operations, and the other is sporting, in relation to on-pitch performance and trophy success. Other authors have cited similar objectives under the term "institutional logics". For example, Carlsson-Wall *et al.* (2016) discuss the terms sports logics and business logics which are closely aligned to the financial and sporting variables outlined above. Carlsson-Wall *et al.* (2016) state that while sports and business logics sometimes compete with each other, in other situations they are in harmony whilst Plumley, Wilson, and Shibli (2017) suggest that financial and sporting performance are not dichotomous variables but a continuum along which clubs place themselves and move backwards and forwards to a greater or lesser extent.

There is substantial academic literature, which considers the relationship between financial and sporting performance in professional team sports (e.g. Késenne, 2000; Garcia-del-Barrio and Szymanski, 2009; Sloane, 2015; Szymanski and Kuypers, 1999).

Sport, Business and Management:
An International Journal
Vol. 7 No. 2, 2017
pp. 114-120
© Emerald Publishing Limited
2042-678X
DOI 10.1108/SBM-03-2017-0017

However, in presenting this special issue we claim that sport, and its management, has evolved further over the last few years, and that performance of professional sport teams should now be measured against multiple objectives; one way for such an examination to gain theoretical explanatory power is to take place through the lenses of multiple institutional logics (Carlsson-Wall *et al.*, 2016; Gammelsæter, 2010).

Multiple institutional logics

Pache and Santos (2010) outline that organisations often have to comply with the values and expectations of diverse stakeholders and institutional theory which suggests that such sets of demands should be conceptualised as "institutional logics" (e.g. Thornton *et al.*, 2012). Empirical research to date has discussed a number of different logics in various sectors and industries, including, but not limited to, a medical care logic in hospital setting (e.g. Reay and Hinings, 2009), a regulatory logic in the US finance industry (e.g. Lounsbury, 2002) or a personal logic within the higher education publishing market (e.g. Thornton, 2001). Within the early stages of the empirical research it was found that multiple logics co-exist during transition times until one logic "wins" and the field adopts the winning dominant logic (Di Maggio, 1983) or a new logic that is a hybrid version of earlier ones (Glynn and Lounsbury, 2005). However, more recent research suggests that multiple logics may co-exist at the organisational level for a substantial period of time (e.g. Lounsbury, 2007; Marquis and Lounsbury, 2007; Reay and Hinings, 2005). Furthermore, there is an emerging stream of research that has started to examine how such multiplicity of logics affects organisations (e.g. Almandoz, 2012, 2014; Besharov and Smith, 2014; Pache and Santos, 2013).

Given this context, there are some important questions that emerge in relation to how the multiplicity of logics might affect a professional sport. First, it is relevant to understand whether differing logics place different demands on different actors. For example, if all logics are fully compatible then there would be no cause for concern over such multiplicity. Second, if adhering to different logics requires conflicting courses of action then such incompatibility would pose a managerial challenge (Carlsson-Wall *et al.*, 2016). Thus, we can reasonably ask how to manage such competing logics. We have already made reference to the "on-field/off field" dichotomy in professional team sports but the collection of papers in this Special Issue also point to further logics that may need to be considered and that affect performance and managerial decisions.

Compatible and incompatible logics

Recent literature (e.g. Besharov and Smith, 2014; Greenwood *et al.*, 2011) highlight two main factors that explain why logics may possibly create tension within an organisation. First, Greenwood *et al.* (2011) suggest that the "nature and extent of institutional complexity faced by organizations is fundamentally shaped by the structure of the organizational fields within which they are located" (Greenwood *et al.*, 2011, p. 334). In this instance, the authors appear to be referring to the difference between highly fragmented and decentralised fields, where tensions between different logics are not moderated by field-level actors but have to be fully addressed by the organisations themselves, and less fragmented and more unified fields, where competing demands are worked out at a higher level, either by negotiation between field-level actors and/or by dominant actors enforcing compliance (Carlsson-Wall *et al.*, 2016; Greenwood *et al.*, 2011).

The second important factor is that, within a given field, different organisations may experience more or less tension between logics depending on how these logics are enacted with the organisation. This also depends on a number of other factors such as the strength of the relationship between organisational actors and field-level referent audiences and the relative power of different actors within an organisation (Greenwood *et al.*, 2011).

Carlsson-Wall *et al.* (2016) further the discussion on compatible and incompatible logics by building on the work of Greenwood *et al.* (2011). Whilst stating that the work of

Greenwood *et al.* (2011) can explain the variation in how logics are enacted between different fields and between different organisations, they cannot explain potential variation within organisations. Such variation would mean that the same set of logics may create tensions in some situations, but not in others, something that Carlsson-Wall *et al.* (2016) suggest as being the most likely occurrence. Some situations are characterised by courses of action or events that favour several logics at the same time, while others feature courses of action or events that are in line with one logic but conflict with others (Carlsson-Wall *et al.*, 2016). They outline this situation-specific logic using an example of a football club building a new and bigger stadium and the trade-off between sport and business logics. At first glance, two interpretations of this decision appear plausible. One is that the decision is in line with the sports logic, as it will create a better atmosphere in the stadium and that and it will motivate the players, but not in line with the business logic as building a new stadium requires a substantial amount of capital funding. The other interpretation, however, is that the decision is in line with the business logic, as the consequence of a new stadium over time is that it is likely to generate more revenue in ticket sales and an increase in the number of fans able to attend matches owing to an increased capacity size (Carlsson-Wall *et al.*, 2016). Arguably, in this scenario, there are further logics that exist that have yet to be considered. For example, there may be a fan logic that affects the decision in that some fans may favour a move to a new stadium whereas others may wish to see the team remain at the old stadium with respect of the historical traditions of the club. A similar scenario may occur among financial stakeholders within the club. In this situation, the dominant field-actors would have to consider all these logics and make a persuasive argument as to which is the right course of action to take. With this in mind, it can be concluded that logics are not compatible or incompatible *per se*, but are afforded different priorities in different situations (Carlsson-Wall *et al.*, 2016). Furthermore, the expansion of the football stadium example to consider more than two logics strengthens the argument that football clubs do appear to provide evidence of organisations that operate under multiple institutional logics. Not only that, football clubs also have to satisfy a number of diverse stakeholder demands which places increasing pressure on the importance of different logics.

Performance measurement in professional team sports

Previous academic research has examined the relationship between on-field and off-field performance in professional sports organisations (e.g. Guzmán and Morrow, 2007; Plumley, Wilson, and Ramchandani, 2017; Plumley, Wilson, and Shibli, 2017; Rascher, 1997; Szymanski and Kuypers, 1999). Whilst the majority of authors researching this field agree that on-field and off-field are indeed linked, there is still a lack of convergence in relation to two main factors; first, the presence of a cause and effect relationship between the two and, second, which variables should be used for analysis when measuring performance. Traditionally, variables have been assigned within two dimensions; financial and sporting indicators of performance. Within each of these dimensions, there is theory to suggest that certain indicators of performance can be measured in a robust and justifiable way. For example, when considering financial performance, there exists an accounting framework in most European countries that dictates how financial performance is recorded within organisations. Ratio analysis can be used as an applied form of financial measurement and has been used extensively in academic research across various industries including the airline industry (e.g. Feng and Wang, 2000), the American power/energy industry (e.g. Sueyoshi, 2005) and the Slovenian manufacturing industry (e.g. Ponikvar *et al.*, 2009). Similarly, when considering sporting performance in professional sports organisations there is a consistency to some of the indicators used to measure performance. A high number of studies have focussed on league position or league points won as a measure for their analysis (e.g. Guzmán and Morrow, 2007; Szymanski and Kuypers, 1999).

There is little doubt that the choice of these indicators of performance listed above are relevant for examining financial and sporting performance and the work undertaken in the last two decades in relation to this field has broken new ground in the context of sport business management research. However, there is also an argument in relation to the theoretical framework of institutional logics that are (implicitly) raised throughout this Special Issue and that suggest we may now have to move beyond these two dimensions and incorporate other logics in line with the diverse number of stakeholder groups that are apparent in professional sport organisations. Although generally constituted as limited liability companies and hence ostensibly operating within the same legal and governance framework as companies in other areas of economic activity, they exist in a peculiar emotional and social space, where unusually strong relationships often exist between the company and stakeholders. Unsurprisingly, these relationships can have an impact on business behaviour and decision-making (Anagnostopoulos *et al.*, 2014).

This special issue has sought to explore these characteristics and how they impact on a professional sport team's strategic direction. Our aim has been to add to the growing body of knowledge surrounding the economics and management of professional sport teams and enhance it by harnessing research, which seeks to explain, analyse and evaluate the characteristics of professional sport teams from a more holistic perspective. To that end the papers collected in this issue consider sports from around the world, challenge how we measure performance and how we can understand the impact of regulation and the advancement in technology. The following section offers a brief overview of these contributions.

Overview of contributions

In the first study, Terrien, Scelles, Morrow, Maltrese and Durand draw on the context of French football to investigate the win/profit maximisation debate. The point of departure is that the resultant trade-off between profit and win can be the consequence of strategy formulation or may result from a potential misalignment in its implementation. Indeed, the authors empirically demonstrate that a team can switch from one archetype to another due to the stochastic nature of the sport industry. Their findings also point out that the club director's utility function could be maximised under an intertemporal budget function to adjust the weight between win and profit according to the opportunities in the environment.

Wilson and Plumley's study draws on the – largely neglected – context of rugby union in the UK. The purpose of their study was to analyse the financial and sporting performance of rugby union clubs using a model they began to use in 2014 on professional football. They found a financial disparity amongst clubs which has widened while the sporting performance measures indicated a fairly equal competition, something that is less evident in other UK professional team sports such as football and rugby league. By demonstrating the importance of balancing multiple performance objectives in professional team sports Wilson and Plumley have enhanced the academic discussion on the financial health of professional team sports in the UK, particularly with reference to the financial health of rugby union where research has historically been scarce.

The third contribution of this special issue draws on a football context that is increasingly attracting the attention of media, administrators, and not least, the scholarly community; namely the Chinese Super League. Watanabe and Soebbing examine the impact of team performance, price dispersion for a single event, and market characteristics on fan attendance. Underpinned by economic demand theory and through the employment of econometric modelling and regression analysis, the authors conclude that using multi-tiered pricing for sporting events does not significantly enhance demand in this context, thereby challenging previous literature that have argued that attendance demand is often influenced by the number of price points.

Freestone and Manoli's study was set to examine the effects of Financial Fair Play (FFP) regulations on the competitive balance in English Premier League (EPL). Utilising different statistical methods, the authors found that there is no indication that FFP regulations have resulted in a decline in competitive balance in the EPL, but rather that a positive effect may have been caused. These insights partly support the view that FFP initiatives have begun to shift the focus of sporting competition away from financial strength, towards more natural means of competition such as efficiency, innovation and good management.

The last two contributions have social media at their core. The first one, by Parganas, Liasko and Anagnostopoulos, seeks to bridge the communication and sport economic research, providing evidence that Facebook followers are part of the cyclical phenomenon of team revenues and team performance. In so doing, it initiates a debate on the relationship between the digital expansion of a football club and its sports and financial indicators. In particular, it examines the association between team performance, commercial success, and social media followers in professional team sports. Their results indicate that all three main sources of club revenues (match-day, commercial/sponsorship, and broadcasting) are positive drivers for Facebook followers. Moreover, staff investments (staff costs) are also positively related to Facebook followers, albeit to a lesser extent, while higher-ranked clubs seem to follow a constant approach in terms of their revenues and cost structure. The second paper, by Kim and Hull, examine how fans are engaging with Major League Baseball teams that are utilising Instagram postings to demonstrate sporting, business, and social objectives. Results of this research demonstrate that while Major League Baseball teams are able to address their multiple objectives on Instagram, fans are not necessarily interested in all three of these efforts. More specifically, posts about on-field action, consumer buying opportunities or charitable efforts were all created by the majority of teams, but the sporting objective posts had, by far, the highest average number of both likes and comments when compared to the charitable and promotional objectives of the teams.

Concluding thoughts

These papers provide but a small sample of recent and ongoing work on the difficult task sport teams are faced with; that is, to meet multiple objectives via a wide range of means, not least regulations. As the articles in the present special issue illustrate, there are many complex and interesting avenues of inquiry that warrant further investigation. We very much hope that these papers, both individually and collectively, will encourage further significant theoretical, methodological, and empirical advances.

As a final note, we would like to express our sincere appreciation to all contributors to this special issue, including the authors of the articles, the anonymous reviewers who devoted their voluntary time to provide valuable feedback to the authors, and the editorial team at Emerald that was helpful throughout the process. A final specific mention should also be made to Dr. Daniel Plumley of Sheffield Hallam University. His contributions as a reviewer and towards this editorial have been precise and constructive throughout.

Rob Wilson
Academy of Sport and Physical Activity, Sheffield Hallam University, Sheffield, UK, and

Christos Anagnostopoulos
Molde University College, Molde, Norway

References

Almandoz, J. (2012), "Arriving at the starting line: the impact of community and financial logics on new banking ventures", *Academy of Management Journal*, Vol. 55 No. 6, pp. 1381-1406.

Almandoz, J. (2014), "Founding teams as carriers of competing logics when institutional forces predict banks' risk exposure", *Administrative Science Quarterly*, Vol. 59 No. 3, pp. 442-473.

Anagnostopoulos, C., Byers, T. and Shilbury, D. (2014), "Corporate social responsibility in professional team sport organisations: towards a theory of decision-making", *European Sport Management Quarterly*, Vol. 14 No. 3, pp. 259-281.

Besharov, M.L. and Smith, W.K. (2014), "Multiple institutional logics in organizations: explaining their varied nature and implications", *Academy of Management Review*, Vol. 39 No. 3, pp. 364-381.

Breitbarth, T., Walzel, S., Anagnostopoulos, C. and van Eekeren, F. (2015), "Corporate social responsibility and governance in sport: Oh, the things you can find, if you don't stay behind!", *Corporate Governance: The International Journal of Business in Society*, Vol. 15 No. 2, pp. 254-273.

Buraimo, B., Frick, B., Hickfang, M. and Simmons, R. (2015), "The economics of long-term contracts in the footballers' labour market", *Scottish Journal of Political Economy*, Vol. 62 No. 1, pp. 8-24.

Carlsson-Wall, M., Kraus, K. and Messner, M. (2016), "Performance measurement systems and the enactment of different institutional logics: insights from a football organization", *Management Accounting Research*, Vol. 32, pp. 45-61.

Chadwick, S. (2009), "From outside lane to inside track: sport management research in the twenty-first century", *Management Decision*, Vol. 47 No. 1, pp. 191-203.

Di Maggio, P.J. (1983), "State expansion and organizational fields", in Hall, R.H. and Quinn, R.E. (Eds), *Organizational Theory and Public Policy*, Sage, Thousand Oaks, CA, pp. 147-161.

Feng, C. and Wang, R. (2000), "Performance evaluation for airlines including the consideration of financial ratios", *Journal of Air Transport Management*, Vol. 6 No. 3, pp. 133-142.

Fort, R. (2015), "Managerial objectives: a retrospective on utility maximization in pro team sports", *Scottish Journal of Political Economy*, Vol. 62 No. 1, pp. 75-89.

Gammelsæter, H. (2010), "Institutional pluralism and governance in commercialized sports clubs", *European Sport Management Quarterly*, Vol. 10, pp. 569-594.

Garcia-del-Barrio, P. and Szymanski, S. (2009), "Goal! Profit maximisation versus win maximisation in soccer", *Review of Industrial Organisation*, Vol. 34 No. 1, pp. 45-68.

Glynn, M.A. and Lounsbury, M. (2005), "From the critics' corner: logic blending, discursive change and authenticity in a cultural production system", *Journal of Management Studies*, Vol. 42 No. 5, pp. 1031-1055.

Greenwood, R., Raynard, M., Kodeih, F., Micelotta, E.R. and Lounsbury, M. (2011), "Institutional complexity and organizational responses", *The Academy Management Annals*, Vol. 5 No. 1, pp. 317-371.

Guzmán, I. and Morrow, S. (2007), "Measuring efficiency and productivity in professional football teams: evidence from the English premier league", *Central European Journal of Operations Research*, Vol. 15 No. 4, pp. 309-328.

Késenne, S. (2000), "Revenue sharing and competitive balance in professional team sports", *Journal of Sports Economics*, Vol. 1 No. 1, pp. 56-65.

Kesenne, S. (2015), "Revenue sharing and absolute league quality: talent investment and talent allocation", *Scottish Journal of Political Economy*, Vol. 62 No. 1, pp. 51-58.

Kolyperas, D., Anagnostopoulos, C., Chadwick, S. and Sparks, L. (2016), "Applying a communicating vessels framework to CSR value co-creation: empirical evidence from professional team sport organizations", *Journal of Sport Management*, Vol. 30 No. 6, pp. 702-719.

Leach, S. and Szymanski, S. (2015), "Making money out of football", *Scottish Journal of Political Economy*, Vol. 62 No. 1, pp. 25-50.

Lounsbury, M. (2002), "Institutional transformation and status mobility: the professionalization of the field of finance", *Academy of Management Journal*, Vol. 45 No. 1, pp. 255-266.

Lounsbury, M. (2007), "A tale of two cities: competing logics and practice variation in the professionalizing of mutual funds", *Academy of Management Journal*, Vol. 50 No. 2, pp. 289-307.

Marquis, C. and Lounsbury, M. (2007), "Vive la résistance: competing logics and the consolidation of US community banking", *Academy of Management Journal*, Vol. 50 No. 4, pp. 799-820.

Pache, A.C. and Santos, F. (2010), "When worlds collide: the internal dynamics of organizational responses to conflicting institutional demands", *Academy Management Review*, Vol. 35, pp. 455-476.

Pache, A.C. and Santos, F. (2013), "Inside the hybrid organization: selective coupling as a response to competing institutional logics", *Academy of Management Journal*, Vol. 56 No. 4, pp. 972-1001.

Plumley, D., Wilson, R. and Ramchandani, G. (2017), "Towards a model for measuring holistic performance of professional football clubs", *Soccer and Society*, Vol. 18 No. 1, pp. 1-14.

Plumley, D., Wilson, R. and Shibli, S. (2017), "A holistic performance assessment of English premier league football clubs 1992-2013", *Journal of Applied Sport Management* (in press).

Ponikvar, N., Tajnikar, M. and Pusnik, K. (2009), "Performance ratios for managerial decision-making in a growing firm", *Journal of Business Economics and Management*, Vol. 10 No. 2, pp. 109-120.

Rascher, D.A. (1997), "A model of a professional sports league", in Hendricks, W. (Ed.), *Advances in the Economics of Sport*, JAI Press, Grenwich, CT.

Reay, T. and Hinings, C.B. (2005), "The recomposition of an organizational field: health care in Alberta", *Organization Studies*, Vol. 26 No. 3, pp. 351-384.

Reay, T. and Hinings, C.R. (2009), "Managing the rivalry of competing institutional logics", *Organization Studies*, Vol. 30 No. 6, pp. 629-652.

Sloane, P. (2015), "The economics of professional football revisited", *Scottish Journal of Political Economy*, Vol. 62 No. 1, pp. 1-7.

Smith, A.C.T. and Stewart, B. (2010), "The special features of sport: a critical revisit", *Sport Management Review*, Vol. 13 No. 1, pp. 1-13.

Sueyoshi, T. (2005), "Financial ratio analysis of the electric power industry", *Asia-Pacific Journal of Operational Research*, Vol. 22 No. 3, pp. 349-376.

Szymanski, S. (2003), "The economic design of sporting contests", *Journal of Economic Literature*, Vol. 41 No. 4, pp. 1137-1187.

Szymanski, S. and Kuypers, T. (1999), *Winners and Losers*, Penguin, London.

Thornton, P.H. (2001), "Personal versus market logics of control: a historically contingent theory of the risk of acquisition", *Organization Science*, Vol. 12 No. 3, pp. 294-311.

Thornton, P.H., Ocasio, W. and Lounsbury, M. (2012), *The Institutional Logics Perspective: A New Approach to Culture, Structure and Process*, Oxford University Press, Oxford.

Vrooman, J. (2015), "Sportsman leagues", *Scottish Journal of Political Economy*, Vol. 62 No. 1, pp. 90-115.

Further reading

Clarkson, M.B.E. (1995), "A stakeholder framework for analysing and evaluating corporate social performance", *Academy of Management Review*, Vol. 20, pp. 92-117.

Deloitte (2016), *Annual Review of Football Finance: Reboot*, Sport Business Group, Manchester.

Drut, B. and Raballand, G. (2012), "Why does financial regulation matter for European professional football clubs?", *International Journal of Sport Management and Marketing*, Vol. 2 No. 11, pp. 73-88.

Freeman, R.E. (1984), *Strategic Management: A Stakeholder Approach*, Pitman Press, Northumberland.

Senaux, B. (2008), "A stakeholder approach to football club governance", *International Journal of Sport Management and Marketing*, Vol. 4 No. 1, pp. 4-17.

Sloane, P. (1971), "The economics of professional football: the football club as a utility maximiser", *Scottish Journal of Political Economy*, Vol. 17 No. 2, pp. 121-146.

The current issue and full text archive of this journal is available on Emerald Insight at:
www.emeraldinsight.com/2042-678X.htm

The win/profit maximization debate: strategic adaptation as the answer?

Mickael Terrien
Universite de Caen Normandie, Caen, France
Nicolas Scelles
Department of Health Sciences and Sport, University of Stirling, Stirling, UK
Stephen Morrow
Department of Sport, University of Stirling, Stirling, UK
Lionel Maltese
Aix-Marseille Universite, Marseille, France, and
Christophe Durand
Universite de Caen Normandie, Caen, France

Abstract

Purpose – The purpose of this paper is twofold. First, to highlight the heterogeneity of the organizational aims within the professional football teams in Ligue 1. Second, to understand why some teams swing from a win orientation towards a soft budget constraint from year to year, and vice versa.

Design/methodology/approach – Financial data from annual reports for the period 2005/2015 was collected for the 35 Ligue 1 clubs. To define the degree of compliance with the intended strategy for those clubs, an efficiency analysis was conducted thanks to the data envelopment analysis method. This measure of performance was supplemented with the identification of productivity and demand shocks to identify whether clubs suffered from such shock or changed their strategy. It enables to precise the nature of the evolution in the utility function, with regards to the gap between expectation and actual performance.

Findings – The paper suggests that a team can switch from one orientation to another from year to year due to the uncertain nature of the sports industry. The club director's utility function could also be maximized under inter temporal budget function in order to adjust the weight between win and profit according to the opportunities in the environment.

Originality/value – The paper sheds new light on the win/profit maximization. The theoretical model provides an assessment of the weight between win and profit in Ligue 1 and then identifies a new explanation for persistent losses in the sports industry.

Keywords Strategy, Football, Performance, Profit maximization, Utility maximization

Paper type Research paper

Introduction

The economic theory of professional sports leagues is mainly based on the assumption that club owners' objectives are oriented towards either maximizing profits or maximizing utility, more specifically sporting success or wins (Sloane, 2015). The notion of utility maximization can be further divided to reflect the nature of any attendant budget constraint which may be a hard constraint (Sloane, 2015) or a softer one in which club owners do not rigidly enforce the constraint, preferring as necessary to enhance the remuneration of its playing talent in pursuit of winning more games (Andreff, 2007).

Fort (2015) states that estimating the potential trade-off between win and profit maximization is an important avenue for sports economics. This debate, dealing with the aims of professional teams, is crucial as its assumptions impact predictions as to the likely effects of regulatory tools used to optimize the design of leagues (e.g. Szymanski and Késenne, 2004). While some studies have sought to combine the two objectives (for a review, see Fort, 2015),

Sport, Business and Management:
An International Journal
Vol. 7 No. 2, 2017
pp. 121-140
© Emerald Publishing Limited
2042-678X
DOI 10.1108/SBM-10-2016-0064

few attempts have been made to clearly understand the organizational objectives of professional team sports (Leach and Szymanski, 2015). One explanation may be that previous approaches have been too strongly focussed on economic background while managerial concepts may help to clarify such organizational objectives. More specifically, whereas an economic approach tends to assume that intended strategy will be realized (e.g. Sloane, 1971), recognition that "strategies can 'form' in a variety of different ways" (Mintzberg and Waters, 1985, p. 160) is potentially of great importance in professional team sports. Hence, the resultant trade-off between profit and win could be the consequence of strategy formulation or may result from a potential misalignment in its implementation.

In order to enhance the existing literature, this paper analyses French football clubs in the first division, called Ligue 1, between 2005/2006 and 2014/2015. Basic financial analysis illustrates the heterogeneity of organizational aims among Ligue 1 clubs: one third of clubs makes significant profits, another third achieve a break-even position, whereas the final third incur substantial losses. Over the period, it is common to see a club switching from one orientation to another. Based on this observation, a theoretical model is built to understand the instability of club owners' objectives. Based upon a dialectical analysis of the relation between the means used and the results achieved (Avenier, 1999), the model enables a distinction to be drawn between an unrealized strategy and a decision to adapt organizational objectives in cognizance of an emerging opportunity. The efficiency scores measured using data envelopment analysis (DEA) and the presence of productivity and demand shocks (Szymanski, 2012) can reveal the strategic intent of club owners. Data shows that some French football teams seem to maximize their utility under an inter-temporal budget constraint. In order to seize opportunities and to minimize environmental risks, those clubs may alter from win orientation towards profit maximization from year to year, and vice versa.

This remainder of the paper is organized as follows. First, the win/profit maximization debate is considered. Second, financial data are used to identify the most relevant assumptions in respect of the organizational objectives of French football teams. In the third section, the degree of compliance with the intended strategy is assessed to control for the possibility that the outcomes may be unexpected. In the fourth section, a theoretical model is built to understand why a football team may switch from profit to win maximization (and vice versa) from year to year. Thereafter, the findings of the research are presented and highlighted drawing on a number of detailed examples, followed by a discussion of the results. The model enables us to reconcile different theories concerned with persistent loss making in the football industry and to offer a new explanation in respect of financial performance. The implications of heterogeneity in club owners' behaviour are also considered.

The win/profit maximization debate

Rottenberg (1956) provided the first modelling of a sport team production function. He assumed that Major League Baseball franchises were, like "classic firms", oriented towards profit maximization. In contrast, based on the recurring deficits of English football clubs, Sloane (1971) claimed that European club owners were prioritizing utility maximization, with clubs concerned with multiple objectives, which include wins and profit, but may also include attendance objectives and the financial health of the league. As the strategic interactions of European football teams within a league are assumed to be non-cooperative (Szymanski and Késenne, 2004), the latter objective could be viewed as secondary. The attendance objective is sometimes used as a proxy for social aspects of organizational performance when the latter is empirically assessed (e.g. Kern *et al.*, 2012). However, social performance cannot be captured by a single indicator such as stadium utilization given its multi-faceted nature, and hence consideration is required of other

aspects of clubs' performance, such as the effectiveness of its corporate social responsibility programmes (see, e.g. Anagnostopoulos and Kolyperas, 2015; Bason and Anagnostopoulos, 2015; Breitbarth *et al.*, 2015).

Aside from a small number of analytical studies (see, e.g. Madden and Robinson, 2012), the club owners' utility function does not take account of social dimension of performance and has tended to be interpreted as win maximization under some form of budget constraint (Fort, 2015), generally a strict or hard constraint ($\pi = 0$, e.g. Késenne, 1996). However, as has been well documented, despite rising revenues for a number of years European football has reported declining financial performance and position, with many clubs in perilous financial circumstances clubs (Morrow, 2014a; Storm and Nielsen, 2012). For example, in 2011, 63 per cent of European football clubs reported losses (UEFA, 2012).

In this context therefore, the utility function may be interpreted as the pursuit of sporting success subject to an acceptable level of financial losses (for an analytical application, see Terrien *et al.*, 2016). This assumption of a soft budget constraint was pioneered by Kornaï (1980) in the context of behaviour in socialist economies where organizations such as state enterprises, banks or professional football teams, knowing that they will be rescued if they sustain losses may *ex ante* alter their behaviour (Andreff, 2007; Storm, 2012; Storm and Nielsen, 2012). This issue in the agency relationship has been well observed in European football, where it is common practice to see the shareholders (DNCG, 2015), a bank (Ascari and Gagnepain, 2006) or the local authorities (Baroncelli and Lago, 2006) becoming funders of last resort.

To sum up, if we focus on the trade-off between profit and win while leaving aside the social dimension, three objectives of professional sports teams are found in the literature:

(1) profit maximization under sporting constraint (I);

(2) win maximization under hard budget constraint (II); and

(3) win maximization under soft budget constraint (III).

The main strategic option is between profit and win maximization, whereas the nature of the budget constraint may depend on environmental conditions, specifically: the social importance of the team (Storm and Nielsen, 2012), the governance mechanisms within the organization, the league (Andreff, 2007) or the international federation (which may, e.g. make access to European competitions dependent on respecting budget constraints Franck, 2015).

It is commonplace to assume that North American teams optimize their production to get I, whereas European teams are looking for win maximization, even if the nature of the budget constraint is a subject of debate (II or III). The difference between the two continents is explained by the degree of competition in each league (Szymanski and Zimbalist, 2005). The open league system in Europe (the promotion-relegation mechanism) provides a higher degree of competition and risk which encourages teams to invest in talent as much as they can. This lead to a non-cooperative Nash equilibrium (Szymanski and Késenne, 2004), where teams enter a rat race (Andreff, 2016), the objective of which may be, for example, to avoid relegation, to qualify for European competitions or to become champions.

These two basic premises are of central interest in the regulation of professional sport leagues. Indeed, the invariance principle introduced by Rottenberg (1956) states that many regulatory interventions such as gate revenue sharing or the draft system in fact have no effect on the first objective – competitive balance – when teams are oriented towards profit maximization, a principle subsequently confirmed by other authors (Quirk and El Hodiri, 1974; Vrooman, 1997). Nevertheless, when club owners' utility function is assumed to favour wins at the expense of profit, the invariance principle no longer holds (Szymanski and Késenne, 2004). Therefore an external regulation could be useful to optimize the attractiveness of a professional league (Terrien *et al.*, 2016).

One exception must be highlighted to these basic premises, namely, the suggestion that European clubs that acquired a stock exchange listing are assumed to be profit oriented (Andreff, 2014). Wilson *et al.* (2013) claim that English football clubs which have floated on the stock exchange report improved financial health. However, Leach and Szymanski (2015, p. 25) find no evidence of any alteration in the behaviour or performance of listed clubs post flotation, noting that (English) football clubs are "more oriented toward profit objectives than […] normally assumed". Whether clubs oriented towards profit choose to float on a stock exchange or not, this exception is important as it introduces heterogeneity of objectives between clubs within a league. Taking into account this diversity is a major issue as it has potential implications for policy measures (Rascher, 1997; Terrien *et al.*, 2016).

Notwithstanding a considerable volume of empirical and theoretical studies that are concerned with the debate between profit and win maximization, according to Leach and Szymanski (2015, pp. 25-26) the "literature neither offers a firm conclusion nor clearly establishes evidence supporting one hypothesis over the other". One explanation could come from the coexistence of those objectives both within a league and within a given club over a given time period.

Financial analysis: Ligue 1 from 2005/2006 to 2014/2015

Different accounting indicators can be used to measure the financial performance of professional football clubs (Plumley *et al.*, 2014) with regard to the trade-off between profit and win. As the focus of this paper is on the profit and utility maximization objectives of clubs, our analysis concentrates on clubs' relative operating profit, i.e., operating profit related to operating revenue. This ratio is used to operationalize the three objectives of European football clubs described in the previous section. This accounting ratio is considered preferable to the net financial result since the latter can be distorted due to exceptional income or expenditure. For example, over the period 2006/2007 – 2011/2012, Rennes registered a nil profit every year, yet its operating profit/(loss) varied between (€10.9M) and €13.6M, as a result of exceptional items. This financial data, along with other financial data used to derive the theoretical model, is drawn from the annual reports published annually by the Direction Nationale du Contrôle de Gestion (DNCG; National Direction for Management Control)[1].

Table I provides the three objectives related to the profit/utility debate and their operationalization. According to Storm and Nielsen (2012, p. 187), " 'perfect softness' is a state of affairs where differences between proceeds from sales and costs from production are not a matter of life and death (Kornaï, 1980, p. 308)". As the concept of actual losses appears to be central, we operationalize the soft budget constraint using a negative threshold for the relative operating profit. Financial Fair Play (FFP) defines the "acceptable deviation" from the break-even requirement at €5M (Franck, 2015). As the size of club budgets in Ligue 1 are markedly different (e.g. from €25M for Lens to €480M for Paris Saint-Germain in 2014/2015), a relative measure is considered to provide a better operationalization.

Table II sheds light on the coexistence of the three objectives for French clubs which participated in Ligue 1 over the period 2005/2006 – 2014/2015 (200 observations).

Table I.
The generic strategies of professional sport clubs

Objectives		Operationalization
Profit maximization under sporting constraint (I)		Relative operating profit is greater than 5%
Win maximization under	Hard budget constraint (II)	Relative operating profit/(loss) is between (5%) and 5%
	Soft budget constraint (III)	Relative operating loss is greater than 5%

What is clear is the heterogeneity in relative operating profits among French clubs. The financial analysis provides some support for Leach and Szymanski's (2015) claim that European leagues are more profit oriented than is normally assumed, with clubs being quite evenly dispersed among the three categories.

Based on this static analysis, one may argue that some clubs are looking for profit whereas others try to maximize sporting outcomes under hard or soft budget constraints. Ostensibly one interpretation is that annual changes in Table II arise from the introduction of new clubs (three promotions and relegations every season) and/or changes in ownership, with the utility functions of owners assumed to be stable from year to year. However, more detailed analysis suggests that in fact it is common practice for clubs to alter their objectives from year to year. Table III highlights this phenomenon for clubs which have spent at least four seasons in Ligue 1 over the time period of analysis.

These variations can be explained by the instability of the weights in the trade-off between profit and win, or by exogenous factors preventing the achievement of the initial objective for a club. Central to the differentiation between the sport industry and more conventional areas of business activity is the uncertainty of sporting competition and the consequences arising therefrom. Notwithstanding the causality between payroll and sporting outcome (Hall *et al.*, 2002), there could still be a difference in sporting performance

Table II. Heterogeneity in the objectives of the French football clubs (overview)

Relative operating profit		2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Total (%)
Number of teams	I	11	13	10	3	4	9	5	7	4	3	69 (34.5%)
	II	6	3	7	12	4	3	8	7	5	8	63 (31.5%)
	III	3	4	3	5	12	8	7	6	11	9	68 (34%)

Table III. Heterogeneity in the objectives of the French football clubs, club by club

	Number of seasons from 2005/2006 to 2014/2015 In category			
Teams	I	II	III	Total in Ligue 1
AC Ajaccio	2	0	2	4
AJ Auxerre	2	2	3	7
AS Monaco	0	1	7	8
AS Nancy Lorraine	3	3	2	8
AS Saint-Etienne	5	4	1	10
Evian TG FC	0	3	1	4
FC Girondins de Bordeaux	4	1	5	10
FC Lorient	5	2	2	9
FC Nantes	2	0	3	5
FC Sochaux Montbéliard	5	2	2	9
Le Mans UC 72	2	2	1	5
LOSC Lille Métropole	5	3	2	10
Montpellier Hérault SC	5	0	1	6
OGC Nice	5	2	3	10
Olympique de Marseille	3	2	5	10
Olympique Lyonnais	3	1	6	10
Paris Saint-Germain	0	5	5	10
Racing Club de Lens	3	1	2	6
SM Caen	0	4	1	5
Stade Rennais FC	4	2	4	10
Toulouse FC	2	7	1	10
Valenciennes FC	0	3	5	8

of 20 points in Ligue 1 between two teams with an equal payroll, regardless of the size of that payroll (DNCG, 2015, p. 51). As sporting productivity impacts clubs' income (Szymanski, 2012), inevitably financial outcome is inherently uncertain. Since the spending level is primarily determined at the beginning of the season, the relative operating profit may be higher (lower) than expected if there is a sporting over (under) performance. Similarly, unexpected incomes or income lower than expected during the season may explain the swing of French clubs from one objective to another.

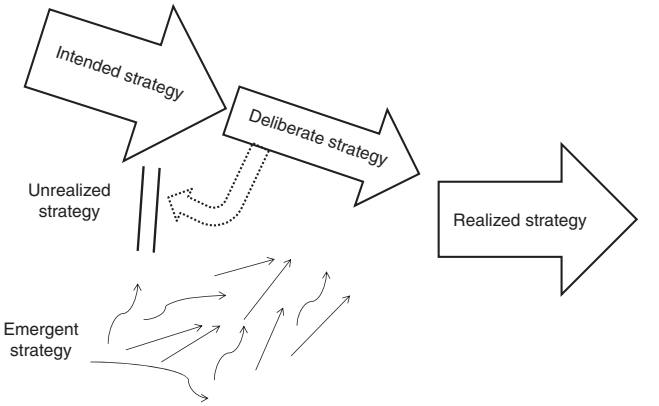
Mintzberg *et al.* (1998) provide a useful distinction between intended and realized strategy to highlight this phenomenon. They argue that intent may be unrealized if the expected outcome is not achieved and/or the deliberate strategy is adapted to an emerging opportunity. In the first case, sporting uncertainty may explain deviation from the initial objective. Under the latter, the new objective might reflect a realignment of strategy in cognizance of environmental change (Figure 1).

In order to understand the trade-off between win and profit maximization, it is necessary therefore to control for the degree of compliance with the intended strategy and not rely solely on the relative operating profit. Hence, significant financial losses (profits) do not necessarily reflect an orientation towards a win maximization objective (profit maximization objective).

The degree of compliance with the intended strategy

To get an idea of the degree of compliance with the strategic intent, it is necessary to identify the realized strategy and identify an indicator which enables us to measure whether organizational performance was maximal or not. DEA analysis, which has been applied many times in the sport industry (e.g. Guzmán and Morrow, 2007; Kern *et al.*, 2012), is introduced to measure the pure managerial efficiency of French football teams. This non-parametric method follows the microeconomic reasoning of an optimizer producer and treats each decision making unit as a "black box" by considering only the inputs consumed and the outputs produced. Therefore, it enables a multi-output evaluation without taking any assumption dealing with the weight of each output.

Two inputs (payroll and other expenses) and two outputs (points in Ligue 1 and operational revenue) are selected to draw the efficiency frontier. Those four variables are commonly used in the literature dealing with the efficiency of professional sports teams (e.g. Barros and Garcia-del-Barrio, 2011). Any observation located on the frontier is efficient



Source: Mintzberg *et al.* (1998, p.12)

Figure 1.
The different types of strategies

(efficiency score equal to one), whereas the others are not (efficiency below one). As the efficiency scores of the 200 observations (20 teams over ten seasons) do not follow a normal distribution, the only distinction retained is the difference between maximal and non-maximal scores, regardless of the exact value for the latter.

To complete the organizational performance evaluation, the theoretical model includes the identification of productivity and demand shocks (Leach, 2007; Szymanski, 2012). This enables measurement of the gap between the actual sporting and financial performances and what the club might have expected at the beginning of the season (Lassalle *et al.*, 2012). Specifically, the shocks are the differences between the actual and predicted performance, i.e., the residuals. Therefore, two ordinary least squares regressions are run in order to identify those residuals.

First, the productivity shocks are identified using the following equation:

$$\Delta \ln p_{i,t} = \beta_0 + \beta_1 \ln p_{i,t-1} + \beta_2 \Delta \ln p_{i,t-1} + \beta_3 \ln relw_{i,t-1} + \beta_4 \Delta \ln relw_{i,t} + \text{promotion dummies} + \varepsilon_{i,t} \quad (1)$$

where $\ln p_{i,t}$ is the log odds position ($-\ln (P/(44-P))$ of team i during season t, with 44 being the worst ranking in $t-2$ (3rd of the National championship) plus one. *rel w* is the club wage bill divided by the sum of the wage bills for all clubs in that season. The model controls for fixed effects and therefore, only the teams which have spent four years in Ligue 1 are taken into account ($n = 174$ observations, 22 clubs).

Second, the demand shocks are derived from the following equation:

$$\Delta rel\ rev_{i,t} = \gamma_0 + \gamma_1 \ln rel\ rev_{i,t-1} + \gamma_2 \Delta \ln rel\ rev_{i,t-1} + \gamma_3 p_{i,t} + \gamma_4 \Delta \ln p_{i,t} + \text{promotion dummies} + \eta_{i,t} \quad (2)$$

where *rel rev* is the total turnover of a club taken from the annual report and divided by the sum of the turnovers of all clubs in that season.

Tables IV and V provide the results for the regressions (1) and (2).

The two tables show that the variables promotion dummies in (1) and $\Delta \ln rel\ rev_{i,\,t-1}$ in (2) are not significant (column 1), and hence they are removed from the other regressions.

$\Delta \ln p_{i,t}$	All observations	All observations (without the promotions dummies)	All observations (without the promotions dummies) with fixed effects	At least four seasons in Ligue 1 (without the promotions dummies)	At least four seasons in Ligue 1 (without the promotions dummies) with fixed effects
$\ln p_{i,t-1}$	0.343*** (0.098)	0.324*** (0.074)	−0.136* (0.080)	0.293*** (0.085)	−0.152* (0.087)
$\Delta \ln p_{i,t-1}$	−0.173*** (0.060)	−0.164*** (0.054)	0.003 (0.060)	−0.162** (0.067)	0.012 (0.066)
$\ln rel\ w_{i,t}$	11.726*** (3.000)	11.981*** (2.814)	16.353*** (2.767)	11.998*** (2.869)	16.566*** (2.754)
$\Delta \ln rel\ w_{i,t-1}$	28.814*** (8.143)	29.115*** (7.953)	33.743*** (6.277)	28.874*** (7.876)	33.923*** (6.179)
Promotion dummies	0.062 (0.164)	–	–	–	–
Constant	0.434*** (0.099)	0.456*** (0.077)	−0.067 (0.049)	0.529*** (0.089)	0.530*** (0.128)
Observations	200	200	200	174	174
Number of teams	35	35	35	22	22
R^2	0.579	0.578	0.719	0.538	0.678

Notes: Robust standard errors in brackets. *,**,***Significant at the 10, 5 and 1 per cent levels, respectively

Table IV. Performance regressions in Ligue 1 over the period 2005/2006 – 2014/2015

$\Delta \ln rel\ rev_{i,t}$	All observations	All observations (without $\Delta \ln rel\ rev_{i,t-1}$)	All observations (without $\Delta \ln rel\ rev_{i,t-1}$) with fixed effects	At least four seasons in Ligue 1 (without $\Delta \ln rel\ rev_{i,t-1}$)	At least four seasons in Ligue 1 (without $\Delta \ln rel\ rev_{i,t-1}$) with fixed effects
$\ln rel\ rev_{i,t-1}$	0.902*** (0.063)	0.938*** (0.070)	0.733*** (0.074)	0.937*** (0.069)	0.734*** (0.071)
$\Delta \ln rel\ rev_{i,t-1}$	−0.177 (0.180)	–	–	–	–
$\ln p_{i,t-1}$	0.007*** (0.002)	0.007*** (0.002)	0.019*** (0.004)	0.008*** (0.002)	0.019*** (0.003)
$\Delta \ln p_{i,t-1}$	0.009*** (0.002)	0.008*** (0.002)	0.013*** (0.002)	0.009*** (0.002)	0.013*** (0.002)
Promotion dummies	0.015*** (0.003)	0.015*** (0.003)	0.017*** (0.003)	0.018*** (0.004)	0.021*** (0.005)
Constant	−0.007*** (0.002)	−0.008*** (0.002)	−0.008** (0.004)	−0.009*** (0.002)	−0.035*** (0.010)
Observations	191	200	200	174	174
Number of clubs	34	35	35	22	22
R^2	0.892	0.889	0.925	0.885	0.922

Notes: Robust standard errors in brackets. *,**,***Significant at the 10, 5 and 1 per cent levels, respectively

Table V.
Demand regressions in Ligue 1 over the period 2005/2006 – 2014/2015

The last columns of the two tables are the regressions of interest. These focus on the clubs that spent at least four seasons in Ligue 1, in order to incorporate the fixed effects in the regressions without having too many variables (26 variables for 174 observations here). Those dummies are important to assess team expectations as they capture their sporting and commercial expertise.

A typology may be defined based on the difference between the average (which is almost 0) and the standard deviation (Table VI).

This classification results in the identification of 24 positive and 28 negative productivity shocks, and 8 positive and 11 negative demand shocks. Based on the relative operating profits, the efficiency scores and the residuals from (1) and (2), it is thus possible to provide a typology analysis of the dialectic relation between ends and means (Avenier, 1999). 18 categories are distinguished and a degree of compliance is defined for each of them (Table VII). When a team achieves a good (bad) performance, the relative operating profit is assumed to be potentially higher (lower) than the initial expectation. This enables us to define if the intended strategy has been realized or not.

Mintzberg and Waters (1985, p. 268) stress the challenges faced in operationalizing strategy: "when intentions are sufficiently malleable, everything can seem deliberate". Therefore, the typological analysis tries to be deterministic enough to identify the intended strategy, while enabling the possibility of deviation from the intention.

Theoretical model

The main focus of interest here is the consistency of strategy over time. According to the transition in the typologies identified in Table VII between t and $t+1$, the theoretical model defines three configurations (Table VIII).

	Negative shock	No shock	Positive shock
Productivity	$\varepsilon_{i,t} \leqslant \bar{x}-\sigma$	$\varepsilon_{i,t} \in]\bar{x}-\sigma;\bar{x}+\sigma[$	$\varepsilon_{i,t} \geqslant \bar{x}+\sigma$
Demand	$\eta_{i,t} \leqslant \bar{x}-\sigma$	$\eta_{i,t} \in]\bar{x}-\sigma;\bar{x}+\sigma[$	$\eta_{i,t} \geqslant \bar{x}+\sigma$

Table VI.
Typology of the residuals from (1) and (2)

Relative operating profit	Efficiency	Productivity and demand shocks[a]	Typology	Occurrences (%)	Intended strategy	Potential strategies
Win maximization under soft budget constraint (III)	Non maximal	No	18	34 (17%)	Uncertain	II or III
		Negative	17	18 (9%)	Uncertain	I or II or III
		Positive	16	0 (0%)	III	
	Maximal	No	15	12 (6%)	III	
		Negative	14	0 (0%)	III	
		Positive	13	4 (2%)	III	
Win maximization under hard budget constraint (II)	Non maximal	No	12	31 (15.5%)	II	
		Negative	11	4 (2%)	Uncertain	I or II
		Positive	10	2 (1%)	Uncertain	II or III
	Maximal	No	9	18 (9%)	II	
		Negative	8	2 (1%)	Uncertain	I or II
		Positive	7	6 (3%)	Uncertain	II or III
Profit maximization under sporting constraint (I)	Non maximal	No	6	20 (10%)	I	
		Negative	5	7 (3.5%)	I	
		Positive	4	0 (0%)	I	
	Maximal	No	3	29 (14.5%)	Uncertain	I or II
		Negative	2	1 (0.5%)	I	
		Positive	1	12 (6%)	Uncertain	I or II or III

Notes: [a]"Positive" (or "Negative") means positive (negative) productivity (or demand) shock and also positive (negative) or no demand (or productivity) shock; "No" means neither productivity nor demand shock or opposite effect

Table VII. Typological analysis of the dialectic relation between ends and means

Intended strategy	Description		Example
Realized	The generic strategy in $t+1$ is the same as intended in t	15 to 18	The club has maintained the objective of win maximization under a soft budget constraint in $t+1$ but was not efficient as in t
Involuntarily non realized	The uncertainty of sport explains the change in objective between t et $t+1$ (transition foreseen by the model)	12 to 1	Sporting over performance (positive shock in $t+1$) leads to a profit above club expectations
Voluntarily non realized	Strategic adaptation explains the change in objective between t and $t+1$ (transition not expected by the model)	9 to 15	The club switches from win maximization under a hard budget constraint to a soft budget constraint

Table VIII. Theoretical model

In total, 144 transitions between two successive seasons in Ligue 1 for the teams which spent at least four seasons in this championship between 2005/2006 and 2014/2015 are identified. Table IX provides a mapping of the typologies for those observations.

