

An analysis of factors affecting financial performance in English professional team sports

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An analysis of factors affecting financial performance in English professional team sports

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Contents

List of Published Works.....	2
Abstract.....	3
Introduction.....	4
Research aim, author's journey and the post hoc nature of this research.....	4
Literature Review and Research in Context	7
<i>The Economic Theory of Professional Sports Leagues</i>	8
<i>Measuring Performance in Professional Team Sports</i>	10
<i>Key Issues</i>	13
Methodological Considerations	15
<i>Research paradigms</i>	15
<i>Methods</i>	17
Critical Contribution	19
<i>A “New” Environment for professional team sport</i>	20
<i>Measuring the performance of individual teams/clubs</i>	22
<i>Factors that affect the performance of individual teams/clubs</i>	26
<i>The impact of the performance of individual teams/clubs on the league as a whole</i>	28
Next Steps / Future Research	30
References.....	33

List of Published Works

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2. Plumley, D., Wilson, R., & Ramchandani, G. (2014). Towards a model for measuring holistic performance of professional Football clubs. *Soccer & Society*, 1-14.
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4. Flint, S. W., Plumley, D. J., & Wilson, R. J. (2014). You don't know what you're doing! The impact of managerial change on club performance in the English Premier League. *Managing Leisure*, 1-10.
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7. Plumley, D., Wilson, R., & Shibli, S. (2017). A holistic performance assessment of English Premier League football clubs 1992-2013. *Journal of Applied Sport Management*.
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Abstract

Research activity surrounding professional team sports, is heavily linked to the field of economics and principally the concepts of uncertainty of outcome, competitive balance and profit, utility and win maximisation. These concepts are important as professional sport teams ultimately operate under multiple objectives and, theoretically, to become financially sustainable or make a profit. The two most prominent objectives are generally (1) to maintain a high level of on-field performance and, (2) to maximize off-field commercial business operations in the pursuit of revenue gains. It is widely acknowledged in the existing literature that these objectives are linked but 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 in particular sport teams; which make them in particular an interesting and contemporary research focus in the sport management industry. Little evidence also exists which explores the relationships and lessons that leagues can take from each other.

Using empirical data, collected from professional sport team financial statements, league tables and the Active People Survey, these papers evaluate the sporting and non-sporting performance of each league (in each of the three sports), the success of ownership structure (in football), the impact on sporting and non-sporting performance of managerial change (in football) and competitive balance (in football). There are three inter-connected dimensions to the research, which provide a coherent analysis of the factors affecting financial performance in the sports identified: first, measuring the performance of individual teams/clubs (sporting and non-sporting); second, factors that affect the performance of individual teams/clubs (ownership and management); and third, the impact of the performance of individual teams/clubs on the league as a whole (competitive balance). These interconnected dimensions allow the identification of where clubs and leagues sit on the theoretical continuum of profit and utility maximisation and, ultimately, the critical factors which lead to positive financial performance.

As such, the research portfolio explores a new contribution to knowledge by evaluating these characteristics and how they relate to a professional sport team's strategic direction by examining three popular sports in England, namely; football, rugby union and rugby league.

Introduction

This paper synthesises a portfolio of published works which focus on the sporting and non-sporting performance of three of the top four, professional team sports in England (based on revenues generated and broadcast hours): football, rugby league and rugby union. These include eight peer reviewed, original, research articles published in six academic journals. The purpose of this paper and its structure is outlined below. These points are considered in sequence thereafter.

1. Research aim and agenda; articulation of the overall aim and the coherence of the programme of research undertaken.
2. Literature review and research context; places the published works within the wider academic literature.
3. Methods; clarification of the research philosophy and an overview of the principal methods and techniques used.
4. Critical contribution; outlines and explores the main contributions of the research programme to academia and industry practice.
5. Next steps and future research directions; proposes a future research agenda.

Research aim, author's journey and the post hoc nature of this research

The evolution and direction of the published works has been shaped by the author's research interests and experience of supervising a recent PhD candidate (2014) who examined holistic performance assessment in English professional football. It is important to note that while the first paper published in this critical commentary dates back to 2013, it was constructed without the explicit intention to embark on a PhD on the basis of published work. The subsequent research outputs followed a similar agenda and were published with the intention of advancing the theoretical framework of the economics and finance of professional sport; to complement Deloitte's Annual Review of Football Finance (by exploring the factors underpinning positive or negative financial performance at club level);¹ and to provide immediate analysis to media and other agencies querying financial decision making in professional team sport i.e. providing analysis to understand transfer fee valuations, club administration and TV broadcasting growth.