Results

The financial analysis sheds light on the heterogeneity of organizational aims among Ligue 1 clubs which could be the consequences of the uncertainty of the sports industry and/or of the diversity of the owners' preferences in the trade-off between win and profit maximization. To further understand the situation, 144 transitions between t and $t+1$ are analysed in Ligue 1. For 67.3 per cent of them (97 occurrences), the intended strategy is realized. Even where the sporting outcome remains unpredictable, for the most part French football clubs are able to achieve their desired orientation between win and profit. In 23 cases (16.0 per cent of the transitions) the strategic intent is not realized because the level of performance is significantly different from what was expected. Moreover, a swing from one orientation to

Clubs	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015
AC Ajaccio	3						3	15	15	
AJ Auxerre	6	12	11	18	13	3	17			
AS Monaco	17	17	18	18	18	17			13	12
AS Nancy Lorraine	3	6	1	11	18	12	12	18		
AS Saint-Etienne	3	6	3	11	17	6	12	6	7	9
Evian TG FC							10	18	9	9
FC Girondins de Bordeaux	7	3	3	1	6	17	18	18	18	18
FC Lorient		3	9	15	3	3	5	6	12	18
FC Nantes	18	17		17					3	3
FC Sochaux Montbéliard	2	3	18	12	6	1	6	12	18	
Le Mans UC 72	6	3	9	12	18					
LOSC Lille Métropole	1	5	5	12	12	13	6	12	18	6
Montpellier Hérault SC					1	6	1	5	17	6
OGC Nice	3	1	5	6	15	8	18	1	17	12
Olympique de Marseille	12	1	1	3	7	15	17	15	18	18
Olympique Lyonnais	3	3	1	8	15	15	18	17	18	13
Paris Saint-Germain	17	17	17	10	17	18	7	9	9	9
Racing Club de Lens	12	6	5		18	5				18
SM Caen			9	9		18	12			9
Stade Rennais FC	3	1	3	9	18	3	18	12	18	15
Toulouse FC	12	7	11	7	12	12	12	6	6	17
Valenciennes FC		18	9	12	15	15	18	12	17	

Table IX.
Typologies of Ligue 1 French football clubs: 2005/2006 to 2014/2015

another which could not be anticipated from the theoretical model is recorded for 24 transitions (16.7 per cent)[2]. Over these 24 transitions, only two can be explained by a change in governance and/or ownership:

- Lorient switched from a soft budget constraint to one predicated on more rigorous financial management (15 to 3, see Table VII) with the arrival of a new majority shareholder between 2008/2009 and 2009/2010; and
- the change of Chairman could explain the slackening of the budget constraint for Nice between 2008/2009 and 2009/2010 (6 to 15, see Table VII).

This means that a new strategic intent was defined in $t+1$ for the 22 remaining transitions, adjusting the trade-off between win and profit in order to achieve a better alignment between the club and its environment. For clarification, several examples are described to highlight the three configurations. These figures provide an illustration of evolution *viz a viz* the multiple objectives of professional sports teams.

Montpellier Hérault SC

First, Montpelier Hérault SC was promoted to Ligue 1 from season 2009/2010. From this season until season 2012/2013, the club owner's objectives were oriented towards profit (although notably this did not prevent the club from achieving sporting success at the same time, being crowned champions in season 2011/2012) as suggested by the descriptive analysis provided in Table III and Figure 2. Over this period, the strategic intent of the team was realized. However, the relative operating profit changed towards win maximization under a soft budget constraint in season 2013/2014, before reverting to the initial objective the following season. The theoretical model classifies the first switch as an involuntary deviation from the organizational aim. The slackening of the budget constraint is explained by a non-maximal pure managerial efficiency, a negative productivity shock and a negative

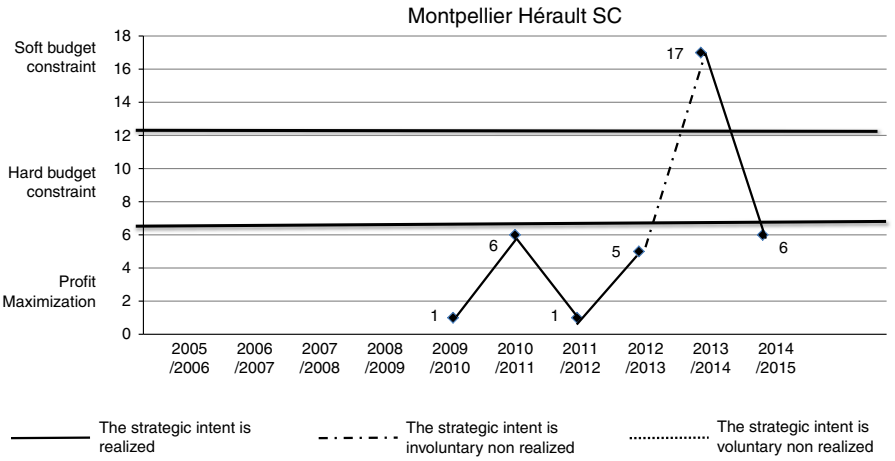


Figure 2.
The strategic evolution of Montpellier Hérault SC

demand shock (typology 17). The unexpected poor performance during that season had implied a reduction in revenues (percentage variance of 49.4 per cent from season 2012/2013 to season 2013/2014). Recovery of the performance in 2014/2015 allowed Montpelier Hérault SC to realize a positive return again: relative operating profit increased from − 8.3 to 9.3 per cent.

AC Ajaccio

AC Ajaccio provides an example of a professional sport club which was able to adapt its strategy quickly to take advantage of new opportunities. The club was promoted to Ligue 1 from season 2011/2012 after five seasons in the second division. Its return to the highest level was accompanied by a high probability of relegation as AC Ajaccio had the lowest payroll in the league. However, its perfect efficiency allowed the organization to avoid relegation. The typology observed (3) implies that its strategic intent can be orientated towards profit or win under hard budget constraint. However, its relative operating profits for the following two seasons are below the threshold of −5 per cent, despite perfect efficiency and the absence of a productivity or demand shock (15). The only way to understand the slackening of the budget constraint is to assume that its strategic intent changed. During the first of its three successive seasons in Ligue 1, it seems that AC Ajaccio wanted to benefit from the new revenues offered through its promotion[3], while at the same time not adopting a strategy that was too risky in terms of retaining its first division status. However, in seasons 2012/2013 and 2013/2014, AC Ajaccio took the view that financial losses may be necessary to try and ensure the club had stability within Ligue 1. This new trade-off between win and profit allowed AC Ajaccio to significantly increase its payroll: the percentage variance of this expenditure item between the first and the second seasons in Ligue 1 was 29.3 per cent. The club owner may have anticipated that temporary losses would provide a stable competitive foundation for AC Ajaccio in Ligue 1 (Figure 3).

Adopting a soft budget constraint is, however, a risky strategy and one which did not pay off for AC Ajaccio. At the end of season 2013/2014, the club was relegated and now suffers from significant financial difficulties. Indeed, in order to be able to recruit during the 2015/2016 season Winter transfer window, AC Ajaccio was forced to call upon its supporters for participatory financing[4].

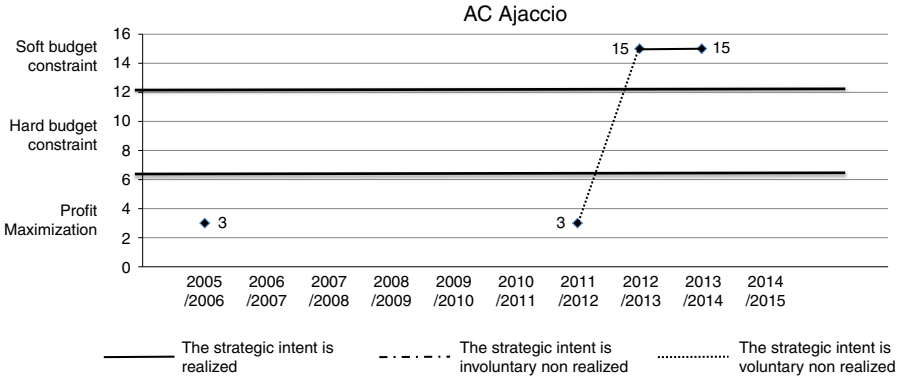


Figure 3.
The strategic evolution of AC Ajaccio

LOSC Lille Métropole

The strategic flexibility of LOSC Lille Métropole provides a good example of the benefits of modifying the weight of the trade-off between win and profit dependent upon environmental opportunities (Figure 4). In season 2009/2010, LOSC Lille Métropole adopted a win maximization strategy under a hard budget constraint (typology 12). In the following season, the club increased its efficiency and benefited from a positive productivity shock. While this performance improvement might be expected to increase the club's relative operating profit, in fact the financial ratio decreased significantly (from −0.2 to −11.3 per cent). The only way to understand this diminution is to presume that LOSC Lille Métropole redefined its objectives. Two elements may explain the need to adapt its strategy for season 2010/2011. First, the environment provided a major opportunity: after the Olympique Lyonnais (seven titles in a row from 2001/2002 to 2007/2008) and before the Paris Saint-Germain (champions from 2012/2013 to 2015/2016) dynasties, there was room for other clubs to win Ligue 1. Second, LOSC Lille Métropole benefited from a "golden generation" of players, personified by Eden Hazard. In order to be able to retain its best players for an additional year, the club owner permitted a softening of the budget constraint to fund a pay rise[5]. The percentage variance in the payroll between those two seasons was 15.6 per cent. This new trade-off

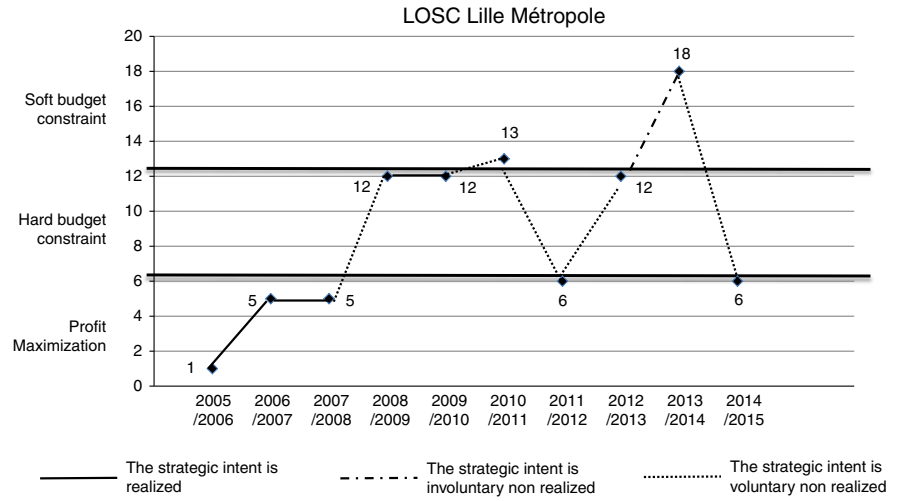


Figure 4.
The strategic evolution of LOSC Lille Métropole

between win maximization and profit maximization allowed LOSC Lille Métropole to become champions for the first time since 1954.

While this strategic flexibility was timely in terms of sporting performance, it has had a profound impact on the club's financial situation. The percentage variance of the net equity was −24.2 per cent between seasons 2009/2010 and 2010/2011. In order to stabilize its finances, the following season heralded a new strategy. While its efficiency score is now non maximal, and there is no longer any shock (typology 6), its relative operating profit has increased significantly (from −11.3 to 6.4 per cent) thanks to the transfer of players and additional revenues generated through its participation in the Champions League. The profit maximization orientation during season 2011/2012 allowed LOSC Lille Métropole to reconstitute its net equity (percentage variance of +24.2 per cent). The inter-temporal budget constraint of LOSC Lille Métropole has enabled the club to maximize its utility by modifying the trade-off between win and profit over the period 2009/2010 to 2011/2012 according to the opportunities in the environment.

Discussion

The typology based upon a dialectic analysis of the relation between the ends achieved and means used (Avenier, 1999) enables us to define the degree of compliance with a club's intended strategy. As a result it is possible to explain the determinants of the recurring deficits in the football industry. Thereafter, the implications of heterogeneity in club owners' behaviours in respect of the regulatory tools used by professional sports leagues will be discussed.

Persistent losses: negative shocks, moral hazard or strategic intent?

There is an abundant literature concerned with the relationship between ownership structure and organizational performance in economics and management in general, and for professional sport teams in particular (e.g. Leach and Szymanski, 2015; Wilson *et al.*, 2013). In sports economics, the financial performance of clubs that acquired stock exchange listings is also thoroughly discussed. However, no statistical analysis is available for French listed clubs given that only two are listed (Olympique Lyonnais and Istres), these clubs going public in 2007. However, the theoretical model enables us to observe any shift towards profit maximization for Olympique Lyonnais (Istres was in Ligue 1 in 2004/2005 only, so prior to the period studied).

Two distinct periods can be observed for Olympique Lyonnais (Figure 5). From 2005/2006 to 2007/2008, the utility function could correspond to either profit maximization or win

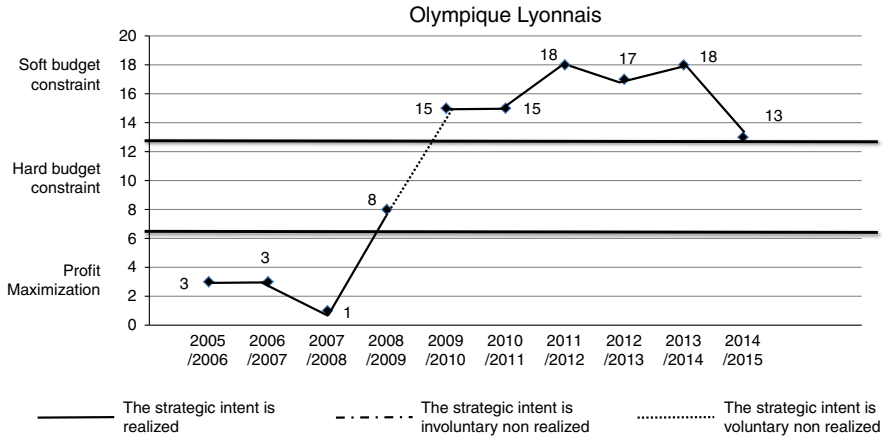


Figure 5.
The strategic evolution of Olympique Lyonnais

maximization under a hard budget constraint. The derived typologies do not enable us to be certain about the orientation of Olympique Lyonnais. However, the shift towards win maximization under a soft budget constraint since season 2009/2010 is clear. The prior season marked the end of the Olympique Lyonnais dynasty, with the club finishing third in Ligue 1. Seeking to regain its position, Olympique Lyonnais softened its budget constraint to increase its payroll (percentage variance of 17.4 per cent) and to recruit new players (12 arrivals during the 2009/2010 season Summer window transfer). If any shift was observed since the club's floatation, it reflected a lower weighting of the financial output.

Beyond the ownership structure discussion, several alternative explanations are provided within the sports economics literature to understand recurring deficits in this industry. Szymanski (2012) provides two such explanations. First, that the irrational exuberance of club owners may encourage them to invest more than they can afford in talent in order to achieve a better sporting performance. A desire to curtail this type of behaviour was one driver in the Union of European Football Associations' (UEFA) introduction of Financial Fair-Play regulations (UEFA, 2012). However, the analysis of the insolvency in English (Szymanski, 2012) and French (Scelles *et al.*, 2016) football suggest that it is negative productivity and/or demand shocks which explain the financial collapse of professional teams rather than the behaviour of club owners, with insolvency being "caused by consistent underperformance relative to expectations" (Szymanski, 2012, p. 16).

The concept of soft budget constraint provides a middle way between those two alternative explanations. Whereas the idea of negative shocks relies on involuntary losses, the first concept assumes that they can be deliberate, while being rational since deficits result from the agency relationship between the club's director and the other stakeholders.

Table II identifies 68 clubs with a relative operating profit below −5 per cent. For 55 of these clubs, it was possible to measure the degree of compliance with the intended strategy. 32.7 per cent of the observations (18 occurrences) reflect an unrealized strategy: the result of a productivity and/or demand shock and the inefficiency of those organizations explain their losses. This suggests that most of the time (the remaining 37 cases, 67.3 per cent) the operating deficit is intentional.

According to the soft budget constraint, this orientation towards win maximization could be chosen by the club's director to the detriment of other stakeholders. Therefore, it appears necessary to control for an agency relationship issue that characterizes the concept of a soft budget constraint in the remaining 37 transitions. As the shareholders are most frequent last funders of last resort in Ligue 1 (Andreff, 2007; DNCG, 2015), the possibility of a moral hazard between the director and the main shareholders is assessed. This analysis does not enable us to ascertain the existence of a moral hazard when the director is not the main shareholder. In 20 observations, the intended orientation towards win maximization under soft budget constraint could be explained by the opportunistic behaviour of the club director as he does not have to pay the burden. However, in the 17 remaining observations, the main shareholder is also the club director. This implies that the intention to prioritize wins at the expense of the financial objective has been accepted by the main shareholder in those organizations. It seems that the persistent losses are commonly explained by an intended strategy, agreed by the main shareholder, to maximize win under soft budget constraint.

Win or profit maximization? Win and profit maximization? The implications for policy regulation

Many regulatory tools could be used in professional leagues, their objectives being concerned with, for example, the need to protect the competitive balance of the league (i.e. the uncertainty of outcome) and/or clubs' solvency. According to the invariance

principle (Rottenberg, 1956; Szymanski and Késenne, 2004), the efficiency of those regulatory tools depends on the club owners' utility function. If the club favours wins at the expense of profit, then they will have an effect on the equilibrium of the league.

The heterogeneity of behaviours observed in Ligue 1 – both between clubs within the league and for a given team according to the season analysed – challenges the results of the previous research studies based on the basic premise that European leagues are more oriented towards wins. The assumption, focussing on the trade-off between win and profit maximization, does not seem accurate, which inevitably has implications for policy interventions. The additive utility function formalized by Rascher (1997) could enable heterogeneity to be introduced thanks to its parameter α_i which gives the proportion that the owner i trades off between winning and profit. However, this parameter should also include a temporal dimension to reflect the possibility of a club's owner changing his/her preferences according to environmental opportunities. The parameter should also allow the owner to maximize wins under a soft budget constraint. Terrien *et al.* (2016) provide an analytical treatment of a league with one team oriented towards wins under a hard budget constraint while the other does not look for the break-even position. This assumption results in a reversal of the argument over the effectiveness of the regulatory tools. This remark echoes Fort's (2015) plea for a better assessment of the weight between win and profit in order to obtain a better idea of the implications of regulatory tools.

Such tools are also used to promote financial sustainability among professional sport teams. In its trans-European football competitions, UEFA has introduced FFP regulations, central to which is a requirement for clubs to break even in terms of their footballing income and expenditure (for more details, see Wilson *et al.*, 2013; Morrow, 2014b) and to put an end to the "irrational exuberance" evidence in the behaviour of some club owners (Szymanski, 2012). Failing to comply with FFP may lead to sanctions including financial penalties and the exclusion of a club from European competitions (Morrow, 2014b). As European competitions, particularly the UEFA Champions' League are very lucrative [6], paradoxically either of these two sanctions could exacerbate the consequences of a negative shock which induced the deficit in the first instance; this within a regulatory system designed to minimize such deficits. On the other hand, FFP may also "restores incentives for 'good management'" (Franck, 2014, p. 197) and therefore limits the occurrence of the negative productivity and/or demand shocks.

Even if the findings show that financial losses could be intentional, it does not mean that this is automatically irrational. Using the resource-based view, Mauws *et al.* (2003) explain why it is strategically interesting to own a professional sport team even if its profitability is diminishing. Moreover, losses could be part of an inter-temporal budget constraint, temporary unprofitability being accepted allows the club to pursue a particular strategy. For example, LOSC Lille Métropole benefited from this flexible trade-off, specifically increasing its revenues in the following season thanks in particular to its participation in the UEFA Champions' League. By preventing strategic flexibility, there is a risk that FFP will create less competition and strengthen the competitive position of the existing hierarchy of top clubs (Sass, 2016).

The results of season 2014/2015 provide an example of such a risk. Upon its return to Ligue 1 during season 2013/2014, AS Monaco adopted a win maximization strategy under a very soft budget constraint. Despite perfect efficiency, a positive productivity shock and a positive demand shock (typology 13), its relative operating profit was −65.6 per cent. This orientation allowed the club to recruit very good players (such as James Rodriguez, Radamel Falcao and Anthony Martial) and to become a serious challenger to Paris Saint-Germain. The trade-off between win and profit reduced the competitive imbalance of the league, at least in terms of the title – Paris Saint-Germain only gained 9

points more than AS Monaco, which in turn broke the record for the number of points won by the second placed team in Ligue 1.

The following season, however, AS Monaco adapted its strategy to satisfy the requirements of UEFA FFP[7]. Despite the inefficiency of the team and the negative demand shock (due to the reduction of shareholder investment), the financial situation was redressed, with a relative operating profit equal to 4.2 per cent. This recovery was possible thanks to additional revenues gained from participation in the Champions' League, a decrease in payroll (the percentage variance in payroll fell by 10.9 per cent), and player sales (e.g. Jaime Rodriguez) and/or player loans (e.g. Radamel Falcao). This new strategy can be explained, in part at least, by the requirement to comply with UEFA FFP [8]. This adaptation of the strategic intent could be related to the imposed strategy described by Mintzberg and Waters (1985, p. 268). During season 2014/2015, the gap between AS Monaco and Paris Saint-Germain increased (12 points) while Paris Saint-Germain lost 6 points compared to the prior season. Ultimately the uncertainty of outcome *viz a viz* the title was maintained thanks to Olympique Lyonnais over performing in that season (maximal efficiency and positive productivity shock), with Paris Saint-Germain only gaining 8 points more than Olympique Lyonnais and AS Monaco finishing in third place. Nevertheless, the reduction in the number of clubs in contention for the Ligue 1 title – arising in part from responses to the introduction of FFP – was evident during season 2015/2016 with a 31 points differential between Paris Saint-Germain and the second and third-ranked teams (Olympique Lyonnais and AS Monaco again).

Conclusion

The paper confirms empirically that there is not a single weighting between profit and win objectives within a professional sport league. During a given year, some clubs maximizing profit under sporting constraint face teams that recruit more talent than would be possible in complying with a break-even position. Moreover, these organizations can switch from one orientation to another in order to seize the opportunities offered within their environment and hence to maximize their utility. The findings from this study enable an improved understanding and characterization of the trade-off between wins and profit, even if these are not specifically measured in this study. For example LOSC Lille Métropole highlights how a flexible trade-off between win and profit enabled that club to be crowned champions without threatening its financial sustainability, but at the same time the case of Ajaccio emphasizes the risk associated with that strategy which should be implemented only if a club has the means of achieving the new strategic segment[9].

The paper confirms Rascher's (1997) assumption that the weights in the trade-off between profit and win can change between two clubs competing in the same league. By adding a temporal parameter to this weighting, the paper goes further to offer an enhanced understanding of the impact of policy regulation in professional sports leagues (Fort, 2015). Whereas the invariance principle should not apply to European football leagues where clubs are assumed to adopt a win maximization strategy, the findings lead us to question the relevance of the actual regulatory tools used in professional leagues.

The results are also interesting in terms of seeking to reconcile competing theories dealing with persistent losses in the football industry. The random nature of sporting competition could explain part of the deficits observed (Szymanski, 2012), while the other part could be intentional (Andreff, 2007; Storm and Nielsen, 2012) and accepted by the shareholders. To enhance the understanding of the financial difficulties facing football clubs it is necessary to adopt the optimal regulatory tools to ensure the sustainability of this industry.

However, as the results are not generalizable outside of the French Ligue 1, further research based on other football leagues is required to extend the findings of this paper. Nevertheless, the result provides quantitative confirmation of the results of the case study undertaken by Carlsson-Wall *et al.* (2016, pp. 55-56), in which a Swedish football club deviated from its break-even requirement in pursuit of the sporting aim (risk of relegation or title opportunity).

Moreover, there remains a need for additional research around the trade-off between the multiple objectives of professional sport teams but which is not limited to the debate between profit and win maximization, for example, including objectives related to social, community and corporate social responsibility activities (Anagnostopoulos and Kolyperas, 2015; Bason and Anagnostopoulos, 2015; Breitbarth *et al.*, 2015) and of how to accurately estimate the weighting of these multi-faceted objectives.

Notes

1. All the reports are available here: www.lfp.fr/corporate/dncg
2. Seven indirect transitions between t and $t+\Delta t$ (with $\Delta t > 1$) also reflect a strategic realignment of the organization.
3. The coefficient of the promotion dummies is significantly positive in the demand function (Table V). To provide an idea of the difference in revenues between Ligue 1 and Ligue 2, the worst team of the first division (RC Lens) obtained €13.5M from the TV rights in 2014/2015, while the best club in Ligue 2 (ESTAC Troyes) only received €5.2M.
4. http://sport24.lefigaro.fr/le-scan-sport/business/2015/12/16/27004-20151216ARTFIG00189-ajaccio-lance-un-appel-aux-dons-des-supporteurs-pour-recruter.php
5. The contracts of Eden Hazard, Aurélien Chedjou, Florent Balmont […] were renegotiated. See https://fr.wikipedia.org/wiki/Saison_2010-2011_du_LOSC_Lille_M%C3%A9tropole
6. The 2015 DNCG Report notices that the participation in the Champions League allows French football teams to generate between €M30 and 60 of additional revenues.
7. Despite its new strategic orientation, Monaco was sanctioned and had to pay a penalty of €13M: www.lemonde.fr/football/article/2015/05/08/fair-play-financier-dix-clubs-dont-monaco-acceptent-les-sanctions-de-l-uefa_4630487_1616938.html
8. www.footmercato.net/ligue1/fair-play-financier-vasilyev-justifie-la-strategie-de-monaco-et-ne-veut-pas-entendre-parler-d_139307
9. Despite the softening of the budget constraint, AC Ajaccio still had the lowest payroll in Ligue1 during the season 2013/2014, making difficult to ensure the club had stability in Ligue 1 to overcome those temporary losses.

References

Anagnostopoulos, C. and Kolyperas, D. (2015), "Corporate social responsibility of and through sport", in Byers, T. and Gorse, S. (Eds), *Introduction to Sport Management: A Contemporary Issues Perspective*, Sage Publications, London, pp. 473-486.

Andreff, W. (2007), "French football a financial crisis rooted in weak governance", *Journal of Sports Economics*, Vol. 8 No. 6, pp. 652-661.

Andreff, W. (2014), "La performance financière des organisations sportives à but non lucratif: quels enjeux, quels outils?", in Winand, M. and Zintz, T. (Eds), *Management et évaluation de la performance: Un défi pour les organisations sportives*, Management & Sport, De Boeck, Louvain-La-Neuve, pp. 85-100.

Andreff, W. (2016), "Financing structures in not-for profit sport clubs and professional teams", paper presented at the Oman Annual Sport Congress, Muscat, April 18.

Ascari, G. and Gagnepain, P. (2006), "Spanish football", *Journal of Sports Economics*, Vol. 7 No. 1, pp. 76-89.

Avenier, M.J. (1999), "La complexité appelle une stratégie chemin faisant", Gestion 2000, pp. 13-34.

Baroncelli, A. and Lago, U. (2006), "Italian football", *Journal of Sports Economics*, Vol. 7 No. 1, pp. 13-28.

Barros, C.P. and Garcia-del-Barrio, P. (2011), "Productivity drivers and market dynamics in the Spanish first division football league", *Journal of Productivity Analysis*, Vol. 35 No. 1, pp. 5-13.

Bason, T. and Anagnostopoulos, C. (2015), "Corporate social responsibility through sport: a longitudinal study of the FTSE100 companies", *Sport, Business and Management: An International Journal*, Vol. 5 No. 3, pp. 218-241.

Breitbarth, T., Walzel, S., Anagnostopoulos, C. and van Eekeren, F. (2015), "Corporate social responsibility and governance in sport", *Corporate Governance: The International Journal of Business in Society*, Vol. 15 No. 2, pp. 254-273.

Carlsson-Wall, M., Kraus, K. and Messner, M. (2016), "Performance measurement systems and the enactment of different institutional logics: insights from a football organization", *Management Accounting Research*, Vol. 32, pp. 45-61.

DNCG (2015), "Situation du football professionnel", Saison 2013/2014.

Fort, R. (2015), "Managerial objectives: a retrospective on utility maximization in pro team sports", *Scottish Journal of Political Economy*, Vol. 62 No. 1, pp. 75-89.

Franck, E. (2014), "Financial fair play in European Club football – what is it all about?", *International Journal of Sport Finance*, Vol. 9 No. 1, pp. 193-217.

Franck, E. (2015), "Regulation in leagues with clubs' soft budget constraints: the effect of the new UEFA club licensing and financial fair play regulations on managerial incentives and suspense", in Andreff, W. (Ed.), *Disequilibrium Sports Economics: Competitive Imbalance and Budget Constraints*, Edward Elgar Publishing, Cheltenham, pp. 228-249.

Guzmán, I. and Morrow, S. (2007), "Measuring efficiency and productivity in professional football teams: evidence from the English Premier League", *Central European Journal of Operations Research*, Vol. 15 No. 4, pp. 309-328.

Hall, S., Szymanski, S. and Zimbalist, A.S. (2002), "Testing causality between team performance and payroll the cases of Major League Baseball and English soccer", *Journal of Sports Economics*, Vol. 3 No. 2, pp. 149-168.

Kern, A., Schwarzmann, M. and Wiedenegger, A. (2012), "Measuring the efficiency of English Premier League football: a two-stage data envelopment analysis approach", *Sport, Business and Management: An International Journal*, Vol. 2 No. 3, pp. 177-195.

Késenne, S. (1996), "League management in professional team sports with win maximizing clubs", *European Journal for Sport Management*, Vol. 2 No. 2, pp. 14-22.

Kornaï, J. (1980), *Economics of Shortage: Volumes A and B*, Amsterdam, North Holland.

Lassalle, F., Meschi, P.X. and Métais, E. (2012), "L'écart entre performance et aspirations affecte-t-il la performance future d'une organisation? Le cas de la Ligue des Champions UEFA (1994-2008)", *Finance Contrôle Stratégie*, Vol. 15 No. 4, pp. 71-87.

Leach, S.A. (2007), "Financial viability and competitive balance in English football", PhD dissertation, Imperial College London, London.

Leach, S. and Szymanski, S. (2015), "Making money out of football", *Scottish Journal of Political Economy*, Vol. 62 No. 1, pp. 25-50.

Madden, P. and Robinson, T. (2012), "Supporter influence on club governance in a sports league; a 'utility maximization' model", *Scottish Journal of Political Economy*, Vol. 59 No. 4, pp. 339-360.

Mauws, M.K., Mason, D.S. and Foster, W.M. (2003), "Thinking strategically about professional sports", *European Sport Management Quarterly*, Vol. 3 No. 3, pp. 145-164.

Mintzberg, H., Ahlstrand, B. and Lampel, J. (1998), *"Strategy Safari: A Guided Tour Through the Wilds of Strategic Management*, Free Press, New York, NY.

Mintzberg, H. and Waters, J.A. (1985), "Of strategies, deliberate, and emergent", *Strategic Management Journal*, Vol. 6 No. 3, pp. 257-272.

Morrow, S. (2014a), "Football finances", in Goddard, J. and Sloane, P. (Eds), *Handbook on the Economics of Professional Football*, Edward Elgar, Cheltenham, pp. 80-99.

Morrow, S. (2014b), "Financial fair play – implications for financial reporting (ICAS Research Monograph)", The Institute of Chartered Accountants of Scotland, Edinburgh, p. 78.

Plumley, D., Wilson, R. and Ramchandani, G. (2014), "Towards a model for measuring holistic performance of professional football clubs", *Soccer & Society*, pp. 1-14, doi: 10.1080/14660970.2014.980737 (ahead of print).

Quirk, J. and El Hodiri, M. (1974), "The economic theory of a professional sports league", in Noll, R.G. (Ed.), *Government and the Sports Business*, The Brookings Institution, Washington, DC, pp. 33-80.

Rascher, D.A. (1997), "A model of a professional sports league", in Hendricks, W. (Ed.), *Advances in the Economics of Sport*, Vol. 2, JAI Press Inc., Greenwich, CT, pp. 27-76.

Rottenberg, S. (1956), "The baseball players' labor market", *The Journal of Political Economy*, Vol. 64 No. 3, pp. 242-258.

Sass, M. (2016), "Glory hunters, sugar daddies, and long-term competitive balance under UEFA financial fair play", *Journal of Sports Economics*, Vol. 17 No. 2, pp. 148-158.

Scelles, N., Szymanski, S. and Dermit-Richard, N. (2016), "Insolvency in French soccer: the case of payment failure", *Journal of Sports Economics*, doi: 10.1177/1527002516674510 (ahead of print).

Sloane, P. (1971), "The economics of professional football: the football club as a utility maximizer", *Scottish Journal of Political Economy*, Vol. 18 No. 2, pp. 121-146.

Sloane, P.J. (2015), "The economics of professional football revisited", *Scottish Journal of Political Economy*, Vol. 62 No. 1, pp. 1-7.

Storm, R.K. (2012), "The need for regulating professional soccer in Europe: a soft budget constraint approach argument", *Sport, Business and Management: An International Journal*, Vol. 2 No. 1, pp. 21-38.

Storm, R.K. and Nielsen, K. (2012), "Soft budget constraints in professional football", *European Sport Management Quarterly*, Vol. 12 No. 2, pp. 183-201.

Szymanski, S. (2012), "Insolvency in English professional football: irrational exuberance or negative shocks?", working paper, University of Michigan, MI, available at: www.soccernomicsagency.com/wordpress/wp-content/uploads/2012/11/Insolvency-and-English-football.pdf

Szymanski, S. and Zimbalist, A. (2005), *National Pastime; How Americans Play Baseball and the Rest of the World Plays Soccer*, Brookings Institution Press, Washington, DC.

Szymanski, S. and Késenne, S. (2004), "Competitive balance and gate revenue sharing in team sports", *The Journal of Industrial Economics*, Vol. 52 No. 1, pp. 165-177.

Terrien, M., Scelles, N. and Durand, C. (2016), "French 75% tax rate: an opportunity to optimize the attractiveness of the French soccer league", *International Journal of Sport Finance*, Vol. 11 No. 3, pp. 183-203.

UEFA (2012), "Financial fair play regulations", available at: www.uefa.com/MultimediaFiles/Download/Tech/uefaorg/General/01/80/54/10/1805410_DOWNLOAD.pdf (accessed 9 August 2015).

Vrooman, J. (1997), "A unified theory of capital and labor markets in major league baseball", *Southern Economic Journal*, Vol. 63 No. 3, pp. 594-619.

Wilson, R., Plumley, D. and Ramchandani, G. (2013), "The relationship between ownership structure and club performance in the English Premier League", *Sport, Business and Management: An International Journal*, Vol. 3 No. 1, pp. 19-36.

Further reading

UEFA (2011), "The European club licensing benchmarking report: financial year 2011", available at: www.uefa.org/MultimediaFiles/Download/Tech/uefaorg/General/01/91/61/84/1916184_DOWNLOAD.pdf (accessed 12 August 2015).

Corresponding author
Mickael Terrien can be contacted at: mickael.terrien@unicaen.fr

For instructions on how to order reprints of this article, please visit our website:
www.emeraldgrouppublishing.com/licensing/reprints.htm
Or contact us for further details: **permissions@emeraldinsight.com**

The current issue and full text archive of this journal is available on Emerald Insight at:
www.emeraldinsight.com/2042-678X.htm

Different shaped ball, same financial problems? A holistic performance assessment of English Rugby Union (2006-2015)

Rob Wilson
Department of Sport,
Sheffield Hallam University, Sheffield, UK, and
Daniel Plumley
Academy of Sport and Physical Activity,
Sheffield Hallam University, Sheffield, UK

Abstract

Purpose – Rugby union's late move to professionalism in 1995 has led to concerns about the financial development of the game. The purpose of this paper is to extend the knowledge base on professional team sports in the UK by analysing the financial and sporting performance of rugby union clubs.
Design/methodology/approach – Data were obtained by dissecting the annual accounts of nine English Premiership rugby clubs between 2006 and 2015. Analysis was performed using the performance assessment model, which analyses both financial and sporting areas of performance and is devised through statistical analysis procedures to provide a holistic measure of overall performance for each club.
Findings – There is financial disparity amongst clubs that has widened over the period of the study. In terms of sporting performance, the data suggest that competition is more equal, something that is less evident in other UK professional team sports such as football and rugby league. Correlation analysis reveals that overall performance varies over time in cycles.
Research limitations/implications – The study has implications for the clubs competing in the English Premiership and for the league organisers themselves, particularly with reference to regulatory procedures such as raising the salary cap and increased broadcasting deals.
Originality/value – The paper has demonstrated the importance of balancing multiple performance objectives in professional team sports and has expanded the academic discussion on the financial health of professional team sports in the UK, particularly with reference to the financial health of rugby union where research has historically been scarce.

Keywords Management, Performance measurement, Rugby union, Financial health, Sport finance, Structure of professional team sports

Paper type Research paper

Introduction

In 1997 the Allied Dunbar Premiership was established, heralding a new era of elite professional rugby and, as Williams (2012) contends, though reliant on wealthy benefactors, clubs began to adopt a business model which was comparable to both professional football and the sport of rugby league. Being the last of the top four team sports (football, cricket, rugby union, rugby league) in the UK to move into a professional structure coupled with a reluctance on behalf of the Rugby Football Union to manage the transition to a professional set-up led to some financial casualties of long standing clubs with both London Scottish and Richmond being forced into administration when their financial backers refused to further bankroll spiralling wage bills.

The new order brought with it new challenges. Clubs were not large generators of sponsorship or gate revenue and needed to become much more strategic in their pursuit of off-pitch performance. Member clubs called for a football-style system, based on the newly formed FA Premier League (1992) with regulated transfer fees, professionally recorded

Sport, Business and Management:
An International Journal
Vol. 7 No. 2, 2017
pp. 141-156
© Emerald Publishing Limited
2042-678X
DOI 10.1108/SBM-10-2016-0063

contracts for players and limits to off-field activities so that players could train like elite athletes. The most important concession though was to receive a greater share of money from television and sponsorship deals that had been agreed by the RFU (Williams, 2007), particularly the BSkyB television rights deal in 1996 which totalled £87.5m, £22.5m of which had been earmarked for the clubs. New deals were struck with sponsors and naming rights for teams began to sell with Harlequins becoming NEC Harlequins for the 1997-1998 season. By 2012 BT Sport had entered the television market signing a deal worth £152m to broadcast the Aviva Premiership and English Clubs European matches.

When considering the economics of each of these sports leagues, and the financial performance and sustainability of the clubs within them, a similar pattern emerges. Football, following the inception of the English Premier League (EPL) in 1992, has seen the largest and fastest revenue growth for both the league(s) and its clubs, which have been driven in part by the games symbiotic relationship with broadcasters which has accelerated its financial development and the global appeal of the sport. For example, recent figures show that the European football market has cumulative revenues grossing €22.1bn. The "Big Five" leagues in Europe (EPL, Bundesliga (Germany), La Liga (Spain), Serie A (Italy) and Ligue 1 (France)) account for 54 per cent of this revenue (€12bn) with the EPL accounting for over a third of the €12bn alone (€4.4bn) (Deloitte, 2016). This period of growth post-1992 has seen football become the number 1 professional team sport in the UK and the financial gap between football and the other popular team sports continues to increase.

The dichotomy between on-field and off-field performance in professional team sports has been exacerbated by the commercialisation of sport during the last two decades and the need for clubs to balance both financial and sporting performance has led to so-called "financial crises" in a number of instances. Historically, academic literature has pointed towards such crises being present in European football across a number of different countries (e.g. Andreff, 2007; Barros, 2006; Buraimo *et al.*, 2015; Dietl and Franck, 2007). Financial problems in football generally appear to be abating in recent years, in part through stricter regulations aimed at financial sustainability and encouraging clubs to spend within their means (e.g. UEFA Financial Fair Play), although there are still some problems at individual club level. However, financial problems are not only exclusive to football in relation to professional team sports in the UK. Previous research has highlighted financial in both cricket (e.g. Shibli and Wilkinson-Riddle, 1997) and rugby league (e.g. Wilson *et al.*, 2015). There is a lack of literature available on the financial health of rugby union aside from a small number of related papers (e.g. O'Brien and Slack, 1999, 2003; Williams, 2012).

Consequently, the primary aim of this paper is to extend the knowledge base on professional team sports in the UK by establishing the financial and sporting performance of rugby union. The remainder of this paper is structured as follows. The paper first considers the theoretical context of professional team sports before considering the literature available on rugby union. Following this, the paper articulates the methods applied and the key findings before concluding the key challenges the sport faces and offering recommendations for how the sport can move forward into the existing television rights deal (to 2021) by becoming more sustainable and attractive to commercial partners.

The economic theory of professional sports leagues

As Dobson and Goddard (2011) explain, there is an intrinsic variation between how sport and other business operates, insofar as standard businesses are likely to prosper if they can eliminate their competition. This logic does not follow in the business of sport and, at least from an off-field point of view, teams need to coexist to form competitive leagues which can attract fans and sponsors. Indeed, as Vrooman (2015) and Wilson *et al.* (2015) indicate, according to received theory, the perfect game will be a symbiotic contest between equally

matched opponents. The practical economic problem is that professional sports leagues form imperfectly competitive natural cartels where games are played between teams with asymmetric market power (Vrooman, 2015). This notion implies that dominant teams may only be as strong as their weakest opponent. Comparisons between the economic environment of professional team sports and that of more traditional commercial businesses have been well documented by sports economists (e.g. Dobson and Goddard, 2011; Leach and Szymanski, 2015).

First developed by US sports economists, with North American team sports primarily in mind, the theoretical literature on the determinants of the degree of competitive inequality in sports leagues was extended to include a European dimension. Naturally, the development of this literature has led to comparisons between the North American and European model (see Hoehn and Szymanski, 1999; Andreff and Staudohar, 2000; Sloane, 2006; Szymanski, 2003). The European model remains unique, but there appears to be convergence on certain features with the traditional American Team Sports model. Clubs are separately owned with discretion to set prices, market the games and adopt strategies to compete with other clubs. Yet, differences remain with the American sports model operating a draft system alongside salary caps, an equal sharing of television revenue and compete exclusively in domestically structured leagues (aside from a handful of Canadian franchises) (Andreff and Staudohar, 2000). In place of promotion and relegation, evident throughout the European model, changes in American leagues come from adding new franchises and relocating franchises to different cities.

Precisely why such differences have arisen in the two continents has never been fully explained (Sloane, 2015). Historically, the North American model of professional team sports has been argued to be closer to the profit maximisation end of a continuum with the European model more closely linked to the utility maximisation end (Andreff, 2011), although Markham and Teplitz (1981), Fort and Quirk (2004) and Zimbalist (2003) refute these claims. Markham and Teplitz (1981) argued that some owners seek "playing success while remaining solvent" whilst others suggest that without detailed information on revenue functions it is hard to make comparisons about profit or win maximisation choices. Various papers have also suggested that the European sports model is more closely related to utility or "win" maximisation (see Sloane, 1971; Kesenne, 2000; Garcia-del-Barrio and Szymanski, 2009). Furthermore, Zimbalist (2003) found little convincing evidence distinguishing profit maximising behaviour from any other and concluded that "owners maximise global long-term returns" and that these are very different from a team's reported operating profits. Zimbalist (2003) further argues that, in relation to American team sports, it is almost certain that different owners give different weights to the variety of arguments in their objective management functions. The omission of features such as salary caps and revenue sharing in the European model alongside a lack of regulation in the first instance ultimately gave rise to the inception of the EPL in 1992 which saw the most powerful clubs at the time breakaway and form their own league where they were able to negotiate their own broadcasting and sponsorship deals, sell them to the highest bidders and retain the revenue for themselves. Furthermore, they were able to allocate these revenues as they saw fit.

Regardless of the theoretical model employed, professional team sports remain heavily linked to the concepts of uncertainty of outcome, competitive balance and profit and utility maximisation (e.g. Buraimo *et al.*, 2015; Fort, 2015; Kesenne, 2015; Leach and Szymanski, 2015; Sloane, 2015; Vrooman, 2015) with the success of professional team sports themselves now being linked to financial and sporting performance which appear to be inextricably linked (see Wilson *et al.*, 2015).

Measuring performance in professional team sports

Reconciling the "on-field/off-field" dichotomy in professional team sport is not easy and it has proved a highly contentious issue in recent years (Chadwick, 2009). Notwithstanding

this, there is already partial recognition that on-field and off-field performances may be linked (e.g. Cornwell *et al.*, 2001). With regard to sporting performance, historic literature has always suggested that there is a link between sporting and financial performance (e.g. Szymanski and Kuypers, 1999) but there still remains a pragmatic problem with the debate surrounding cause and effect. For example, when correlating the relationship between profit and league position for 40 football clubs between the years 1978-1997. Szymanski and Kuypers (1999) found little evidence of a significant relationship between changes in league position and changes in profit, implying that there is no simple formula that relates financial success to success on the pitch. Notwithstanding this, it is clear that professional sports teams have to manage multiple performance objectives. Guzman (2006) uses football clubs as an example, claiming that professional football clubs are special businesses since their performance can be viewed from two different objectives; success on the field and success in business performance. Morrow (2003; cited in Guzman and Morrow, 2007) concurs, agreeing in the first instance that football clubs are unusual businesses. Although generally constituted as limited liability companies and hence ostensibly operating within the same legal and governance framework as companies in other areas of economic activity, they exist in a peculiar emotional and social space, where unusually strong relationships often exist between the company and stakeholders. Unsurprisingly, these relationships can have an impact on business behaviour and decision making. For example, the objectives of football (sport) clubs, in particular the desire for on-field success, are likely to have implications for business decision making (Morrow, 2003). In addition, the presence of non-financial objectives also raises the question of how to measure the performance of football (sport) clubs (Guzman and Morrow, 2007) in line with their pursuit of twin objectives that can potentially conflict with each other. One model that has attempted to quantify and measure such variables in recent years is the performance assessment model (PAM) first introduced by Plumley, Wilson and Shibli (2017). Their model includes a number of financial and sporting variables that are weighted to provide an overall performance score for any given sports team for any given season. Whilst the authors by no means claim that this a definitive model without imperfections, it does provide a quantifiable measure for club performance against multiple objectives and it advances the theoretical debate in the field surrounding the conflict between financial and sporting performance in professional team sports.

Elite rugby union in England

Rugby union was the last of the major team sports in England to turn professional. Despite being one of the oldest, organised, team sports in the UK, in the years that came before the agreement in 1995 to "turn professional" the English governing body, the Rugby Football Union was at the centre of resistance to maintain amateur status (Williams, 2012). The soft structure that was established in 1987 by way of a national league hierarchy only served to showcase a need to professionalise and the "Courage Leagues" survived for a decade, bridging the decision to turn professional and culminating in the development of the Allied Dunbar Premiership in 1997. This heralded the real beginning of the new business of rugby union and, though propped up by wealthy benefactors, decisions were made to adopt a business model more similar to the other major sports, namely football and rugby league.

The business model was not without its challenges, however. Two clubs were placed into administration early into the professional era (something that has continued throughout) and the use of rugby league as a comparative business was not necessarily a positive move. Rugby league itself was also facing financial issues. As Wilson *et al.* (2015) indicate, the 1990s were a picture of run down grounds, poor facilities and financial depression, compounded with a lack of interest. Most clubs in the sister code also had spiralling wage bills, income remained static and there remained a reliance on the governing body to pull in sponsorship deals and negotiate TV broadcasting rights packages.

Structurally rugby union was to be different from its Super League counterparts. Unlike the closed league system adopted in the northern game where they had scrapped relegation and promotion in favour of a licensed system (Wilson *et al.*, 2015), rugby union would provide an open system more aligned to the football premiership. Teams would be promoted and relegated based on their on-pitch performances and points accumulation. Games would be broadcast on television and during the first ten years of the professional game the value of TV rights has increased (from £87.5m in 1998 to £152m by 2012). Moreover, a salary cap was to be introduced (1999) in an effort to contain wage inflation, a bonus point system and play-off final introduced (2000) and changes to the labour market for professional rugby players (2003).

However, while promotion and relegation exists, revenue is not exclusively shared equally and the Premiership operates a salary caps system. Moreover, there have been instances of "franchise-like" relocations of clubs to different regions of the country, most recently the move of London Wasps from London to Coventry. This, coupled with the fact that Rugby union was the last major team sport in England to adopt professionalism has limited the financial development of the game in general (Williams, 2012).

The "new" environment for rugby union (see Table I) outlines just how the landscape has changed since the Courage Leagues were formed in 1987. While rugby union has grown its revenue stream it continues to face challenges by significant player costs, borrowing and reliance on wealthy owners. Like many professional team sports, rugby union needs financial discipline in order for it to be sustainable and protect the integrity of its professional league system which will encourage growth in the game both on and off the field of play.

Methodology

Data for this research were obtained by dissecting the annual accounts of nine English Premiership clubs between 2006 and 2015. At the time of writing, the Premiership is in its 30th season since its inception in 1987-1988. During this time, there are 11 clubs who have spent 20 or more seasons in the league (Bath, Bristol, Gloucester, Harlequins, Leicester, London Irish, Newcastle, Northampton, Sale, Saracens and London Wasps). Subsequently, these clubs were selected for analysis on the basis of prolonged competition with the Premiership. Financial data were not available for two of these clubs (Sale and Bristol). The reasons behind these omissions were that the accounts for Sale and Bristol had not been filed and, where partial accounts had been filed, they contained minimal financial information. As such, nine clubs were taken forward for analysis where full accounts were available to provide comparable results.

Analysis was performed using the PAM (see Plumley, Wilson and Shibli, 2017), which is developed from the ExPAM (see Plumley, Wilson and Ramchandani, 2017). The PAM analyses both financial and sporting areas of performance, devised through statistical analysis procedures to provide a holistic measure of overall performance of professional sports teams. The PAM consists of five financial variables and three sporting variables. The financial variables include revenue, pre-tax profit/(loss), net assets/(liabilities), net funds/(debt) and wages/turnover. The

	Yesterday	Today
Revenues	Spectators (matchday receipts)	Broadcasting income
Costs	Player registrations	Wages
Investment	Public money/funding	Private funding
Ownership	Private (domestic)	Private (foreign)
Regulations	None	Licencing and salary cap

Table I. The "new" environment for rugby union

sporting indicators include league points, total game variance and attendance spread. Total game variance measures the amount of extra games a club plays above and beyond its regular season fixtures. It therefore provides a measure of how successful teams are in cup competitions (both domestic and European), which subsequently has implications for revenue generation. Thus, the higher this figure is, the better the sporting performance. Attendance spread is a further sporting measure but it also provides links to revenue generation. This variable measures the difference between a clubs' highest attendance in any given season and the lowest attendance. This provides a measure of how good a team is at sustaining spectator demand. If the attendance spread figure is low then it means that demand is relatively consistent, with little fluctuation between the best and worst attendance. If the figure is high, it may mean that there is less spectator demand for a given club and that attendance demand could be based on other factors such as the time of the year and the perceived quality of the opposition. Thus, a lower attendance spread figure is more desirable. Such a model allows for comparisons to be made between the multiple performance objectives of professional team sports. Chadwick (2009) outlined that performance measurement in sport has to include both the financial and the non-financial. Thus, the use of the PAM is applicable here when attempting to analyse the financial health of rugby union in England. It is this holistic approach to data collection and analysis that is the key benefit from a methodological perspective and it also provides a further robustness to the succeeding results and discussion. A full description of the formation of the PAM is beyond the scope of this paper and readers are referred to Plumley, Wilson and Shibli (2017) for more information on this subject. However, for reference, a working example of the PAM is provided in Table II.

It is acknowledged that there may be methodological concerns regarding the collection of attendance data (due largely to the inclusion by some clubs of non-attending season tickets in routine attendance figures). However, there is at least sufficient data in the public domain to enable comparisons to be made between clubs and over time. Furthermore, as a performance indicator, attendance reflects demand for professional rugby union in the marketplace, and has the advantage of being objective and consistent. Ticket sales driven by this demand provide the main source of income for clubs, which remains a significant income stream, despite the increasing scale of successive television rights deals. This approach to data collection and analysis allows us to present a holistic picture of the performance of rugby union and Premiership clubs both on and off the pitch. Furthermore, extracting figures from annual reports and analysing them through the principles of ratio analysis is consistent with approaches used in a variety of different academic studies across many industries (e.g. Feng and Wang, 2000; Wilson *et al.*, 2015, 2013; Yeh, 1996).

Results

Considering finance health

Headline financial findings indicate that there is financial disparity amongst clubs which has widened over the period of the study. Figure 1 charts the average revenue, debt and

Table II.
The performance assessment model (PAM) for a sports team

Dimension	Indicator	Sub domain League rank	Weight	Score	Dimension Score	Weight	OPS
Financial	Revenue	2	0.15	0.30	4.15	0.625	3.59
	Pre-tax profit/(loss)	4	0.15	0.60			
	Net assets/(liabilities)	3	0.15	0.45			
	Net funds/(debt)	8	0.15	1.20			
	Wages/turnover	4	0.40	1.60			
Sporting	League points	5	0.333	1.665	2.66	0.375	
	Total game variance	2	0.333	0.666			
	Attendance spread	1	0.333	0.333			

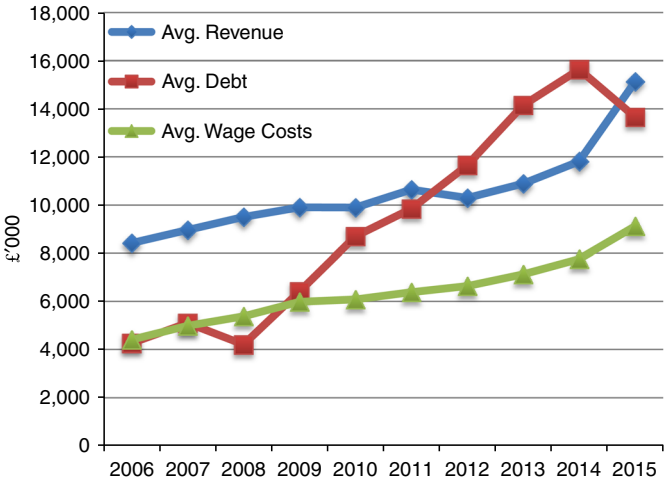


Figure 1.
Average revenue, debt and wage costs for premierships clubs 2006-2015

wage costs for Premiership clubs for the period 2006-2015. Average revenue figures appear acceptable in relation to the industry average and show steady growth for the period under review but there are issues with debt levels throughout the game highlighted by the fact that in 2014 average debt was greater than average revenue amongst the clubs in the study.

Total average revenues have risen from £8.4 to £15.1m (an increase of 79.8 per cent in total). However, total debt has also increased by 218.6 per cent during the same period (increasing from £4.3 to £13.7m). The debt figures are inflated by certain clubs, notably Harlequins, Saracens, London Irish and London Wasps but in 2015 only Gloucester (£286,000) and Northampton (£996,000) made a pre-tax profit from normal operations. Harlequins and London Irish did report pre-tax profits of £15.1 and £27.9m, respectively, in 2015, although these were due to exceptional circumstances (debt re-structure and the formation of a new company in the case of Harlequins and profit on disposal of fixed assets in the case of London Irish) with both clubs recording a loss in the previous year (2014). Average wages/turnover figures are stable at 63 per cent in 2015 (because of the salary cap), although average wage costs have doubled since 2006 rising from £4.4 to £9.1m. In principle, this increase in wages is acceptable providing revenues continue to rise in unison but as we prove later on in the discussion, the increase in the salary cap in line with the new broadcasting rights deal may put unsustainable pressure on certain clubs given their revenue structure.

Financial vs sporting performance

Figure 2 examines the relationship between financial and sporting performance over ten seasons. Here a club's average financial score is plotted against its average sporting score. Figure 2 subsequently offers insights into how well English professional rugby union clubs have performed against their closest competitors when also faced with the tension of the twin objectives of winning and profit making that are present in professional team sports. Smith and Stewart (2010) define the dichotomy between winning and profit making as one of the special features of sport. In the US model of professional team sport, there is still no definitive conclusion as to whether teams are profit-maximisers where the balance sheet rules, or utility maximisers where a high win-loss ratio is the true measure of superior performance (Fort and Quirk, 2004). As such, it is difficult to frame (Figure 2) within a profit vs utility maximisation debate. Profit and utility maximisation ultimately represent

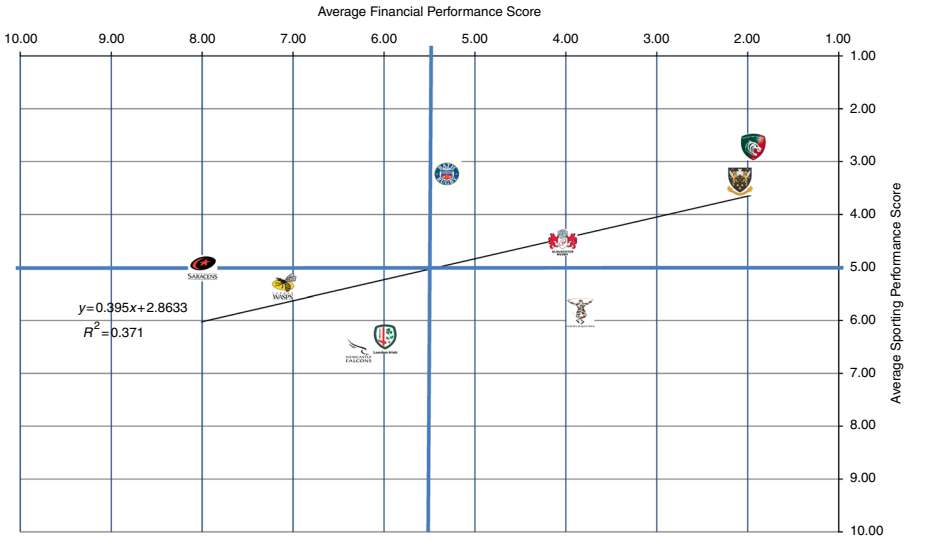


Figure 2.
Average financial vs sporting performance

motivations and there is no unique relationship between motivation and outcome. For example, poor financial performance does not necessarily imply utility maximisation and good financial performance does not necessarily imply profit maximisation. Sport organisations share the same imperative in relation to having to pay wages to invest in the development of player talent in order to achieve winning performances that not only satisfy the shareholders and investors but also to keep the public interested and willing to pay for its product (Szymanski and Kuypers, 1999). Put simply, success is more often than not a function of a strong stream of revenue (Smith and Stewart, 2010). In relation to our findings, Figure 2 certainly supports this theory.

Figure 2 shows that during the last ten seasons the best performing clubs were Leicester Tigers and Northampton Saints. These clubs have been able to balance good sporting performance with good financial performance in relation to their competitors and Leicester have also recorded a much higher average revenue (£17.7m) over the last ten years than their nearest rivals Harlequins (£13m) and Northampton (£12.6m). Previous research, most notably in professional football, has stated that instances of clubs recording both good financial and sporting performance are rare (e.g. Buraimo and Szymanski, 2006; Dobson and Goddard, 2011), although Plumley, Wilson and Shibli (2017) did find similar performance in respect of Manchester United in English professional football when comparing the financial and sporting performance of English professional football clubs for the period 1992-2013. To some extent, it is arguably conceivable that large-market teams such as Manchester United in football and Leicester Tigers in English rugby could pursue profit maximisation and still rank highly in both sporting and financial performance given the statement by Smith and Stewart (2010) that success is a function of a strong revenue stream. However, it is also interesting to note how spread out English Rugby Union clubs are in relation to Figure 2 and the fact that there is a salary cap present in rugby union that is an absolute value as opposed to being regulated as a percentage of clubs revenue. The implementation of the salary cap, present in the North American team sport model (e.g. Andreff and Staudohar, 2000), should in theory balance the competition in the league somewhat. However, rugby union in England does not adopt any of the further principles of American team sports such as revenue sharing or closed leagues meaning that there is still disparity

between individual clubs. Notwithstanding this, English Rugby Union clubs are much closer together in terms of their sporting performance, something that is less evidence in other professional team sports in the UK such as football (e.g. Plumley, Wilson and Shibli, 2017) and rugby league (e.g. Wilson *et al.*, 2015). Figure 2 examines the dominant rugby union teams in England in respect of financial and sporting performance, although it does not prove a relationship between the two areas of performance. The correlation score is positive, but very weak ($r = 0.37$), and the result is not statistically significant ($p > 0.05$). This means that, for our sample of rugby union clubs, there is no statistical evidence that having better financial health leads to superior sporting performance.

Time series analysis and correlation over time

Figure 3 records the variability in overall performance for all clubs by examining their highest and lowest scores and the variance. The unshaded bars show clubs that have recorded an improvement in performance based on their score in 2006 compared with their score in 2015, whereas the shaded bars show clubs that have seen a decline in performance. In some cases, there is a high level of variability in relation to overall performance when considering the variance between the highest and lowest scores. This suggests that these clubs have experienced both positive and negative fluctuations over the last ten years. Saracens, for example, recorded a best score of 5.66 in 2014 compared with a worst score of 8.16 in 2009. In terms of overall variability, Saracens performance has seen an improvement during the ten years studied in contrast to London Irish who recorded a best score of 4.59 in 2006 and a worst score of 7.41 in 2014 meaning that their overall performance score has declined by 2.03 points in total. These findings appear to suggest that rugby club performance often runs in cycles, where sometimes clubs have a successful period spanning a number of years before declining for a period of time. In the case of Saracens, they are a club which has benefitted from significant financial investment from wealthy benefactors in recent years which has contributed to changes in their financial indicators of performance.

The smallest variances in performance occur at Bath and Leicester. In the case of Leicester, smaller variances were attributable to consistently good OPS scores with all scores falling between 1.59 and 2.75. With reference to Figure 3, it is evident that there is no clear pattern emerging over time in relation to performance. There are certain instances

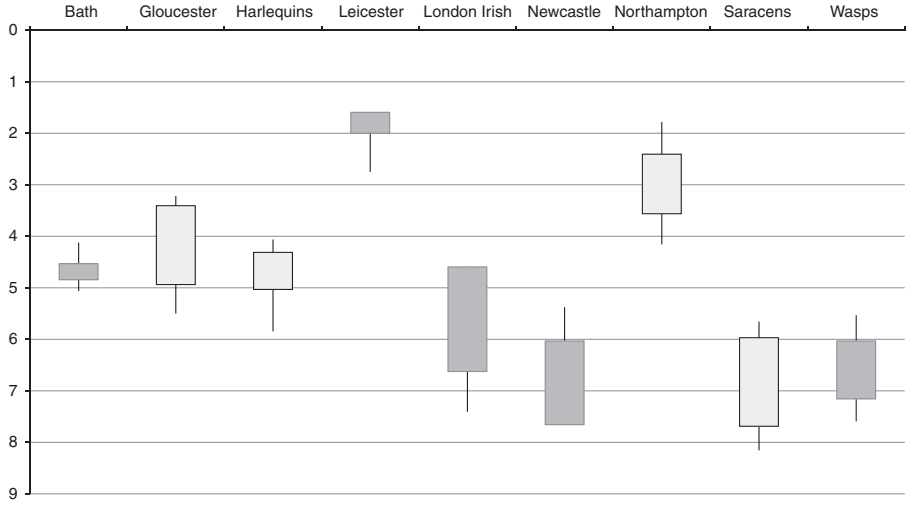


Figure 3.
Overall performance variability 2006-2015

where a club returns an annual OPS that differs significantly from its average OPS (e.g. London Irish in 2006 and Newcastle in 2013), but these occurrences appear to be random rather than attributable to specific critical incidents. In order to test this assumption, further scrutiny of the time series analysis is considered through the correlation between overall performance and time for each club.

The correlation analysis (see Figure 4) illustrates that with the passage of time, comparative overall performance has declined either moderately or strongly for one club – Newcastle ($0.30 < r < 0.71$) – whilst six clubs have improved either moderately or strongly – Northampton, Saracens, Wasps, Bath, Gloucester, Harlequins ($-0.71 < r < -0.32$). For the remaining two clubs, Leicester and London Irish, performance was relatively unchanged ($-0.30 < r < 0.30$). This provides further indicative evidence that, for the majority of these clubs, overall performance, as measured using a mix of financial and sporting indicators, varies over time in cycles.

Discussion – future considerations for rugby union

Williams (2012) noted that rugby union was the last major team sport in England to adopt professionalism, limiting the financial development of the game in general. Our findings would appear to support this claim. Revenues have risen marginally since 2006; however, there has been a significant increase in the debt levels of Premiership clubs which may threaten their existence in a league where revenue potential is not as great. Broadcasters ultimately want competitive sports (e.g. EPL in football) and although an increase in the broadcasting right deal has been reported, consistently high viewing levels are required to sustain the justification of increasing the payments to clubs. Revenues and attendances in rugby union have increased, although some stadiums are still not at full capacity. As things stand, it appears there is still plenty of work to do to drive the sport forward. A number of these issues will be discussed in this section including the location of the clubs, the raising

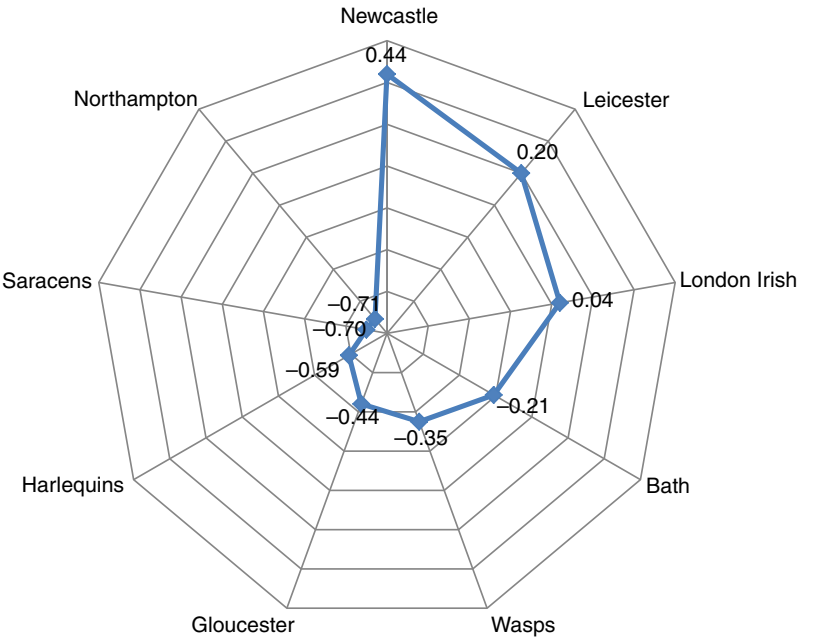


Figure 4.
Overall performance correlations over time 2006-2015

of the salary cap, the new broadcasting deal, and looking at how clubs can potentially drive their own growth through effective strategic decisions.

In an attempt to explain some of the results outlined in the paper in respect of financial and sporting performance, attendance figures and participation statistics, we now proceed to consider the geographical location of the clubs and the challenges that they face in relation to other more dominant participation and spectator sports in the UK such as professional football. Table III outlines this information in more detail. We have outlined the Premiership clubs analysed for this study, their nearest sporting competitors in respect of spectators (across all sports), and attempted to define the dominant sport. By dominant sport in this context we use the rank (in relation to the league that the club competes in) and estimated fan base size of the club as a proxy for this discussion. Cricket has been excluded from this discussion as it operates on a county level as opposed to a city/town location. What is interesting about Table III is that of the best performing clubs in relation to Figure 1 (Leicester, Northampton, Gloucester, Bath and Harlequins) all apart from Leicester can name rugby union as the dominant sport in their area. It is also arguable that Saracens can name rugby union as the dominant sport in their local area of Barnet, although when viewed against the wider area of London it is also clear that football is very popular. Indeed, London Irish are directly competing with Reading FC (tier 2 professional football club) in the local area whilst Newcastle have to compete with Newcastle United in their local area.

In that regard, it is interesting to note the decision of London Wasps to relocate their home games to take place at the Ricoh Arena in Coventry (also the home of Coventry City FC who currently compete in tier 3 of English professional football). Among others things, one of the reasons behind this move was to attempt to drive attendances in a new market through the attraction of new fans. It is also strategic when we consider that Coventry as a city does not have a professional rugby union team and that the cities nearest rival in football terms is Northampton Town, also home to a dominant rugby union team. Whilst we are not claiming any statistical significance in this particular discussion it is interesting to analyse the case of London Wasps in an almost franchise-like relocation that is more akin to American team sports (Andreff and Staudohar, 2000). Occurrences such as this one are rare in English team sports with the only other significant relocation being the decision to relocate and rebrand Wimbledon Football Club to Milton Keynes Dons in 2002.

Given the challenges that rugby union clubs face, it is often necessary to explore different strategies to maximise success. A case in point here is the stadium development plans of the Exeter Chiefs, a club who only turned professional in 1999 and who have only

Club	Location	Competing teams	League status	Dominant sport
Leicester Tigers	Leicester	Leicester City (football)	Premier League (1st tier)	Football
Northampton Saints	Northampton	Northampton Town (football)	League 2 (4th tier)	Rugby union
Gloucester	Gloucester	Gloucester City (football)	National League North (6th tier)	Rugby union
Bath	Bath	Bath City (football)	National League South (6th tier)	Rugby union
Harlequins	London	None		Rugby union
Newcastle Falcons	Newcastle	Newcastle United (football)	Premier League (1st tier)	Football
London Irish	Reading	Reading FC (football)	Championship (2nd tier)	Football
London Wasps	Coventry	Coventry City (football)	League 1 (3rd tier)	Football/rugby union
Saracens	London	Barnet FC (football)	League 2 (4th tier)	Rugby union

Table III. Club location and competing interests

recently competed in the Premiership since 2010-2011 season. In 2012, the club announced a five-year plan to redevelop the ground and increase capacity to 20,600 and the redevelopment plan will be carried out in three phases with incremental steps that are balanced in part against attendance demand. The first of these phases was carried out over the summer of 2014 and saw the capacity of the ground increase to 12,500 alongside an increase in the conferencing and banqueting facilities, effectively doubling the capacity for conferences and other events. This redevelopment plan has been aligned to attendance demand from when the club were competing in the second tier of English Rugby Union (where demand was lower) to the present day competing in the Premiership and potentially European competitions (where demand will inevitably be higher). A stadium redevelopment carried out in phases is also a rare occurrence in English team sports as most capital re-building projects tend to be done to completion in one stage. However, it is clear that Exeter Chiefs have seen this project as long-term investment which mirrors the clubs' on-pitch performance and progression. Such an approach is vital in rugby union where the revenue potential of clubs is not as high.

One positive for the future is the increase in the television rights deal with BT Sport which is due to run until 2021. It has been suggested that the new deal represents an 80 per cent increase on the previous £152m contract which would mean an approximate value of £274m if the reports are correct. At the present time, it is difficult to find an exact figure in relation to this new deal and it is yet to be realised in the clubs' annual accounts owing to the data available at the time of writing. Premiership Rugby Chief Executive, Mark McCafferty, has been very bullish about the deal, however, stating that it will almost "close the gap entirely" with the French Top 14 (the flagship rugby union competition in France). McCafferty also cites Exeter Chiefs as a good example of how clubs can bridge the gap between the Premiership and Championship (tier 2) and has confirmed that plans are well underway to expand the Premiership to include more clubs, which may mean temporarily scrapping the process of promotion and relegation. Here is another example of rugby union borrowing from the principles of American team sports by potentially closing their leagues to allow for expansion, presumably by the manually inputting of more clubs based on certain entry criteria.

A further point of contention in recent years has been the decision to increase the salary cap in rugby union. When it was first introduced in 1999, it stood at £1.2m per club but this figure has since increased to stand at £6.5m for the 2016-2017 season with a further rise to £7 m agreed for the period 2017/2018-2019/2020 (BBC Sport, 2016a, b). There was talk of raising the salary cap further but clubs voted unanimously against any further rises recently with concerns that any further rises would lead to wage inflation. Indeed, the Chairman of Exeter Chiefs (a club hailed for their sustainable approach to growth) recently stated that it is important to "strike a balance" and that wages must not be allowed "to spiral out of control" (BBC Sport, 2016a, b). In contrast, there have other clubs (most notably Saracens) calling for the removal of salary caps altogether, which is perhaps unsurprising given the amount of overseas investment they have had in recent years. Regulation can often restrict clubs who want to invest quickly for short-term gain but regulation is also necessary at certain times to safeguard the future of the sport itself. In respect of the salary cap, there are concerns that raising it even further is not the right answer, particularly if the relationship with broadcasters becomes fragile. From a financial standpoint, the principle of prudence is of vital importance. Significant expenditure must not be considered without the guarantee of increased revenue. In relation to our analysis and current average revenue figures, it is clear that some clubs may come under pressure from the increase in the salary cap if revenues fail to increase substantially also. If all clubs were to maximise their salary costs to the top of the cap, based on current averages over the last ten years, then the wages to turnover ratios of four clubs (Newcastle (100 per cent), London Irish (98 per cent), Saracens (81 per cent) and Wasps

(81 per cent)) would become a cause for concern based on the projected figures. In 2014 Wasps actually recorded a wages/turnover ratio of 103 per cent which also provides a further practical problem of the salary cap being an absolute figure rather than being controlled as a percentage of turnover. If revenues rise following the broadcasting deal, then it is possible that clubs could sustain an increase in the salary cap in the coming years but there has been no official figures released as to how much of the money will filter down to the clubs directly. Furthermore, our analysis suggests that raising the salary cap does not appear to be a practical solution to rugby unions' problems. As Szymanski and Kuypers (1999) stated, sport teams share an imperative need to pay wages to players and invest in the development of talent in order to achieve winning performances to keep the public interested in the club and willing to pay for its product. Thus, raising the salary cap further puts pressure on clubs to pay more to secure the best playing talent which maybe out of their financial reach in line with sustainability and future growth prospects.

Conclusion

In conclusion, our paper provides evidence to support the view of Williams (2012) that rugby union limited its own financial development in part by choosing to remain a more amateur sport until the mid-1990s. This primarily meant that rugby union as a professional sport has always, and some respects still is, playing catch-up compared to the commercialisation of other professional team sports in the UK. However, whilst the EPL in football has grown exponentially during the last two decades due to its symbiotic relationship with broadcasting and the global demand for the product, it is clear that the same case cannot be made for rugby union. Indeed, it is argued that rugby union is currently suffering from similar financial problems to that of rugby league outlined by Wilson *et al.* (2015). Despite revenues increasing marginally year-on-year, there are still individual debt problems at certain clubs and a continued issue with attendance demand and broadcasting rights. As we know, such individual debt problems are not confined exclusively to rugby (Andreff, 2007; Barros, 2006; Buraimo and Szymanski, 2006; Dietl and Franck, 2007 have all outlined an apparent "financial crisis" in recent years across European football), but it is exacerbated due to the fact that the potential for revenue generation is not as high in rugby as it is in football.

In relation to the extant literature, it appears that both codes of the sport have suffered as a result of flirtation with the North American model of professional team sports without ever fully committing to all the principles. In the case of rugby union, a salary cap has been present in recent years and franchise-like relocations are beginning to occur but there is still an open league structure present and no presence of revenue sharing or a draft system-based model. Furthermore, some senior figures within the game are arguing that the salary cap is more of a hindrance than a benefit. Our analysis suggests that continually raising the salary cap may not be the best solution particularly when revenues from the new broadcasting deal are yet to be realised. Alongside this, it is also clear clubs should look to a more sustainable long-term approach to strategic development, balancing both the financial and sporting performance in tandem, as evidenced by the example of Exeter Chiefs. A positive for rugby union is that, over the last ten years, sporting performance among Premiership clubs has been much more equal than in other sports such as football and rugby league, something which sports economists (e.g. Dobson and Goddard, 2011; Vrooman, 2015) argue is important to team sport competition. As such, the league and governing body should be mindful of any plans (such as raising the salary cap further) that may put more financial pressure on the clubs with lower revenue potential when such a move may only end up increasing the financial gap between clubs in the league. In addition, club managers might wish to consider the implications of the results in respect of their individual club objectives and whether or not they prioritise profit or utility maximisation,

or a hybrid of both, as a strategy. Furthermore, there is an argument to ensure that the new broadcasting deal is shared as equally as possible between all clubs – with a further trickle-down effect to the league below – to help safeguard a sustainable future for the league itself.

Limitations and future research

The use of the PAM has merit in its own right for the academic community, although we appreciate that there is also further warrant for development within the model. For example, in the case of rugby union, the model does not take into account ground ownership (as a factor of revenue generation) which has some relevance to Aviva Premiership clubs. For example, part of the reason that London Wasps moved to Coventry was to become landlords, having been tenants at Loftus Road and High Wycombe. As such, the PAM could be altered to relate to the professional team sport that it focusses on for each research project.

Our paper has demonstrated the importance of balancing multiple performance objectives in professional team sports and has expanded the academic discussion on the financial health of professional team sports in the UK. It was noted by O'Brien and Slack (1999, 2003) and Williams (2012) that there has been little academic research into the financial health of rugby union and as such this papers' main contribution is to fill that research gap in part and widen the knowledge base available on the management of professional team sports in the UK. Future research should look to build on this paper by considering the impact of the new television broadcasting deal on the financial health and growth of the sport in years to come and thus update the research picture. There is also scope to replicate this study across other sports in the future with further analysis warranted on football, rugby league and cricket. Within the confines of rugby union, there is scope to use this paper as a basis for future research into individual case studies of certain clubs through some additional qualitative research that attempts to outline the strategic objectives being applied by the clubs themselves. The case of Exeter Chiefs, for example, would make for an interesting case study as to how to build a sustainable rugby union club in the UK.

References

Andreff, W. (2007), "French football: a financial crisis rooted in weak governance", *Journal of Sports Economics*, Vol. 8 No. 6, pp. 652-661.

Andreff, W. (2011), "Some comparative economics of the organisation of sports: competition and regulation in north American vs Europe professional team sports leagues", *The European Journal of Comparative Economics*, Vol. 8 No. 1, pp. 3-27.

Andreff, W. and Staudohar, P.D. (2000), "The evolving model of professional sports finance", *Journal of Sports Economics*, Vol. 1 No. 3, pp. 257-276.

Barros, C. (2006), "Portuguese football", *Journal of Sports Economics*, Vol. 7 No. 1, pp. 96-104.

BBC Sport (2016a), "Aviva premiership: Exeter chairman Tony Rowe warns against rising player salaries", available at: www.bbc.co.uk/sport/rugby-union/36384063 (accessed 27 October 2016).

BBC Sport (2016b), "Premiership salary cap to remain at £7 m in 2018-19 and 2019-20", available at: www.bbc.co.uk/sport/rugby-union/37311767 (accessed 27 October 2016).

Buraimo, B., Frick, B., Hickfang, M. and Simmons, R. (2015), "The economics of long-term contracts in the footballers' labour market", *Scottish Journal of Political Economy*, Vol. 62 No. 1, pp. 8-24.

Buraimo, S.R. and Szymanski, S. (2006), "English football", *Journal of Sports Economics*, Vol. 7 No. 29, pp. 29-46.

Chadwick, S. (2009), "From outside lane to inside track: sport management research in the twenty-first century", *Management Decision*, Vol. 47 No. 1, pp. 191-203.

Cornwell, T.B., Pruitt, S.W. and Van Ness, R. (2001), "The value of winning in motorsports: sponsorship-linked marketing", *Journal of Advertising Research*, Vol. 41 No. 1, pp. 17-32.

Deloitte (2016), "Annual Review of Football Finance: Reboot", Sport Business Group, Manchester.

Dietl, H.M. and Franck, E. (2007), "Governance failure and financial crisis in German football", *Journal of Sports Economics*, Vol. 8 No. 6, pp. 662-669.

Dobson, S. and Goddard, J. (2011), *The Economics of Football*, 2nd ed., University Press, Cambridge.

Feng, C.M. and Wang, R.T. (2000), "Performance evaluation for airlines including the consideration of financial ratios", *Journal of Air Transport Management*, Vol. 6 No. 3, pp. 133-142.

Fort, R. (2015), "Managerial objectives: a retrospective on utility maximization in pro team sports", *Scottish Journal of Political Economy*, Vol. 62 No. 1, pp. 75-89.

Fort, R. and Quirk, J. (2004), "Owner objectives and competitive balance", *Journal of Sports Economics*, Vol. 5 No. 1, pp. 20-32.

Garcia-del-Barrio, P. and Szymanski, S. (2009), "Goal! profit maximisation versus win maximisation in soccer", *Review of Industrial Organisation*, Vol. 34 No. 1, pp. 45-68.

Guzmán, I. (2006), "Measuring efficiency and sustainable growth in Spanish football teams", *European Sport Management Quarterly*, Vol. 6 No. 3, pp. 267-287.

Guzmán, I. and Morrow, S. (2007), "Measuring efficiency and productivity in professional football teams: evidence from the English Premier League", *Central European Journal of Operations Research*, Vol. 15 No. 4, pp. 309-328.

Hoehn, T. and Szymanski, S. (1999), "The Americanization of European football", *Economic Policy*, Vol. 14 No. 28, pp. 205-240.

Kesenne, S. (2000), "Revenue sharing and competitive balance in professional team sports", *Journal of Sports Economics*, Vol. 1 No. 1, pp. 56-65.

Kesenne, S. (2015), "Revenue sharing and absolute league quality: talent investment and talent allocation", *Scottish Journal of Political Economy*, Vol. 62 No. 1, pp. 51-58.

Leach, S. and Szymanski, S. (2015), "Making money out of football", *Scottish Journal of Political Economy*, Vol. 62 No. 1, pp. 25-50.

Markham, J.W. and Teplitz, P.V. (1981), *Baseball Economics and Public Policy*, D.C. Heath, Lexington, MA.

Morrow, S. (2003), *The People's Game? Football, Finance and Society*, Palgrave Macmillan, Hampshire.

O'Brien, D. and Slack, T. (1999), "Deinstitutionalising the amateur ethic: an empirical examination of change in a rugby union football club", *Sport Management Review*, Vol. 2 No. 1, pp. 24-42.

O'Brien, D. and Slack, T. (2003), "An analysis of change in an organizational field: the professionalization of English Rugby Union", *Journal of Sport Management*, Vol. 17 No. 4, pp. 417-448.

Plumley, D., Wilson, R. and Ramchandani, G. (2017), "Towards a model for measuring holistic performance of professional football clubs", *Soccer and Society*, Vol. 18 No. 1, pp. 16-29.

Plumley, D., Wilson, R. and Shibli, S. (2017), "A holistic performance analysis of English professional football clubs 1992-2013", *Journal of Applied Sport Management*, Vol. 9 No. 1, pp. 1-29.

Shibli, S. and Wilkinson-Riddle, G.J. (1997), "The financial health of English cricket – an analysis based upon the 1995 annual reports and financial statements of the 18 first class counties", *Journal of Applied Accounting Research*, Vol. 4 No. 1, pp. 4-37.

Sloane, P. (1971), "The economics of professional football: the football club as a utility maximiser", *Scottish Journal of Political Economy*, Vol. 17 No. 2, pp. 121-146.

Sloane, P. (2006), "Rottenberg and the economics of sports after 50 years", in Rodriguez, P., Kesenne, S. and Garcia, J. (Eds), *Sports Economics after 50 Years; Essays in Honour of Simon Rottenberg*, University of Oviedo, Oviedo, pp. 211-226.

Sloane, P. (2015), "The economics of professional football revisited", *Scottish Journal of Political Economy*, Vol. 62 No. 1, pp. 1-7.

Smith, A.C.T. and Stewart, B. (2010), "The special features of sport: a critical revisit", *Sport Management Review*, Vol. 13 No. 1, pp. 1-13.

Szymanski, S. (2003), "The economic design of sporting contests", *Journal of Economic Literature*, Vol. 41 No. 4, pp. 1137-1187.

Szymanski, S. and Kuypers, T. (1999), *Winners and Losers: The Business Strategy of Football*, Viking Books, London.

Vrooman, J. (2015), "Sportsman leagues", *Scottish Journal of Political Economy*, Vol. 62 No. 1, pp. 90-115.

Williams, P. (2007), "Cycle of conflict: a decade of strife in English professional rugby", *International Journal of the History of Sport*, Vol. 25 No. 1, pp. 65-81.

Williams, P. (2012), "Any given Saturday: competitive balance in elite English Rugby Union", *Managing Leisure*, Vol. 17 Nos 2-3, pp. 88-106.

Wilson, R., Plumley, D. and Barrett, D. (2015), "Staring into the abyss? The state of UK rugby's super league", *Managing Sport and Leisure*, Vol. 20 No. 6, pp. 293-310.

Wilson, R., Plumley, D. and Ramchandani, G. (2013), "The relationship between ownership structure and club performance in the English Premier League", *Sport, Business and Management: An International Journal*, Vol. 3 No. 1, pp. 19-36.

Yeh, Q.J. (1996), "The application of data envelopment analysis in conjunction with financial ratios for bank performance evaluation", *Journal of the Operational Research Society*, Vol. 47 No. 8, pp. 980-988.

Zimbalist, A. (2003), "Sport as Business", *Oxford Review of Economic Policy*, Vol. 19 No. 4, pp. 503-511.

Further reading

Szymanski, S. and Zimbalist, A. (2005), *National Pastime; How Americans Play Baseball and the Rest of the World Plays Soccer*, Brookings Institution Press, Washington, DC.

Corresponding author
Daniel Plumley can be contacted at: d.j.plumley@shu.ac.uk

For instructions on how to order reprints of this article, please visit our website:
www.emeraldgrouppublishing.com/licensing/reprints.htm
Or contact us for further details: **permissions@emeraldinsight.com**

The current issue and full text archive of this journal is available on Emerald Insight at:
www.emeraldinsight.com/2042-678X.htm

Chinese Super League: attendance, pricing, and team performance

Nicholas Watanabe
Department of Health, Exercise Science and Recreation Management, University of Mississippi, Oxford, Mississippi, USA, and
Brian Soebbing
Faculty of Physical Education and Recreation, University of Alberta, Edmonton, Canada

Abstract

Purpose – The purpose of this paper is to examine the impact of team performance, price dispersion – having multiple ticket prices for a single event, and market characteristics on fan attendance. By considering the context of the Chinese Super League (CSL), this study considers multiple strategies for enhancing the demand for sport in relation to factors on- and off-the-field of play.

Design/methodology/approach – This study uses economic demand theory to examine consumer interest in sporting events in relation to pricing. Through employing econometric modeling, regression analysis is used to estimate results from match-level data encompassing multiple seasons.

Findings – The findings estimated from the linear regressions indicate that using multi-tiered pricing for sporting events does not significantly enhance demand in this context. Furthermore, it is found that consumers are responsive to matches against rival teams and strong opponents.

Research limitations/implications – The results run counter to prior literature on price dispersion, indicating that attendance demand may not always be influenced by the number of price points.

Practical implications – The findings help to develop an understanding of how team performance and pricing are important parts of meeting organizational goals in sport. From this, strategies can be formed to help stakeholders and managers in improving organizational performance.

Originality/value – This research is one of the first to consider the CSL, where both single and multiple price points exist for sporting events. Thus, it helps to build both theoretical and empirical knowledge in regards to the importance of pricing systems.

Keywords China, Price, Soccer, Demand for sport, Price dispersion

Paper type Research paper

In the current sport marketplace, the ability to strategically manage the performance of an organization is increasingly complex, as teams, leagues, and other such entities must try to balance a variety of goals and objectives in a competitive industry (Shilbury, 2012). To date, research focused on examining multiple objectives for sport franchises mostly considered how teams may enhance demand or revenues through analysis of on- and off-field factors (Mongeon and Winfree, 2012), as well as the relationship between on-field performance and financial indicators from a holistic perspective (Plumley *et al.*, 2017). Understanding how to manage all of these aspects simultaneously is critical in a growing industry. To not manage all resources effectively and efficiently could not only harm an organization from a business perspective, but could also have repercussions for on-field performance as well. Thus, in response to this environment, researchers extended their examination into ways that organizations in the sport industry can develop strategies in order to try and meet numerous objectives on- and off-the-field, and in turn potentially maximize overall organization performance (Vrooman, 2015).

The literature predominantly approached the concept of having multiple performance objectives for sport teams from an economic perspective, as this line of research has placed emphasis on the interplay between profit maximization and win maximization (Dietl *et al.*, 2009;

Sport, Business and Management: An International Journal
Vol. 7 No. 2, 2017
pp. 157-174
© Emerald Publishing Limited
2042-678X
DOI 10.1108/SBM-10-2016-0055

Garcia-del-Barrio and Szymanski, 2009). At the same time, recent studies provided a unique examination of the various factors that sport teams must consider – ranging from corporate social responsibility (Breitbarth *et al.*, 2011, 2015; Kolyperas *et al.*, 2016) to ownership structure (Wilson *et al.*, 2015). In this manner, the multiple dimensions of organizational performance in sport can be analyzed from a wide range of frameworks.

Considering the previous research on performance strategies for professional sport teams, the present study attempts to extend this line of inquiry by examining multiple performance objectives for clubs in the Chinese Super League (CSL). The CSL, the top-tier soccer competition in China, provides an intriguing backdrop through which to consider strategic management in a new and emerging league. Indeed, the CSL was founded in 2004 to replace the professional Jia-A League in order to have more rigorous standards in regards to management, youth development, and financial accountability. Thus, the league was re-organized because of the recognition that there were many areas where it was deficient. Following this, the CSL has grown over the past decade in regards to name recognition and brand power, especially with a number of large corporations investing or purchasing clubs to try and enhance the reputation and consumer interest in both their own corporations and the soccer clubs.

Traditionally, the most powerful and well-known club in China was Beijing Guoan, a team that has strong ties to the Chinese Government as evidenced by the fact that they are still owned by the CITIC group, a state-owned investment company. Additionally, Beijing Guoan have also long been the leaders in Chinese soccer because of their location in China's capital, though they have been recently dethroned from their reign as the top club by Guangzhou Evergrande. Previously, Guangzhou Evergrande was owned by a pharmaceutical company but was relegated from the top league in 2010 because of their participation in a match-fixing scandal. After this, Evergrande Real Estate Group took over the club, pouring large sums of money into the transfer market to ensure that the team gained promotion back in the CSL. With financial backing from their parent corporation and billionaire Xu Jiayin, Guangzhou Evergrande continued to invest in players for their squad, and has won every CSL title since their promotion in 2011. In addition to becoming the league leader in attendance, they were the first Chinese squad to win the Asian Champions League competition twice (in 2013 and 2015).

The influx of Evergrande Real Estate Group into Chinese soccer marked a major shift in the business of Chinese soccer, as it has led to more corporations understanding the potential to connect to fans through investing in teams in order to purchase better talent for the league. Indeed, many clubs are now being purchased by wealthy corporations, as well as forming strategic partnerships such as Guangzhou Evergrande selling a 40 percent stake to the Alibaba Group – China's largest e-commerce and online retail site. Indeed, with many clubs receiving such strong backing, it is now the case that some teams in the CSL have been able to offer high salaries to players and coaches in order to entice internationally renowned talent to come play or manage in China.

Despite the rapid growth that the CSL has witnessed, limited research exists examining the league and how it functions. To date, the works of Chadwick (2008) and Watanabe and Soebbing (2015) have been the main studies focused on the management, strategies, and economics of the CSL. Generally, western academic researchers analyzed the size and potential of the Chinese fan base, but have not considered the inner workings of domestic leagues in the country. Even within China itself, only a few studies have examined the performance of teams (Quan and Sun, 2011) and organizational reform within the league (Du and Guo, 2005). From this, the present student attempts to make numerous contributions by considering multiple objectives for Chinese soccer teams through analyzing how pricing strategies, team performance, and other factors are related to attendance at CSL matches. Along these lines, this research speaks to a number of important objectives for clubs, namely the desire to improve demand and attendance, revenues, as well as on-field performance by winning matches.

Furthermore, the context of the CSL adds complexity to understanding the interplay between many of these objectives. That is, as Chinese clubs all have backing from wealthy corporations or owners, teams are less reliant on revenues from fan attendance to ensure financial stability and the ability to purchase star players. Thus, in analyzing the attendance demand for the league, many teams' objectives may be to increase fan attendance through using various ticket pricing strategies and acquiring high-level talent, and not to earn a profit for their club. Rather the focus is placed on building name and brand recognition among soccer fans. Indeed, this has been the case for many clubs in China (and throughout Asia), such as Shanghai Shenhua, who has been sold from one corporation to another in order to help promote products including: household water heaters, local television and radio stations, online video games, and now a real estate group. Therefore, in examining the objectives for teams in the CSL, as well as the strategies they undertake, it is the case that most teams are likely not profit maximizers, but rather are aiming to draw as many fans to games as possible. Thus, using the CSL as a contextual basis, this study provides a backdrop through which to study the intersection of teams balancing on-field and off-field performance, and how this may affect other parts of the core business such as the strategies behind pricing tickets Table I.

From this, the current study makes a number of contributions. The first contribution which this paper makes is through extending the empirical literature examining the management of Chinese professional soccer as noted above. To date, one previous research study has analyzed league-wide attendance in the CSL (Watanabe and Soebbing, 2015), with specific focus on the relationship between attendance and the price tickets were sold at. The present research attempts to build on this previous study in a number of manners to try and provide a broader understanding of the economics of professional soccer in China. Specifically, this research uses multiple regression analysis to estimate factors which are significant determinants of demand by using a more comprehensive data set that covers an additional season (2013) and adds around 50 percent more observations to this study. Furthermore, in addition to adding observations, the expanded time frame within this study allows for better examination of the competition within markets for fans (especially in Shanghai where there were three CSL teams in 2013), as well as the shifting ticket pricing strategies and tactics employed by CSL teams.

Team	City	Stadium name	Capacity	Business
Beijing Guoan	Beijing	Workers Stadium	66,161	Investment company
Changchun Yatai	Changchun	Development Area Stadium	25,000	Real estate/construction
Chengdu Blades	Chengdu	Chengdu Sport Centre	39,225	Team disbanded
Dalian Shide	Dalian	Jinzhou Stadium	30,775	Team disbanded
Dalian Aerbin	Dalian	Jinzhou Stadium	30,775	Real estate
Guangzhou Evergrande	Guangzhou	Tianhe Stadium	58,500	Real estate/e-commerce
Guangzhou R&F	Guangzhou	Yuexiushan Stadium	15,000	Real estate
Renhe	Guiyang	Guiyang Stadium	52,888	Commercial development
Hangzhou Greentwon	Hangzhou	Yellow Dragon Sports Center	52,672	Real estate
Shandong Luneng	Jinan	Shandong Stadium	43,700	Real estate
Jiangsu Sainty	Nanjing	Nanjing Olympic Center	61,443	Appliances
Qingdao Jonoon	Qingdao	Tiexi Sports Center	30,000	Insulation
Shanghai Shenhua	Shanghai	Hongkou Stadium	33,060	Real estate
Shanghai Shenxin	Shanghai	Yuanshen Sports Center	16,000	Real estate
Shanghai SIPG	Shanghai	Shanghai Stadium	56,842	International port
Liaoning Whowin	Shenyang	Tiantai Stadium	20,525	Real estate/university
Shenzhen Ruby	Shenzhen	Shenzhen Stadium	32,500	Venture capital
Tianjin Teda	Tianjin	TEDA Stadium	37,450	Technology
Wuhan Zall	Wuhan	Wuhan Sports Center Stadium	54,537	Commercial development
Henan Jianye	Zhengzhou	Hanghai Stadium	29,860	Real estate/construction

Table I. List of Chinese Super League teams

Additionally, as one facet of this study is to consider the pricing strategies used with the CSL, this study extends the literature which examines the relationship between demand and price from a theoretical and empirical perspective. Indeed, as the pricing of tickets is a vital part of any sport organization in regards to how to market its product (Smith, 2008) and generate revenue (Drayer and Rascher, 2013), there is need to consider the structure and effects that pricing systems have on fan consumption. Along these lines, the second major contribution which this study makes is in examining how the use of price dispersion may affect attendance demand for CSL matches. Specifically, the idea of price dispersion – the selling of a single good at multiple prices – which is a common practice in pricing tickets to sporting events is considered (Humphreys and Soebbing, 2012). The use of price dispersion by sport franchises and leagues allowed organizations to set a number of price levels through which individuals can purchase tickets to different parts of a facility (Soebbing and Watanabe, 2014). Selling tickets at different prices can also be referred to as variable ticket pricing or differential pricing, and is a practice which has been shown to increase revenues for sport franchises (Humphreys and Soebbing, 2012; Rascher *et al.*, 2007) or even boost live attendance at sporting contests (Soebbing and Watanabe, 2014; Watanabe *et al.*, 2013).

At the same time, previous studies focused on selling tickets at multiple prices in sport has primarily focused on North American teams and leagues (Drayer and Rascher, 2013), with little consideration of soccer leagues (DeSchriver *et al.*, 2016). Thus, another important contribution which comes through examining the CSL is the unique strategies and practices which have been used by teams in selling tickets to the general public. Specifically, whereas teams in the top professional sport leagues in North America and Europe have consistently offered tickets at multiple prices for events over the last several decades, it is still the case that some teams in the CSL offer only a single ticket price. Finally, this study also provides a number of practical implications for practitioners within the sport industry. As this study considers the practice of price dispersion, market potential, and on-field performance for CSL clubs, it can help to determine how the league may consider balancing certain factors in order to maximize gains in attendance. In this, the current research seeks to provide further understanding of the differences which may exist in regards to the demand for sport in China, and help to develop strategies to allow for the improved management of one of the up-and-coming professional sport leagues in the world.

Theoretical framework and literature review

Team performance

The relationship between the economic well-being of professional sport teams and their on-field performance has long been considered within the literature. Seminal theoretical works by Rottenberg (1956) and Neale (1964) argued that uncertainty is a vital component of the business of professional sport franchises. From this, they posited the uncertainty of outcome hypothesis which argues that fans are attracted to games that they are less likely to predict the winner of. Thus, from a theoretical perspective, the on-field performance of both teams in a sporting contests is important in creating consumer interest.

Moreover, more recent studies which empirically examine the demand for sporting events have continued to analyze the effect that team performance has on live attendance. Borland and MacDonald (2003) noted on-field performance is one of the primary determinants of demand for sport products. Furthermore, an examination of North American and European leagues reveals that better home team performance is related to increases in attendance. On the other hand, away performance returned mixed results, with only about half the studies finding evidence that fans are sensitive to the strength of opponents (Borland and MacDonald, 2003). Notably, more recent studies have also tried to examine the linkages between attendance, competitive balance, and competitive intensity within soccer matches (Andreff and Scelles, 2015; Scelles *et al.*, 2013a, b, 2016). In order to do

this, they operationalize the competitive intensity of matches by considering the point differential between teams in a league in a variety of manners, and find that it is significant in determining attendance (Andreff and Scelles, 2015; Scelles *et al.*, 2013a).

From this, the body of research examining the linkages between team performance and attendance certainly highlight the importance for understanding the relationship between these two factors. At the same time, while team performance is of importance in analyzing demand, there certainly is need to account for other potential determinants of demand such as price.

Pricing strategies in sport

Price is considered to be vital for organizations because it is the way through which customers pay for the products which are marketed to them (Kopalle *et al.*, 2009), and, thus, is one of the important parts of the marketing mix. Notably, price is considered to have an advantage over other parts of the marketing mix because of its high flexibility which comes about because of continuous change which occurs in the economy (Smith, 2008). Depending on the context of the product or service, the flexibility of pricing can be viewed as an advantage to some managers. In the case of professional sport, which are heavily governed by policies and regulations set forth by leagues and member franchises, there is less flexibility in regards to pricing because of the great amount of oversight placed on team operations. Additionally, because of this heavy control placed by leagues in regards to when prices can be set and if/how they can be changed during a season, it is often difficult for sport franchises to fully control ticket prices to their benefit (Smith, 2008).

At the same time, it is argued that changing prices too frequently can also be problematic, especially if the decision to changes prices is not made with proper information (Watanabe *et al.*, 2013). Mullin *et al.* (2007) noted the effect of frequent changes in pricing sport products should not be as troublesome, as sport consumers have a high level of emotional attachment and involvement with the teams and players that are marketed to them. However, when considering that sport franchises often price tickets long in advance of the beginning of a season because of scheduling and league rules, it is difficult to set prices at the exact level to maximize either attendance or revenue (Smith, 2008). Because of these factors, different strategies and mechanisms have been created to try and help teams achieve their organizational goals (Rascher *et al.*, 2007). Thus, due to the complexities that go along with understanding pricing in the sport industry, it is only natural that individuals have approached examination of the concept from a variety of perspectives, including economics, marketing, management, and consumer behavior (e.g. Coates and Humphreys, 2007; Fort, 2004).

The analysis of pricing behaviors of sport organizations has been widely examined in North America, especially within sport demand studies (Coates and Humphreys, 2007). In these studies focused predominantly on fan attendance at live events, various measures of price are included because of economic theory which predicts an inverse relationship between price and the demand for a good. While price is used in many studies examining attendance, the ability to gather reliable price data for all the teams in a league is difficult (Borland and MacDonald, 2003; DeSchriver *et al.*, 2016). Thus, a number of research studies have also approached the examination of fan interest in sporting events without employing any method of measuring price (Jewell and Molina, 2005).

Due to the difficulty in collecting a single price level for all the teams in a sport league, it is the case that much of the empirical research on sport pricing has employed variables measuring the average or lowest price to attend an event (Coates and Humphreys, 2007; Soebbing, 2008). While this can provide a nuanced understanding of the importance price plays in drawing fans to a sporting event, the price variable is just one of many factors which are included to estimate the demand for a sport product (Borland and MacDonald, 2003). Thus, a majority of the studies which examine the demand for attendance do not take into account the varied levels at which consumers are able to purchase tickets for a sporting event. Furthermore, using the lowest ticket

price can be problematic because the supply of tickets which teams offer at that price is often a small percentage of the capacity of a facility. Additionally, average price can be problematic because it may not represent any of the actual prices which consumers can purchase tickets at, and also does not represent how prices are dispersed by an organization. Therefore, it is through the use of price dispersion variables that research is able to further develop the understanding of the importance price plays in the demand for attendance at sporting events.

Price dispersion

Price dispersion has been defined as "the distribution of prices of an item with the same measured characteristics across sellers" (Pan *et al.*, 2002, p. 433), and can be dated back to the work of Stigler (1961) who considered the different prices cars were sold at within a market. Specifically, in the realm of sport, it is argued that price dispersion is when there is more than a single price for a product in the sport marketplace (Rascher and Schwarz, 2012). In this case, the sales of tickets for a single sporting event at a number of price levels can be considered as a form of price dispersion. Further theoretical understanding of price dispersion can be found within the economic literature which has considered the importance of selling products at multiple prices (Borenstein and Rose, 1994). From this, it is noted that issues such as a lack of information about prices (Courty, 2003) and uncertainty of the demand for a good by a firm (Dana, 2001) can lead to firms pricing their goods at different levels.

Empirical examination of price dispersion in sport and entertainment can be traced to research which has examined the pricing of tickets for concerts and the theater events (Courty and Pagliero, 2012). Early research into pricing of theater events found that using price dispersion was beneficial in that it leads to increased revenue in Great Britain (Huntington, 1993) as well as on Broadway (Leslie, 2004). Notably, research examining price dispersion often focused on understanding its effect on demand, with recent studies providing further insight on the connection between pricing and revenue (Courty and Pagliero, 2012; Eckard and Smith, 2012).

The focus on variable ticket pricing or price discrimination in sport has been a recent development, with only a handful of papers examining the importance of this pricing strategy in a sport context (Soebbing and Watanabe, 2014). Early research into sport-based price dispersion examined Major League Baseball, and found that the number of prices teams were selling tickets at was related to changes in demand uncertainty (Humphreys and Soebbing, 2012). Because of the availability of data, MLB has been the organization which has been primarily examined within this research, with other studies finding relationships between price dispersion and the secondary ticket market (Watanabe *et al.*, 2013) and attendance at MLB games (Soebbing and Watanabe, 2014). What can be garnered from this general body of research is the practice of price dispersion is expanding within sport leagues in North America, and the decision to offer more price levels seems to be connected to organizational benefits.

Pricing and Asian sport leagues

To date, there is a paucity in the literature considering the importance of price in Asian professional sport leagues. Though research has considered consumer behavior (Hong *et al.*, 2005; Mahony *et al.*, 2002) and the demand for attendance at a variety of sporting events (Lee, 2006; Watanabe, 2012), pricing has not been fully developed within this line of research. The examination of pricing in research focused on Asian sport leagues has also primarily come within demand studies which have used different methodologies to control for pricing. Yamamura (2011), for example, examined the relationship of various factors with attendance at Japanese professional baseball games through a team effect variable to control for price and other team-specific features. That is, price was not even measured through data collected from teams in the league, but was controlled for through econometric modeling. This

approach is not uncommon, as collecting data for ticket prices to sporting events in Asia can be very difficult.

Examination of the demand for sport in Asia has focused on Japan and South Korea, because of the popularity and relative similarities between the baseball leagues/teams in these countries and North America (Jang and Lee, 2016). The Nippon Professional Baseball (NPB) league in Japan, and the Korean Professional Baseball League (KPBL) have been the contextual focus of sport-based research (Lee, 2006) in Asia. NPB studies considered the significance of a variety of factors on fan demand such as competitive balance (La Croix and Kawaura, 1999), and the presence of star players (Yamamura, 2011). However, this line of research has not included any form of price data within their models. Likewise, examinations of Japanese professional soccer fan behavior (Mahony *et al.*, 2002) and fan attendance (Watanabe, 2012) did not use price data within their analysis.

Research focused on the KPBL looked specifically at analyzing attendance, as well as investigating fan consumption behaviors between MLB and KPBL games (Lee and Smith, 2008). The paper by Lee and Smith (2008) is one of the few papers which developed an understanding of the importance of price in Asian sport leagues. Specifically, the research calculates a price growth rate variable for both leagues in order to examine how sensitive fans are to changes in price for tickets to sporting events. Findings from the estimated results indicate a difference between fans of the same sport in different countries. That is, while American fans tended to increase their consumption when price continued to grow, South Korean fans decreased their consumption of sport. This highlights the importance of building a better understanding of price for sport consumers in Asia, as research has indicated that there may be differences between how Asian and North American fans consume sport.

Considering the greater body of knowledge investigating pricing in the realm of sport, it is evident that there is still need for continued research into this area. For this study, examination is placed on the CSL through the collection of a comprehensive data set covering attendance and ticket prices for the league over two seasons. Specific focus is placed on how ticket prices are dispersed for each team in the league, and how this potentially relates to consumer demand to attend matches. Based off the theoretical and empirical investigation of strategic management and price dispersion in sport, the present research asks two questions:

RQ1. First, how does the unique ticket pricing practices in Chinese professional soccer influence game attendance?

RQ2. Second, how does team performance influence game attendance?

From this, the present research further develops the investigation of pricing to an important and growing sport market in China through empirical analysis of a unique data set. In this, the research findings not only provide better understanding of factors affecting the demand for sport in China, but how various strategies can be formed to entice fans to purchase tickets to attend soccer matches.

Methodology

Data collection

For the purpose of this research, data were collected for every CSL match from 2011 to 2013, comprising three full seasons of data (with the assistance of a native Chinese speaker, the authors collected all data from the league official website in Chinese) (Chinese Football Association, 2014). These data were placed into spreadsheets and translated when necessary into English. Ticket pricing data were obtained by visiting the official team websites of each CSL club to confirm every price and the number of price levels at which

tickets to matches were sold. The ticket pricing data were gathered only for general seating areas, and not the VIP access seats which are often more expensive and difficult to obtain for some fans in China. All stadium- and match-level data were also collected from the CSL official website, including attendance numbers for each match (Chinese Football Association, 2014).

As the CSL often wipes some or all of the data from previous seasons off of its website, the data collection process required the research team to cross-check any data posted or archived on the CSL website (Sohu, 2016). Finally, the market-level variables were gathered from the National Bureau of Statistics of China annual statistical data reports, which currently have only posted metrics for individual cities in China through the 2013 calendar year. The limited reporting of data from the CSL and Chinese Government thus prevented additional seasons to be included in this analysis. In total, 697 matches are included within the final data set, with nine matches removed from the data set because of unreported attendance numbers or teams being forced to play matches in empty stadiums because of violations of league rules. Because the data set comprises a set number of teams repeating over time, these data take the form of a panel data set.

The current model included within this research follows the previous work of Watanabe and Soebbing (2015), who provided an initial modeling of Chinese soccer attendance over a two-year period. This manuscript improves on this previous research by building on this previous model not just through increasing the number of observations used to estimate factors that determine attendance in the CSL, but also through using methods more suited to dealing with this type of panel data set. Furthermore, by examining a longer-run data set, it also allows for this research to include more variables to try and improve the modeling of attendance in Chinese soccer, and account for competition between teams in the same city. Thus, the improvements on the prior work in Chinese soccer attendance do not come just from using a larger data set, but in improving the overall methodology.

To answer the research questions regarding the impact that pricing strategies and team performance have on game attendance, three regression models are estimated from the panel data. The difference in each of the three models is the variable denoting price, as three unique metrics are used to try and capture the effects of price dispersion. Thus, the following model is estimated:

$$\begin{aligned} Attend_{ijk} = {} & \theta_j + \beta_1 Pricing_{ijk} + \beta_2 Hwinpct_{ijk} + \beta_3 Hwinpct^2{}_{ijk} + \beta_4 Awinpct_{ijk} \\ & + \beta_5 NewStad_{ijk} + \beta_6 March_{ijk} + \beta_7 April_{ijk} + \beta_8 May_{ijk} + \beta_9 June_{ijk} \\ & + \beta_{10} July_{ijk} + \beta_{11} Aug_{ijk} + \beta_{12} Sept_{ijk} + \beta_{13} Oct_{ijk} + \beta_{14} Weekend_{ijk} \\ & + \beta_{15} Holiday_{ijk} + \beta_{16} Rivalry_{ijk} + \beta_{17} Relocated_{ijk} + \beta_{18} TeamsInCity_{ijk} \\ & + \beta_{19} Promoted_{ijk} + \beta_{20} Pop_{ijk} + \beta_{21} GRP_{ijk} + \beta_{22} Capacity_{ijk} \\ & + \beta_{23} 2012Season_{ijk} + \beta_{24} 2013Season_{ijk} + \mu_{ijk} \end{aligned}$$

where i indexes home team, j indexes games, k indexes season, θ_j a team fixed effect, and μ_{ijk} the equation error term. The dependent variable used in all of the models run for this research is the match attendance as reported by the CSL. This variable was constructed through pulling data from the league match reports for every game that was played by a club in the CSL from 2011 to 2013. It is important to place scrutiny on attendance reported by leagues, as prior research has noted some sport franchises/leagues have been known to alter the reported match attendance numbers by up to 50 percent (Lawson *et al.*, 2008). In order to check for any potential issues in the CSL attendance data, the researchers cross-referenced the data from the CSL with data posted and maintained by fans of Chinese soccer on the internet. Through examining these sites, it was found the attendance numbers reported by fans often matched

the figures reported by the league, or only had small deviations. The use of this type of match-level attendance has been a common practice in measuring fan demand for consuming live attendance (Bruggink and Eaton, 1996; Coates and Humphreys, 2010; McDonald and Rascher, 2000; Tainsky and Winfree, 2010) of sporting events.

Turning attention to the independent variables within the model, the first variable of interest is *PriceDisp*, which is an indicator variable for if home team *i* offered more than one ticket price for game *j* in season *k*. This variable is measured with a 1 when teams offer tickets at more than one price, and a 0 when teams only offered tickets at a single price and is consistent with recent research by Courty and Pagliero (2012) and Eckard and Smith (2012), who examined the impact of multiple prices on concert revenues. The second variable is measured by the total number of price points a CSL team sold tickets at (*PricePoint*). This approach to estimating price and price dispersion has been previously employed by research to understand the importance price dispersion has for sport leagues (Soebbing and Watanabe, 2014). Moreover, previous theoretical and empirical literature indicates that as the number of price points increases, there should be an increase in attendance (Dana, 2001; Soebbing and Watanabe, 2014). Finally, the third pricing variable is the standard deviation of the ticket prices offered by Team *i*, in game *j*, in season *k*. This variable is consistent with those employed in previous research by Humphreys and Soebbing (2012) in examining of determinants of ticket price dispersion in Major League Baseball. In this manner, the present research uses multiple measures to try and capture the use of price dispersion across the CSL.

Further explanatory variables are included within the model to control for factors in regards to the teams and the scheduling of games. The first group of variables include the quality of the two teams in the contest (*Hwinpct*, $Hwinpct^2$, *Awinpct*), measured by both team's winning percentage prior to the game. The use of the squared term for the home team winning percentage is consistent with findings by Coates *et al.* (2014), who looked at loss aversion and live game attendance in MLB.

The present research also controls for scheduling variables defined by the month of the year and the day of the week the game occurs. Separate dummy variables are included for all the months in which matches occurred (March through October). For the day of the week variables, a dummy variable is included if the game took place during the weekend (*Weekend*) which was defined as Friday through Sunday. Finally, a dummy variable is used for matches that occurred on a holiday (*Holiday*). The holidays identified are the Qingming Festival, Labor Day, Dragon Boat Festival, Mid-Autumn Festival, and National Day. The other national holidays of New Years Day and Chinese New Year are not included within this data set because these holidays fall outside of the CSL season.

The final group of explanatory variables is employed to control for market and team-specific factors. First is a dummy variable which captures matches that are played between teams that are considered rivals or are derby (local) matches (*Rivalry*). Additional variables are included to control for teams being relocated (*Relocated*), the presence of other CSL teams located within the same metro area (*TeamsInCity*), and being newly promoted into the league (*Promoted*). There is also a dummy variable equal to 1 if the stadium is five years old or less to control for any novelty effect which may come from new stadiums (*NewStad*). Population (*Pop*) and gross regional product (GRP) are placed within the model to control for the size and economic strength of the local market for each team. A capacity variable (*Capacity*) is also employed to control for the size of the stadium, as this represents the supply capacity of the sport product offered by each franchise (Borland and MacDonald, 2003).

Estimation issues. There are three potential estimation issues in the current research. The first is the presence of sellouts. If there are large amounts of sellouts, estimating a regression model using ordinary least squares would lead to biased results (Gujarati, 2003). In examining the attendance data, only 12 percent of games are sold out, so there is no need to estimate a censored or Tobit regression. The second estimation issue is the heteroscedasticity

of the equation error term. Utilizing the *estat hettest* function within STATA14 to examine if heteroscedasticity is an issue, we do not reject the null hypothesis of constant variance in both equations ($p < 0.183$). Finally, because of the panel nature of the data, there is need to consider whether to use fixed-effects or random-effects when estimating regression results. In order to decide which type of effect would be appropriate, the *xtreg* function within STATA was used to estimate the results using both fixed and random effects. Following this, a Hausman test was conducted between the estimates of both models, and returned a significant p-value ($p < 0.017$) indicating that fixed effects would be appropriate for use with this model and data set. Thus, the final estimates for the regressions in this research use the panel regression function with fixed-effects for all models.

Results and discussion

The summary statistics for all of the variables are presented in Table II. The average attendance for the 697 team-game-season observations was 18,281 with a range from 1,721 to 65,769. In total, 85 percent of the sample observations offer more than one ticket price point for a match. The average number of ticket price points during the sample is 3.47 with teams offering between 1 and 6 price points. In total, 16 percent of the observations take place in a new stadium, which is five years old or less. The majority of the games occurred in August (15 percent), while the least amount are in March (6 percent). About 22 percent of the games take place between Monday and Thursday, while 11 percent of games occur on a holiday. Almost 12 percent of games are rivalry games. The average population is 8,360,000 and the average stadium capacity is just over 40,000.

Variable	Mean	SD	Min	Max
Attendance	18,281	11,756	1,721	65,769
PriceDisp	0.8537	0.3537	0	1
PricePoints	3.48	1.52	1	6
PriceStdDev	46.91	57.84	0	269
Hwinpct	0.4925	0.1906	0	1
$Hwinpct^2$	0.2788	0.2025	0	1
Awinpct	0.4979	0.1946	0	1
NewStadium	0.1650	0.3714	0	1
March	0.0617	0.2408	0	1
April	0.1377	0.3449	0	1
May	0.1392	0.3464	0	1
June	0.1062	0.3083	0	1
July	0.1406	0.3479	0	1
August	0.1521	0.3594	0	1
September	0.1205	0.3258	0	1
October	0.1105	0.3137	0	1
November	0.0316	0.1750	0	1
Weekend	0.7776	0.4161	0	1
Holiday	0.1105	0.3137	0	1
RivalryDerby	0.1176	0.3224	0	1
Relocation	0.0416	0.1998	0	1
TeamsInCity	0.2267	0.4190	0	1
Promoted	0.1220	0.3275	0	1
Population (in 10,000s)	837	312	260	1,427
GRP	8,878	5,500	1,122	20,182
Capacity	40,158	15,384	15,000	66,161
2012	0.3242	0.4684	0	1
2013	0.3443	0.4755	0	1
$n = 697$				

Table II.
Summary statistics

Turning first to the correlations between variables within this research, there are a number of variables which have significant correlations with the dependent variable of *Attendance*. Most relevant to the research questions examining the relationship between pricing strategies, team performance, and attendance, it is evident that *Attendance* does have a negative relationship with the *PricePoints* variable, while also having a strong positive relationship with both the home team's winning percentage, as well as the square of home win percent. First, considering *PricePoints*, this relationship indicates that generally that when there are less prices at which tickets are offered at for CSL matches, then there is higher attendance at these games. Conversely, when the home team win percentage and its square terms are higher, the correlation tables indicate that attendance for these matches should also increase.

Next, focusing on the results from all three regression models, they all returned relatively similar R^2 values ranging between 0.3357 (Model 2) and 0.4495 (Model 1), indicating that the models in this research explained about 33-45 percent of the variation within the data. The results can be found in Table III. Recall, the differences between Models 1-3 are related to the three different of pricing variables included. Considering one of the key factors of interest, price, the results found varying results for the different forms of price dispersion. First, when measuring the existence of price dispersion through a dummy variable (*PriceDisp*), there was no significant relationship between attendance and teams using different forms of price dispersion. However, the more complex measures of price dispersion used in Models 2 and 3 measuring the number of price points (*PricePoints*) and variation in prices (*PriceStdDev*) both variables returned negative and significant results. These findings indicate that the pricing system used by CSL teams does have an effect on demand, and that

	Model 1		Model 2		Model 3	
Variable	Coeff.	SE	Coeff.	SE	Coeff.	SE
PriceDisp	−1,241	1,710	–	–	–	–
PricePoints	–	–	−1,811	416***	–	–
PriceStdDev	–	–	–	–	−29.71	8.56***
Hwinpct	−9,594	5,752*	−11,352	5,687**	−11,968	5,744**
Hwinpct^2	12,268	5,562**	12,851	5,470**	14,577	5,528***
Awinpct	7,463	1,181***	7,395	1,164***	7,558	1,170***
NewStadium	1,331	1,715	568	1,699	1,753	1,700
March	1,474	1,692	1,312	1,669	1,354	1,677
April	2,057	1,454	2,047	1,434	2,119	1,441
May	1,795	1,421	1,877	1,401	1,896	1,409
June	2,275	1,460	2,294	1,439	2,424	1,447*
July	3,629	1,414***	3,679	1,393***	3,765	1,401***
August	4,398	1,398***	4,520	1,378***	4,591	1,386***
September	1,631	1,441	1,614	1,421	1,775	1,429
October	3,427	1,468***	3,419	1,447**	3,537	1,455**
November	–	–	–	–	–	–
Weekend	1,069	563*	1,057	553*	1,183	557**
Holiday	−326	798	−159	788	−303	791
RivalryDerby	5,484	718***	5,478	708***	5,473	712***
Relocation	717	1,971	−2,014	2,004	456	1,891
TeamsInCity	−2,133	1,224*	−2,646	1,207**	−4,278	1,349***
Promoted	4,359	1,333***	3,751	1,319***	4,065	1,321***
Population	−8.01	12.03	−30.63	12.85**	−26.20	12.98**
GRP	0.5919	0.7353	2.17	0.7795***	1.68	0.7640**
Capacity	0.4065	0.1593**	0.3325	0.1508**	0.3601	0.1514**
2012	365	1,073	−1,376	1,021	609	899
2013	761	1,561	−2,904	1,651*	−124	1,406
Constant	−2,686	8,196	13,421	8,891	6,067	8,510

Notes: *$p < 0.10$; **$p < 0.05$; ***$p < 0.01$

Table III.
Regression results

teams with lower numbers of prices at which they sell tickets, as well as smaller variation in prices tend to have higher demand. These results run counter to prior examinations of price dispersion in sport (Watanabe *et al.*, 2013), and suggests that Chinese soccer fans may react differently to pricing systems than fans of North American sport leagues.

There may be a number of reasons for the differences in these results. First, it is possible that the pricing systems used by the CSL are not fully effective in capturing consumer surplus. As the average number of price levels used in China was 3.47, and the highest number of prices to purchase tickets for a match was 6, it is certainly the case that the number of price levels and the variation of prices is much lower than those found in professional leagues in North America, e.g. in baseball (Soebbing and Watanabe, 2014). Thus, it may be that the pricing systems used by the CSL did not have enough price points and spread to effectively reach a large number of consumers, and thus rather than boosting attendance, the practice has actually lowered demand for tickets. Furthermore, in considering the ticket pricing practices in the CSL, it is often the case that many of the newer clubs are the ones who are offering a wider range of price at higher amounts. Even in large market areas such as Shanghai and Beijing, the price of tickets is relatively low, especially amongst the traditional clubs. Thus, it is possible that newer clubs with less following and interest among consumers may be adopting more complex ticket pricing strategies to enhance revenues rather than attendance.

Next, turning focus to the on-field performance of teams, home team win percentage was negative and significant in all three models, while the squared term of this variable was positive and significant in the same models. Thus, a *U*-shaped curve is formed as it relates to the home team winning percentage. This result indicates that there is potential loss aversion among fans for the CSL. In other words, fans are attracted to teams that win a lot of their matches. These results are broadly in line with the findings of Coates *et al.* (2014), which found that fans of Major League Baseball not only preferred teams that won, but also the teams that won often. It should be noted, however, that Coates *et al.* (2014) used betting odds to examine loss aversion, while the present study found similar results using actual game performance measures. In further considering team performance, the results from all models returned positive and significant results for the away team, indicating fans were also attracted to matches with strong opponents. Thus, in CSL matches, it seems to be the case that fans will prefer matches where there is a high level of quality for both teams on the field.

In considering the market variables in this research, the results returned positive and significant results for teams that had rivalry matches in all models, as well as for the GRP in the second and third models. At the same time, new stadiums were insignificant in all models, while population size and the presence of other CSL teams in the same city were both negative and significant. While these findings indicate that larger markets will actually have lower attendance, it also suggests that wealthier regions will have higher demand for viewing soccer matches in China. One explanation for the negative result for population could be due to the migration of workers from rural parts of China to major cities such as Beijing and Shanghai to try and find better paying jobs. Due to the fact that many of these individuals come from areas that do not have an established professional soccer team, it may be the case that many urban areas are growing with individuals who are not as interested or able to attend soccer matches. Another explanation for these results is that these variables are used to measure the population and economic activity of the city they are located in, not the entire built up area around the city including suburbs. A number of studies in North American have employed metropolitan statistical area data to better capture the true size of a market for a sport franchise (Borland and MacDonald, 2003). However, in the case of China, no such official numbers are released for areas other than cities and provinces, and using data for larger areas could significantly change the estimated results of the model (Watanabe, 2012).

At the same time, the rivalry variables indicate that rivalry matches were beneficial in increasing attendance by close to 5,500 people per match, while having rival teams in the same market actually caused attendance to drop by about 2,000 to 4,000 spectators. Thus while rivalry games were helpful to boost match attendance, those teams with rivals in the same city (e.g. Shanghai and Guangzhou) witnessed overall lower match attendance throughout the season. In other words, teams such as Beijing, who have numerous rivals, but are the only team within a wealthy market, are thus likely to have higher attendance because of the lack of competition for fans within a city. In regards to new stadiums, one explanation for the insignificant findings may be that many of the new stadiums that CSL teams play in have been built for mega-events, and have, thus, been repurposed for use by teams. An example of this type of stadium is Shenzhen Ruby, who played in the Bao'an Stadium which was opened in 2011 to host the Summer Universiade. Additionally, it is the case that many of the newer teams formed within the last two decades often play at new stadiums located further away from city centers, where older teams are often established in the core urban areas in a region. Thus, there may be multiple factors at play in regards to why new stadiums are not able to boost attendance in Chinese soccer, as they are in other professional sport leagues. Furthermore, research results by DeSchriver *et al.* (2016) found a significant increase in attendance in soccer-specific stadiums in Major League Soccer. Thus, it may be worthwhile for teams, cities, and leagues to look to repurpose the stadiums into soccer-specific stadiums in order to maximize the ticket price and other stadium revenues associated with the consumption of the match.

Moving on to the remaining factors, scheduling variables were generally insignificant, including holidays, and many of the months during which the season was played. The month variables of June, July, August, and October are positive and significant, a result which can likely be attributed to the July and August being summer holiday months in China, as well as October being the climax of the CSL season. Games played on weekends had significantly higher attendance when compared to weekdays. The relocation variable was insignificant, while teams newly promoted to the CSL had higher attendance on average. Additionally, the season dummy variables were mostly insignificant, except for 2013 which was negative and significant in one model, suggesting possibly lower attendance in 2013 compared to the 2011 season. Finally, stadium capacity was positive and significant in all of the models. These results are similar to the findings from other sport leagues which find that larger stadium sizes allow for larger attendance numbers.

Conclusion and implications

In conclusion, this research examined the importance of a variety of factors in relation to live attendance at CSL matches. Considering that many teams in the CSL are backed by corporations who are seeking to increase consumer interest in their clubs, it would appear to be the case that the important objective for clubs are maximizing attendance at games and on-field performance. In line with the objective of increasing attendance, the results from this research hint at a number of strategic behaviors that may help improve attendance. First off, the pricing strategies within the league seem to indicate that having fewer prices levels and a smaller range of prices at which to buy tickets can help to boost attendance. That is, it seems that many of the clubs in China are pricing their tickets to try and draw as many consumers as possible. Examining the overall data, three of the top six attended matches in this CSL data set occurred in games where there was only a single ticket price, with the other three observations having tickets sold at either two or three price points. Furthermore, it is also evident that most of the top attended games involve relatively strong teams (e.g. Beijing Guoan, Jiangsu Sainty, Guangzhou Evergrande), all of whom are spending large sums of money on obtaining high quality talent, while charging fairly low prices for entrance to their games. Thus, from a strategic perspective, building a strong team and keeping prices low seem to be important for meeting the objective of attendance maximization in China.

However, it also poses difficulties for those clubs whose focus is on revenue or profit maximization, as well as those with less financial resources. With the teams that have the best talent and longest tradition also offering some of the cheapest prices in the CSL, it presents problems for others to challenge these teams in regards to meeting either on-field or off-field objectives. On one hand, if these clubs try to match the larger clubs in regards to the price they charge to get into matches, the fact that they have less talent on the field will make it difficult to compete for fans in the same market. At the same time, if they begin to charge lower prices and reduce their revenue and profit, it may also become more challenging for these clubs to obtain top-level playing talent to meet their on-field performance objectives and remain financially solvent. Therefore, in the current state of the CSL, the lack of any financial regulations and the existence of wealthy owners and corporations have created a state of imbalance in regards to teams being able to meet the objectives of maximizing attendance and on-field performance. This is especially troublesome when one considers Table I, which shows that of the 20 teams which competed in the CSL from 2011 to 2013, two of those teams had to be dissolved.

From all of this, the natural question which arises is what strategies can those less powerful clubs in the CSL use to try and overcome the disadvantages they have in regards to on-field talent and ticket pricing methods? The simplest solution seems to try and attract backing and funding from a wealthy corporation that is willing to use a soccer team as a marketing platform. However, it is the case that many of the clubs already have such ownership groups, yet no one has been able to challenge Guangzhou Evergrande's dominance of the league. The models presented within this research do provide some other ways in which these clubs may attempt to maximize their attendance without having to sacrifice large sums of money to buy talent on the transfer market. First, the models indicated that markets that had higher economic potential did have higher attendance, thus clubs may consider relocation as one potential way to improve demand for their products. Perhaps the most important thing for some clubs would be to build rivalries with other clubs, as matches against rivals increased attendance by about 5,000 on average. One thing that clubs should avoid doing is moving to markets where there are existing clubs (e.g. Renhe who have now moved to the same city as Beijing Guoan), or founding teams in cities that already have CSL clubs (e.g. Shanghai SIPG, who now share the city with Shenhua and Shenxin), as having multiple teams in a market caused attendance to decline. However, considering the current state of the CSL, without any intervention from the league it certainly seems to be the case that the same few teams will continue to dominate in regards to attendance and on-field performance, as these objectives are tied to the profits of larger corporations, and not the actual soccer clubs. Thus, from a strategic standpoint, it may be the case that the league needs to work with all team owners/corporations to improve competitive balance while also ensuring such actions do not hurt the overall growth and potential of the league as a whole.

There are some limitations within this study which must be addressed. First off, this research only considers two years of matches from the CSL. Ideally, future studies would consider longer time periods, however, this inclusion may be difficult to accomplish considering how difficult it is to gather data in regards to pricing, revenue, and other information related to the business of soccer in China. Furthermore, future research should examine the fan loyalty of these teams. Recent research by Jang and Lee (2016) advocated for research in this area within Asian professional sports. Another potential limitation in this study is that all the data, including price levels and attendance for matches, are reported by the league. While it is possible that some of this data could be exaggerated, we attempted to minimize any potential error by cross-checking against fan sites and forums run by Chinese soccer fans which posted similar information. Finally, there is the potential for methodological issues such as omitted variable bias when analyzing attendance at sporting events through

regression modeling. However, as the study used prior theoretical and empirical works examining sport demand as a basis to develop the model and methods used in this research, any potential errors or issues in modeling and estimating results should be minimal.

In concluding, this research makes important contributions to the theoretical understanding of price dispersion and the demand for sport by analyzing the practice in an Asian professional sport league. Through building on prior empirical research on the CSL (Watanabe and Soebbing, 2015), the results suggest that pricing strategies which are used by Chinese professional soccer teams are related to attendance at games by fans. The ownership structure of teams suggests that this could be a strategy by top clubs to dominate the soccer marketplace, and is in opposition to how these pricing strategies are normally used to maximize revenues in other parts of the world (Courty and Pagliero, 2012; Huntington, 1993; Soebbing and Watanabe, 2014). Thus, if the CSL is committed to the current pricing strategy, it will be important for the league to use other factors shown as being significant in this research to try and help smaller clubs to improve their own following. That is, through marketing campaigns which emphasize rivalry/derby matches and strong opponents, the league may be able to expand its profile among Chinese sport fans. Furthermore, this research notes that the way teams in China and Asia approach the use of price dispersion and other new pricing trends needs to be examined in greater detail. As research has noted the differences which exist between Western and Asian sport consumers (Lee and Smith, 2008), it is vital that pricing systems be developed that are effective for the Asian market.

References

Andreff, W. and Scelles, N. (2015), "Walter C. Neale fifty years after: beyond competitive balance, the league standing effect tested with French football data", *Journal of Sports Economics*, Vol. 16 No. 8, pp. 819-834.

Borenstein, S. and Rose, N.L. (1994), "Competition and price dispersion in the US airline industry", *Journal of Political Economy*, Vol. 102 No. 4, pp. 653-683.

Borland, J. and MacDonald, R. (2003), "Demand for sport", *Oxford Review of Economic Policy*, Vol. 19 No. 4, pp. 478-502.

Breitbarth, T., Hovemann, G. and Walzel, S. (2011), "Scoring strategy goals: measuring corporate social responsibility in professional European football", *Thunderbird International Business Review*, Vol. 53 No. 6, pp. 721-737.

Breitbarth, T., Walzel, S., Anagnostopoulos, C. and van Eekeren, F. (2015), "Corporate social responsibility and governance in sport: 'Oh, the things you can find, if you don't stay behind!' ", *Corporate Governance: The International Journal of Business in Society*, Vol. 15 No. 2, pp. 254-273.

Bruggink, T.H. and Eaton, J.W. (1996), "Rebuilding attendance in major league baseball: the demand for individual games", in Fizel, J., Gustafson, E. and Hadley, L. (Eds), *Baseball Economics: Current Research*, Praeger, Westport, CT, pp. 9-31.

Chadwick, S. (2008), "Chinese whispers and urban myths", *International Journal of Sports Marketing & Sponsorship*, Vol. 10 No. 1, pp. 9-10.

Chinese Football Association Super League (2014), "Chinese Super League box scores", available at: http://csl-china.com/h_score.html#2014 (accessed December 15, 2016).

Coates, D. and Humphreys, B.R. (2007), "Ticket prices, concessions and attendance at professional sporting events", *International Journal of Sport Finance*, Vol. 2 No. 3, pp. 161-170.

Coates, D. and Humphreys, B.R. (2010), "Week to week attendance and competitive balance in the National Football League", *International Journal of Sport Finance*, Vol. 5 No. 4, pp. 239-252.

Coates, D., Humphreys, B.R. and Zhou, L. (2014), "Reference-dependent preferences, loss aversion, and live game attendance", *Economic Inquiry*, Vol. 52 No. 3, pp. 959-973.

Courty, P. (2003), "Ticket pricing under demand uncertainty", *Journal of Law and Economics*, Vol. 46 No. 2, pp. 627-652.

Courty, P. and Pagliero, M. (2012), "The impact of price discrimination on revenue: evidence from the concert industry", *Review of Economics and Statistics*, Vol. 94 No. 1, pp. 359-369.

Dana, J.D. Jr (2001), "Monopoly price dispersion under demand uncertainty", *International Economic Review*, Vol. 42 No. 3, pp. 649-670.

DeSchriver, T.D., Rascher, D.A. and Shapiro, S.L. (2016), "If we build it, will they come? Examining the effect of expansion teams and soccer-specific stadiums on Major League Soccer attendance", *Sport, Business and Management: An International Journal*, Vol. 6 No. 2, pp. 205-227.

Dietl, H.M., Lang, M. and Werner, S. (2009), "Social welfare in sports leagues with profit-maximizing and/or win-maximizing clubs", *Southern Economic Journal*, Vol. 76 No. 2, pp. 375-396.

Drayer, J. and Rascher, D.A. (2013), "Sport pricing research: past, present, and future", *Sport Marketing Quarterly*, Vol. 22 No. 3, pp. 123-128.

Du, G.Y. and Guo, M. (2005), "The study of system reform of China Football Super League", *Journal of Tianjin Institute of Physical Education*, Vol. 3 No. 1, p. 26.

Eckard, E.W. and Smith, M.A. (2012), "The revenue gains from multi-tier ticket pricing: evidence from pop music concerts", *Managerial and Decision Economics*, Vol. 33 Nos 7-8, pp. 463-473.

Fort, R. (2004), "Inelastic sports pricing", *Managerial and Decision Economics*, Vol. 25 No. 2, pp. 87-94.

Garcia-del-Barrio, P. and Szymanski, S. (2009), "Goal! Profit maximization versus win maximization in soccer", *Review of Industrial Organization*, Vol. 34 No. 1, pp. 45-68.

Gujarati, D.N. (2003), *Basic Econometrics*, 4th ed., McGraw-Hill/Irwin, New York, NY.

Hong, J., McDonald, M.A., Yoon, C. and Fujimoto, J. (2005), "Motivation for Japanese baseball fans' interest in Major League Baseball", *International Journal of Sport Management and Marketing*, Vol. 1 Nos 1-2, pp. 141-154.

Humphreys, B.R. and Soebbing, B.P. (2012), "A test of monopoly price dispersion under demand uncertainty", *Economics Letters*, Vol. 114 No. 3, pp. 304-307.

Huntington, P. (1993), "Ticket pricing policy and box office revenue", *Journal of Cultural Economics*, Vol. 17 No. 1, pp. 71-87.

Jang, H. and Lee, Y.H. (2016), "A business analysis of Asian baseball leagues", *Asian Economic Policy Review*, Vol. 11 No. 1, pp. 95-112.

Jewell, R.T. and Molina, D.J. (2005), "An evaluation of the relationship between Hispanics and Major League Soccer", *Journal of Sports Economics*, Vol. 6 No. 2, pp. 160-177.

Kolyperas, D., Anagnostopoulos, C., Chadwick, S. and Sparks, L. (2016), "Applying a communicating vessels framework to CSR value co-creation: empirical evidence from professional team sport organizations", *Journal of Sport Management*, Vol. 30 No. 6, pp. 702-719, doi: 10.1123/jsm.2016-0032.

Kopalle, P., Biswas, D., Chintagunta, P.K., Fan, J., Pauwels, K., Ratchford, B.T. and Sills, J.A. (2009), "Retailer pricing and competitive effects", *Journal of Retailing*, Vol. 85 No. 1, pp. 56-70.

La Croix, S.J. and Kawaura, A. (1999), "Rule changes and competitive balance in Japanese Professional Baseball", *Economic Inquiry*, Vol. 37 No. 2, pp. 353-368.

Lawson, R.A., Sheehan, K. and Stephenson, E.F. (2008), "Vend it like Beckham: David Beckham's effect on MLS ticket sales", *International Journal of Sport Finance*, Vol. 3 No. 4, pp. 189-195.

Lee, Y.H. (2006), "The decline of attendance in the Korean Professional Baseball League the major league effects", *Journal of Sports Economics*, Vol. 7 No. 2, pp. 187-200.

Lee, Y.H. and Smith, T.G. (2008), "Why are Americans addicted to baseball? An empirical analysis of fandom in Korea and the United States", *Contemporary Economic Policy*, Vol. 26 No. 1, pp. 32-48.

Leslie, P. (2004), "Price discrimination in Broadway Theater", *RAND Journal of Economics*, Vol. 35 No. 3, pp. 520-541.

McDonald, M. and Rascher, D.A. (2000), "Does bat day make cents? The effect of promotions on the demand for baseball", *Journal of Sport Management*, Vol. 14 No. 1, pp. 8-27.

Mahony, D.F., Nakazawa, M., Funk, D.C., James, J.D. and Gladden, J.M. (2002), "Motivational factors influencing the behaviour of J. League spectators", *Sport Management Review*, Vol. 5 No. 1, pp. 1-24.

Mongeon, K. and Winfree, J. (2012), "Comparison of television and gate demand in the National Basketball Association", *Sport Management Review*, Vol. 15 No. 1, pp. 72-79.

Mullin, B.J., Hardy, S. and Sutton, W.A. (2007), *Sport Marketing*, 3rd ed., Human Kinetics, Champaign, IL.

Neale, W.C. (1964), "The peculiar economics of professional sports: a contribution to the theory of the firm in sporting competition and in market competition", *The Quarterly Journal of Economics*, Vol. 78 No. 1, pp. 1-14.

Pan, X., Ratchford, B.T. and Shankar, V. (2002), "Can price dispersion in online markets be explained in differences in e-tailer service quality", *Academy of Marketing Science*, Vol. 30 No. 4, pp. 433-445.

Plumley, D., Wilson, R. and Ramchandani, G. (2017), "Towards a model for measuring holistic performance of professional football clubs", *Soccer & Society*, Vol. 18 No. 1, pp. 16-29.

Quan, T. and Sun, X.H. (2011), "Factor analysis on competition performance and technical statistics of China Football Association Super League in 2008", *Journal of Applied Statistics and Management*, Vol. 2 No. 1, p. 2.

Rascher, D.A. and Schwarz, A.D. (2012), "Illustrations of price discrimination in baseball", in Shmanske, S. and Kahane, L.H. (Eds), *The Oxford Handbook of Sports Economics*, Vol. 2, Oxford University Press, Oxford, pp. 380-399.

Rascher, D.A., McEvoy, C.D., Nagel, M. and Brown, M.T. (2007), "Variable ticket pricing in Major League Baseball", *Journal of Sport Management*, Vol. 21 No. 3, pp. 407-437.

Rottenberg, S. (1956), "The baseball players' labor market", *The Journal of Political Economy*, Vol. 64 No. 3, pp. 242-258.

Scelles, N., Durand, C., Bonnal, L., Goyeau, D. and Andreff, W. (2013a), "Competitive balance versus competitive intensity before a match: is one of these two concepts more relevant in explaining attendance? The case of the French football Ligue 1 over the period 2008-2011", *Applied Economics*, Vol. 45 No. 29, pp. 4184-4192.

Scelles, N., Durand, C., Bonnal, L., Goyeau, D. and Andreff, W. (2013b), "My team is in contention? Nice, I go to the stadium! Competitive intensity in the French football Ligue 1", *Economics Bulletin*, Vol. 33 No. 3, pp. 2365-2378.

Scelles, N., Durand, C., Bonnal, L., Goyeau, D. and Andreff, W. (2016), "Do all sporting prizes have a significant positive impact on attendance in a European national football league? Competitive intensity in the French Ligue 1", *Ekonomicheskaya Politika/Economic Policy*, Vol. 11 No. 3, pp. 82-107.

Shilbury, D. (2012), "Competition: the heart and soul of sport management", *Journal of Sport Management*, Vol. 26 No. 1, pp. 1-10.

Smith, A.C.T. (2008), *Introduction to Sport Marketing*, Butterworth-Heinemann, Oxford.

Soebbing, B.P. (2008), "Competitive balance and attendance in Major League Baseball: an empirical test of the uncertainty of outcome hypothesis", *International Journal of Sport Finance*, Vol. 3 No. 2, pp. 119-126.

Soebbing, B.P. and Watanabe, N.M. (2014), "The effect of price dispersion on Major League Baseball team attendance", *Journal of Sport Management*, Vol. 28 No. 4, pp. 433-446.

Sohu (2016), "Chinese football association Super League Database", available at: http://csldata.sports.sohu.com/ (accessed December 15, 2016).

Stigler, G.J. (1961), "The economics of information", *Journal of Political Economy*, Vol. 69 No. 3, pp. 213-225.

Tainsky, S. and Winfree, J.A. (2010), "Short-run demand and uncertainty of outcome in Major League Baseball", *Review of Industrial Organization*, Vol. 37 No. 3, pp. 197-214.

Vrooman, J. (2015), "Sportsman leagues", *Scottish Journal of Political Economy*, Vol. 62 No. 1, pp. 90-115.

Watanabe, N.M. (2012), "Japanese professional soccer attendance and the effects of regions, competitive balance and rival franchises", *International Journal of Sport Finance*, Vol. 7 No. 4, pp. 309-323.

Watanabe, N.M. and Soebbing, B.P. (2015), "Ticket price behavior and attendance demand in Chinese professional soccer", in Lee, Y.H. and Fort, R. (Eds), *The Sports Business in The Pacific Rim*, Springer International, New York, NY, pp. 139-157.

Watanabe, N.M., Soebbing, B.P. and Wicker, P. (2013), "Examining the impact of the StubHub agreement on price dispersion in Major League Baseball", *Sport Marketing Quarterly*, Vol. 22 No. 3, pp. 129-137.

Wilson, R., Plumley, D. and Barrett, D. (2015), "Staring into the abyss? The state of UK rugby's Super League", *Managing Sport and Leisure*, Vol. 20 No. 6, pp. 293-310.

Yamamura, E. (2011), "Game information, local heroes, and their effect on attendance: the case of the Japanese Baseball League", *Journal of Sports Economics*, Vol. 12 No. 1, pp. 20-35.

Further reading

Brown, J.R. and Goolsbee, A. (2002), "Does the internet make markets more competitive? Evidence from the life insurance industry", *Journal of Political Economy*, Vol. 110 No. 3, pp. 481-507.

Dana, J.D. Jr (1999), "Equilibrium price dispersion under demand uncertainty: the roles of costly capacity and market structure", *RAND Journal of Economics*, Vol. 30 No. 4, pp. 632-660.

White, H. (1980), "A heteroskedasticity-consistent covariance matrix estimator and a direct test for heteroscedasticity", *Econometrica: Journal of the Econometric Society*, Vol. 48 No. 4, pp. 817-838.

Corresponding author
Nicholas Watanabe can be contacted at: nmwatana@olemiss.edu

For instructions on how to order reprints of this article, please visit our website:
www.emeraldgrouppublishing.com/licensing/reprints.htm
Or contact us for further details: **permissions@emeraldinsight.com**

The current issue and full text archive of this journal is available on Emerald Insight at:
www.emeraldinsight.com/2042-678X.htm

Financial fair play and competitive balance in the Premier League

Christopher John Freestone and Argyro Elisavet Manoli
School of Sport, Exercise and Health Sciences, Loughborough University, Loughborough, UK

Abstract

Purpose – The introduction of financial fair play (FFP) regulations in 2011 was accompanied by criticism that they would have an adverse effect on competitive balance in European football. Counter-points were also expressed, suggesting that the opposite would occur; that they would actually increase competitive balance through reducing the importance of financial power. The lack of clarity and cohesion on this issue prompted this paper. The purpose of this paper is to examine the effect FFP has had on competitive balance in the English Premier League.

Design/methodology/approach – The analysis conducted uses the Herfindahl Index of Competitive Balance as the primary method, and is supported by standard deviation of points analysis and a Scully-Noll ratio analysis, which together provide an indication of the level of competitive balance for each of the past 21 seasons, from 1995/1996 to 2015/2016. This examination allows for the trends in competitive balance to be identified, with emphasis drawn on the seasons after the introduction of the regulations.

Findings – The results provide no indication that FFP regulations have resulted in a decline in competitive balance in the EPL, instead hinting that a positive effect may have been caused. This positive effect exceeds the primary aim of the regulations and underlines their importance in the future stability of club football.

Originality/value – While underlining the need for further research on the topic, this study provides the first insights into the effects of FFP regulations on competitive balance in the EPL. These insights would support the view that FFP initiatives have begun to shift the focus of sporting competition away from financial strength towards more natural means of competition such as efficiency, innovation and good management.

Keywords Football finance, Club football, European football, Sport financial management

Paper type Research paper

Introduction

There exists a growing concern about the financial plight of European club football, which, despite ever-increasing revenues, continually fails to collectively break-even (Storm and Nielsen, 2012). Europe's top-division clubs combined produced a revenue of €13.2 billion for the financial year of 2011, yet the same 734 clubs made a combined net loss of €1.7 billion for the same period (UEFA, 2011; Franck, 2014). Net losses among the 734 clubs increased by 760 per cent over the five-year period between 2006 and 2011 (Franck and Lang, 2013), with 55 per cent of clubs reporting net losses in 2011 (UEFA, 2011). Further, 38 per cent of clubs are in a state of negative equity, with debt levels exceeding the value of club assets (Franck, 2014).

It is against this backdrop that financial regulations were implemented across Europe, initiated by Union of European Football Associations' (UEFA) own financial fair play (FFP) regulations. Such regulations provide a means through which to introduce discipline and rationality to European club football finances to help safeguard the stability of European football (UEFA, 2015).

Despite the good intentions of FFP, criticism exists about the regulations, particularly regarding suggestions that financial regulations will have an adverse effect on the competitive balance within European football (Lindholm, 2010; Sass, 2014; Szymanski, 2014). This issue has gained significant attention in the literature to date and yet it still warrants further analysis. Consequently, it is the intention of this study to investigate this line of argument in order to determine if it holds any justification. This study will employ a

Sport, Business and Management:
An International Journal
Vol. 7 No. 2, 2017
pp. 175-196
© Emerald Publishing Limited
2042-678X
DOI 10.1108/SBM-10-2016-0058

methodology of three different statistical measures (the Herfindahl Index, Scully-Noll ratio, and standard deviation of points) in an attempt to produce a set of results which can offer an insight into the effects FFP regulations have had on the competitive balance in the English Premier League. The results should also provide insights into the trends in competitive balance in the EPL, facilitating further discussion and analysis on the subject of competitive balance.

The paper is organised into five sections. Following this introduction, the theoretical foundations of this study are discussed, before its research design is examined. Next, the study's findings will be presented in detail, while investigating the effects of FFP on competitive balance. Finally, the implications of the conclusions to emerge from this research are discussed, as well as some recommendations for future research on the subject.

Theoretical background

This section will explore the existing body of literature on the subjects of competitive balance and FFP in order to provide the foundations upon which this study was conducted. The review will begin with the concept of competitive balance as it is the central theme underpinning this research.

A central element to any sporting contest is the concept of competitive balance; the notion that "competitors must be of approximate equal 'size' if any are to be successful" (Rottenberg, 1956, p. 242). Competitive balance is based upon the premise that sporting contests must contain elements of unpredictability and has an uncertain outcome in order to provide entertainment value for spectators (Humphreys, 2002; Kesenne, 2007). What is being argued, is that in contrast to traditional economic theory, the sport "product" is an indivisible, joint-production between the participating teams within a particular league, dependent upon the cooperation and input of every team (Morrow, 2003; Goossens, 2006; Lee and Fort, 2012). Whereas in business the ideal is to achieve a monopolistic position over the competition (as far as the law permits), in sport "pure monopoly is a disaster" because sports teams need opponents of comparable strength to compete against (Neale, 1964, p. 2).

Competitive balance is a topic that has stirred on-going debates within academia regarding its relation with league organisation and club focus. The former has been explored through the study of potential factors of influence, such as gate and TV revenue sharing (Feess and Stähler, 2009; Grossmann *et al.*, 2010), talent distribution (Kesenne, 2006; Winfree and Fort, 2012), salary caps (Dietl, Lang and Rathke, 2011), promotion – relegation system (Andreff, 2011), investment regulations and taxes (Brandes and Franck, 2007; Dietl *et al.*, 2010), number of opponents, and participation in international competitions (Pawlowski *et al.*, 2010). The relations developed both among these factors and between them and competitive balance have attracted contradicting views, while their effects have also been linked with the discussion on the profit vs win-maximisation focus of each club (Dietl *et al.*, 2009; Dietl, Grossmann and Lang, 2011; Madden, 2015).

As a result, measuring competitive balance is also considered an area of disagreement amongst academics. A number of methods for measuring competitive balance within sports leagues have been proposed, varying based on the nature and rules of the league (closed or open, introduction of taxes, revenue sharing, see Brandes and Franck, 2006, 2007), the rules of game (possibility of a draw, see Michie and Oughton, 2004) and the talent distribution rules (open or closed market, salary caps see Szymanski and Kuypers, 2000) of the league. Among the many measures of competitive balance are the Herfindahl Index of Competitive Balance (Michie and Oughton, 2004; Pawlowski *et al.*, 2010), standard deviation of points (Koning, 2000; Szymanski and Kuypers, 2000), and the Scully-Noll ratio (Cain and Haddock, 2006; Lee and Fort, 2012), all of which will be discussed in the Methodology section of this study.

While a clear and unanimously accepted answer to the on-going debates surrounding competitive balance has yet to be found, what is evident through the literature, is that the dynamics of competition in club football have now created an environment in which

financial resources are increasingly more important as a competitive driver (Franck, 2010). Wealth is the currency with which playing and managerial talent is purchased, therefore financial resources have become an integral antecedent to success, suggesting that European club football has developed into a win-maximisation environment, leaving behind the model of profit maximisation which previously dominated European football, and remains the most popular ownership model in US sports (Wilson *et al.*, 2013; Franck, 2014). It is for this reason that financial resources in club football are commonly mismanaged and misused, spawning a great deal of concern over the future of European club football and its lack of function efficiency focus (Wilson *et al.*, 2013).

The situation is concerning for two primary reasons: first, it has created a financially unstable and volatile environment which could ultimately threaten the long-term viability of European club football (Lago *et al.*, 2006; Franck, 2014; Manoli, 2014). In English football alone, between 1962 and 2009 there were 96 recorded cases of insolvency among 79 different clubs, with 13 clubs facing multiple instances of financial collapse (Beech *et al.*, 2008). Insolvency continues to afflict English football with the most high-profile instance involving Leeds United entering administration in 2007. Having mortgaged the club's future income on the gamble of continued qualification to the UEFA Champions League, Leeds United failed to qualify in 2002 and were consequently left with large amounts of unserviceable debt (Morrow, 2003; Grundy, 2004). By the time Leeds United entered administration in 2007, the club was playing football in the third division, with debts having peaked at £120 million along the way (Buraimo *et al.*, 2006).

Administration is a favoured option among football clubs facing insolvency as it is a process designed to help ailing businesses rather than punish them (Beech *et al.*, 2008; Szymanski, 2012). Administration proceedings grant administrators temporary control of the indebted business in order to restructure the company finances, with the aim of finding a way to repay creditors as fully as possible (Best, 2011). Following an agreeable debt settlement, the business is permitted to restart anew if it remains commercially viable, thus avoiding the need for the total liquidation of the business and all of its assets (Beech, 2010). In all, 22 Football League clubs alone experienced administration between 1999 and 2004, almost a quarter of the 92 clubs that comprise the Football League (Buraimo *et al.*, 2006). Administration allows clubs to write off or significantly reduce the level of their debts, thus providing a platform from which to start anew without the burden of debt. This inevitably results in the creditors of football clubs being left short-changed, effectively subsidising the irresponsible financial behaviour of clubs without any choice in the matter due to the social and cultural importance of football clubs (Szymanski, 2012). The survival of football clubs is viewed as highly desirable and as such there is a reluctance, particularly among state creditors, to call in overdrafts and overdue bills in recognition of the potential wider social problems that could be triggered (Buraimo *et al.*, 2006; Beech *et al.*, 2008).

Fully cognisant of the special regard in which they are held, football clubs have taken to exploiting their unique positions of power, in the knowledge that they are effectively insured against financial failure by the state (Franck, 2014). The expectation of *ex post* support is a characteristic of soft budget constraints, a concept developed to describe the state support typically received by loss-making firms in socialist economies, but which also applies to most public sector institutions and the banking and finance sectors (Storm and Nielsen, 2012). Such soft budget constraints are also in evidence in European football, contributing to the creation of a culture in which clubs believe they are too big, and too important to fail (Preuss *et al.*, 2014). It is currently the case that a substantial number of European football clubs are technically bankrupt, with the EPL less than a year from bankruptcy if evaluated as a "normal" business (AT Kearney, 2010; Franck, 2014).

The second major concern is the increasing prevalence of "financial doping", the practice of relying on significant funding from external benefactors in order to cover perpetual

losses, thus gaining a financial advantage over the competition (Muller *et al.*, 2012). These external benefactors, or "sugar daddies", invest enormous amounts of money into clubs and become their owners, typically for the prestige and utility associated with sporting success, and with little or no regard for the financial losses such endeavours require (Lang *et al.*, 2011). It is now the case that over half of Europe's top-division clubs are perpetual loss makers, spending money they do not have (Beech *et al.*, 2008). The application of the term "doping" to this context is indicative of clubs' attempts to gain an illegitimate advantage through the artificial manipulation of the natural competitiveness inherent in sport (Schubert and Könecke, 2015). The consequence of this phenomenon has been the negative distortion of competitive balance both within and between European leagues (Schubert and Könecke, 2015). The competitive balance within each of Europe's top five leagues has been declining since the turn of the millennium, coinciding with the huge increases in domestic and Champions League prize money (Curran *et al.*, 2009; Pawlowski *et al.*, 2010; Lee and Fort, 2012). UEFA now distributes as much as €1 billion per season among the participants of each year's Champions League tournament on a pro-rata basis, but over the last decade half of all Champions League money has been distributed among just ten clubs (Szymanski, 2014). Furthermore, the market value of the smallest teams from each of the top five divisions during the 2006/2007 season was far below €50 million, whereas a number of the most valuable clubs had a market value well in excess of €300 million (Frick, 2007; Pawlowski *et al.*, 2010). Among Europe's top five leagues only the Spanish League has a lower competitive balance than the EPL, a symptom of the huge financial rewards on offer in English football (Goossens, 2006; Haan *et al.*, 2007; Naghshbandi *et al.*, 2011).

The phenomenon of "financial doping" developed in response to the increasing financial rewards offered in European football, greatly increasing the incentives for success. The situation that has developed since has seen clubs spending beyond their financial means, incurring huge debts as they are locked into an inflationary spiral of ever-increasing transfer fees and salaries as they chase sporting success and the financial rewards that result (Hill, 2011). According to Kesenne (2006) and Solberg and Haugen (2010), it is the win-maximising nature of European football clubs that has made clubs irresponsible and profligate in their spending behaviour, as they seek to fulfil their single-minded objectives of sporting success by any means necessary. This destructive "arms race" (Franck, 2010) that has developed sees clubs risking their long-term financial health in order to achieve short-term sporting success (Storm and Nielsen, 2012; Schubert and Könecke, 2015). In such an environment the sporting competitiveness of a club is not determined by its profitability or financial liquidity, but by its spending power (Franck, 2010, 2014). Beech *et al.* (2008) go so far as to suggest that administration has become a legitimate business tactic for clubs looking to spend their way to sporting success, entirely neglecting the fundamental elements of a profit-maximisation or function efficiency strategy that aim to ensure the financial stability and sustainability of a firm (Wilson *et al.*, 2013).

It is against these rising concerns that UEFA introduced its own FFP regulations, designed to regulate the financial behaviour of clubs competing in UEFA club competitions. Whilst there are 734 top-division clubs across Europe, only 235 each season qualify to play in UEFA competitions and as such UEFA's FFP regulations only ever apply to 235 of the 734 top-division clubs each season (Szymanski, 2014). As a result, the EPL, Football League, and numerous other national associations across Europe have since implemented their own variations of financial regulations to ensure that all clubs are obliged to adhere to certain financial standards (Hill, 2011).

UEFA's FFP regulations are intended to: encourage responsible spending, protect the creditors of clubs, and encourage clubs to operate on the basis of their own revenues, all of which contribute to the overarching objective of protecting the long-term viability and

sustainability of European club football (UEFA, 2015). These objectives are to be achieved through two mechanisms of the regulations; the no overdue payables rule and the break-even rule (Peeters and Szymanski, 2014). The no overdue payables rule is designed to protect against the non-payment and delayed payment of liabilities by clubs to their employees, social and tax authorities, and other football clubs. This element of the regulations will bring football clubs in line with standard business practice and serve to protect creditors from becoming involuntary investors in clubs (Szymanski, 2014).

Compliance with the break-even rule is also necessary, requiring clubs to balance their expenses and income (UEFA, 2015). Whilst there are some exceptions to this rule (Szymanski, 2014), and a transitional period during which an "acceptable deviation" is permitted, the break-even rule will eventually require clubs to balance their books completely in order to be admitted into UEFA club competitions. The various other adaptations of FFP regulations in place across Europe differ slightly in their specific details but all are derived from UEFA's FFP regulations and are, therefore, built upon the same legal framework.

Despite the concerns surrounding European football which led to the introduction of financial regulations, and the active involvement of clubs in seeking out these changes (Geey, 2011), FFP regulations, and UEFA's FFP regulations in particular, have received a number of criticisms. Critiques have centred around: the legality of FFP regulations (Long, 2012; Peeters and Szymanski, 2014; Szymanski, 2014); the belief that FFP regulations will cause a reduction in the quality of all teams (Drut and Raballand, 2012; Madden, 2012); the belief that FFP regulations will create an unnecessary downward pressure on players' wages (Dietl *et al.*, 2009; Peeters and Szymanski, 2012; Preuss *et al.*, 2014); and the fact that such regulations will prevent the industry from benefiting from substantial injections of external financing (Madden, 2012; Franck, 2014).

However, the criticism that has gained most attention among academics relates to the negative effects that such strict financial regulations could have on competitiveness. The break-even requirement is viewed as being analogous to a relative salary cap, whereby each club is constrained in its spending power by its own market potential, thus making it difficult for smaller clubs to compete (Lindholm, 2010; Sass, 2012). The effect would be to further entrench the existing hierarchy of European club football, strengthening the power of the wealthiest clubs by restraining the smaller clubs (Sass, 2014; Szymanski, 2014). This argument is based upon the premise that spending power provides the true competitive advantage in football, making it "almost impossible to catch-up to the bigger clubs without external funding" (Vopel, 2013, p. 17). Nevertheless, Franck (2014) offers an alternative view, suggesting that FFP restores the incentives for good management and innovation, providing a more reliable way to disrupt the established hierarchy. Furthermore, Franck (2014) proposes that limiting clubs to their own market potential will actually serve to reduce the competitive gap between favourites and underdogs by restricting the advantage bigger clubs can gain from benefactor money.

It is the case that European football has always been characterised by a competitive imbalance, with most leagues having been dominated historically by no more than three or four teams (Peeters and Szymanski, 2014). Furthermore, the competitive balance within European football has been in decline ever since the 1990s, affecting both intra-league and inter-league competitiveness (Pawlowski *et al.*, 2010). As of 2012, the number of titles won by the three most successful clubs in each of Europe's top five leagues had risen to 77 per cent, but this is only a modest increase from the figure of 71 per cent for the period 1971-1991 (Peeters and Szymanski, 2014). The competitive state of European football prior to FFP provided no evidence to suggest that a reversal in the negative trend of competitive balance was forthcoming. Thus, whilst the FFP regulations detail no specific objective or intention of addressing the issue of competitive imbalance within European football (Lindholm, 2010),

the regulations serve to shake up the rules and disrupt the status quo (Franck, 2014). The status quo was characterised by a disequilibrium in competition and a volatile financial situation, and FFP serves at least to introduce discipline and rationality to European football, and shifts the focus of competition from external financial injections to good management and efficiency. This should ultimately narrow the avenues for gaining instant success through cash injections, encouraging more organic investment and growth (Geey, 2011).

Despite the conjecture on this subject, no analysis has yet been carried out to assess the level of competitive balance in the EPL since the implementation of financial regulations. Therefore, it is difficult to reliably evaluate what impact, if any, such regulations have had on competitive balance. In the absence of any evidence it is difficult to assess the credibility of such conjecture, and thus improper to pass any judgement on the potential impacts or effectiveness of FFP regulations. For this reason, the present study will carry out an analysis of the competitive balance in the EPL over the past 21 seasons, in order to deliver a clearer understanding of the competitive balance trends and effects of the FFP regulations over recent years.

Methodology

As the review of the literature surrounding FFP regulations in European football has highlighted, there exist a number of arguments suggesting that the introduction of these regulations will reduce the competitive balance in European club football, and in particular, the Premier League. It is therefore the intention of this research to investigate the value of such claims through an analysis of the relevant data in order to either substantiate or reject the theory that FFP has a negative effect on competitive balance in the Premier League.

Competitive balance is a measure of the relative performance of every team within a particular sports league, used to give an indication of how evenly matched the teams are (Goossens, 2006). There is no single measure of competitive balance, with the appropriate measures varying depending on the rules, structure and format of the sporting competition in question. This research will be conducted on the basis of the points totals of each team at the end of every season as this metric provides the most accurate indication of overall performance (Evans, 2014). The Premier League awards teams one point for a drawn match and three points for a victory (Premier League, 2015), therefore any metric used here must incorporate both wins and draws to be considered a valid measure of overall performance. Equally, league position is determined by the number of points each team collects over the duration of the season, with the team with the highest points total winning the league (Premier League, 2015), thus it is logical to assess performance based upon the same metric.

Nevertheless, points are not the only metric that can be used to assess relative performance; win percentage, goals scored, goals conceded, goal difference and league position can all be employed as proxies for performance. Win percentage is commonly used to assess performance in North American sports, as they typically function on a win-loss basis, playing out every game to a victory to avoid tied games (see Scully, 1989; Quirk and Fort, 1992). The number of goals scored and/or conceded by a team can provide some useful information about the relative performance of a team, but as a standalone indicator of performance it can be misleading. Match results, and therefore points, are not determined by the total number of goals scored and conceded but instead by the number of goals scored relative to the opposition in each given match, thus scoring lots of goals or conceding few does not guarantee victory or the collection of any points. Finally, the use of league position as an indicator of performance can also be misrepresentative, as league position does not provide any indication of the relative points difference between each position. It is the points-based system that best encapsulates the overall and relative performance of every team within a league of this nature (Evans, 2014).

The Herfindahl Index of Competitive Balance will be employed as the primary measure of competitive balance in this study, but in order to ensure robustness the results will be cross-examined with two other measures of competitive balance: standard deviation of points, and the Scully-Noll ratio. The Herfindahl Index is a measure developed to assess the inequalities that exist between all of the firms in a given industry, and it has since been adapted as a means by which to analyse the competitiveness of sports leagues (Michie and Oughton, 2004; Brandes and Franck, 2006). When analysing a sports league of the format of the Premier League, the market share variable is substituted for each club's share of points, as points are the currency with which performance and success are measured in the EPL.

Regarding the other two measures to be employed, both are based on standard deviation calculations. The standard deviation of points measure provides a statistical measure of the distribution of points among each club relative to the average points total for the league (Goossens, 2006). The Scully-Noll ratio builds on the results produced by the standard deviation of points analysis by comparing the actual standard deviation value for each season with an idealised standard deviation figure based on a theoretical league that is equally balanced (Noll, 1988; Scully, 1989; Lee and Fort, 2005).

Competitive balance values will be produced for each of the past 21 Premier League seasons, starting with the 1995/1996 season through to the 2015/2016 season, using each of the three methods listed above. The 1995/1996 season was chosen as the starting point of the data set because it was the first season to feature just 20 teams, in line with the format of the league at present. Both the Herfindahl Index and standard deviation calculations are a function of the number of teams in a league, therefore it is important that the league format remains consistent throughout the data set to ensure the reliability of the results (Michie and Oughton, 2004). With a representative and comparable statistic for each season it will then be possible to compare the results over the 21-year period to identify any trends that may have occurred. In particular, a comparison of data before and after the introduction of FFP in 2011.

The results of this analysis will also be complimented by a measure of the range between the total number of points for the top-ranked team and the bottom-ranked team, providing a simple indication of the spread of points in the league. Whilst the range measure takes no account of the concentration of data between the highest and lowest data points and therefore should not be employed in isolation, it does provide an alternative indication of competitive balance, which can be utilised alongside the three aforementioned primary measures to provide a more representative overall impression of competitive balance (see Appendix 3).

FFP regulations have only been in effect since the start of the 2011/2012 season and therefore there is only five seasons worth of data to analyse. The introduction of FFP has been staggered over a number of seasons so as to assist clubs with the transition to the new regulations. Consequently, there has been limited time for the FFP regulations to have an effect on the competitive balance within the Premier League, be it positively or negatively. Since the introduction of FFP regulations in 2011 all clubs will have had to begin the process of bringing their club finances in line with the new regulations, yet acceptable levels of deviation from the break-even requirement are still permitted, and thus the full effects of FFP may not be truly felt until the acceptable deviation level is lowered to zero.

Equally, the unpredictable nature of sport, and particularly of European club football means that there are natural fluctuations in club performance levels every year (Buraimo *et al.*, 2007), and therefore it could be difficult to differentiate between the natural fluctuations in competitive balance and any changes that may have occurred due to the introduction of FFP. Even if the results were to suggest a noticeable shift in competitive balance has occurred since the introduction of FFP, it will be difficult to attribute this change directly and solely to FFP with full confidence as there are many other factors that can potentially impact upon competitive balance. Nevertheless,

examining the trends in competitive balance and any effects the FFP regulations might have had in the PL can provide valuable insights for the future of European club football and its management.

Findings and discussion

After data from the 21 PL seasons were collected from the official website (see Appendix 1 – Premier League, 2016a), they were analysed using the Herfindahl Index, Scully-Noll ratio and standard deviation of points, to provide measures of competitive balance (see Appendix 2). Based upon the share of total points each club achieves relative to the rest of the competition, the Herfindahl Index produces a figure to illustrate the depth of inequality that exists between the clubs of a league. In a 20-team league such as the EPL, the Herfindhal Index results will fall within the range of 0.05-0.07, where 0.05 represents a perfectly balanced league and 0.07 represents a perfectly unbalanced league (Michie and Oughton, 2004).

Initial observations of the minimum, maximum and mean points values (Figure 1) and the points differentials (Figure 2) highlight the varied and unpredictable nature of football (Buraimo *et al.*, 2007). As can be seen in the data, even though the EPL will always develop into a natural hierarchy, the absolute points totals can vary significantly between individual seasons. This serves to highlight that comparisons made on an individual season basis can be limited, with long-term trends proving much more revealing and representative.

This becomes clear when examining the range calculations, which measure the point differential between 1st position and 20th (last) position. Figure 3 shows how varied the range can be from season to season, with a low of 41 points and a high of 76 points over

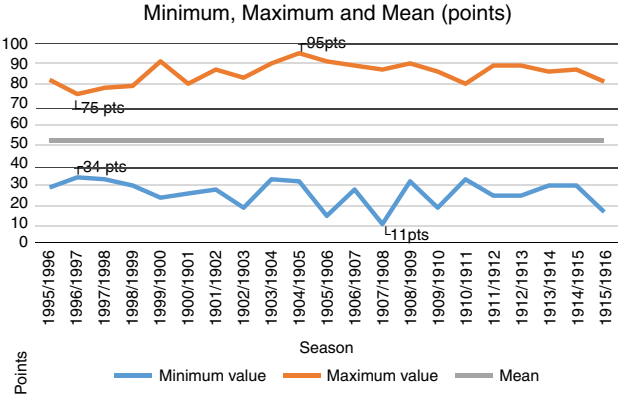


Figure 1.
Minimum, maximum and mean points values

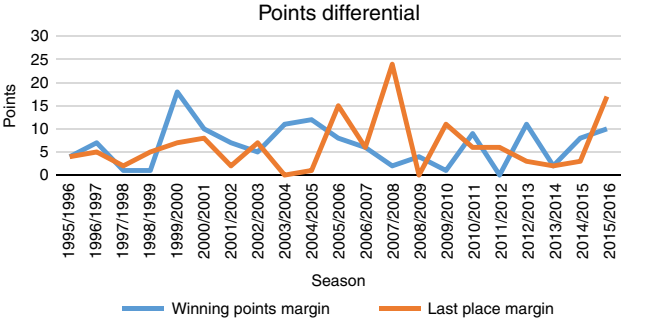


Figure 2.
Points differentials (winning margin and last place margin)

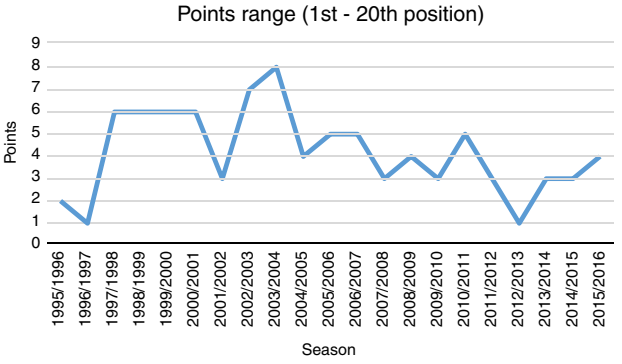


Figure 3.
Points range (1st-20th position)

the previous 21 seasons. It is interesting to note that the 76-point differential, achieved in 2005/2006 and 2007/2008, is larger than the winning points total in 1996/1997 (75 points), and larger than the points totals of second-placed teams on four occasions. In light of the fact that Sunderland FC finished bottom of the league in 2005/2006 and had the league's lowest market value (€36,550,000), while Chelsea FC won the league with the highest market value (€366,075,000), the 76-point differential between the two teams appears more understandable (Frick, 2007). The fact that Watford FC finished bottom of the league the following season with a market value of just €20,800,000 and Chelsea FC (€404,775,000) finished second highlights the sheer importance of financial strength as a driver of competition (Frick, 2007; Franck, 2010). When wealth is such a key factor in sporting success it encourages risky and irresponsible financial behaviour as clubs seek any means by which to win (Franck and Lang, 2013). The over-inflated importance and misuse of financial resources are the two primary areas that FFP regulations are aimed to address (Muller *et al.*, 2012).

When the range is analysed using a three-season moving average (see Figure 4) trends emerge more clearly as the data spikes are smoothed out. Figure 4 illustrates a clear upward trend in the range between 1996/1997 and 2005/2006, increasing from 41 points in 1996/1997 to 76 points in 2005/2006. From the peak of 2005/2006 there has been more of a downward trend in the range, although this trend is much less smooth – a result of considerable fluctuations every season between 2005/2006 and 2011/2012. A downward trend in range is desirable as it provides evidence of a closer concentration of the data, although in isolation it is an inadequate measure of competitive balance. However, the range results, combined with the maximum and minimum points totals, can help to allay concerns that FFP will reduce

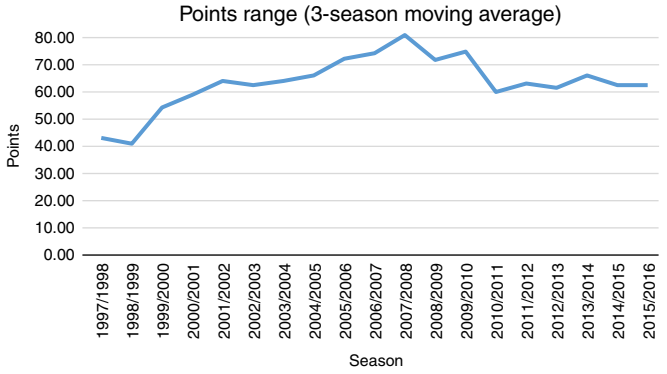


Figure 4.
Points range (three-season moving average)

the quality of the EPL overall (Madden, 2012). The average winning points total over the five seasons since the introduction of FFP (86.4 points) has been marginally higher than the average for the entire data set (85.5 points), whilst the average range and bottom-ranked points totals for the past five seasons have also been within two points of the 21-season average (1.85 points and 0.93 points, respectively). The limited change in these numbers would indicate that there has been no significant change in the overall quality of the EPL, counter to concerns expressed by Madden (2012).

The Herfindahl Index results (see Figure 5) suggest there has been a general decline in competitive balance in the EPL since 1995/1996, supporting existing research in this field (Michie and Oughton, 2004; Goossens, 2006; Pawlowski *et al.*, 2010). The Herfindahl Index results are supported by a set of analogous results from both the Scully-Noll ratio and the standard deviation analysis (see Appendix 4). From 1996/1997 through to 2007/2008 there is an undeniable upward trend in Herfindahl Index values, with the results increasing from 0.052659 (the lowest data point) to 0.056842 (the highest data point). This negative trend in competitive balance can at least in part be attributed to the sizable financial disparities that developed between clubs during this period, caused by vast increases in prize money being awarded for sporting success, as Drut and Raballand (2012) and Lee and Fort (2012) argue. The phenomenon of money coming to money and the absence of any true revenue sharing mechanisms ensures that the wealthy and successful clubs earn a disproportionately large share of income, to the detriment of the remaining majority of clubs (Szymanski and Késenne, 2004; Lee and Fort, 2012). Pawlowski *et al.* (2010) focused specifically on the effect that increases in UEFA Champions League payments had on competitive balance, producing a range of results that support the suggestion that the increase in financial rewards has led to a decrease in competitive balance in the EPL (and elsewhere in Europe). Goossens' (2006) results also highlight the central role of Champions League payments in triggering a decline in competitive balance and creating a wealthy elite of clubs at the top of the league. Indeed, in three consecutive seasons between 2006/2007 and 2008/2009 the points differential between 4th and 5th position was 8 points, 11 points and 9 points, respectively. Furthermore, over the ten-year period from 1998/1999 to 2007/2008 only seven different teams finished in one of the top four league positions, and 85 per cent of the time it was the same four teams that occupied these four positions (Curran *et al.*, 2009). As Michie and Oughton (2004) and Vopel (2013) argue, this sign of "domination" suggests that the EPL is functioning as an oligopoly that is difficult to challenge and almost impossible to sustain a challenge against, mainly due to the revenue rewarding nature of finishing in the top positions and subsequently qualifying for participation in European competitions (Pawlowski *et al.*, 2012).

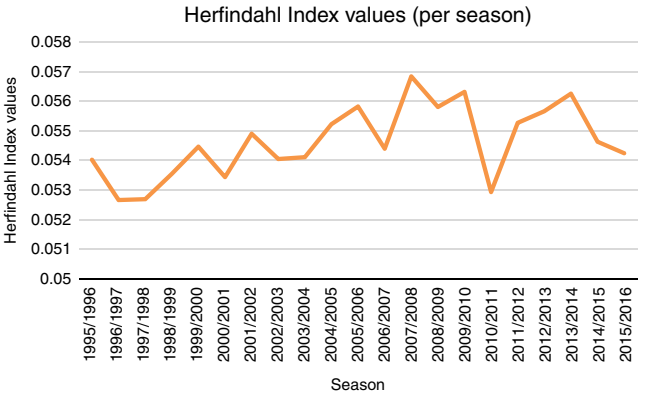


Figure 5.
Herfindahl Index values

After the peak value in 2007/2008 the trend is more towards a general decline in Herfindahl Index values, although this incorporates four seasons of decline and four seasons of growth. The results show a fluctuation in the data almost every season, with a constant pattern of an increase in competitive balance followed by a decrease in competitive balance in the subsequent season, resulting in the high frequency of data spikes in Figure 5. The major standout is the large, negative spike in 2010/2011 – a figure of 0.052931 – which was a decline of 0.003387 from the previous year, and 0.002341 lower than the value for the season that followed; 0.052931 is the third-lowest value in the data set, and the lowest figure since 1997/1998, making it somewhat of an anomaly, particularly considering that the seasonal values had not dropped below 0.054 since 2000/2001, and have not done so since.

A closer observation of the 2010/2011 data illustrates why the Herfindahl Index value is so low (relative to the data set). The 2010/2011 season produced the third-lowest range figure in the data set; this can be attributed to having the second-highest score for the bottom-ranked team (33 points), and a relatively low winning points tally of 80, making the points differential just 47 points – 20 points fewer than the range for the previous season. Additionally, the mean number of points for the 2010/2011 season was 51.45; eight clubs came within six points of the mean (7th-14th position), and were separated by just eight points. Furthermore, the five clubs in positions 15 through 19 were separated by just four points, and together these 13 clubs were separated by a total of just 15 points – that is, 65 per cent of the league's clubs separated by just 32 per cent of the total points range. This tight grouping of clubs has the effect of negating the impact of some of the larger points differentials present between certain clubs elsewhere in the league, such as the winning margin of nine points, the margin of six points between 4th and 5th position and 19th and 20th position, and the five-point differential between 7th and 8th position (see Figure 6). That the league is incredibly close from 7th position through to 19th is indicative of the relative financial parity that exists below the exclusive group of "rich" clubs at the top of the table, which secure an additional income from participating in European competitions (Pawlowski *et al.*, 2010; Vopel, 2013). It is only at the summit of the table where the larger point-gaps emerge as the larger disparities in wealth are reflected in sporting performance, with further divisions between the rich and the mega-rich (Lang *et al.*, 2011). Thus, whilst it is clear from the data that the 2010/2011 season was relatively competitive (particularly in mid-table), the fact that larger point-gaps were present elsewhere in the league cannot be overlooked, and should be considered when viewing the Herfindahl Index value of 0.052931.

Interestingly, this season of relatively high balance in competition was directly preceded by the peak period of imbalance, during which the Premier League experienced three of the five highest Herfindahl Index values in consecutive seasons. Additionally, the 2010/2011 season was the final season before the introduction of FFP regulations, thus it is possible

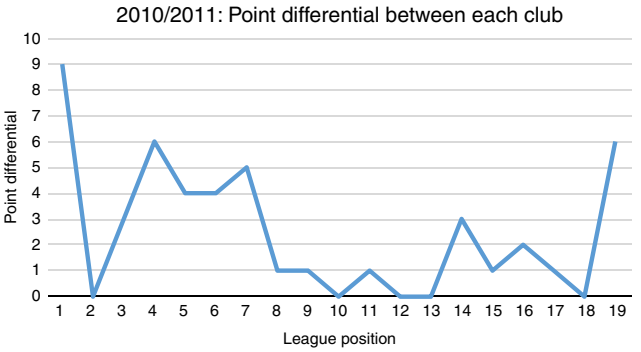


Figure 6.
Point differential between each club (2010/2011)

that at least some of the increase in competitive balance can be attributed to readjustments made by clubs in preparation for the new regulations.

UEFA's FFP regulations were introduced at the start of the 2011/2012 season, with the first assessment of the break-even requirement occurring after the 2012/2013 season (UEFA, 2010). Under the current format the break-even requirement limits acceptable losses to €45 million for the first monitoring period[1], €45 million for the second monitoring period and €30 million for the following three monitoring periods (UEFA, 2010). Whilst the Herfindahl Index values increased year-on-year during the first three seasons of FFP, the two subsequent seasons saw successive declines in Herfindahl Index values. The first monitoring period (covering the 2011/2012 and 2012/2013 seasons) coincided with a marginal decrease in competitive balance suggesting that the €45 million acceptable loss was too lenient to have much of an impact upon spending. The following season competitive balance decreased again, but more significantly this time, potentially a result of clubs maximising the remainder of their €45 million allowance during the final year of the monitoring period. Following the first two monitoring periods the acceptable loss was reduced to €30 million, with the more stringent limitations coinciding with an increase in the competitive balance in the EPL. The tightening of UEFA's regulations also coincided with the introduction of the EPL's own FFP regulations, which limit clubs to aggregate losses of £105 million for every three-year period (Premier League, 2013).

The 2014/2015 and 2015/2016 seasons saw a year-on-year increase in competitive balance – only the second occasion during the selected time period that the competitive balance values increased for two consecutive seasons. Additionally, the 2015/2016 season produced the lowest Herfindahl Index score since 2003/2004 (2010/2011 anomaly aside), and returned to a score almost level with the first data point in 1995/1996. It is worth noting that the Herfindahl Index value for 2015/2016 has actually been distorted upwards by the large differentials at the top and bottom of the league (see Figure 7), without which the league would have been considered even more competitive than the 0.054244 Herfindahl Index value suggests. These results indicate that the FFP rules may be having some effect on the competitive balance within the Premier League, contributing to an increase in equality and competitiveness.

The defining feature of the 2015/2016 season was the overall victory by Leicester City – only the sixth team to win the league in the EPL era, and the first first-time winner of the top-division since Nottingham Forest's victory in 1977/1978. According to EPL data (Premier League, 2016b) 47 different teams have appeared in the EPL since 1992 and yet only six teams have been able to win the league title. Furthermore, 20 of the 24 EPL titles have been shared among just three clubs (Manchester United, Chelsea, Arsenal) demonstrating just how difficult it has traditionally been to break the stranglehold of the

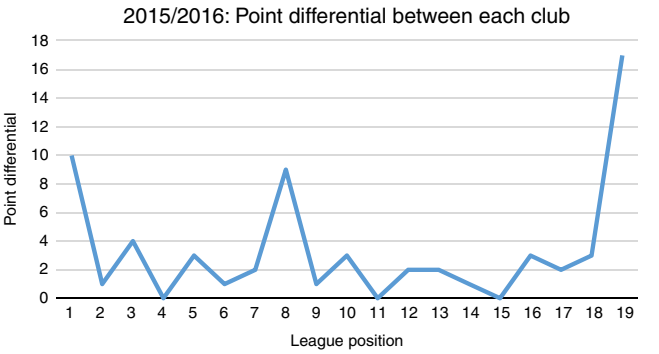


Figure 7.
Point differential between each club (2015/2016)

wealthy clubs at the top. Indeed, prior to the 2015/2016 season, only six different clubs had featured in the top four of the EPL over the previous decade, with one of the three aforementioned clubs missing out on a spot in the top-four on just two occasions. However, more promisingly for the competitive balance of the EPL, the last four seasons have produced four different title winners and seven different teams have finished in the top-four.

The fact that Leicester City had finished the previous season at the 14th position with just 41 points illustrates that upward mobility is becoming increasingly possible with clubs no longer frozen into the long-established hierarchy (Michie and Oughton, 2004). According to Curran *et al.* (2009), this change has been assisted by the continual increase in the value of broadcasting rights income in the EPL, making all clubs wealthier and reducing the relative disparity in income that has been an ever-present feature of the league in recent years. The 2013 domestic broadcasting rights deal worth £3.018 billion made every EPL club much wealthier, while at the beginning of the 2016/2017 season the new £5.136 billion deal will become active, reducing further the disparities in income between clubs (BBC, 2015). As of 2014/2015, 17 EPL clubs were among the richest 30 clubs in world football (expected to include all 20 clubs after income from the new deal) and this has served to reduce the relative importance of absolute wealth (Deloitte, 2016). Whereas previously there existed a clear divide between rich and poor clubs in the EPL (see Michie and Oughton, 2004), now all clubs are relatively wealthy, vastly improving their individual competitive ability.

Furthermore, it stands to reason that given the declining advantage that can be derived from wealth, other factors will assume more importance and act as competitive drivers in place of wealth. The emphasis will now be shifted towards efficiency, innovation and good management as they provide areas from which clubs can differentiate themselves and develop a competitive advantage (Wilson *et al.*, 2013; Franck, 2014). These areas provide means of natural growth and create a level platform from which all clubs compete with access to the same resources (Geey, 2011). The previous platform of competition, which prized financial wealth above all else, and placed no restrictions on the means of procuring financial resources, created an environment within which a selected few clubs could create an hegemony and almost guarantee the permanence of the established order, thus perpetuating the win-maximisation environment that had been established (Lang *et al.*, 2011). FFP regulations aim to ensure that it is no longer possible to maintain a position of dominance through artificial means, only through sporting merit.

Concerns that the introduction of financial restrictions of this nature would inevitably have the effect of freezing clubs into the existing hierarchy based upon their current financial strength were understandable as this seemed unavoidable at the onset of FFP (Peeters and Szymanski, 2014; Sass, 2014). Nevertheless, the new competitive environment should make it possible and more realistic for clubs to challenge the existing hierarchy and achieve growth as success will no longer be so reliant upon the financial resources at a club's disposal.

The results presented in this section provide an insight into the changing nature of the competitive balance in the EPL over the previous two decades. Previous literature and the results produced here both highlight a negative trend in competitive balance in the EPL (see Lee and Fort, 2012), although the more recent results presented above indicate a potential break to this trend has begun to develop since 2011. If the trend continues as the literature and results presented suggest is possible, it could see the EPL entering a new and unexplored competitive balance era, transitioning away from the "Modern Period" of reduced competitive balance examined by Lee and Fort (2012) into a new era of greater competition. The discussion above has drawn on these results to present some arguments that suggest the anticipated negative impact of FFP regulations on competitive balance (see Lindholm, 2010; Sass, 2014; Szymanski, 2014) has not materialised. At this point in

time the criticisms of FFP appear unwarranted, with some indications from the results suggesting that FFP regulations are potentially having a positive effect on the competitive balance in the EPL.

Conclusion

This study has undertaken an assessment of the effects of FFP regulations on the EPL. Literature on the topic highlights a number of criticisms that have been levelled at FFP regulations, which revolve around the legality and necessity of the regulations, and the potential side effects such regulations could cause. In light of criticisms that FFP regulations would have adverse effects on the EPL, particularly regarding the competitive balance, this study took the opportunity to further investigate these arguments. With limited empirical data available at the time, the criticisms of FFP derived from theories, hypotheses and extrapolations from similar situations in other sport and business contexts. However, with five seasons having now passed since the introduction of FFP there exists more data upon which an indicative analysis can now be based.

The primary concern regarding FFP is that the regulations will cause a decline in competitive balance in the EPL (and elsewhere). This is based upon the premise that the regulations will, in effect, freeze the existing hierarchy and therefore preserve the status of the wealthy elite of clubs at the top of the league (Sass, 2014; Szymanski, 2014). "Freezing" would occur because smaller clubs would no longer have access to external sources of financing, making it almost impossible to compete with bigger clubs in an environment where spending power is fundamental to success (Vopel, 2013). Critics argue that FFP would entrench the existing order, disproportionately benefiting the select few clubs that were able to take advantage of the prior lack of financial regulation in football.

The results from this study help to illustrate the sheer imbalance that characterised European football prior to FFP regulations. The trend shows a gradual decrease in the competitive balance in the EPL over the decade preceding the introduction of FFP, with the literature highlighting these results as part of a long-term decline in competitive balance (Goossens, 2006). The EPL, like many European leagues, has been characterised by increasing levels of segregation, division and inequality between its member teams (Michie and Oughton, 2004).

Having analysed data from the previous 21 EPL seasons, the results also suggest that there is little evidence to support the criticisms against FFP. Supportive data of these criticisms would have taken the form of an upward trend in the Herfindahl Index values since the introduction of FFP as this would be indicative of further decreases in competitive balance. However, the results produce no compelling evidence to suggest this has been the case, with two seasons of decreasing competitive balance directly after the introduction of FFP, followed by two seasons of increasing competitive balance. The results from the two most recent seasons (2014/2015 and 2015/2016) suggest that perhaps the opposite is true, and that FFP is actually now having a positive impact on competitive balance by helping to shift the dynamics of competition away from spending power and towards more natural means of competition (Franck, 2014). Whilst the presence of two consecutive seasons of increasing competitive balance for only the second time in the data set is an encouraging sign, there is not currently enough data to fully support this claim, especially considering the fluctuating nature of the results throughout the selected time period. The results do, however, demonstrate no indication of the adverse effects critics anticipated FFP to have on competitive balance.

However, there are some other elements to the results that could be indicative of an increasingly more competitive league. As the Discussion section highlighted, the previous four EPL titles were won by four different teams, an occurrence never previously

experienced during the EPL era. Furthermore, Leicester City's EPL victory in 2015/2016 made it the sixth club to win the league title in the EPL era, and the seventh different club to qualify for the top-four positions in the previous four seasons. Considering that only six different clubs qualified for the top-four positions between 2005/2006 and 2014/2015, and the previous stranglehold of a selected few clubs over title success, this data hints at potential early shifts in the dynamics of EPL competition. If this hypothesis is to be true then the introduction of FFP regulations might even be considered the break point to a new, fifth era of competition, characterised by an improved competitive balance in the EPL (Lee and Fort, 2012).

In light of these results, the regulations appear to be a positive and much-needed initiative for the EPL. FFP regulations as a whole were designed with well-intentioned objectives and in order to facilitate positive change throughout European football, and as such they are now an important and fundamental element of modern-day football (Franck, 2014). The most crucial issue for European football is the sustenance, and first, recovery, of financial balance, an issue which outweighs any desire for competitive balance (Andreff, 2011). Thus, even if FFP initiatives had the effect of further increasing competitive imbalance, the need for stability and corrective action amidst the worsening financial plight of European football necessitated an intervention such as FFP. Besides, it is unclear whether the imbalance and inequality that was evident during the first decade of the twenty-first century could be increased much further, as the EPL in particular was highly imbalanced and segregated (Curran *et al.*, 2009; Pawlowski *et al.*, 2010). Interestingly, the chance that UEFA's FFP and other FFP regulations could in fact be contributing to increases in competitive balance would be a huge positive for regulations that do not state such explicit aims (Lindholm, 2010).

The discussion presented throughout has purposely been written in a tentative manner due to the limitations that exist with this study. The use of the Herfindahl Index (and the standard deviation of points and Scully-Noll ratio) acts as a proxy for competitive balance, and because competitive balance is merely a concept and therefore cannot be measured directly, the results presented should not be treated as being a fully accurate representation of competitive balance. It follows that the conceptual nature of competitive balance means there exist a number of viable methods from which to assess it, all of which could potentially produce varying results and lead to differing conclusions. It is also the case that FFP regulations have only been active for five seasons, with none of the regulations yet requiring clubs to fully break-even. As a result, the full effects of the regulations will likely not be felt until such time as losses are no longer permitted. Additionally, the shortage of available data means that any conclusions are limited in scope and can only potentially indicate the changing financial environment that lies ahead. These indications, however, suggest that FFP might in fact have a greater influence in the EPL that could lead to potentially significant managerial implications, beyond what was originally intended.

New data will continue to become available every season and the regulations will progressively alter the financial environment in football, thus it is important that research continue to be conducted in this area, investigating the effects of FFP and the trends in competitive balance. This study confined its attention to the EPL, but it would be instructive to be able to compare the results from different leagues across Europe to determine the effects FFP regulations are having there. Significant differences exist between many of Europe's football leagues and therefore FFP regulations could potentially affect individual leagues in very different ways. These potential differences might be significant, considering that the individual FFP regulations adopted by each national association are by no means uniform across Europe. Therefore, it is important that more research is conducted in this area to discover the impact of FFP throughout Europe.

There is evidently need for further research on this important area, that can build on the positive indications and insights provided by this study. If FFP regulations can achieve the aim of improving the financial health of European football, while assisting in increasing the competitive balance of a league, then their influence on European club football might be of a greater significance than originally expected. As Wilson's *et al.* (2013) study suggested, clubs have moved away from the stock-market model of ownership popular during the 1990s, which centred around objectives of profit maximisation, towards a model of foreign ownership where the prioritises are the maximisation of sporting success (utility). This pivot towards clubs being viewed as utilities for rich benefactors or "sugar daddies" was in large part the cause of the financial problems that beset English football prior to the introduction of FFP. FFP was designed to restrict the influence of benefactor money in football and therefore the utility maximisation model is likely to become much less viable. Wilson *et al.* (2013) indicate that the stock market ownership model, and indeed, profit maximisation objectives in general, contribute towards greater efficiency, a quality that is likely to become much more important under the auspices of FFP. Therefore, FFP is likely to encourage clubs to develop more of a balance between utility maximisation and profit maximisation, potentially inspiring new and innovative business models as a means of regaining a competitive advantage over the competition, or as Franck (2014) suggests, it should result in an increase of good management practice, a virtue often missing from modern club football.

Note

1. UEFA monitoring periods fall at the end of every season and comprise the three seasons prior to the monitoring period date. The first monitoring period assesses just the first two seasons (2011/2012 and 2012/2013).

References

Andreff, W. (2011), "Some comparative economics of the organization of sports: competition and regulation in north American vs. European professional team sports Leagues", *The European Journal of Comparative Economics*, Vol. 8 No. 1, pp. 3-27.

AT Kearney (2010), "Is European football too popular to fail?", AT Kearney EU Football Sustainability Study, Düsseldorf, pp. 1-8.

BBC (2015), "Premier league TV rights: Sky and BT pay £5.1bn for live games", available at: www.bbc.co.uk/sport/football/31357409 (accessed 10 February 2016).

Beech, J. (2010), "Finance in the football industry", in Hamil, S. and Chadwick, S. (Eds), *Managing Football: An International Perspective*, Elsevier/Butterworth-Heinemann, Amsterdam, pp. 119-150.

Beech, J., Horsman, S. and Magraw, J. (2008), "The circumstances in which English football clubs become insolvent", CIBS Working Paper Series No. 4, Coventry, pp. 1-20.

Best, S. (2011), "Sporting sanctions as symbolic violence: an evaluation of how the Football League communicates with fans who challenge the legitimacy of the sporting sanctions policy", *Soccer & Society*, Vol. 12 No. 5, pp. 664-676.

Brandes, L. and Franck, E. (2006), "How fans may improve competitive balance-an empirical analysis of the German Bundesliga", Universität Zürich Working Paper No. 41, Zürich, pp. 1-26.

Brandes, L. and Franck, E. (2007), "Who made who? An empirical analysis of competitive balance in European soccer leagues", *Eastern Economic Journal*, Vol. 33 No. 3, pp. 379-403.

Buraimo, B., Forrest, D. and Simmons, R. (2007), "Outcome uncertainty measures: how closely do they predict a close game?", in Albert, J. and Koning, R.H. (Eds), *Statistical Thinking in Sports*, Chapman & Hall/CRC, Boca Raton, FL, pp. 167-178.

Buraimo, B., Simmons, R. and Szymanski, S. (2006), "English football", *Journal of Sports Economics*, Vol. 7 No. 1, pp. 29-46.

Cain, L.P. and Haddock, D.D. (2006), "Research notes: measuring parity tying into the idealized standard deviation", *Journal of Sports Economics*, Vol. 7 No. 3, pp. 330-338.

Curran, J., Jennings, I. and Sedgwick, J. (2009), "Competitive balance' in the top level of English football, 1948-2008: an absent principle and a forgotten ideal", *The International Journal of the History of Sport*, Vol. 26 No. 11, pp. 1735-1747.

Deloitte (2016), "Deloitte Football Money League", available at: www2.deloitte.com/uk/en/pages/sports-business-group/articles/deloitte-football- money-league.html (accessed 26 June 2016).

Dietl, H., Franck, E. and Lang, M. (2009), "Overinvestment in team sports leagues: a contest theory model", *Scottish Journal of Political Economy*, Vol. 55 No. 3, pp. 353-368.

Dietl, H.M., Grossmann, M. and Lang, M. (2011), "Competitive balance and revenue sharing in sports leagues with utility-maximizing teams", *Journal of Sports Economics*, Vol. 12 No. 3, pp. 284-308.

Dietl, H.M., Lang, M. and Rathke, A. (2011), "The combined effect of salary restrictions and revenue sharing in sports leagues", *Economic Inquiry*, Vol. 49 No. 2, pp. 447-463.

Dietl, H.M., Lang, M. and Werner, S. (2010), "The effect of luxury taxes on competitive balance, club profits, and social welfare in sports leagues", *International Journal of Sport Finance*, Vol. 5 No. 1, pp. 41-51.

Drut, B. and Raballand, G. (2012), "Why does financial regulation matter for European professional football clubs?", *International Journal of Sport Management and Marketing*, Vol. 1 Nos 1/2, pp. 73-88.

Evans, R. (2014), "A review of measures of competitive balance in the 'analysis of competitive balance' literature", *Birkbeck Sport Business Centre Research Paper Series*, Vol. 7 No. 2, pp. 1-59.

Feess, E. and Stähler, F. (2009), "Revenue sharing in professional sports leagues", *Scottish Journal of Political Economy*, Vol. 56 No. 2, pp. 255-265.

Franck, E. (2010), "Private firm, public corporation or member's association – governance structures in European football", *International Journal of Sport Finance*, Vol. 5 No. 2, pp. 108-127.

Franck, E. (2014), "Financial fair play in European Club Football – what is it all about?", UZH Business Working Paper Series No. 328, Zürich, pp. 1-34.

Franck, E. and Lang, M. (2013), "A theoretical analysis of the influence of money injections on risk taking in football clubs", UZH Business Working Paper Series No. 160, Zürich, pp. 1-29.

Frick, B. (2007), "The football players' labor market: empirical evidence from the major European leagues", *Scottish Journal of Political Economy*, Vol. 54 No. 3, pp. 422-446.

Geey, D. (2011), "Football League financial fair play: domestic league regulation", *Entertainment and Sports Law Journal*, Vol. 10 No. 1, pp. 1-7.

Goossens, K. (2006), "Descriptive analysis of competitive balance within and between European football leagues", *IASE Conference*, *Bochum*, *18-22 July*.

Grossmann, M., Dietl, H. and Lang, M. (2010), "Revenue sharing and competitive balance in a dynamic contest model", *Review of Industrial Organization*, Vol. 36 No. 1, pp. 17-36.

Grundy, T. (2004), "Strategy and financial management in the football industry", *Strategic Change*, Vol. 13 No. 8, pp. 405-422.

Haan, M., Koning, R. and Van Witteloostuijn, A. (2007), "The effects of institutional change in European soccer", *Journal of Economics and Statistics*, Vol. 232 No. 3, pp. 318-335.

Hill, J. (2011), "UEFA and the European Union: the green shoots of a new European public space?", in Niemann, A., Garcia, B. and Grant, W. (Eds), *The Transformation of European Football: Towards the Europeanisation of the National Game*, Palgrave Macmillan, Manchester, pp. 40-59.

Humphreys, B. (2002), "Alternative measures of competitive balance in sports leagues", *Journal of Sports Economics*, Vol. 3 No. 2, pp. 133-148.

Kesenne, S. (2006), "The win maximization model reconsidered: flexible talent supply and efficiency wages", *Journal of Sports Economics*, Vol. 7 No. 4, pp. 416-427.

Kesenne, S. (2007), *The Economic Theory of Professional Team Sports: An Analytical Treatment*, Edward Elgar Publishing Ltd, Cheltenham.

Koning, R.H. (2000), "Balance in competition in Dutch soccer", *Journal of the Royal Statistical Society: Series D (The Statistician)*, Vol. 49 No. 3, pp. 419-431.

Lago, U., Simmons, R. and Szymanski, S. (2006), "The financial crisis in European football", *Journal of Sports Economics*, Vol. 7 No. 1, pp. 3-12.

Lang, M., Grossmann, M. and Theiler, P. (2011), "The sugar daddy's game: how wealthy investors change competition in professional team sports", *International Association of Sports Economists*, Vol. 11 No. 7, pp. 1-23.

Lee, Y.H. and Fort, R. (2005), "Structural change in MLB competitive balance: the depression, team location, and integration", *Economic Inquiry*, Vol. 43 No. 1, pp. 158-169.

Lee, Y.H. and Fort, R. (2012), "Competitive balance: time series lessons from the English Premier League", *Scottish Journal of Political Economy*, Vol. 59 No. 3, pp. 266-282.

Lindholm, J. (2010), "The problem with salary caps under European Union Law: the case against financial fair play", *Texas Review of Entertainment and Sports Law*, Vol. 12 No. 2, pp. 189-213.

Long, C. (2012), "Promoting competition or preventing it? A competition law analysis of Uefa's financial fair play rules", *Marquette Sports Law Review*, Vol. 23 No. 1, pp. 75-101.

Madden, P. (2012), "Welfare economics of 'financial fair play' in a sports league with benefactor owners", *Journal of Sports Economics*, Vol. 16 No. 2, pp. 159-184.

Madden, P. (2015), "Welfare economics of 'Financial Fair Play' in a sports league with benefactor owners", *Journal of Sports Economics*, Vol. 16 No. 2, pp. 159-184.

Manoli, A.E. (2014), "The football industry through traditional management analysis", *Scandinavian Sport Studies Forum*, Vol. 5 No. 1, pp. 93-109.

Michie, J. and Oughton, C. (2004), "Competitive balance in Football: trends and effects", *The Sports Nexus Technical Report*, pp. 1-38.

Morrow, S. (2003), *The People's Game? Football, Finance, and Society*, Palgrave Macmillan, New York, NY.

Muller, J., Lammert, J. and Hovemann, G. (2012), "The financial fair play regulations of UEFA: an adequate concept to ensure the long-term viability and sustainability of European Club Football?", *International Journal of Sport Finance*, Vol. 7 No. 2, pp. 117-140.

Naghshbandi, S., Yousefi, B., Etemad, Z. and Moradi, M. (2011), "The comparison of competitive balance in Football Premier Leagues of England, Germany, Spain, France, Italy and Iran: a case study from 2009-2010 season", *Journal of Human Sport & Exercise*, Vol. 6 No. 4, pp. 673-681.

Neale, W. (1964), "The peculiar economics of professional sports", *Quarterly Journal of Economics*, Vol. 78 No. 1, pp. 1-14.

Noll, R.G. (1988), "Professional Basketball", Studies in Industrial Economics Paper No. 144, Stanford University, Stanford, CA.

Pawlowski, T. and Anders, C. (2012), "Stadium attendance in German professional football – The (un) importance of uncertainty of outcome reconsidered", *Applied Economics Letters*, Vol. 19 No. 16, pp. 1553-1556.

Pawlowski, T., Breuer, C. and Hovemann, A. (2010), "Top clubs' performance and the competitive situation in European domestic football competitions", *Journal of Sports Economics*, Vol. 11 No. 2, pp. 186-202.

Peeters, T. and Szymanski, S. (2012), "Vertical restraints in soccer: financial fair play and the English Premier League", *University of Antwerp Research Paper*, Vol. 2012 No. 28, pp. 1-40.

Peeters, T. and Szymanski, S. (2014), "Financial fair play in European football", *Economic Policy*, Vol. 29 No. 78, pp. 343-390.

Premier League (2013), "The new financial rules agreed by premier league clubs explained", available at: www.premierleague.com/en-gb/news/news/2012-13/feb/premier-league-new-financial-rules-explained.html (accessed 1 July 2016).

Premier League (2015), *Premier League Handbook Season 2015/16*, The Football Association Premier League Limited, London.

Premier League (2016a), "Tables", available at: www.premierleague.com/tables (accessed 5 July 2016).

Premier League (2016b), "Premier league history, origins & list of past champions", available at: www.premierleague.com/history (accessed 5 July 2016).

Preuss, H., Haugen, K. and Schubert, M. (2014), "UEFA financial fair play: the curse of regulation", *EJSS Journal*, Vol. 2 No. 1, pp. 33-51.

Quirk, J.P. and Fort, R.D. (1992), *Pay dirt: The Business of Professional Team Sports*, 2nd ed., Princeton University Press, Princeton.

Rottenberg, S. (1956), "The Baseball players' labour market", *Journal of Political Economy*, Vol. 64 No. 3, pp. 242-258.

Sass, M. (2012), "Long-term competitive balance under UEFA financial fair play regulations", Universitat Magdeburg Working Paper No. 5, Magdeburg, pp. 1-11.

Sass, M. (2014), "Glory Hunters, sugar daddies, and long-term competitive balance under UEFA financial fair play", *Journal of Sports Economics*, Vol. 17 No. 2, pp. 148-158.

Schubert, M. and Könecke, T. (2015), "Classical' doping, financial doping and beyond: UEFA's financial fair play as a policy of anti-doping", *International Journal of Sport Policy and Politics*, Vol. 7 No. 1, pp. 63-86.

Scully, G.W. (1989), *Business of Major League Baseball*, University of Chicago Press, Chicago, IL.

Solberg, H.A. and Haugen, K.K. (2010), "European club football: Why enormous revenues are not enough?", *Sport in Society*, Vol. 13 No. 2, pp. 329-343.

Storm, R.K. and Nielsen, K. (2012), "Soft budget constraints in professional football", *European Sport Management Quarterly*, Vol. 12 No. 2, pp. 183-201.

Szymanski, S. (2012), "Insolvency in English football: irrational exuberance or negative productivity shocks?", Working Paper No. 12-02, International Association of Sports Economists & North American Association of Sports Economist, Michigan.

Szymanski, S. (2014), "Fair is foul: a critical analysis of UEFA financial fair play", *International Journal of Sport Finance*, Vol. 2014 No. 9, pp. 218-229.

Szymanski, S. and Késenne, S. (2004), "Competitive balance and gate revenue sharing in team sports", *The Journal of Industrial Economics*, Vol. 52 No. 1, pp. 165-177.

Szymanski, S. and Kuypers, T. (2000), *Winners and Losers*, Penguin Books Canada, London.

UEFA (2010), *UEFA Club Licensing and Financial Fair Play Regulations Edition 2010*, UEFA, Nyon.

UEFA (2011), *The European Club Licensing Benchmarking Report Financial Year 2011*, UEFA, Nyon.

UEFA (2015), *UEFA Club Licensing and Financial Fair Play Regulations Edition 2015*, UEFA, Nyon.

Vopel, H. (2013), "Is financial fair play really justified? An economic and legal assessment of UEFA's financial fair play rules", HWWI policy paper, Hamburg, Vol. 79, pp. 1-30.

Wilson, R., Plumley, D. and Ramchandani, G. (2013), "The relationship between ownership structure and club performance in the English Premier League", *Sport, Business and Management: An International Journal*, Vol. 3 No. 1, pp. 19-36.

Winfree, J. and Fort, R. (2012), "Nash conjectures and talent supply in sports league modeling: a comment on current modeling disagreements", *Journal of Sports Economics*, Vol. 13 No. 3, pp. 306-313.

(The Appendix follows overleaf.)

Appendix 1

Table AI.
Data – total points per season

1995/1996	1996/1997	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016
82	75	78	79	91	80	87	83	90	95	91	89	87	90	86	80	89	89	86	87	81
78	68	77	78	73	70	80	78	79	83	83	83	85	86	85	71	89	78	84	79	71
71	68	65	75	69	69	77	69	75	77	82	68	83	83	75	71	70	75	82	75	70
63	68	63	67	67	68	71	67	60	61	67	68	76	72	70	68	69	73	79	70	66
63	61	59	57	65	66	66	64	56	58	65	60	65	63	67	62	65	72	72	64	66
61	59	58	55	58	61	64	60	56	58	63	58	60	62	64	58	64	63	69	62	63
61	57	57	54	58	57	53	59	53	55	58	56	58	53	63	54	56	61	64	60	62
61	56	56	52	55	54	50	52	53	52	56	55	57	51	61	49	52	49	56	56	60
58	47	55	51	55	52	50	51	52	52	55	54	55	51	50	48	52	46	50	54	51
51	46	53	49	53	52	46	50	50	47	51	52	49	50	50	47	47	46	49	48	50
50	46	52	47	52	51	45	49	48	46	50	50	46	45	47	47	47	44	45	47	47
43	46	48	46	52	49	45	49	47	45	48	46	43	45	46	46	47	43	42	47	47
43	42	44	46	50	48	44	48	45	44	47	43	42	41	44	46	45	42	40	44	45
41	42	44	43	44	42	44	48	45	44	45	42	40	41	39	46	45	41	38	41	43
40	42	44	42	44	42	43	47	44	42	43	41	39	41	38	43	43	41	38	39	42
38	41	44	42	38	42	40	45	41	39	42	39	37	36	36	42	38	41	37	38	42
38	41	40	41	36	42	40	44	39	34	38	38	36	35	35	40	37	39	36	38	39
38	40	40	36	33	34	36	42	33	33	34	38	36	34	30	39	36	36	33	35	37
33	39	35	35	31	34	30	26	33	33	30	34	35	32	30	39	31	28	32	33	34
29	34	33	30	24	26	28	19	33	32	15	28	11	32	19	33	25	25	30	30	17

Source: Premier League, 2016a

Appendix 2

	Herfindahl Index	SD	Scully-Noll ratio
1995/1996	0.054023	15.162	11.05860752
1996/1997	0.052659	12.043	8.991100699
1997/1998	0.052688	12.430	9.040241579
1998/1999	0.053544	14.000	10.38013937
1999/2000	0.054464	16.064	11.64924014
2000/2001	0.053436	13.972	10.21990205
2001/2002	0.054901	16.687	12.20641336
2002/2003	0.054046	15.323	11.09081866
2003/2004	0.054110	15.178	11.17726237
2004/2005	0.055227	17.083	12.60521746
2005/2006	0.055824	18.610	13.30560492
2006/2007	0.054397	15.851	11.56115391
2007/2008	0.056842	19.735	14.42179481
2008/2009	0.055808	18.236	13.28804826
2009/2010	0.056318	18.873	13.85857562
2010/2011	0.052931	12.779	9.43862661
2011/2012	0.055271	17.439	12.65900431
2012/2013	0.055664	17.819	13.1224993
2013/2014	0.056258	19.273	13.79262564
2014/2015	0.054633	16.349	11.86752011
2015/2016	0.054244	15.438	11.3583711

Table AII. Herfindahl Index, standard deviation, and Scully-Noll ratio results

Appendix 3

	Minimum	Maximum	Mean	Range	Range (3-year moving average)	Winning margin	Bottom-place margin	Range (4th-5th)
1995/1996	29	82	52.10	53		4	4	0
1996/1997	34	75	50.90	41		7	5	7
1997/1998	33	78	52.25	45	46.33	1	2	4
1998/1999	30	79	51.25	49	45.00	1	5	10
1999/2000	24	91	52.40	67	53.67	18	7	2
2000/2001	26	80	51.95	54	56.67	10	8	2
2001/2002	28	87	51.95	59	60.00	7	2	5
2002/2003	19	83	52.50	64	59.00	5	7	3
2003/2004	33	90	51.60	57	60.00	11	0	4
2004/2005	32	95	51.50	63	61.33	12	1	3
2005/2006	15	91	53.15	76	65.33	8	15	2
2006/2007	28	89	52.10	61	66.67	6	6	8
2007/2008	11	87	52.00	76	71.00	2	24	11
2008/2009	32	90	52.15	58	65.00	4	0	9
2009/2010	19	86	51.75	67	67.00	1	11	3
2010/2011	33	80	51.45	47	57.33	9	6	6
2011/2012	25	89	52.35	64	59.33	0	6	4
2012/2013	25	89	51.60	64	58.33	11	3	1
2013/2014	30	86	53.10	56	61.33	2	2	7
2014/2015	30	87	52.35	57	59.00	8	3	6
2015/2016	17	81	51.65	64	59.00	10	17	0

Table AIII. Range data

Appendix 4

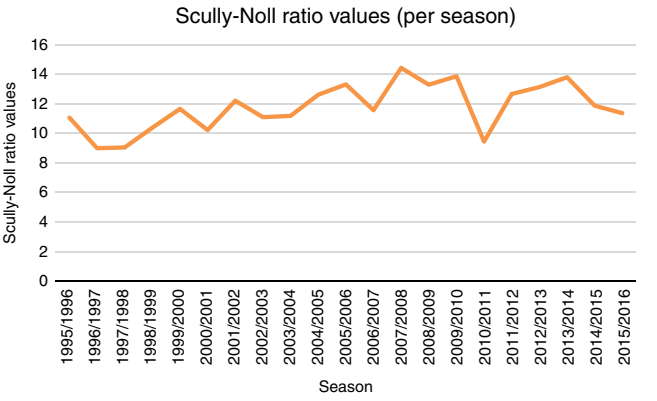


Figure A1.
Scully-Noll ratio values

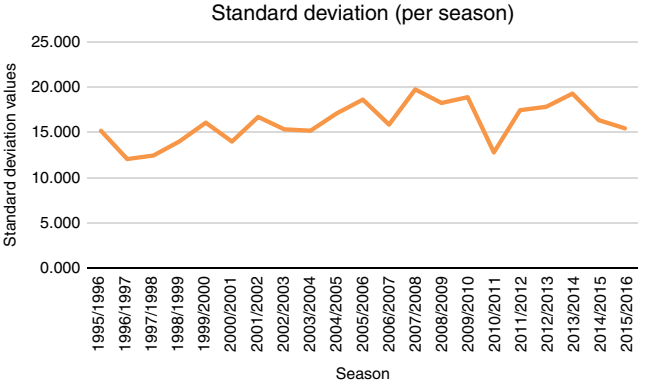


Figure A2.
Standard deviation values

Corresponding author
Argyro Elisavet Manoli can be contacted at: e.a.manoli@lboro.ac.uk

For instructions on how to order reprints of this article, please visit our website:
www.emeraldgrouppublishing.com/licensing/reprints.htm
Or contact us for further details: **permissions@emeraldinsight.com**

The current issue and full text archive of this journal is available on Emerald Insight at:
www.emeraldinsight.com/2042-678X.htm

Scoring goals in multiple fields

Social media presence, on-field performance and commercial success in European professional football

Petros Parganas and Roman Liasko
University of Ioannina, Ioannina, Greece, and
Christos Anagnostopoulos
Molde University College, Molde, Norway

Abstract

Purpose – Professional football clubs currently strive for a number of concurrent goals, ranging from on-field success to profit maximization to fan expansion and engagement. The purpose of this paper, theoretically informed by the social penetration theory, is to analyze the economics behind such goals and examine the association between team performance, commercial success, and social media followers in professional team sports.

Design/methodology/approach – A data set relating to 20 European professional football clubs that combines financial (revenues and costs), sporting, and digital-reach measures for three consecutive football seasons (2013/2014 to 2015/2016) was used. In addition, to elaborate on this data in terms of a descriptive study, the study constructs a range of correlation statistical tests and linear modeling techniques to obtain quantitative results.

Findings – The results indicate that all the three main sources of club revenues (match-day, commercial/sponsorship, and broadcasting) are positive drivers for Facebook followers. Staff investments (staff costs) are also positively related to Facebook followers, albeit to a lesser extent, while higher-ranked clubs seem to follow a constant approach in terms of their revenues and cost structure.

Originality/value – This study seeks to bridge the communication and sport economic research, providing evidence that Facebook followers are part of the cyclical phenomenon of team revenues and team performance. In doing so, it initiates a debate on the relationship between the digital expansion of a football club and its sports and financial indicators.

Keywords Social media, Commercial success, European football clubs, Multi-purpose objectives, On-field performance, Sport business

Paper type Research paper

1. Introduction

Professional sports clubs operate in a commercial environment with two main and concurrent yet often conflicting goals. On one hand, they need to meet sporting goals (i.e. on-field success), but, on the other hand, they require commercial (i.e. off-field) success (Storm, 2010; Szymanski, 2006; Zimbalist, 2002). However, as sports clubs compete for players and titles, profits and financial strength can be considered as derived objectives and necessary conditions for sporting success. On the other hand, sporting success can be viewed as a prerogative for profit maximization. In such a business environment, sports and media have always enjoyed a symbiotic relationship in most industrialized societies (Beck and Bosshart, 2003; Lefever, 2012; Nicholson, 2007). This relationship, along with its impact on team sporting success and team revenues, has been described in the literature as the virtuous cycle of revenue generation or the sports/media complex (Cherubini, 2007; Lefever, 2012).

However, the sports-media environment has changed fundamentally during the last decade as the lines between broadcasters, sporting organizations, and digital platforms have become blurred (Pegoraro, 2010, 2013; Rowe, 2011). Over the past years, sports clubs started to bypass traditional media and started experimenting with social media tools to offer live

Sport, Business and Management: An International Journal
Vol. 7 No. 2, 2017
pp. 197-215
© Emerald Publishing Limited
2042-678X
DOI 10.1108/SBM-11-2016-0072

match streaming and reach out directly to fans (Tewhatu, 2015). Given the high penetration of social media, football ("soccer" in North America) clubs in particular, because of the huge appeal of the sport (Kearney, 2014), became involved in such activities and expanded their fan base into several millions worldwide (Socialbakers, 2015). Social media provides a unique environment in which sports fans can amplify their sporting experiences and personalities to encourage sports-related expression and fun (Gantz, 2013). Therefore, social media can offer a framework for penetrating social environments and creating and strengthening existing relationships with fans. That is, consistent with the social penetration theory, as more information is disclosed, a closer relationship is built (Altman and Taylor, 1973). Despite such developments, football clubs operate in an increasingly professionalized business environment (Bauer *et al.*, 2008) and are increasingly looking for ways to transform their huge numbers of online followers and interactions into revenues (Araujo *et al.*, 2014; Nicholson, 2014).

The major streams of revenues for European football clubs have come increasingly from broadcasting rights and sponsorship agreements followed by commercial activities and match attendance figures (Deloitte, 2015, 2016; KPMG, 2015, 2016). The subsequent cash influx is mainly invested into human capital (e.g. players and coaches), which is then translated into on-field success (Carmichael *et al.*, 2011). In this regard, a number of studies have tried to reveal causalities among different aspects of sports business and sporting success such as payroll of the players and sporting success (the win-wage relationship) or club revenues and sporting success (Avgerinou *et al.*, 2006; Carmichael *et al.*, 2011; Forrest and Simmons, 2002, 2004; Gerrard, 2006; Hall *et al.*, 2002; Kringstad and Olsen, 2016; Szymanksi and Smith, 1997; Szymanski and Kuypers, 1999). The results generally indicate a positive relationship between playing success and both wage expenditure and revenue.

Recent studies at the intersection of social media and sports have attempted to approach social media from an economic perspective (e.g. Jensen *et al.*, 2014; Perez, 2013; Watanabe *et al.*, 2015). In contrast to most research, which has looked at social media as a marketing and communication mechanism of sport clubs (e.g. McCarthy *et al.*, 2014; Parganas *et al.*, 2015; Wallace *et al.*, 2011; Williams and Chinn, 2010), these studies have used social media followers as a proxy of fan interest and popularity in a sporting figure or organization. For instance, Perez's (2013) research focused on Spanish professional football teams on Twitter and examined the interconnections between the demand of sports consumption via social media and factors of team performance in addition to other market characteristics. Watanabe *et al.* (2015) examined the factors that determine daily changes in Twitter following of Major League Baseball teams as a form of derived demand for a sports product. However, while scholars and industry insiders have suggested the existence of a relationship between social media and sports club revenues (Broughton, 2012; Parganas and Anagnostopoulos, 2015) as well as social media and on-field success (Deloitte, 2015), no studies have yet attempted to empirically examine the relationship between social media followers, club revenues, and sporting success.

Thus, informed and motivated by the previous work, the present paper attempts to explicitly address this gap by utilizing a data set that contains social media and financial measures as well as indicators of team playing skills and performances. In particular, we draw on theoretical insights gained from the social penetration theory and seek to apply statistical modeling techniques in an effort to examine the relationship between Facebook followers, club revenues (in terms of broadcasting income, sponsorship/merchandise earnings and match-attendance figures), club costs (staff and other expenses), and sporting performance in the European professional football industry.

Our findings contribute to the literature in four regards. First, we discuss the application of the social penetration theory in the social media context of European professional football

clubs and its potential impact on their overall performance. Second, we extend the lens of inquiry into the usage of social media in relation to team revenues and team performance, seeking to bridge the communication and sports economic research. Third, we provide initial evidence and support previous suggestions (e.g. Araujo *et al.*, 2014; Parganas *et al.*, 2015) regarding the interrelation between high social media following, sports clubs revenues, and on-field team performance, extending the sports/media complex into the social media context. This brings us to the fourth contribution of the current study which, from the management perspective, offers sport marketers support to exploit social media as an additional revenue stream for their clubs.

2. Theoretical background and literature review

2.1 Social penetration theory and social media

Social media has been defined as "the tools, platforms, and applications that enable consumers to connect, communicate, and collaborate with others" (Williams and Chinn, 2010, p. 422) and encompasses a wide range of online social networking websites (such as Facebook), blogs and microblogs (e.g. Twitter) and media-sharing sites (YouTube, Instagram, etc.). According to a recent survey, the worldwide penetration of social media reaches 1.85 billion active users, or one-quarter of the world's total population (Kemp, 2014). Facebook, perhaps the most prominent member of the social media family, announced 1.5 billion active users as of November 2015 (Facebook, 2015). The tremendous proliferation of social media turned the online environment into the most prominent place in which people communicate and exchange information (Cooper, 2010; Hanna *et al.*, 2011).

Building on the worldwide reputation of football (Blumrodt *et al.*, 2012), football teams have a great opportunity to use social media in order to reach and engage with their fans. One theory that is helpful in understanding how to build relationships with customers via social media is the social penetration theory, which postulates that, as time increases, it becomes more likely that two or more people will self-disclose (i.e. intentionally share) information with one another (Altman and Taylor, 1973). In the beginning of a relationship, people usually disclose simple and harmless types of messages. As relationships grow, the rate of self-disclosure slows while the facts disclosed become increasingly intimate in nature. In other words, revealing more and increasingly important information can significantly change the evolution of a relationship. As in face-to-face interactions, self-disclosure is often followed in virtual settings (Griffin, 2011). In popular social media sites such as Facebook, self-disclosure occurs with users posting personal information about themselves while such platforms are used to maintain existing offline relationships (Ellison *et al.*, 2006). As online users (i.e. individuals and/or companies) share information about themselves in the social media landscape, they inevitably interact with other users and develop online relationships.

The widespread adoption of social media among sports fans has opened up new lanes of communication between them and their teams (Price *et al.*, 2013; Stavros *et al.*, 2014), while the passion and loyalty of football fans toward their club (Vallerand *et al.*, 2008) has increased the likelihood of involvement in online following of and discussions around their club. However, as football is now viewed as part of a wider entertainment industry (Bauer *et al.*, 2008; Richelieu, 2004), football clubs have started to be viewed as brands (Richelieu, 2004), and leveraging the value of their teams' brand and producing increased revenues has become a major goal for sport marketers.

2.2 The virtuous cycle of revenue generation in sport

Sports have always attracted the masses and are capable of producing prodigious emotions to fans. This is particularly true for football, which is frequently referred to as "the global game" due to the large number of people who play it, watch it, and express an interest in it

(Kearney, 2014; Bauer *et al.*, 2008; Blumrodt *et al.*, 2012; Chadwick and Holt, 2008). Consequently, football found its way to the media environment as broadcasters explored the business opportunities offered by the huge football audience. Over time, television rights became the highest source of revenues for football clubs around the world (Deloitte, 2015; Jeanrenaud and Kesenne, 2006; KPMG, 2016) and accounted for the largest part of economic growth of professional football leagues and clubs (Storm, 2010). A case in point is the latest English Premier League (EPL) broadcasting deal, signed in February of 2016, which is worth €6 billion and covers the live domestic rights from 2016/2017 to 2018/2019. These revenues will be distributed fairly equal among clubs, with the champions receiving around €175 million and the worst performer €115 million. The high worldwide demand that justifies such numbers can be illustrated by two recent examples: EPL's 2014/2015 games reached a total of three billion viewers worldwide (English Premier League, 2016), while the final match of the 2014 FIFA World Cup in Brazil reached a global in-home television audience of 3.2 billion people (FIFA, 2015).

Such high media exposure, besides being a significant revenue source and promotional tool for football clubs, enables the clubs to become increasingly global in their appeal to audiences. As a result, the large amounts of visibility and recognition enable football clubs to become the vehicle for those multinational companies that want to expand their brands in foreign markets by becoming sponsors of famous football clubs, as has been the case with Manchester United and Vodafone or Chelsea and Samsung (Ginesta, 2013). Accordingly, sponsorship deals become very lucrative for sport clubs. For instance, the amount of money being spent on shirt sponsorship of Europe's top six football leagues has grown by 13 percent recently, from €736 million in the 2014/2015 season to over €830 million in the 2015/2016 season (Nielsen Sports, 2016). Such deals are believed to be worth those fees because of the huge marketing opportunity football offers (sponsors are visible in every game the club plays), as well as the street-level marketing that occurs when fans buy and wear their favorite team's shirt. New kits (usually three) each season offers fans extra excitement, which additionally feeds into the revenue streams of clubs.

The subsequent influx of capital into the football club can be invested into new (and better) players, coaches, and facilities, which in turn increases the quality of the product itself as well as the interest and amount of the audience, feeding at the beginning of loop, in a process called the virtuous cycle of revenue generation or the sports/media complex (Cherubini, 2007; Lefever, 2012) (Figure 1). Therefore, it is no surprise that the European football market has continued to grow every year since 2006/2007, reaching a size of €25 billion in 2016 (Statista, 2016).

2.3 Social media and football club challenges

Although television broadcasting was a main source of revenue for elite sports teams, leagues, and sports federations (Jeanrenaud and Kesenne, 2006), the advent of social

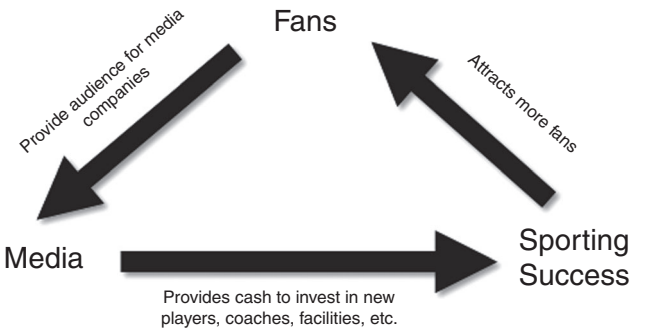


Figure 1.
Graphical representation of the sports/media complex

media had a profound impact on the magnitude and way information is distributed amongst stakeholders of the sports market (Rein *et al.*, 2007). During recent years, social media has started to attract millions of users worldwide including sports fans. Younger generations in particular are less likely to follow sporting events on TV.

In their quest for entertainment and access to team information, sports fans are amongst the heaviest users of online platforms such as Facebook (Broughton, 2012; Nicholson, 2007; Whiteside *et al.*, 2012), while content related to football is a major driver in the growth of online discussion (Stoll, 2014). For instance, over 500 million users engage with football on Facebook each month (Stoll, 2014), while about 28 million people had 76 million Facebook interactions related to the UEFA Champions League final in Berlin, 2015 (Union of European Football Associations (UEFA), 2015a, b).

Every football team in the professional top-tier European leagues maintains an online presence in Facebook, while many of them have also expanded into other social media tools such as Twitter or YouTube (Parganas *et al.*, 2015). Consequently, European professional football has become the most followed team sport brands on Facebook, while footballers such as Christiano Ronaldo are amongst the most followed individuals worldwide (Socialbakers, 2015). However, despite their huge following and worldwide visibility, football clubs can be considered medium-sized enterprises in terms of revenues (KPMG, 2016; Moore and Levermore, 2012; Nufer and Buehler, 2010). Operating in an increasingly commercialized environment, the challenge for football clubs is to increase their revenues, while still remaining successful on the pitch and therefore attract fans. This is particularly true for European football clubs. North American sports clubs usually follow a profit-maximization approach, whereas their counterparts from European football leagues follow a consumption-maximization approach (Leach and Szymanski, 2015; Sloane, 2015; Solberg and Haugen, 2010). This means that the latter need to spend huge amount of money to recruit players, even in excess of their budget constraints (Solberg and Haugen, 2010). Recently, however, the newly imposed financial fair play (FFP) legislation by the governing body (UEFA, 2015a, b) requires football clubs to balance their books in order to become sustainable businesses. Thus, in order to remain attractive to both fans and sponsors, they are searching for additional revenue streams.

As a result, football clubs are looking for ways to convert their huge online followings into long-term customers and have started experimenting with social media as broadcasting tools. In this regard, they have used Periscope, a live streaming application, to increase engagement and interaction with their respective global audiences via live video streams (Sport Business Institute, 2016). Similarly, in an effort to expand its reach around the world, the Spanish professional football league recently signed a deal to stream all matches from the Spanish Cup live on YouTube (an online video sharing tool) (Tewhatu, 2015). In addition, Facebook introduced a live streaming service that virtually allows people to live stream from anywhere, for however long they want (Tewhatu, 2016). Although such developments have raised some concerns across the sports industry for posing a threat to the broadcasting copyrights of live matches by its users (Hutchins, 2014), they serve the purposes of efficient two-way communication with fans as well as expansion of their base of supporters. In addition, as social media maintains its synergistic relationship with sponsorship because of its ability to instantly reach consumers during the activation of sponsorships and facilitate the thematically linked, integrated marketing initiatives (Parganas and Anagnostopoulos, 2015), it provides an opportunity for clubs to augment their revenue streams. Although the phenomenon is global, it is still at the starting point and it remains to be seen whether social media can be part of the monetization efforts of the clubs.

3. Method

3.1 Data collection

We adopted a desk research approach in order to collect the data for our analysis. Desk research comprises searching for information using existing resources, such as the press, the internet, analytical reports, and statistical publications, followed by cross-referencing and the collation of data (Bryman and Bell, 2011). Data have been collected from four different sources: the official Facebook accounts of the selected professional football clubs; the website Socialbakers.com, which contains monthly updated information and statistics on the use of social media by brands of different industries including the sport industry; the studies on professional football club revenues conducted and published each year by the consulting company Deloitte; and football-industry-specific insights and statistics from the consulting company KPMG. In order to increase the validity of the data, we consulted sports publications, team documents, team websites, media articles (both print and electronic), and other public sources. The research was carried out between January 2013 and January 2016 in order to provide a more long-term view and capture potential developments over time. Facebook has been selected for two reasons. First, it is the most prominent social media tool, counting over 1.5 billion active users (Facebook, 2015). Second, and perhaps more important, it has been the single common used platform by all selected football clubs during the period of study.

3.2 Description of variables

In order to examine the relationship between financial, athletic, and digital-reach measurements of European professional football clubs, we used the following variables.

Digital-reach measurements were collected using the number of Facebook followers ("likes") of a particular football club. Facebook followers were collected by visiting the official accounts of the selected football clubs each January from 2013 to 2016. In January of each of these years, the 20 most-followed European football clubs in terms of Facebook followers were identified. This collection process allowed for any changes to occur as a result of the clubs' athletic and economic performance in previous years. For each selected football club, revenue, cost, and athletic performance indicators were collected.

Revenues consisted of three main categories (Baroncelli and Lago, 2006; Deloitte, 2013, 2014, 2015; KPMG, 2015, 2016). Matchday revenue is generated by clubs as a result of staging matches at their home stadium and is largely derived from ticket sales. Broadcasting revenue represents the media broadcasting revenue received by clubs due to their participation in domestic and international competitions. Commercial revenue is the cumulative revenue generated from sponsorship, merchandising, and other commercial operations, excluding all players' trading activities. Revenue figures usually become public six to eight months after the completion of the previous sporting season. Thus, revenue figures published during 2016 refer to the 2014/2015 season.

Costs were divided into two main categories: staff costs and other costs (Baroncelli and Lago, 2006; KPMG, 2015, 2016). Staff costs include the salaries of the players, technical staff, medical staff, management, and administrative staff, while other costs include travel for the players and coaching staff, expenses of running the home stadium and other costs generated by the club's operations. As with revenues, cost figures were published after the completion of the season and therefore refer to the previous season.

In order to arrive at an objective evaluation of the sporting (or athletic) performance of the clubs, we used the UEFA clubs' coefficient ranking (KPMG, 2016). According to UEFA, clubs' coefficient rankings are determined by the sum of all points won in the five previous seasons of the UEFA competitions (i.e. the Champions League and the UEFA Europa League), plus 20 percent of the association coefficient (i.e. each country's domestic competition). Points are received for wins (three points) or draws (one point) and for qualifying for the next round of the

UEFA competitions. UEFA publishes relevant data on a monthly basis during the course of a football season. For the purposes of this study, the relevant data were collected immediately before the start of a new football season, i.e. during August of every year from 2013 to 2015.

3.3 Procedures and analysis

Using the statistical software package SPSS v0.23, the collected quantitative information was subjected to descriptive statistics as well as to a variety of statistical techniques, including cluster analysis, Principal Component Analysis (PCA), as well as linear and non-linear modeling.

In particular, for estimating the relationship between Facebook fans, revenues, costs, and sporting performance, we applied non-linear modeling using the adjusted R^2 criterion.

An initial PCA revealed a single PC that explained 70 percent of the total variance, which was heavily correlated ($R^2 = 0.948$) with total revenues (i.e. the sum of matchday, commercial, and broadcasting revenue) (Figure 2). Given this result, each variable (Y_i) was re-calculated (Y_i^*) using the following formula:

$$Y_i^* = Y_i\left(\text{Total revenue}_{\cdot\text{average}}/\text{Total revenue}_{\cdot i}\right)$$

This correction removed the overall effect of total revenues ("size effect") and, producing relative sizes (numbers) for each variable, allowed for a more objective study of the structural differences between the variables ("structural effects"). Thus, in a second step and in order to study the relationship between the variables (except Facebook fans), a second PCA was performed. To avoid issues related to normality, log-transformation of corrected values was applied. In order to reveal differences among teams, two-step cluster analysis based on the Akaike Information Criterion (AIC) was run, using the original variables.

To illustrate the degree of consistency in the revenues and costs patterns for each team over the three-year period, the mean Euclidean distances amongst teams' yearly values were calculated. Finally, the impact of the input variables on the number of Facebook fans was estimated by a forward stepwise linear model using the corrected AIC (AICc).

4. Results

An overview of the data for the three-year period is presented in Table I. The collected data are a perfectly balanced panel, meaning that there is the same number of observations (i.e. Facebook followers, revenues, costs and athletic performance indicators) for each team (Gujarati, 2003).

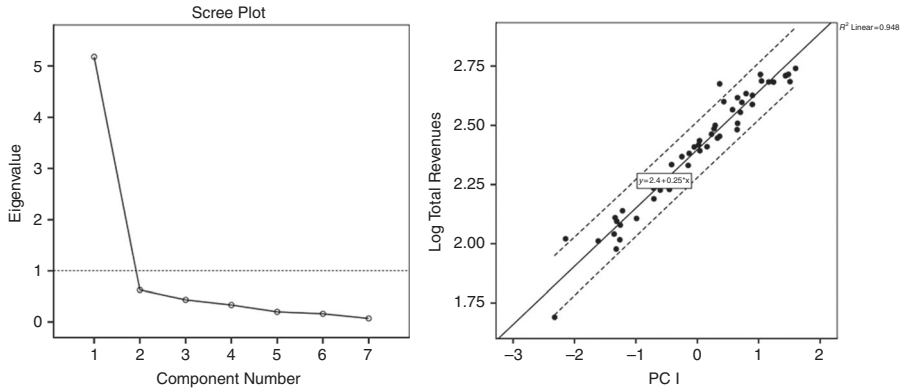


Figure 2.
Impact of the total revenues variable to the overall model

Team	FB fans (million)			Total revenues (€ million)			Total costs (€ million)			UEFA ranking		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
FC Barcelona	52.4	81.4	89.6	482.6	484.6	560.8	235.0	250.0	340.0	5	1	2
Real Madrid	49.1	80.7	86.4	518.9	549.5	577.0	250.0	270.0	289.0	1	2	1
Manchester United	39.6	63.9	67.6	423.8	518.0	519.5	225.5	260.0	267.0	10	108	28
Chelsea FC	21.7	40.4	44.4	303.4	387.9	420.0	210.0	230.0	285.0	6	10	15
Arsenal FC	19.0	31.9	34.5	284.3	359.3	435.5	185.0	200.0	252.0	14	13	22
Bayern Munich	11.6	26.3	34.1	431.2	487.5	474.0	205.5	215.0	236.0	4	5	3
Liverpool FC	14.7	24.9	27.0	240.6	305.9	391.8	160.0	175.0	218.0	85	33	10
AC Milan	19.3	24.0	24.7	247.0	214.0	199.1	150.0	155.0	164.0	20	84	236
Paris Saint Germain	6.5	16.3	22.3	398.8	474.2	480.8	240.0	259.0	266.0	7	11	7
Juventus Turin	9.5	16.0	20.9	272.4	279.4	323.9	163.0	184.0	198.0	11	3	16
Manchester City	8.4	18.0	20.2	316.2	414.4	463.5	283.0	250.0	264.0	13	24	4
BVB Dortmund	6.7	11.9	13.7	256.2	261.5	280.6	100.0	100.0	115.0	12	14	17
Galatasaray Istanbul	9.4	13.3	12.4	104.0	95.0	120.0	91.0	97.0	92.0	29	63	44
Atletico Madrid	1.8	9.8	11.9	120.0	169.9	187.1	62.0	120.0	100.0	2	7	5
Fenerbahse Istanbul	7.1	10.1	9.6	138.0	110.0	108.0	72.0	68.0	68.0	206	227	32
Tottenham Hotspur	3.6	6.1	7.2	172.0	215.8	257.5	121.0	125.0	140.0	22	40	30
AS Roma	2.5	4.2	6.3	124.4	128.0	180.4	95.0	110.0	139.0	108	30	27
Inter Milano	3.0	4.7	5.7	168.8	155.0	164.8	130.0	120.0	114.0	107	29	236
Besiktas Istanbul	4.6	5.8	5.6	105.0	49.0	77.0	42.0	52.0	60.0	205	35	53
Olympic Marseilles	2.8	4.1	4.5	102.8	129.1	107.0	75.0	80.0	91.0	63	127	40

Table I.
Overview of collected data

4.1 Descriptive statistics

Teams from the strongest European championships, known as the "big five" (the first-tier leagues of England, Spain, Germany, Italy, and France), occupy 17 of the top 20 places. The highest number of teams come from the EPL (six), followed by the Italian Serie A (four), the Spanish La Liga (three), the German Bundesliga (two) and the French League One (two). The only other league appearing in the list is the Turkish Super League with three representatives.

Table II presents the summary statistics from the current study. UEFA's top 20 clubs had an average of 13 million Facebook fans over the three-year period, which increased to 27.43 million for the last year of calculation. A high degree of concentration can be observed, as the top three clubs (FC Barcelona, Real Madrid, and Manchester United) have an increasing cumulated digital reach that, during 2016, accounted for more than 44 percent of the reach of all 20 clubs.

4.2 Statistical models

As shown in Figure 3, non-linear modeling using the adjusted R^2 as a criterion shows a positive relation between Facebook fans/Total Revenues ($R^2 = 0.66$, exponential), Facebook

Variables	Min.	Max.	Median	SD
Facebook fans (million)	1.4	89.6	13.00	21.62
Revenues (€ million)				
Match-day	7	132	52.500	39.17
TV	23	204	105.800	49.44
Commercial/Sponsorship	18	297	97.100	78.40
Costs (€ millions)				
Staff	42	340	163	72.84
Other	17	250	92	48.73
UEFA ranking	1	236	19	66.40

Table II.
Descriptive statistics

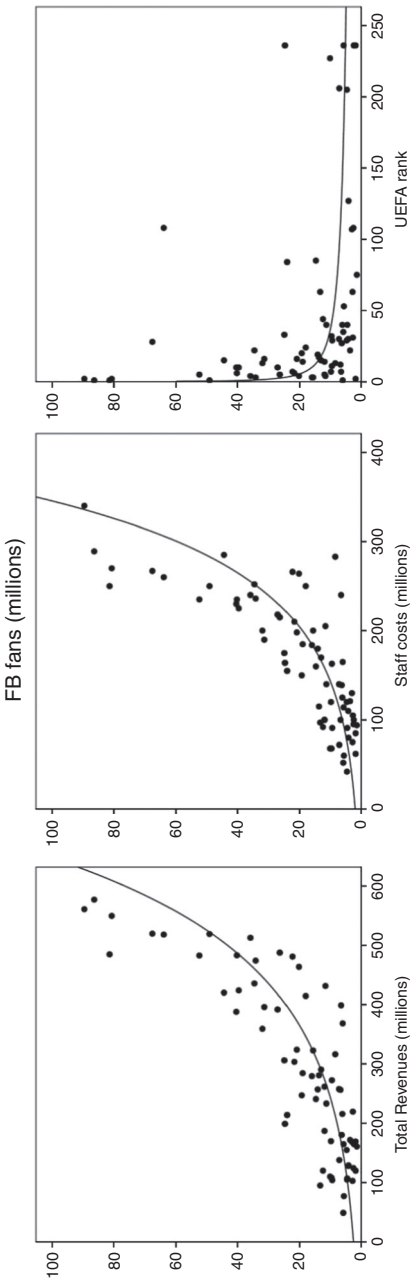


Figure 3.
Correlation between Facebook fans, total revenues, staff costs and UEFA ranking (absolute numbers)

fans/Staff costs ($R^2 = 0.64$, exponential), and Facebook fans/UEFA ranking ($R^2 = 0.29$, inverse). The positive slopes imply that an increase in either total revenues (accumulated revenue coming from broadcasting, commercial/sponsorship, and matchday revenues) or staff costs (investment in new players/coaches) is followed by an increase in the number of Facebook fans. The same applies for the inverse slope of Facebook fans/UEFA ranking, as successful teams have low UEFA ranking numbers; that is, in any given year, a UEFA rank of 1 is associated with the best team.

In addition, for the period under study, there is a tendency for more successful teams to keep a consistent profile regarding revenues/expenditures ratios, while less successful teams show greater discrepancies (Figure 4). For instance, FC Barcelona and Bayern Munich (shown on the left-hand side of the horizontal axis) keep the same ratio of revenues and expenditures throughout the three-year period, while clubs such as Olympic Marseilles and Besiktas Istanbul (shown on the far right-hand side of the horizontal axis) show very high inconsistencies.

Based on the initial variables (revenues, costs, UEFA rank), and excluding Facebook fans, two principal components could be extracted (Figure 5), explaining 66.2 percent of the total variance. The degree of correlation among the variables was not strong (Kaiser-Meyer-Olkin measure of 0.41), but it was significant ($p < 0.001$). The first PC mainly represents a sharp contrast between commercial and broadcasting revenues, whereas the second PC juxtaposes matchday revenue and UEFA ranking.

In addition, based on the initial variables (again excluding Facebook fans), and applying the AIC, a two-step cluster analysis reveals two significantly different clusters, as shown in Figure 6. The first cluster (illustrated as a group of circles) has a tendency toward high commercial/sponsorship revenues, high matchday revenues, and more successful clubs. The opposite is true for the second cluster (illustrated as a group of squares), which tends toward high TV revenues and lower UEFA ranking positions (less successful clubs).

Finally, studying the effects of the input variables (match-day revenues, commercial revenues, broadcasting revenues, staff costs, other costs, and UEFA ranking) on the number of Facebook fans, the best linear model (in terms of AICc) is given in Table III.

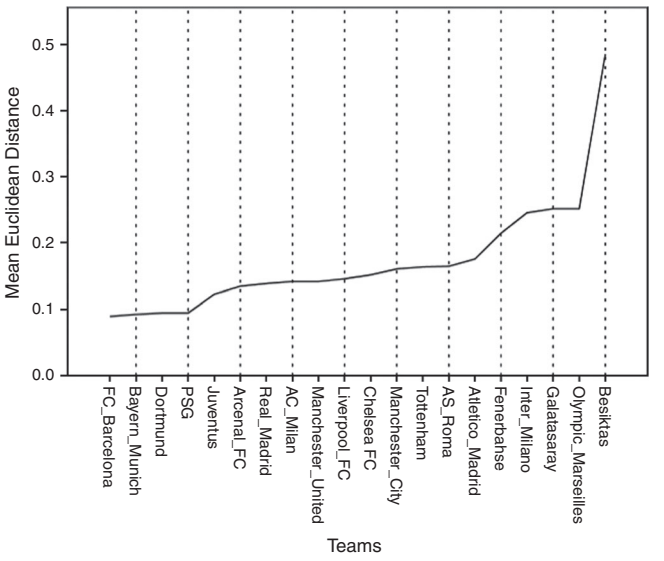


Figure 4.
Patterns of revenues and expenditures (mean Euclidean distance) for the teams during the period of study

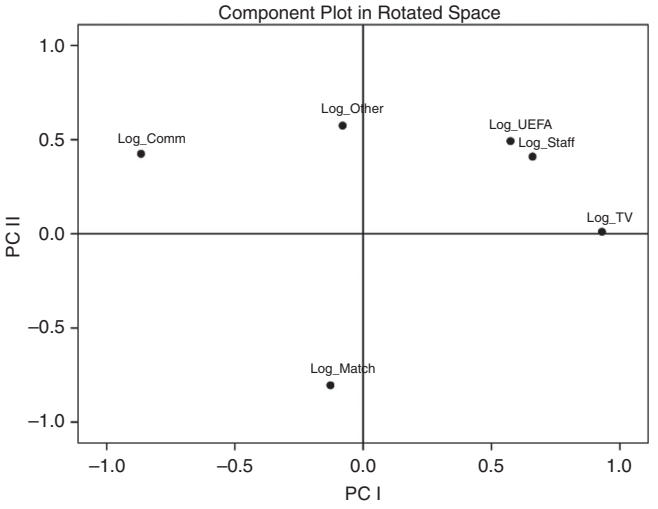


Figure 5.
Principal component analysis

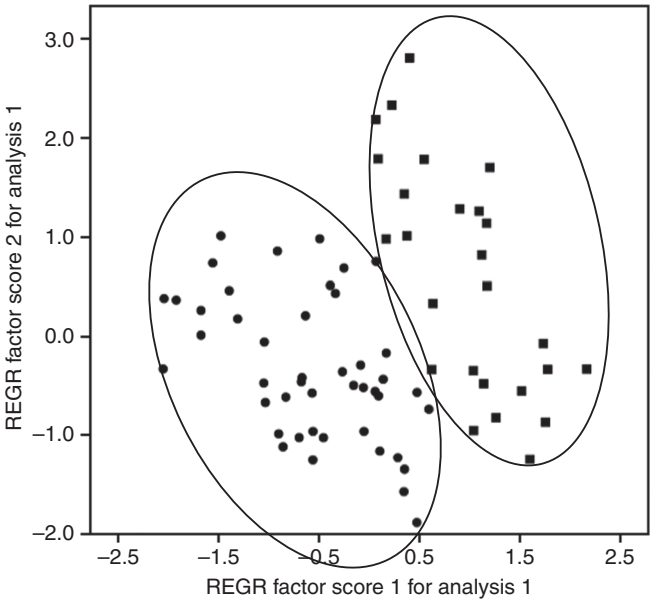


Figure 6.
Cluster analysis

Variable	Coefficient	Significance	% of explained variance
Match-day	1.802	$p < 0.001$	36.3
Comm. revenues	2.647	$p = 0.001$	27.9
TV revenues	2.512	$p < 0.01$	18.5
Staff costs	1.007	$p < 0.05$	11.8

Table III.
The constructed linear model

Although the model explains only 25 percent of the total variance, it is highly significant ($p < 0.001$) (Figure 7). The model shows that all types of revenues have an impact on the dependent variable (Facebook fans). To a lesser extent, investments in human capital (staff costs) also have significant effects on Facebook followers.

5. Discussion

The present study sought to investigate the relationship between Facebook followers, club revenues, club costs, and athletic success in the European professional football context. The incorporation of statistical modeling techniques provided a new perspective toward a more robust understanding of social media's role in sports communications and offered a number of theoretical and managerial implications.

5.1 Theoretical contributions

The present study contributes to the existing literature in several ways. First, it considered the applicability of the social penetration theory in relation to the football clubs' social media usage and overall club performance. Two basic characteristics of the social penetration theory are of particular interest here. Starting from the self-disclosure concept, as fans use social media and voluntarily disclose information about them, football clubs must attempt to better understand their fan base and adopt a customer-centric approach by collecting and organizing such information in a consistent manner if they are to be able to provide tailored content that drives fan engagement and loyalty and expand the value of their brand. A second basic assumption of the social penetration theory is that relational development could move backwards, resulting in de-penetration and dissolution (Altman and Taylor, 1973). In the social media context, posts by clubs could discourage or even irritate fans. This particularly applies commercial posts, which some fans see as intrusion into their "space" (McCarthy *et al.*, 2014). Therefore, the timing and content of posts must be carefully decided upon and clubs must be aware that engagement

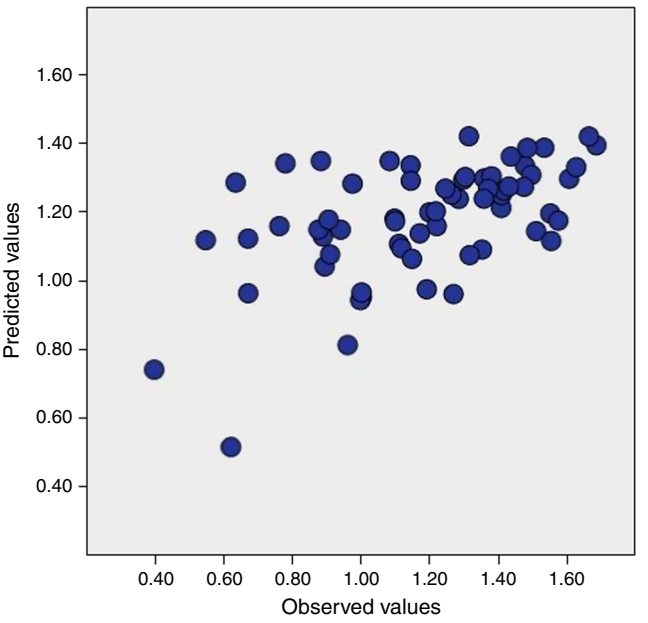


Figure 7.
Accuracy plot of the linear model

with fans should not become solely about making money as, in the long term, this would endanger the commercial success of the club.

Second, the results extend the theory of the sports/media complex (Cherubini, 2007; Lefever, 2012) into the social media context. That is, the linear modeling approach adopted in this study suggests that high-revenue teams tend to have increased numbers of Facebook fans, as do teams with high staff costs. For instance, increased broadcasting time, particularly at the international level (as it happens for the majority of the teams in this study's sample, as they participate in domestic and international competitions of high television exposure), increases visibility and awareness and hence Facebook followers. These results are similar to those of Watanabe *et al.* (2015), who found that teams that featured across the globe received higher fan interest on Twitter. In addition, beyond the resulting broadcasting revenues, new sponsors can be more easily attracted as the new online fans are a new source of potential customers. In this regard, the study re-confirms scholarly predictions that sports sponsorship will continue to maintain its synergistic relationship with new media (Santomier, 2008). Sponsorship agreements result in additional influxes of cash into the club, which, in addition to broadcasting revenues, feed into the sports/media complex by providing the necessary cash to invest in new (and better) playing and coaching skills (and hence increased staff costs). The improved human capital, in turn, affects team performance and skills (Carmichael *et al.*, 2011) and has a dual positive impact on Facebook followers. On one hand, fans are inclined to follow successful teams (a phenomenon explained in the next paragraph); on the other, part of the usually large online following of star players and coaches (Socialbakers, 2015) is then transferred to the clubs these players have signed for (Digitalsport, 2012; Stavros *et al.*, 2014). Hence, Facebook fans of a club increase, returning to the beginning of the loop of the sports/media complex.

Third, the size and scope of data in this study have also contributed to the economic modeling of social media research. Compared with the previous studies that have focused on social media data collection at a single point in time (Jensen *et al.*, 2014), or at daily (Watanabe *et al.*, 2015) or weekly intervals over a several-month period (Perez, 2013), the present study has built up a much broader scope, including data over a period of three consecutive football seasons (years). In addition, this study provides confirmation to some earlier findings. For instance, the positive correlation between team performance and Facebook followers echoes the results of previous studies (e.g. Perez, 2013; Watanabe *et al.*, 2015) which suggested a strong positive relationship between (sport) success and the number of new Twitter followers. Such results can be explained using the "Basking in Reflected Glory" (BIRG) theory (Cialdini *et al.*, 1976). According to the theory, individuals associate themselves with known successful others such that the winner's success becomes the individual's own accomplishment. In this regard, Facebook (and other social media tools for that matter) has increased "BIRGing" with popular sport brands, as it allows everyone to post their affinity for or their association with the club. Furthermore, the ability for everyone to follow their favorite sport team or athlete on Facebook allows for a closer connection to and knowledge of these brands, therefore leading to more BIRGing.

5.2 Managerial implications

Sport clubs must be cognizant of the stages a relationship goes through. Just as social penetration theory suggested for offline relationships, online relationships take time to develop. Therefore, media and communication training is essential for those responsible in the sports clubs in order to earn the trust of the online followers. Open and two-way communication provides sports clubs with opportunities to improve on services and experiences, which inevitably yields commercial advantages (Newman *et al.*, 2013).

Club marketers are increasingly realizing the commercialized environment in which they are operating, which puts them in direct competition not only with other teams and sports,

but even with non-sports-related entertainment organizations. That is, fans nowadays react in a much different manner than they did previously, splitting their interest not only between different clubs, but also different sports and even entertainment streams. Therefore, sports marketers are advised to look at and learn from other industries for trends (Moore and Levermore, 2012), as these different organizations and sectors form part of the competition, as well as the sports teams of domestic and international leagues.

Under such circumstances, perhaps the most compelling finding of this study is that all types of revenues (match-day, commercial/sponsorship, and broadcasting) are positive drivers of Facebook followers (Table III). That is, the top European football clubs in terms of Facebook followers are also the top football clubs ranked by revenue. Thus, increased revenues not only help to offset rising wage and transfer fee costs, and thereby serve one of the main goals of professional clubs nowadays, namely, that of profit maximization; they also increase their online popularity. In addition, the results showed that team performance (based on UEFA ranking) is not included in the final model. Based on this, European football club marketers are advised to focus on activities that can be at least partly managed and controlled. That is, their revenue model should focus on commercial activities rather than on-pitch success, which, after all, is impossible to control (Gladden and Milne, 1999; Ross, 2006). In this regard, it is recommended to further adopt the approach followed by their American counterparts and operate as profit-maximizing companies.

However, the topic of monetization needs significant consideration by club marketers. While social media channels enhance awareness and reach, the collected data revealed that the variation between the highest and lowest performers in terms of Facebook followers is very large, the former being almost 20 times greater than the latter. This suggests that several of the largest European football clubs have significant potential to increase their number of online followers. On the other hand, the growing (social) media exposure and visibility of football clubs means that they have an increasing number and percentage of fans who never or rarely attend football matches at stadia. While these fans do not have an impact on match-day revenues (i.e. they do not buy tickets or merchandise from shops on match days), clubs do have opportunities to monetize by exploiting the level of engagement they have with their supporters through social media. However, given the novelty and diversity of social media, as well as the particular characteristics of the Generation "C" customers (young, discerning, always connected, etc.), the challenge of leveraging such tools to generate revenue is one that has no definitive answer or determined business model. Teams must surely define their online audiences and explore the marketing possibilities of social media in order to operate not only as communication channels but also as mechanisms to turn online fans into paying customers.

Furthermore, evidence suggests that major football sponsorship interest is focused on clubs with home and international sporting success and exposure and is therefore capable of attracting wide fan bases. That is, increased social media awareness has a direct impact on revenues as it is translated into larger appeal to firms and sponsors with the aim of using them as a vehicle for marketing their own products. This has significant implications from a management perspective. In the future, clubs playing outside of the "big five" leagues – especially clubs playing in countries with relatively small populations and economies – will face stiffer challenges in their efforts to attract commercial revenue from both domestic and international corporations. Therefore, perhaps with the exception of Turkey, which participated in the study with three clubs, and Russia, a country with a larger-than-average economy and population, it will become increasingly difficult for second-tier leagues and clubs to break into the upper levels of commercial income generation.

Related to this is the fact that, based on the PCA performed in this study, lower-ranked football clubs have proportionally higher revenue streams from broadcasting deals than matchday or commercial sources. In addition, higher-ranked clubs seem to follow a constant

approach in terms of revenues/costs structure. These findings suggest that clubs that have already established large non-television revenue streams – primarily higher UEFA-ranking clubs – are able to invest the cash they receive from merchandise and ticket sales in player acquisitions and thus maintain the established hierarchy. Considering their large online following as well as the FFP regulations (which prevents rich owners from pouring unlimited wealth into clubs), it is difficult to foresee how this situation will change. From an economic point of view, the only way European football clubs can change the existing structure is through governmental interference in the sense of imposing some form of salary caps (i.e. placing a limit on the amount of money that a team can spend on players' salaries).

6. Limitations and further research

This study has started to fill a gap in the literature regarding the economic aspects of social media in professional sports organizations. However, as with all research, certain limitations apply to this study. First, the data itself may be subject to limitations due to differences of accounting practice in the respective countries of the clubs, differences in reporting currencies, or fluctuation in exchange rates. Such differences might have prevented a consistent comparison of football clubs over time and further influenced the econometric modeling. Furthermore, from an economic inquiry perspective, one limitation that arises in dealing with official Facebook accounts of teams is the ability to distinguish between an individual who is following the account because of their interest in a team, the interest in a single or several players, or the interest in the coach of the team. Therefore, meaningful future research focus and research at a deeper level could be achieved by analyzing the geographical dispersion of the online fans or the separation of sports results at national and European level.

7. Conclusions

As social media becomes mainstream, it will be up to the clubs to keep up with their fans, which, after all, are the ultimate source of all revenue. Sports have a history of setting trends and economically exploiting the interest that they generate. Nowadays, however, they face not only the challenge of recruiting the best player or closing the most profitable television broadcasting agreements, but also of capitalizing on the incredibly open and changing world of social media. Generally, the more renowned the club, the more powerful its ability to attract new fans and hence appeal to broadcasters and sponsors. In the future, therefore, it will become extremely difficult for lower-ranked clubs to break into the upper echelons of commercial success.

References

Altman, I. and Taylor, D. (1973), *Social Penetration: The Development of Interpersonal Relationships*, Holt, Rinehart & Winstron, New York, NY.

Araujo, N., de Carlos, P. and Fraiz, J.A. (2014), "Top European football clubs and social networks: a true 2.0 relationship?", *Sport, Business and Management: An International Journal*, Vol. 4 No. 3, pp. 250-264.

Avgerinou, V., Giakoumatos, S., Konstantinakos, P. and Mountakis, K. (2006), "An economic approach of league position in Greek football: relationship between position and expenses", *ELLEDA Conference Proceedings*, *Thessaloniki*, *November 24-27*.

Baroncelli, A. and Lago, U. (2006), "Italian football", *Journal of Sports Economics*, Vol. 7 No. 1, pp. 13-28.

Bauer, H.H., Stockburger-Sauer, N.E. and Exler, S. (2008), "Brand image and fan loyalty in professional team sport: a refined model and empirical assessment", *Journal of Sport Management*, Vol. 22 No. 2, pp. 205-226.

Beck, D. and Bosshart, L. (2003), "Sports and media", *Communication Research Trends*, Vol. 22 No. 4, pp. 3-4.

Blumrodt, J., Bryson, D. and Flanagan, J. (2012), "European football teams' CSR engagement impacts on customer-based brand equity", *Journal of Consumer Marketing*, Vol. 29 No. 7, pp. 482-493.

Broughton, D. (2012), "Survey: social media continues to fuel fans", *Street and Smith's Sports Business Journal*, Vol. 15 No. 13, p. 24.

Bryman, A. and Bell, E. (2011), *Business Research Methods*, Oxford University Press, New York, NY.

Carmichael, F., McHale, I. and Thomas, D. (2011), "Maintaining market position: team performance, revenue and wage expenditure in the English Premier League", *Bulletin of Economic Research*, Vol. 63 No. 4, pp. 464-497.

Chadwick, S. and Holt, M. (2008), "Releasing latent brand equity: the case of UEFA's Champions League", *The Marketing Review*, Vol. 8 No. 2, pp. 147-162.

Cherubini, S. (2007), "Co-marketing: a new challenge for football managers", in Desbordes, M. (Ed.), *Marketing and Football: An International Perspective*, Elsevier, Oxford, pp. 108-129.

Cialdini, R., Borden, R., Thorne, A. and Sloan, L.R. (1976), "Basking in reflected glory: three (football) field studies", *Journal of Personality and Social Psychology*, Vol. 34 No. 3, pp. 366-375.

Cooper, C. (2010), "New media marketing: the innovative use of technology in NCAA athletic department E-branding initiatives", *Journal of Marketing Development and Competitiveness*, Vol. 5 No. 1, pp. 23-32.

Deloitte (2013), *Annual Review of Football Finance*, Deloitte & Touche, Manchester.

Deloitte (2014), *Annual Review of Football Finance*, Deloitte & Touche, Manchester.

Deloitte (2015), *Annual Review of Football Finance*, Deloitte & Touche, Manchester.

Deloitte (2016), *Annual Review of Football Finance*, Deloitte & Touche, Manchester.

Digitalsport (2012), "Why do sport fans follow their team on social media", available at: http://digitalsport.co/why-do-fans-follow-sports-stars-on-social-media (accessed September 15, 2016).

Ellison, N., Steinfield, C. and Lampe, C. (2006), "Spatially bounded online social networks and social capital: the role of Facebook", *Annual Conference of the International Communication Association, June 19-23, Dresden*.

English Premier League (2016), "Global media platform", available at: http://fanresearch.premierleague.com/global-media-platform.aspx (accessed September 15, 2016).

Facebook (2015), "Statistics", available at: http://newsroom.fb.com/company-info/ (accessed November 2, 2015).

FIFA (2015), "The FIFA World-Cup reached 3.2 billion viewers", available at: www.fifa.com/worldcup/news/y=2015/m=12/news=2014-fifa-world-cuptm-reached-3-2-billion-viewers-one-billion-watched–2745519.html (accessed February 18, 2016).

Forrest, D. and Simmons, R. (2002), "Team salaries and playing success in sports: a comparative perspective", *Zeitschrift fur Beetribswirtschaft*, Vol. 72 No. 4, pp. 221-238.

Forrest, D. and Simmons, R. (2004), "Buying success: team performance and wage bills in US and European sports leagues", in Fort, R. and Fizel, J. (Eds), *International Sports Economics Comparisons*, Praeger, Westport, CT and London, pp. 123-140.

Gantz, W. (2013), "Reflections on communication and sport: on fanship and social relationships", *Communication & Sport*, Vol. 1 Nos 1/2, pp. 176-187.

Gerrard, B. (2006), "Analysing the win-wage relationship in pro sports leagues: evidence from the FA premier league, 1997/98-2001/02", in Rodrígues, P., Késenne, S. and García, J. (Eds), *Sports Economics After Fifty Years: Essays in Honour of Simon Rottenberg*, University Press, Oviedo, pp. 169-190.

Ginesta, X. (2013), "What is the next step? The champions league clubs and their sponsors: from Bwin to Qatar sports investment", *Soccer & Society*, Vol. 14 No. 1, pp. 66-79.

Gladden, J. and Milne, G. (1999), "Examining the importance of brand equity in professional sport", *Sport Marketing Quarterly*, Vol. 8 No. 1, pp. 21-29.

Griffin, E. (2011), *A First Look at Communication Theory*, McGraw-Hill/Irwin, New York, NY.

Gujarati, D.N. (2003), *Basic Econometrics*, McGraw-Hill/Irwin, New York, NY.

Hall, S., Szymanski, S. and Zimbalist, A. (2002), "Testing causality between team performance and payroll: the cases of Major League Baseball and English soccer", *Journal of Sports Economics*, Vol. 3 No. 2, pp. 149-168.

Hanna, R., Rohm, A. and Crittenden, V. (2011), "We're all connected: the power of the social media ecosystem", *Business Horizons*, Vol. 54 No. 3, pp. 265-273.

Hutchins, B. (2014), "Sport on the move: the unfolding impact of mobile communications on the media sport content economy", *Journal of Sport and Social Issues*, Vol. 38 No. 6, pp. 509-527.

Jeanrenaud, C. and Kesenne, S. (2006), *The Economics of Sport and the Media*, Edward Edgar Publishing, Cheltenham.

Jensen, J.A., Ervin, S.M. and Dittmore, S.W. (2014), "Exploring the factors affecting popularity in social media: a case study of football bowl subdivision head coaches", *International Journal of Sport Communication*, Vol. 7 No. 2, pp. 261-278.

Kearney, A.T. (2014), "Winning in the business of sports", available at: www.atkearney.com/documents/10192/5258876/Winning+in+the+Business+of+Sports.pdf/ed85b644-7633-469d-8f7a-99e4a50aadc8 (accessed January 9, 2016).

Kemp, S. (2014), "We are social – social, digital & mobile in Europe in 2014", available at: http://wearesocial.net/blog/2014/02/social-digital-mobile-europe-2014 (accessed November 5, 2015).

KPMG (2015), "Commercial income in Europe", available at: www.footballbenchmark.com/commercial_income_in_europe (accessed January 25, 2016).

KPMG (2016), "Football club's valuation: the European elite 2016", available at: www.footballbenchmark.com/value_for_money (accessed July 21, 2016).

Kringstad, M. and Olsen, T.-E. (2016), "Can sporting success in Norwegian football be predicted from budgeted revenues?", *European Sport Management Quarterly*, Vol. 16 No. 1, pp. 20-37.

Leach, S. and Szymanski, S. (2015), "Making money out of football", *Scottish Journal of Political Economy*, Vol. 62 No. 1, pp. 25-50.

Lefever, K. (2012), *New Media and Sport*, Springer, Hague.

McCarthy, J., Rowley, J., Ashworth, C.J. and Pioch, E. (2014), "Managing brand presence through social media: the case of UK football clubs", *Internet Research*, Vol. 24 No. 2, pp. 181-204.

Moore, N. and Levermore, R. (2012), "English professional football clubs: can business parameters of small and medium-sized enterprises be applied?", *Sport, Business and Management: An International Journal*, Vol. 2 No. 3, pp. 196-209.

Newman, T., Peck, J., Harris, C. and Wilhilde, B. (2013), *Social Media in Sport Marketing*, Routledge, New York, NY.

Nicholson, M. (2007), *Sport and the Media: Managing the Nexus*, Elsevier, Oxford.

Nicholson, P. (2014), "Digital drives shift in club revenues beyond the club stadium capacity", available at: www.insideworldfootball.com/world-football/15625-digital-drives-shift-in-club-revenues-beyond-the-club-stadium-capacity (accessed November 1, 2014).

Nielsen Sports (2016), "European football Jersey report 2015/2016", available at: http://repucom.net/european-football-jersey-report-2015-2016/ (accessed September 23, 2016).

Nufer, G. and Buehler, A. (2010), "Establishing and maintaining win-win relationships in the sports sponsorship business", *Journal of Sponsorship*, Vol. 3 No. 2, pp. 157-168.

Parganas, P. and Anagnostopoulos, C. (2015), "Social media strategy in professional football: the case of Liverpool FC", *Choregia: Sports Management International Journal*, Vol. 11 No. 2, pp. 61-75.

Parganas, P., Anagnostopoulos, C. and Chadwick, S. (2015), "You'll never tweet alone: managing sport brands through social media", *Journal of Brand Management*, Vol. 22 No. 7, pp. 551-568.

Pegoraro, A. (2010), "Look who's talking – athletes on Twitter: a case study", *International Journal of Sport Communication*, Vol. 3 No. 4, pp. 501-514.

Pegoraro, A. (2013), "Sport fandom in the digital world", in Pedersen, P.M. (Ed.), *Routledge Handbook of Sport Communication*, Routledge, New York, NY, pp. 248-258.

Perez, L. (2013), "What drives the number of Twitter followers? An economic note and a case study of professional soccer teams", *Economics Bulletin*, Vol. 33 No. 3, pp. 1941-1947.

Price, J., Farrington, N. and Hall, L. (2013), "Changing the game? The impact of Twitter on relationships between football clubs, supporters and the sports media", *Soccer & Society*, Vol. 14 No. 4, pp. 446-461.

Rein, I., Kotler, P. and Shields, B. (2007), "The future of sports media", *The Futurist*, Vol. 41 No. 1, pp. 40-43.

Richelieu, A. (2004), "A new brand world for sports teams", in Pitts, B.G. (Ed.), *Sharing Best Practices in Sport Marketing*, Fitness Information Technology Publishers, Morgantown, WV, pp. 3-21.

Ross, S. (2006), "A conceptual framework for understanding spectator-based brand equity", *Journal of Sport Management*, Vol. 20 No. 1, pp. 22-38.

Rowe, D. (2011), *Global Media Sport: Flows, Forms and Futures*, Bloomsbury Academic, New York, NY.

Santomier, J. (2008), "New media, branding and global sports sponsorship", *International Journal of Sports Marketing & Sponsorship*, Vol. 10 No. 1, pp. 15-28.

Sloane, P. (2015), "The economics of professional football revisited", *Scottish Journal of Political Economy*, Vol. 62 No. 1, pp. 1-7.

Socialbakers (2015), "Facebook sport stats – sport clubs", available at: www.socialbakers.com/statistics/facebook/pages/total/sport/sport-club/ (accessed November 15, 2015).

Solberg, H.A. and Haugen, K. (2010), "European club football: why enormous revenues are not enough?", *Sport in Society*, Vol. 13 No. 2, pp. 329-343.

Sport Business Institute (2016), "How football clubs and sponsors are leveraging Periscope", available at: http://sbibarcelona.com/the-power-of-periscope-for-clubs-and- sponsors/ (accessed February 2, 2016).

Statista (2016), "Market size of the European football market from 2006/2007 to 2016/2017", available at: www.statista.com/statistics/261223/european-soccer-market-total- revenue (accessed September 20, 2016).

Stavros, C., Meng, M., Westberg, K. and Farrelly, F. (2014), "Understanding fan motivation for interacting on social media", *Sport Management Review*, Vol. 17 No. 4, pp. 455-469.

Stoll, B. (2014), "The current status of digital transformation within football at IFA Berlin", available at: www.theuksportsnetwork.com/the-current-status-of-digital-transformation-within-football-at-ifa-berlin (accessed November 10, 2014).

Storm, R. (2010), "From homophonic to polyphonic objectives: European team sports clubs in transformation", *Sport Science Review*, Vol. 19 Nos 5/6, pp. 93-120.

Szymanksi, S. and Smith, R. (1997), "The English football industry, profit, performance and industrial structure", *International Review of Applied Economics*, Vol. 11 No. 1, pp. 135-153.

Szymanski, S. (2006), "The objective function of a team", in Andreff, W. and Szymanski, S. (Eds), *Handbook on the Economics of Sport*, Elgar, Cheltenham, pp. 601-609.

Szymanski, S. and Kuypers, T. (1999), *Winners and Losers: The Business Strategy of Football*, Penguin Books, London.

Tewhatu, D. (2015), "YouTube to stream the entire Copa del Rey season", available at: http://digitalsport.co/youtube-to-stream-the-entire-copa-del-rey-season (accessed October 27, 2015).

Tewhatu, D. (2016), "Facebook's live streaming service can change the broadcasting game", available at: http://digitalsport.co/facebooks-live-streaming-service-can-change-the- broadcasting-game (accessed March 9, 2016).

Union of European Football Associations (UEFA) (2015a), "Berlin final captures the world's imagination", available at: www.uefa.com/uefachampionsleague/news/newsid=2255318.html (accessed October 28, 2015).

Union of European Football Associations (UEFA) (2015b), "UEFA club licensing and financial fair play regulations", available at: www.uefa.org/MultimediaFiles/Download/Tech/uefaorg/General/02/26/77/91/2267791_download.pdf (accessed September 18, 2016).

Vallerand, R.J., Ntoumanis, N., Philippe, F.L., Lavigne, G.L., Carbonneau, N., Bonneville, A., Lagacé-Labonté, C. and Maliha, G. (2008), "On passion and sports fans: a look at football", *Journal of Sports Sciences*, Vol. 26 No. 12, pp. 1279-1293.

Wallace, L., Wilson, J. and Miloch, K. (2011), "Sporting Facebook: a content analysis of NCAA organizational sport pages and big 12 conference athletic department pages", *International Journal of Sport Communication*, Vol. 4 No. 4, pp. 422-444.

Watanabe, N., Yan, G. and Soebbing, B. (2015), "Major League Baseball and Twitter usage: the economics of social media use", *Journal of Sport Management*, Vol. 29 No. 6, pp. 619-632.

Whiteside, E., Yu, N. and Hardin, M. (2012), "The new toy department? A case study on differences in sports coverage between traditional and new media", *Journal of Sports Media*, Vol. 7 No. 1, pp. 23-38.

Williams, J. and Chinn, S.J. (2010), "Meeting relationship-marketing goals through social media: a conceptual model for sport marketers", *International Journal of Sport Communication*, Vol. 3 No. 4, pp. 422-437.

Zimbalist, A.S. (2002), "Competitive balance in sports leagues", *Journal of Sports Economics*, Vol. 3 No. 2, pp. 111-121.

Corresponding author
Christos Anagnostopoulos can be contacted at: christos.anagnostopoulos@himolde.no

For instructions on how to order reprints of this article, please visit our website:
www.emeraldgrouppublishing.com/licensing/reprints.htm
Or contact us for further details: **permissions@emeraldinsight.com**

The current issue and full text archive of this journal is available on Emerald Insight at:
www.emeraldinsight.com/2042-678X.htm

How fans are engaging with baseball teams demonstrating multiple objectives on Instagram

Joon K. Kim and Kevin Hull
School of Journalism and Mass Communications, University of South Carolina, Columbia, South Carolina, USA

Abstract

Purpose – Using uses and gratifications theory as a guide, the purpose of this paper is to examine how fans are engaging with Major League Baseball (MLB) teams that are utilizing Instagram postings to demonstrate sporting, business, and social objectives.
Design/methodology/approach – An analysis of 1,500 photos (50 from each team) was conducted. A content analysis analyzed the content of the photo, and a textual analysis was implemented to examine the use of hashtags by the teams on their Instagram photos.
Findings – Posts that overly demonstrated the business and social objectives had some of the lowest numbers of likes and comments, indicating that fan engagement is not often achieved through these methods.
Originality/value – Results of this research demonstrate that while MLB teams are able to address their multiple objectives on Instagram, fans are not necessarily interested in all three of these efforts. Posts about on-field action, consumer buying opportunities, and charitable efforts were all created by the majority of teams, but the sporting objective posts had, by far, the highest average number of both likes and comments when compared to the charitable and promotional objectives of the teams. Therefore, the results provide some best practices for teams looking to use the photo and video sharing network.

Keywords Engagement, Instagram, CSR, Baseball, Fans, Uses and gratification
Paper type Research paper

At the end of the 2016 Major League Baseball (MLB) season, the Chicago Cubs' players held the championship trophy after defeating the Cleveland Indians in the World Series (Witz, 2016). While the Cubs achieved the ultimate goal of winning on the field, the other 29 teams in the league could still aim to be winners off the field on their balance sheets. While all professional teams (with the rare exception) work tireless hours to win the most games possible, they are also looking to be a financial success. In order to help achieve the off-field goals, sports teams may turn to social media platforms to help with their marketing strategies. Professional sports leagues and teams have invested significant amounts of time and resources into developing and maintaining fan engagement through social media (Filo *et al.*, 2015; Patel, 2016).

While both Twitter and Facebook are most commonly cited as effective social media marketing platforms (Hutchins and Rowe, 2012; Lebel *et al.*, 2015; O'Shea and Alonso, 2011 among others), Instagram has quickly risen as an additional platform for businesses (Berg and Sterner, 2015; Geurin-Eagleman and Burch, 2015). Instagram's per-follower engagement rate (or total number of likes, comments, or shares on a post) is more than ten times greater than Facebook and more than 100 times greater than Twitter (Elliott, 2015). In addition, brands advertising on Instagram had advertisement recall rates among viewers that were 2.8 times higher than other forms of online advertising (O'Malley, 2015). Specifically among sports fans, Instagram has become the go-to place after games. During the 2016 Olympics, 131 million Instagram users had 916 million interactions about the events (Flynn, 2016). Of the 500 million people that use Instagram each month, 165 million are sports fans that, on average, follow eight sports-related accounts (Patel, 2016). MLB supporters were some of the earliest sports fans to gravitate to the social network.

Sport, Business and Management:
An International Journal
Vol. 7 No. 2, 2017
pp. 216-232
© Emerald Publishing Limited
2042-678X
DOI 10.1108/SBM-01-2017-0002

One month into the 2012 season, there was a 400 percent increase in Instagram photos posted at MLB games when compared to the entire 2011 season (Laird, 2012).

Despite increased attention to Instagram's promotional potential, little is known about how fans are engaging with sport teams utilizing and managing the photo-sharing platform. The purpose of this study is to examine how fans are responding to MLB teams utilizing Instagram postings in an effort to showcase on-field action while also balancing business and social objectives. This balance is important for sports teams as they employ strategic relationship-marketing practices in order to retain loyal customers because these franchises rely on repeat purchases of tickets and promotional merchandise to retain loyal consumers (Williams and Chinn, 2010). Utilizing uses and gratification theory as a guide, fan engagement with MLB teams on Instagram is analyzed.

Literature review

The multiple objectives of sports teams

Dobson and Goddard (2011) argued that profit maximization is the prime objective of North American leagues and teams. Sports leagues are perceived as joint ventures that can be considered as a single entity (Buraimo *et al.*, 2015). In sports leagues, matches are joint products that are different from other businesses in which one firm could prosper by eliminating competition and acquiring a position as a monopoly supplier (Dobson and Goddard, 2011). Instead, sports leagues consist of teams that are competitors on the field but involved in an economic cooperation system outside of the games (Garcia-del-Barrio and Szymanski, 2009). Economic literature has pointed out that collaboration and cooperation are more important between sports teams than most other sectors of business (Borland and MacDonald, 2003; Garcia-del-Barrio and Szymanski, 2009; Neale, 1964). Professional sports leagues are structured to increase fan engagement and to maximize leagues' profits by attracting more spectators as consumers (Wilson *et al.*, 2015). In order to achieve these two goals, most studies have investigated professional sports leagues with two approaches – profit maximization and win maximization (Garcia-del-Barrio and Szymanski, 2009; Sloane, 2015).

Garcia-del-Barrio and Szymanski (2009) argued that an individual sports team's behaviors can be better understood by a strategy of win maximization, rather than profit maximization. Lewis *et al.* (2007) argued that winning significantly influences MLB teams' economic success, although individual teams depend on league performance to succeed. Winning drives fan interest, attracts more people to the ballpark, and increases television ratings and sales of team-related merchandise (Garcia-del-Barrio and Szymanski, 2009; Gladden and Milne, 1999; Lewis *et al.*, 2007). With respect to the perspective of win maximization, a significant amount of attention has been given to the economics of professional sports leagues emphasizing the importance of uncertainty of outcome as the attractiveness of sports (Hogan *et al.*, 2013). To succeed and be attractive, a professional sports league is required to have balanced competition and matches should have uncertain outcomes (Wilson *et al.*, 2015).

Despite the claimed importance of uncertainty of outcome and games as a product, researchers have pointed out that professional sports teams' behaviors are not solely determined by profit and win maximization principles (Garcia-del-Barrio and Szymanski, 2009). In addition, studies have shown contradictory results of the effect of a competitive balance on game attendance in various professional sports leagues (Szymanski, 2003). For instance, Hogan *et al.* (2013) found that the strength of the home team was more significant to drive match attendance than competitive balance through a study of factors influencing match attendance in European Rugby Union leagues. The result of the study revealed that the league fans were more likely to want to watch a strong home team's victory over a weak visiting team than take in a match between two evenly mediocre teams.

However, individual sports teams are expected to not only win games but also make their event enjoyable to engage fans, sponsors, and broadcasters (Hogan *et al.*, 2013). Due to the nature of matches as a joint production, individual sports teams need to support the league to achieve their objectives and to increase additional revenue (Wilson *et al.*, 2015). Professional sports leagues have the ability to significantly increase their financial value through broadcasting and commercial rights products and to influence their supporters and the communities where they operate (Wilson *et al.*, 2015). Borland and MacDonald (2003) explained two demands for sporting contests: derived and direct demands. Derived demand for sports teams includes selling the production of programming content to advertisers, enhancing the brand name and reputation through advertising and sponsorship, and selling team merchandise (e.g. clothing), whereas direct demands include demand for live attendance at sports contests and demand for watching sports contests through a pay-per-view service.

Sports teams should manage not only partnerships with businesses to generate significant financial opportunities but also relationships with public institutions to provide societal integration and access to legitimization and support (May and Phelan, 2005; Walters and Chadwick, 2009). These charitable efforts, known as corporate social responsibility (CSR), are a set of actions that appears to contribute some social good, extend beyond the financial interests of the firm, and is not required by law (McWilliams and Siegel, 2000). Professional sports teams have increasingly engaged in socially responsible activities (Babiak and Wolfe, 2009; Heinze *et al.*, 2014). Sheth and Babiak (2010) found that sports executives perceive CSR as an important strategy for their business. Despite the increased attention among teams, there is often just one person in charge of a club's charitable efforts, and this person has to balance various initiatives created by both his or her individual team and the league. This often forces that social media manager to have to rely on both external and internal resources to do his or her job properly (Anagnostopoulos and Shilbury, 2013).

When it comes to sports and CSR, it is not always the teams and players that are utilizing athletics to give back to the community. A ten-year longitudinal study found that the top 100 firms in the Financial Times Stock Exchange, many of which have no natural connection to the sports world, used sports as a vehicle to enact their own CSR efforts (Bason and Anagnostopoulos, 2015). Initiatives for these companies included everything from large corporate financial donations to employees simply volunteering their time to help a worthy cause (Bason and Anagnostopoulos, 2015). In 2008, Breitbarth and Harris pointed out that CSR in the sports context had not been sufficiently investigated. While those calls have since been answered, this research attempts to continue filling the gaps in CSR and sport research by examining how fans engage with charitable posts on social media.

Instagram, sport marketing, and consumer engagement

Due to the popularity of social media, sports organizations have invested significant time and resources to reinforce engagement and relationships online (Filo *et al.*, 2015). Sports teams use social media as a promotional platform in an attempt to increase attendance and sell merchandise, which reinforces consumers' value (Pronschinske *et al.*, 2012). Researchers found that sports organizations embrace the potential of sports media platforms, incorporating them as a valuable marketing tool to disseminate content rapidly, increase brand awareness, and attract users (Hutchins and Rowe, 2012; O'Shea and Alonso, 2011). Lebel *et al.* (2015) argued that sports organizations utilize social media strategy in order to augment their profits. In addition, given the increasing globalization of numerous sport leagues, social media can provide sports teams with innovative experiences and interactions to strengthen relationships with supporters outside of a team's home market (Stavros *et al.*, 2014).

Interviews with the social media marketing managers of football (soccer) team Liverpool FC found that two of the team's main goals on social media were to engage fans and increase sales.

However, they struggled balancing those objectives. While the social media accounts are ultimately created for financial reasons, one manager said, "these channels are for fans, for engagement, not to sell things" (Parganas and Anagnostopoulos, 2015). A content analysis of the same team's Twitter account found that fans were most like to reply, retweet, or favorite tweets about the star player or team success. However, those fans had a greater opportunity to engage with the tweets about sporting accomplishments, because the team did not use its Twitter account to frequently posts promotional messages or tweets about their charitable efforts (Parganas *et al.*, 2015). Researchers have determined that while advertising is necessary on social media, those posts should be created with caution as fans may not be happy to see these posts in their feed about their team (Parganas and Anagnostopoulos, 2015).

This push for social media marketing among sports teams can likely be linked to the fact that sports fans are utilizing the services on a daily basis. Social networks such as Instagram, Facebook, and Twitter have helped to create "connected fans" who rely on online resources to both find out the latest sports information and interact with other fans (Hull and Lewis, 2014). A vast number of studies have shown that sports fans are more active than average consumers in terms of relationship between public and organizations, which provides sport organizations with the potential opportunity to create long-lasting relationships with their fans (Waters *et al.*, 2011).

Watanabe *et al.* (2015) investigated MLB teams' use of social media in relation to franchise performance, scheduling, and other factors. They examined factors that influence daily changes in Twitter, focusing on MLB teams from a team-management perspective. The result of the study revealed that the content of social media messages, certain calendar events, and postseason appearances can enhance fan interest in social media.

However, little is known about how sport teams incorporate Instagram into their marketing strategies. According to the Pew Research Center, the number of Instagram users has doubled since the center first started to track the social media platform's adoption in 2012 (Duggan, 2015). The number of monthly active Instagram users exceeded 400 million in 2014, which was larger than the number of monthly active Twitter users (Kharpal, 2015). Due to its increased popularity, Instagram has become an important marketing platform that offers great potential for companies (Berg and Sterner, 2015; Geurin-Eagleman and Burch, 2015). Companies use Instagram not only for sales promotion but also as a way to show off their brands and give customers a peek at them behind the scenes (Chan, 2011).

Although social media have captured substantial scholarly attention in terms of sports marketing, most studies have focused on sports teams' and athletes' use of Twitter (Gibbs *et al.*, 2014; Hull, 2014; Hull and Lewis, 2014; Witkemper *et al.*, 2012). The studies that have examined Instagram have examined individual athletes' self-representation within their own posts (Geurin-Eagleman and Burch, 2015; Smith and Sanderson, 2015) and have not focused on entire teams or fans' engagement with those teams.

Instagram's option for users to like, comment on, and share posts allows for engagement between the sender of the message and the receiver. While engagement is a word that has been used since 2005 in academic marketing research, Brodie *et al.* (2011) noted that there was little attempt made at defining the term. In the era of social media, engagement has become an important part of marketing because consumers can now become an active member of the interaction, instead of simply being a passive receiver (Vivek *et al.*, 2012). This interactive possibility has created a definition for consumer engagement as "the intensity of an individual's participation in and connection with the organization's offerings and/or organizational activities, which either the customer or organization initiate" (Vivek *et al.*, 2012, p. 127). Ultimately, it is the interaction that allows consumers to engage with the brand.

Uses and gratification theory

Uses and gratification theory states that media use is goal driven. Consumers utilize media to meet their individual needs, leading to gratifications received (Katz *et al.*, 1974).

Traditional media was long the focus of uses and gratification theory, in which a passive consumer views the messages being sent by the outlet (Blumler, 1979; Rubin, 2009). The development of the internet has created an active user, in which gratification levels can now be measured by how the user interacts with the media (Papacharissi and Rubin, 2000; Ruggiero, 2000). The creation of social media has led to a renewed interest in uses and gratification theory among researchers due to the interactive nature of the digital environment (Rubin, 2009). Researchers have proposed that "new media" has created new gratifications that users seek out, including some that would likely resonate with sports fans such as coolness, being there, community building, interaction, and play/fun (Sundar and Limperos, 2013). Uses and gratification theory has become a popular theory in the internet era, having been applied to social media (Pai and Arnott, 2013), the online review app Yelp (Hicks *et al.*, 2012), the dating app Tinder (Sumter *et al.*, 2017), and the use of a cellphone as a form of entertainment (Wei, 2008).

Uses and gratification theory has also been utilized in research analyzing the connection between sports and social media. Hambrick *et al.* (2010) found Ruggiero's (2000) analysis of how the internet would be appealing to people was proven true among athletes. Sports stars were using Twitter to both interact with others and provide information about themselves to the rest of the world (Hambrick *et al.*, 2010). An additional athlete-focused study examined why college athletes use Twitter despite the somewhat abusive backlash these players will often face online after a poor performance (Browning and Sanderson, 2012).

While those previous studies examine uses and gratification from the athletes' perspective, research has also been conducted from the fans' viewpoint and through examining how companies wish to engage with those fans. Sports teams and brands are actively trying to create content that will lead to gratification from the users. Therefore, sports entities must develop social media strategies that align with consumer motivations. Gillooly *et al.* (2017) analyzed the tweets from the official Olympic accounts in 2012 and found that sponsors were creating content that fell into one of four categories identified as user motivations for consuming social media content: informing, entertaining, rewarding, and interacting. Clavio (2008) found that sports fans use message boards to achieve four dimensions of gratification: interactivity, information gathering, diversion, and argumentation. A few years later, Clavio and Kian (2010) examined why people followed a retired professional golfer on Twitter and found that followers respected that the athlete was an expert and enjoyed her writing style. An examination of sport hashtags found that fans who used #WorldSeries on Twitter were able to fulfill their needs of displaying their fandom and interacting with other users (Blaszka *et al.*, 2012). Finally, those who follow athletes listed interactivity as one of the most gratifying part of using Twitter (Frederick *et al.*, 2012).

Covert and overt promotions in media

Coffey and Cleary (2008) argued that companies can secure consumers and increase their loyalty by employing either covert or overt marketing practices. The researchers used television news as their example and defined overt marketing practices as a media company's promotion of its program, sister properties, and related products. For example, a television station sports anchor saying, "Watch the 11:00 news for Dodgers highlights" would be overt promotion. Covert promotion occurs when a viewer may not realize that the promotion is taking place because it is not as obvious. For example, if that same television station features a story about the sports anchor appearing at a charity event, that would be covert because the station is ultimately promoting its own employees in an effort to increase awareness about its own product (Coffey and Cleary, 2011).

Due to the changes in media, such as integration of firms, convergence of industries, and marketization, cross-media promotion has become more important (Hardy, 2010). Under the

media system, promotion is considered the glue that holds together a vast web of media communications by connecting media content with others (Deuze, 2011). Organizations can also employ covert marketing strategies, such as relationship marketing. Harwood *et al.* (2008) explained that relationship marketing is the process of developing, maintaining, and enhancing mutually beneficial long-term relationships through interaction. Beverland *et al.* (2010) pointed out the importance of understanding the fan motivations that bolster sports consumption and how these are uniquely identified in context. Hambrick and Kang (2015) explored how professional sports organizations use Pinterest by employing relationship marketing. The researchers found that sports teams provided their fans with the fan group experience and information about teams and games.

Moreover, McCarthy *et al.* (2014) examined how UK football clubs utilize social media and its potential benefits. The result of the study indicated that use of social media could provide clubs with various benefits such as fan engagement, community growth, and commercial gain. Furthermore, the researchers pointed out that sports teams are required to balance short-term revenue generation with longer term brand building through their social media presence.

Research questions

Instagram has been called "the future of social media" (Gufran, 2016), and sports fans have been gravitating to the platform (Bloom, 2015). Instagram even has a "head of sports partnerships" that is tasked with getting more people from the world of sports to use the social network (Patel, 2016). As Instagram becomes an important part of the marketing plan for many sports teams, it is worth examining how fans are engaging with MLB teams that are attempting to balance their business, social, and on-field objectives. Therefore, the following two research questions are proposed:

RQ1. What objective demonstrated on Instagram posts from MLB teams resulted in the highest average number of comments?

RQ2. What objective demonstrated on Instagram posts from MLB teams resulted in the highest average number of likes?

Methods

A mixed methods approach was utilized for this study. A content analysis analyzed the content of the photo, and a textual analysis was implemented to examine the use of hashtags by the teams on their Instagram photos. The decision to use multiple methods is consistent with previous research on Instagram, including Smith and Sanderson's (2015) study on how athletes were using the social network.

In order to examine the Instagram practices of each team, the most recent 50 posts were gathered from each of the 30 MLB franchises on August 30, 2015 ($n = 1{,}500$). The end of August was chosen as the time frame for the research because it is during the baseball season when each team is likely active on social media. To collect the data, screen captures of all 1,500 posts were taken using an iPhone. Within each screen capture, the visual, number of comments, and number of likes were all displayed. Since the screen capture does not accurately display if the post is a video instead of a still image, the researcher made a note of all videos for later coding.

The goal of the research was to determine how the teams were displaying multiple objectives within their Instagram posts and on the accompanying hashtags. Therefore, a coding scheme was adapted from Smith and Sanderson's (2015) research involving how athletes were using Instagram. Each post was coded into one of four team objective categories: merchandise objective (such as promotions for tickets or photos of food), sporting objective

(such as game action or photos of fans), charitable objective (such as photos or videos of charitable activities), or other (non-baseball related posts). Additionally, each post was coded as either an overt or covert promotion. Overt promotions consisted of posts in which an explicit reference was made to buying a product or service related to the team. Due to the fact that Instagram is a promotional tool, all other posts were coded as covert. Each post was also identified as an original posting from the team account or a repost from another account. The postings were further identified as either a photo or a video.

For the textual analysis, hashtags were examined within each post. As with Smith and Sanderson (2015), the photo or video post and the accompanying hashtag(s) were coded separately due to the fact that they were not always correlated. For example, a photo of ballpark food may contain a hashtag relating to the team's name. Therefore, the number of hashtags within each post was recorded and the hashtags used within the post were coded into the appropriate categories among the same four options as the photos or videos: merchandise objective (promotional hashtags), sporting objective (such as team name, players, or stadium names), charitable objective (such as photos or videos of charitable activities), or other (such as Instagram terms, emoticons, or local/regional references). Table I contains examples of the textual analysis. Overt and covert promotions were once again coded, using the same scheme that was used in the photos and videos. Due to the fact that multiple hashtags are often used with postings, postings could contain more than one hashtag code. Finally, the number of comments and the number of likes on each post were recorded.

Two researchers examined 150 randomly selected posts (10 percent of the sample) to determine intercoder reliability. Testing with Krippendorff's α determined a high level of reliability for hashtag used ($\alpha = 0.842$), category of photo ($\alpha = 0.834$), number of likes ($\alpha = 0.973$), and number of comments ($\alpha = 0.987$). Based on the acceptable level of initial agreement for intercoder reliability, the remaining posts were divided among the same two researchers.

Results

Sample description

Of the 1,500 Instagram posts, 1,449 (96.6 percent) were photos and 51 (3.4 percent) were videos. The most frequently appearing post category was "sporting objective" (1,319 posts, 87.9 percent), followed by "merchandise objective" (120 posts, 8 percent), "charitable objective" (53 posts, 3.5 percent), and other (eight posts, 0.5 percent). Table II contains a rundown of all the photo/video categories. Of the 30 teams, 20 had posts in all three objectives.

Table I. Examples of textual analysis

Post category	Examples of hashtag in that category
Merchandise objective	#FanAppreciationWeekend
Sporting objective	#RedSox
Charitable objective	#ALSIceBucketChallenge
Other	#NationalDogDay

Table II. Number of posts within category

Post category	Number of posts ($n = 1{,}500$)	%
Sporting objective	1,319	87.9
Merchandise objective	120	8.0
Charitable objective	53	3.5
Other	8	0.5

The entire sample averaged 9,054.48 likes (SD = 8,031.754, range = 824 to 52,313) and 97.27 comments per post (SD = 141.119, range = 0 to 1,672). The Los Angeles Dodgers had the highest average number of both likes, at 33,770 (SD = 7,382.002), and comments, at 427.48 (SD = 356.655). The Chicago White Sox had the lowest average number of likes at 2,301.02 (SD = 660.867), and the least average number of comments per post (25.46, SD = 19.536).

Of the 1,500 posts, 1,115 contained a hashtag (74.3 percent), while 385 did not (25.7 percent). Photos contained an average of 1.14 hashtags (SD = 0.990, range = 0-10). Three of the 30 teams used a hashtag in all 50 of their examined posts (Boston Red Sox, Houston Astros, and San Francisco Giants), while the Atlanta Braves and the Toronto Blue Jays both posted the least number of photos that contained a hashtag (6). The most frequently appearing hashtag category was "sporting objective" (1,283 times), followed by "other" (117 times), "merchandise objective" (55 times), and "charitable objective" (50 times).

While previous research has touted the importance of hashtags in generating engagement with followers, the results of this analysis were mixed. Post that used a hashtag showed a greater number of likes ($M = 9{,}346.21$, SD = 8,331.47) than posts that did not use hashtags ($M = 8{,}209.58$, SD = 7,034.63, t (1,500) = 2.60, $p = < 0.01$). However, when it comes to number of comments, there was no significant difference between posts that used hashtags ($M = 96.80$, SD = 144.67) and posts that did not use hashtags ($M = 98.60$, SD = 130.46, t (1,500) = −2.2, p = ns). In addition, number of hashtags used in posts was not significantly associated with number of likes, F (8, 1,491) = 1.56, p = ns, and comments, F (8, 1,491) = 0.36, p = ns.

Research questions

RQ1 asked what type of Instagram posts from MLB teams resulted in the highest average number of comments. Of the three objectives on which teams focus, posts based on the on-field sporting objectives had the highest number of comments per post (99.66). For example, a post from the New York Yankees had a photo of pitcher Brendan Ryan with his pitching statistics from the most recent game (2 IP, 2 H, 0 R, 0 BB, 0 K) graphically added to the post. Photos coded in the merchandise objective had the second highest among the three objectives (91.41). A picture from the New York Mets of hamburgers that were for sale at the stadium had 751 comments. The charitable objective had the least number of average comments of all post categories (49.85). A charitable photo from the Tampa Bay Rays regarding their work in the community had just two comments.

Despite the three main objectives being the focus of teams, the eight posts coded as "other" ultimately resulted in the highest number of comments (104.63). These postings included a photo from the San Diego Padres of the tour bus for singer Taylor Swift in anticipation of her upcoming concert at their stadium, Petco Park. The post was designed to inform fans about security and parking issues for the concert. Table III contains a list of the average number of comments based on the category of Instagram post.

RQ2 asked what type of Instagram posts from MLB teams resulted in the highest average number of likes. Posts labeled as "sporting objective" resulted in the most average likes with 9,508.45 per post. For example, when the Boston Red Sox posted a photo of former

Post category	Number of posts (n = 1,500)	Mean	SD
Other	8	104.63	114.91
Sporting objective	1,319	99.66	143.62
Merchandise objective	120	91.41	134.04
Charitable objective	49.85	49.85	76.46

Table III. Average number of comments for post category

player Pedro Martinez from his time on the team, more than 21,000 fans liked the post. The "merchandise objective" averaged 6,241 likes, "charitable objective" averaged 4,968.64 likes, and the "other" category averaged 3,477.5 likes. Table IV provides a breakdown of the average number of likes per post category.

Discussion

Multiple objectives

Results of the analysis demonstrate that MLB teams are demonstrating their multiple objectives on Instagram. Posts about on-field action, consumer buying opportunities, and charitable efforts were all created by the majority of teams. However, further analysis reveals that these types of posts were not created at similar rates. Teams overwhelmingly created posts that showcased the team's sporting objectives, with over 87 percent of all 1,500 posts falling into that category. Some teams went even higher with that percentage, as the St Louis Cardinals had 49 of the 50 tweets about their on-field accomplishments.

When examined in the context of fan engagement, this strategy appears to be a wise one. The sporting objective posts had the highest average number of both likes and comments when compared to the charitable and promotional objectives of the teams. For the baseball teams in this study, the balance between demonstrating their multiple objectives and creating fan engagement is a difficult one. While some teams may wish to send more posts demonstrating their CSR activities and merchandise available, fans are not engaging with those posts as frequently. If fans are not getting material from the team on Instagram that keeps them engaged, then perhaps they will not be as interested in following that specific account. Therefore, it would appear to be a wise decision for teams to primarily focus on the sporting objective within Instagram while occasionally posting a photo or video demonstrating their charitable or promotional aspects.

However, previous research has demonstrated that perhaps MLB teams are posting these charitable photos, but in different accounts. Anagnostopoulos *et al.* (2016) projected that teams may be focusing on their charitable foundation's social media to promote their CSR initiatives. A closer look at the Instagram presence of MLB teams demonstrates that organizations are utilizing additional accounts. For example, the Boston Red Sox charitable arm, The Red Sox Foundation, has its own Instagram page (@RedSoxFund) in which it posts photos and videos of the team's work in the community. The Red Sox also have an Instagram page dedicated to "a look inside Boston Red Sox Community & Player Relations" (@redsoxcommunity) which only shows posts of the team's CSR initiatives. Therefore, when examining how MLB teams are using social media to promote their CSR efforts, it is important to also include the pages that are strictly devoted to charitable work. While it may appear that the Los Angeles Dodgers are not promoting their CSR efforts on social media (only one of their 50 posts was labeled as charitable objective), it should be noted that they have an entire additional Instagram account (@DodgersFoundation) that almost exclusively showcases its charitable objective. Posts in that account may have better success creating engagement because users who follow or visit those charitable accounts are specifically looking for that type of content, as opposed to fans on the main account who appear to be more interested in the sporting objective.

Table IV. Average number of likes for post category

Post category	Number of posts ($n = 1{,}500$)	Mean	SD
Sporting objective	1,319	9,508.45	8,182.90
Merchandise objective	120	6,241	6,612.32
Charitable objective	53	4,968.64	4,070.32
Other	8	3,477.5	1,927.51

Promotional posts

While it would appear the best business decision would be to send promotional messages encouraging fans to buy tickets and merchandise, the data show that fan interest may not be very high. Promotional posts were in the bottom half of the posts when measured by average number of comments and likes. Posts that used an overtly promotional hashtag ($M = 4{,}823.25$, SD = 2,931.65) had an average of over 4,000 less likes per post than those that did not have an overly promotional hashtag ($M = 9{,}123.28$, SD = 8,070.22, t (1,500) = −6.78, $p < 0.001$). Therefore, it would appear that MLB teams are demonstrating that covert promotions are more effective in producing fan engagement than overt promotional techniques on Instagram.

Unlike the explanation of the lack of CSR photos due to another account for charitable posts, there are no teams that have separate Instagram feeds dedicated to promoting ticket or merchandise sales. Therefore, if these overt promotions are not being created on the main feed, then teams are not using Instagram for this purpose. However, as previous research has demonstrated, teams are in the business of win maximization and not profit maximization (Garcia-del-Barrio and Szymanski, 2009). This may explain why the sporting objective took precedence over the merchandise objective and why teams are not creating separate accounts that display promotional posts.

Engagement

This study demonstrates that there are multiple ways for a sports team to attempt to engage their followers and fans. While several of the Instagram posts did use overt promotions in order to encourage fans to buy tickets, teams more frequently utilized covert promotions in order to rally support for the team. This research demonstrated that sports businesses are not overtly trying to maximize profits with every message they are sending to the public. Professional sports teams contact their consumers for a variety of reasons, and it appears as if not all of them are overtly designed to maximize profits. Instead, as stated in previous research, sports teams employ strategic relationship-marketing practices because sports teams rely on repeat purchases of tickets and promotional merchandise to retain loyal consumers (Williams and Chinn, 2010).

When examining engagement in relation to sports franchises, it is important to recognize the importance of covert promotions in their interactions with consumers. These messages about the team's success, individual players, and the entire baseball experience may be just as important to a team's public image as a post promoting the newest merchandise or ticket sales announcement. While the baseball teams in this study did use overtly promotional tactics in some Instagram posts, those messages were not received well by their followers and resulted in some of the lowest numbers of likes and comments. Instead, teams are using posts about the team to rally fans. By getting their followers excited about the team through Instagram posts, the teams are hoping that likes and comments will eventually translate into fan purchases that result in more money for the franchise.

Theoretical implications

This study furthers uses and gratification research by examining what types of posts are giving sports fans the most gratification on Instagram. The active user on Instagram has the opportunity to provide instant feedback to teams about what types of posts he or she enjoys or are indifferent to. By simply hitting the "like" button on the individual photo, users are able to demonstrate what posts they enjoy; likewise, by not "liking" a photo, they are able to signal their lack of interest. Previous research has demonstrated that interactivity was a primary cause of gratification (Blaszka *et al.*, 2012), but that was not necessariiy the case in this sample. Most of the posts in the sample simply showed a visual with a caption. The interaction was not forced by the team; instead, the fans created a separate community

through the comments section. In that case, it is the team that simply starts the conversation by posting media which gets the fans talking amongst themselves. In the realm of uses and gratification of sport social media, it is not necessarily the team that creates the satisfying result, but the users themselves who create a community among the comment section. The only responsibility of the team is to create a post that may help spark that conversation. The difference in the amount of comments and likes – based on the post type – may help demonstrate which objective is most successful in creating the conversation.

Additionally, the idea that fans are creating their own interactivity builds off Clavio's (2008) and Clavio and Kian (2010) research that stated there was a difference between those users who participate for information-gathering purposes and those who participate in order to get the interaction. This could help explain the differences between the number of likes and comments. If a user is receiving gratification from the message alone, he or she may simply like the post and move onto the next post. However, those craving the interactivity of social media may choose to either both like and comment on a post or just comment. This demonstrates that fans have different gratification goals when using social media, and Instagram provides an outlet that can cater to a variety of purposes.

The teams' post content was also consistent with the concept that social media posts fall into one of four categories: informing, entertaining, rewarding, and interacting (Gillooly *et al.*, 2017). For example, within the sample, the Washington Nationals posted photos that revealed that night's batting order (informing), showed players posing with their dogs (entertaining), told how to get six dollars off a sandwich at the ballpark (rewarding), and encouraged fans to post photos of military members of their family using a specific hashtag (interacting). This continues the line of research examining and confirming that teams are using a variety of methods in their social media campaigns in order to engage their target audience.

Practical implications

This study identifies an opportunity for teams to create content that can start engagement among their followers. Results demonstrate that posts with sporting objectives create the most comments and likes among followers. However, while previous research has suggested that teams should focus on interactive posts (Gillooly *et al.*, 2017), this study demonstrates that the fans themselves often create their own interactivity. Therefore, teams should consider posts that will start an organic discussion among fans instead of always forcing the conversation with a specific prompt. For example, some of posts with the most comments were related to game previews and game results. Fans were able to use the comments section of Instagram posts to discuss that day's batting order before the game, celebrate a big hit, or bemoan a subpar pitching performance after the final out.

In terms of gratifications, pictures that demonstrate the sporting objective received the highest engagement from followers. Therefore, while social media managers want to create a mix between the sporting, charitable, and merchandise objectives, it appears that fans are most interested in the posts that showcase the action on the field. In order to create engagement, teams should thus focus their efforts on game-related posts while being careful not to ignore the other off-field objectives.

When it comes to mentions of a team's charitable efforts on social media, the results of this study indicated that such posts are less likely to create engagement when compared to posts involving sporting and merchandise objectives. This result could be explained by a study conducted by Anagnostopoulos *et al.* (2016). The researchers found that established charitable foundations for various sports teams use social media to communicate their mission and community activities. These charitable groups consistently had a strong focus on their mission areas on Twitter (Anagnostopoulos *et al.*, 2016). Although teams may use their official social media accounts to discuss CSR efforts, the majority of those types of posts may actually occur on a different account associated with the team.

Therefore, teams need to develop a better strategy in order to demonstrate their charitable activity on Instagram when they post such messages using their official Instagram accounts. For instance, teams could incorporate game-related images into CSR posts in order to increase fans' awareness of their CSR efforts rather than display an image that explicitly showcases their CSR initiatives. Moreover, teams could examine successful examples of the posts created by their CSR-focused accounts and apply such strategies to the posts shared by the teams' official accounts.

Limitations and future research directions

As stated in Watanabe *et al.*'s (2015) piece: "It has become vital for teams/leagues to further develop methods to manage media messages and employees working with these platforms" (p. 628). Teams are working to determine what methods are the most successful in order to generate fan engagement and support online. The results of this study help teams recognize what types of Instagram posts are resulting in the most likes and comments.

While this research did examine 1,500 Instagram posts ranging from all 30 MLB teams, it is not without limitations. Perhaps the most obvious limitation is the large standard deviation caused by the variety in the number of followers of each team. To address this, future researchers may wish to focus on specific teams to determine if fans of individual teams respond to posts differently. Additionally, as Anagnostopoulos *et al.* (2016) suggested, many teams have created separate accounts for their charitable objectives. A study examining what types of posts are being made and how fans are engaging with those accounts would add to the CSR and sports literature.

The time frame in which the posts appear could also have an impact on content and fan engagement. For example, if a team on the east coast was playing in the west coast during the sample, those pictures would have been posted well after 10:00 p.m., perhaps after fans have already gone to bed. That could be a factor in how frequently fans comment on posts, no matter the content. Additionally, if a team is in the midst of a winning or losing streak, that may impact how willing fans are to engage with the team. Future studies may wish to examine photos over an entire season in order to eliminate any impact that time may have on engagement. Further analysis of posting during successful or unsuccessful portions of a season could lead to a study examining the concept of basking in reflected glory, in which fans want to be associated with a winning team (Cialdini *et al.*, 1976).

Future researchers may also wish to examine what types of comments are being left on each post. While this study determines what types of posts are generating the most comments, it would be valuable to read and code each comment to see exactly how fans are responding to each type of post.

In addition, more studies are needed to examine the relationship between use of hashtags and sports fan engagement. While previous studies found a positive relationship between use of hashtags and social media users' engagement, the result of this study revealed a mixed result. The result indicated that use of hashtag was positively associated with number of likes, whereas use of hashtags was not associated with number of comments. Thus, categories of hashtags in this study need to be investigated on other social media platform and potentially with other professional sports teams.

Another possible limitation of this study is that there may be specific reasons that these teams are posting in the manner that they are that have nothing to do with consumer engagement. Anagnostopoulos and Shilbury (2013) found that both external and internal factors impact why social media managers make certain posts. For example, a team's owner may demand that posts that encourage ticket and merchandise sales appear often in the Instagram account. So while this research looks at engagement, there may be factors beyond the number of likes and comments that impact why posts are made.

To address this limitation, future researchers may wish to interview the social media managers of the MLB teams to find out why certain posts are made and if engagement is an important part of their determination.

Conclusion

The aim of this paper was to examine how MLB teams are creating engagement among their fans on Instagram. As Instagram becomes a more important part of the marketing plans for professional sports teams, researchers should continue to analyze how the service is used, how fans respond to the posts, and what generates the most engagement. Using uses and gratification theory as a guide, the data demonstrated that fans are most likely to comment on and like posts that showcase the teams' sporting objectives. However, for fans that use Instagram for interactivity with others, the additional between-fan engagement was often organic and not directly requested by the photo, video, or caption. Therefore, this study advances the growing academic body of knowledge on creating fan engagement on Instagram, while also analyzing best practices for social media managers looking to provide their users with an experience that will keep them coming back to the team's feed.

References

Anagnostopoulos, C. and Shilbury, D. (2013), "Implementing corporate social responsibility in English football: towards multi-theoretical integration", *Sport, Business and Management: An International Journal*, Vol. 3 No. 4, pp. 268-284.

Anagnostopoulos, C., Gillooly, L., Cook, D., Parganas, P. and Chadwick, S. (2016), "Stakeholder communication in 140 characters or less: a study of community sport foundations", *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, pp. 1-27, available at: https://link.springer.com/article/10.1007/s11266-016-9802-4

Babiak, K. and Wolfe, R. (2009), "Determinants of corporate social responsibility in professional sport: internal and external factors", *Journal of Sport Management*, Vol. 23 No. 6, pp. 717-742.

Bason, T. and Anagnostopoulos, C. (2015), "Corporate social responsibility through sport: a longitudinal study of the FTSE100 companies", *Sport, Business and Management: An International Journal*, Vol. 5 No. 3, pp. 218-241.

Berg, L. and Sterner, L. (2015), "Marketing on Instagram: a qualitative study on how companies make use of Instagram as a marketing tool", available at: www.diva-portal.org/smash/get/diva2:859218/FULLTEXT01.pdf (accessed October 1, 2016).

Beverland, M.B., Farrelly, F. and Quester, P.G. (2010), "Authentic subcultural membership: antecedents and consequences of authenticating acts and authoritative performances", *Psychology & Marketing*, Vol. 27 No. 7, pp. 698-716.

Blaszka, M., Burch, L.M., Frederick, E.L., Clavio, G. and Walsh, P. (2012), "#WorldSeries: an empirical examination of a Twitter hashtag during a major sporting event", *International Journal of Sport Communication*, Vol. 5 No. 4, pp. 435-453.

Bloom, T. (2015), "How Instagram created a new platform for sports fans", January 21, available at: https://iq.intel.com/instagram-created-new-craze-sports-fans/ (accessed December 28, 2016).

Blumler, J.G. (1979), "The role of theory in uses and gratifications studies", *Communication Research*, Vol. 6 No. 1, pp. 9-36.

Borland, J. and MacDonald, R. (2003), "Demand for sport", *Oxford Review of Economic Policy*, Vol. 19 No. 4, pp. 478-502.

Breitbarth, T. and Harris, P. (2008), "The role of corporate social responsibility in the football business: towards the development of a conceptual model", *European Sport Management Quarterly*, Vol. 8 No. 2, pp. 179-206.

Brodie, R.J., Hollebeek, L., Juric, B. and Ilic, A. (2011), "Customer engagement: conceptual domain, fundamental propositions and implications for research", *Journal of Service Research*, Vol. 14 No. 3, pp. 1-20.

Browning, B. and Sanderson, J. (2012), "The positives and negatives of Twitter: exploring how student-athletes use Twitter and respond to critical tweets", *International Journal of Sport Communication*, Vol. 5 No. 4, pp. 503-521.

Buraimo, B., Frick, B., Hickfang, M. and Simmons, R. (2015), "The economics of long-term contracts in the Footballers' Labour Market", *Scottish Journal of Political Economy*, Vol. 62 No. 1, pp. 8-24.

Chan, L. (2011), *Social Media Marketing for Digital Photographers*, John Wiley & Sons, Indianapolis, IN.

Cialdini, R.B., Borden, R.J., Thorne, A., Walker, M.R., Freeman, S. and Sloan, L.R. (1976), "Basking in reflected glory: three (football) field studies", *Journal of Personality and Social Psychology*, Vol. 34 No. 3, pp. 366-375.

Clavio, G. (2008), "Uses and gratifications of internet collegiate sport message board users", doctoral dissertation, available from ProQuest database (AAT 3319833), Indiana University, Bloomington, IN, March.

Clavio, G. and Kian, T.M. (2010), "Uses and gratifications of a retired female athlete's Twitter followers", *International Journal of Sport Communication*, Vol. 3 No. 4, pp. 485-500.

Coffey, A.J. and Cleary, J. (2008), "Valuing new media spaces: are cable network news crawls cross-promotional agents?", *Journalism & Mass Communication Quarterly*, Vol. 85 No. 4, pp. 894-912.

Coffey, A.J. and Cleary, J. (2011), "Promotional practices of cable news networks: a comparative analysis of new and traditional spaces", *International Journal on Media Management*, Vol. 13 No. 3, pp. 161-176.

Deuze, M. (2011), *Managing Media Work*, Sage, Thousand Oaks, CA.

Dobson, S. and Goddard, J. (2011), *The Economics of Football*, University Press, Cambridge.

Duggan, M. (2015), "Mobile messaging and social media 2015", August 19, available at: www.pewinternet.org/2015/08/19/mobile-messaging-and-social-media-2015/ (accessed September 22, 2016).

Elliott, N. (2015), "How does your brand stack up on Facebook, Twitter, and Instagram", September 15, available at: http://blogs.forrester.com/nate_elliott/15-09-15-how_does_your_brand_stack_up_on_facebook_twitter_and_instagram (accessed October 1, 2016).

Filo, K., Lock, D. and Karg, A. (2015), "Sport and social media research: a review", *Sport Management Review*, Vol. 18 No. 2, pp. 166-181.

Flynn, K. (2016), "Facebook touts 1.5 billion interactions for its Rio Olympics coverage with Michael Phelps video as the crown jewel", August 22, available at: http://mashable.com/2016/08/22/facebook-olympics-stats/#nuMPo3SDAmqg (accessed October 1, 2016).

Frederick, E.L., Lim, C.H., Clavio, G. and Walsh, P. (2012), "Why we follow: an examination of parasocial interaction and fan motivations for following athlete archetypes on Twitter", *International Journal of Sport Communication*, Vol. 5 No. 4, pp. 481-502.

Garcia-del-Barrio, P. and Szymanski, S. (2009), "Goal! Profit maximization versus win maximization in soccer", *Review of Industrial Organization*, Vol. 34 No. 1, pp. 45-68.

Geurin-Eagleman, A.N. and Burch, L.M. (2015), "Communicating via photographs: a gendered analysis of Olympic athletes' visual self-presentation on Instagram", *Sport Management Review*, Vol. 19 No. 2, pp. 134-145.

Gibbs, C., O'Reilly, N. and Brunette, M. (2014), "Professional team sport and Twitter: gratifications sought and obtained by followers", *International Journal of Sport Communication*, Vol. 7 No. 2, pp. 118-213.

Gillooly, L., Anagnostopoulos, C. and Chadwick, S. (2017), "Social media based sponsorship activation: a typology of content", *Sport, Business, and Management: An International Journal*, Vol. 7 No. 3 (forthcoming).

Gladden, J.M. and Milne, G.R. (1999), "Examining the importance of brand equity in professional sports", *Sport Marketing Quarterly*, Vol. 8 No. 1, pp. 21-30.

Gufran, U. (2016), "Is Instagram the future of social media", December 15, available at: http://tech.co/is-instagram-the-future-of-social-media-2016-12 (accessed December 28, 2016).

Hambrick, M.E. and Kang, S.J. (2015), "Pin it: exploring how professional sports organizations use Pinterest as a communications and relationship-marketing tool", *Communication & Sport*, Vol. 3 No. 4, pp. 434-457.

Hambrick, M.E., Simmons, J.M., Greenhalgh, G.P. and Greenwell, T.C. (2010), "Understanding professional athletes' use of Twitter: a content analysis of athlete tweets", *International Journal of Sport Communication*, Vol. 3 No. 4, pp. 454-471.

Hardy, J. (2010), *Cross-Media Promotion*, Peter Lang, New York, NY.

Harwood, T., Garry, T. and Broderick, A. (2008), *Relationship Marketing: Perspectives, Dimensions and Contexts*, McGraw-Hill, London.

Heinze, K.L., Soderstrom, S. and Zdroik, J. (2014), "Toward strategic and authentic corporate social responsibility in professional sport: a case study of the Detroit Lions", *Journal of Sport Management*, Vol. 28 No. 6, pp. 672-686.

Hicks, A., Comp, S., Horovitz, J., Hovarter, M., Miki, M. and Bevan, J.L. (2012), "Why people use Yelp.com: an exploration of uses and gratifications", *Computers in Human Behavior*, Vol. 28 No. 6, pp. 2274-2279.

Hogan, V., Massey, P. and Massey, S. (2013), "Competitive balance and match attendance in European rugby union leagues", *The Economic and Social Review*, Vol. 44 No. 4, pp. 425-446.

Hull, K. (2014), "A hole in one (Hundred Forty Characters): a case study examining PGA Tour Golfers' Twitter use during the masters", *International Journal of Sport Communication*, Vol. 7 No. 2, pp. 245-260.

Hull, K. and Lewis, N.P. (2014), "Why Twitter displaces broadcast sports media: a model", *International Journal of Sport Communication*, Vol. 7 No. 1, pp. 16-33.

Hutchins, B. and Rowe, D. (2012), *Sport Beyond Television: The Internet, Digital Media and the Rise of Networked Media Sport*, Routledge, New York, NY.

Katz, E., Blumler, J. and Gurevitch, M. (1974), "Utilization of mass communication by the individual", in Blumler, J. and Katz, E. (Eds), *The Uses of Mass Communication: Current Perspectives on Gratifications Research*, Sage, Beverly Hills, CA, pp. 19-34.

Kharpal, A. (2015), "Facebook's Instagram hits 400M users, beats Twitter", available at: www.cnbc.com/2015/09/23/instagram-hits-400-million-users-beating-twitter.html (accessed August 22, 2016).

Laird, S. (2012), "How Instagram is taking over major league baseball", available at: http://mashable.com/2012/05/31/instagram-baseball-infographic/#IdN_wQEtHgqM (accessed August 22, 2016).

Lebel, K., Danylchuk, K. and Millar, P. (2015), "Social media as a learning tool: sport management faculty perceptions of digital pedagogies", *Sport Management Education Journal*, Vol. 9 No. 1, pp. 39-50.

Lewis, H.F., Sexton, T.R. and Lock, K.A. (2007), "Player salaries, organizational efficiency, and competitiveness in Major League Baseball", *Journal of Sports Economics*, Vol. 8 No. 3, pp. 266-294.

McCarthy, J., Rowley, J., Jane Ashworth, C. and Pioch, E. (2014), "Managing brand presence through social media: the case of UK football clubs", *Internet Research*, Vol. 24 No. 2, pp. 181-204.

McWilliams, A. and Siegel, D. (2000), "Corporate social responsibility and financial performance", *Strategic Management Journal*, Vol. 21 No. 5, pp. 603-609.

May, G. and Phelan, J. (2005), "Shared goals: sport and business in partnerships for development", June, available at: www.toolkitsportdevelopment.org/html/resources/9A/9A141603-39AE-4360-8749-FB2BA9B54676/shared_goals_1.pdf (accessed September 23, 2016).

Neale, W.C. (1964), "The peculiar economics of professional sports: a contribution to the theory of the firm in sporting competition and in market competition", *The Quarterly Journal of Economics*, Vol. 78 No. 1, pp. 1-14.

O'Malley, G. (2015), "Instagram sees strong ad recall rates", December 18, available at: www.mediapost.com/publications/article/265149/instagram-sees-strong-ad-recall-rates.html (accessed October 1, 2016).

O'Shea, M. and Alonso, A.D. (2011), "Opportunity or obstacle? A preliminary study of professional sport organisations in the age of social media", *International Journal of Sport Management and Marketing*, Vol. 10 Nos 3-4, pp. 196-212.

Pai, P. and Arnott, D.C. (2013), "User adoption of social networking sites: eliciting uses and gratifications through a means-end approach", *Computers in Human Behavior*, Vol. 29 No. 3, pp. 1039-1053.

Papacharissi, Z. and Rubin, A.M. (2000), "Predictors of Internet use", *Journal of Broadcasting & Electronic Media*, Vol. 44 No. 2, pp. 175-196.

Parganas, P. and Anagnostopoulos, C. (2015), "Social media strategy in professional football: the case of Liverpool FC", *Choregia: Sport Management International Journal*, Vol. 11 No. 2, pp. 61-75.

Parganas, P., Anagnostopoulos, C. and Chadwick, S. (2015), "You'll never tweet alone': managing sports brands through social media", *Journal of Brand Management*, Vol. 22 No. 7, pp. 551-568.

Patel, S. (2016), "Tap to like: Inside Instagram's full court press into sports", July 15, available at: http://digiday.com/platforms/inside-instagrams-courtship-sports-world/ (accessed December 28, 2016).

Pronschinske, M., Groza, M.D. and Walker, M. (2012), "Attracting Facebook 'fans': the importance of authenticity and engagement as a social networking strategy for professional sport teams", *Sport Marketing Quarterly*, Vol. 21 No. 4, pp. 221-231.

Rubin, A.M. (2009), "The uses-and-gratifications perspective on media effects", in Bryant, J. and Oliver, M.B. (Eds), *Media Effects: Advances in Theory and Research*, 3rd ed., Routledge, New York, NY, pp. 165-184.

Ruggiero, T.E. (2000), "Uses and gratifications theory in the 21st century", *Mass Communication & Society*, Vol. 3 No. 1, pp. 3-37.

Sheth, H. and Babiak, K.M. (2010), "Beyond the game: perceptions and practices of corporate social responsibility in the professional sport industry", *Journal of Business Ethics*, Vol. 91 No. 3, pp. 433-450.

Sloane, P.J. (2015), "The economics of professional football revisited", *Scottish Journal of Political Economy*, Vol. 62 No. 1, pp. 1-7.

Smith, L.R. and Sanderson, J. (2015), "I'm Going to Instagram It! An analysis of athlete self-presentation on Instagram", *Journal of Broadcasting & Electronic Media*, Vol. 59 No. 2, pp. 342-358.

Stavros, C., Meng, M.D., Westberg, K. and Farrelly, F. (2014), "Understanding fan motivation for interacting on social media", *Sport Management Review*, Vol. 17 No. 4, pp. 455-469.

Sumter, S.R., Vandenbosch, L. and Ligtenberg, L. (2017), "Love me Tinder: untangling emerging adults' motivations for using the dating application tinder", *Telematics and Informatics*, Vol. 34 No. 1, pp. 67-78.

Sundar, S.S. and Limperos, A.M. (2013), "Uses and Grats 2.0: new gratifications for new media", *Journal of Broadcasting & Electronic Media*, Vol. 57 No. 4, pp. 504-525.

Szymanski, S. (2003), "The economic design of sporting contests", *Journal of Economic Literature*, Vol. 41 No. 4, pp. 1137-1187.

Vivek, S.D., Beatty, S.E. and Morgan, R.M. (2012), "Customer engagement: exploring customer relationships beyond purchase", *Journal of Marketing Theory and Practice*, Vol. 20 No. 2, pp. 122-146.

Walters, G. and Chadwick, S. (2009), "Corporate citizenship in football: delivering strategic benefits through stakeholder engagement", *Management Decision*, Vol. 47 No. 1, pp. 51-66.

Watanabe, N., Yan, G. and Soebbing, B.P. (2015), "Major League Baseball and Twitter usage: the economics of social media use", *Journal of Sport Management*, Vol. 29 No. 6, pp. 619-632.

Waters, R.D., Burke, K.A., Jackson, Z.J. and Buning, J.D. (2011), "Using stewardship to cultivate fandom online: comparing how National Football League teams use their web sites and Facebook to engage their fans", *International Journal of Sport Communication*, Vol. 4 No. 2, pp. 163-177.

Wei, R. (2008), "Motivations for using the mobile phone for mass communications and entertainment", *Telematics and Informatics*, Vol. 25 No. 1, pp. 36-46.

Williams, J. and Chinn, S.J. (2010), "Meeting relationship-marketing goals through social media: a conceptual model for sport marketers", *International Journal of Sport Communication*, Vol. 3 No. 4, pp. 422-437.

Wilson, R., Plumley, D. and Barrett, D. (2015), "Staring into the abyss? The state of UK Rugby's Super League", *Managing Sport and Leisure*, Vol. 20 No. 6, pp. 293-310.

Witkemper, C., Lim, C.H. and Waldburger, A. (2012), "Social media and sports marketing: examining the motivations and constraints of Twitter users", *Sport Marketing Quarterly*, Vol. 21 No. 3, pp. 170-183.

Witz, B. (2016), "Cubs end 108-year wait for World Series title, after a little more torment", *The New York Times*, November 3, available at: www.nytimes.com/2016/11/03/sports/baseball/chicago-cubs-beat-cleveland-indians-world-series-game-7.html (accessed December 19, 2016).

Further reading

Breitbarth, T., Walzel, S., Anagnostopoulos, C. and van Eekeren, F. (2015), "Corporate social responsibility and governance in sport: 'Oh, the things you can find, if you don't stay behind!' ", *Corporate Governance*, Vol. 15 No. 2, pp. 254-273.

Corresponding author
Kevin Hull can be contacted at: khull@mailbox.sc.edu

For instructions on how to order reprints of this article, please visit our website:
www.emeraldgrouppublishing.com/licensing/reprints.htm
Or contact us for further details: **permissions@emeraldinsight.com**