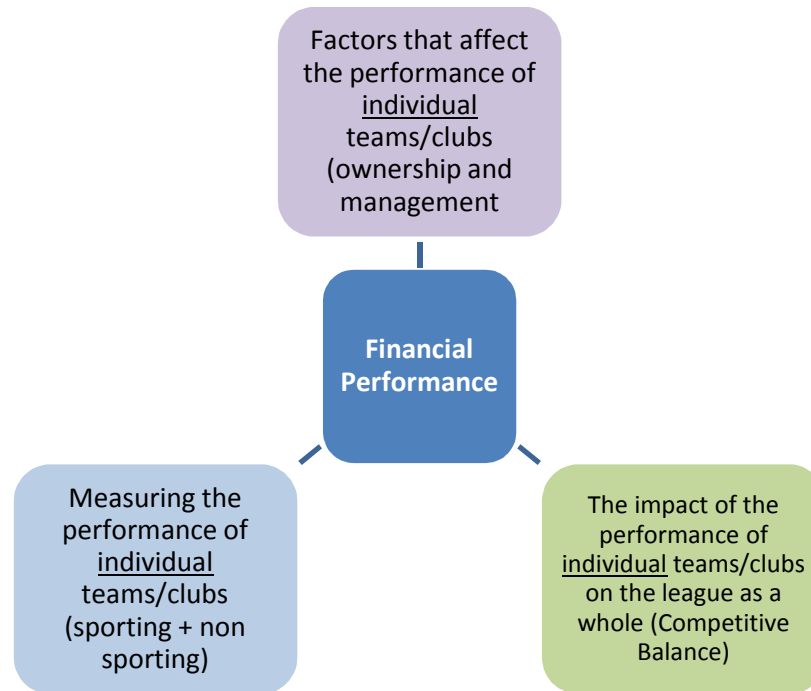
While each output addresses a specific question, the overarching purpose of the programme of research undertaken was to investigate some of the consequences that are

associated with the governance framework which exists across each of the three sports following an influx of new revenues.

The consequence of this governance framework is examined from three angles, each having a direct association with the financial performance of a specific sport. First, in monetary terms, the performance of each sport in the context of both sporting and non-sporting performance, alongside the influence of ownership structure. Second, the impact of managerial change, principally on league position (which translates to prize money at the end of a season) and also on the financial cost of managerial change (which manifests itself in terms of contract cost and compensation). Finally, the importance of competitive balance on league stability and how such stability is a key component of financial health. Figure 1 illustrates this three part agenda and specifies the broad nature of the financial outcomes, impacts and stability considered in this body of work. This agenda relates to the macro context for the research (financial performance), the meso level (via the three dimensions) and the micro agenda (individual publications). We will revisit this illustration in the critical contribution section and represent it with a direct examination of how the theoretical framework exists around it. The works submitted demonstrate the use of performance analysis in terms of;

- measuring the sporting and non-sporting performance [e.g. Refs: 1, 2, 3, 6, 7];
- measuring factors that affect performance [e.g. Refs: 4 and 9]; and
- measuring the impact of performance of individual teams/clubs on the league as a whole [e.g. Ref 8].

Figure 1: Interconnected dimensions of financial performance



The post hoc nature of this research

As noted above, the papers selected in this body of work have been chosen, retrospectively, to provide a coherent portfolio of research that analyses the financial performance of professional team sports in England and, consequently, the factors that affect such performance. It follows extended calls for research into the measurement of performance in professional team sport by scholars across the globe and particularly those in North America and Europe. Principally through the theoretical links to revenue generation as a key driver of financial performance and regulation and league integrity via the uncertainty of outcome hypothesis and its link to competitive balance, profit, utility and win maximisation this body of work provides an analysis of the factors critical to financial success in each sport. Given the similarities seen in each sport - league structure, governance, influence of commercial revenue and so on - it is clear that each sport has a number of shared challenges (see sections 4 and 5).

Articulating the research problem

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 idiosyncratic (Smith and Stewart, 2010). This claim can be 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 measure yet they will have a bearing on the business performance of sporting teams.

There is substantial academic literature, which considers the relationship between financial and sporting performance in professional team sports (e.g., Kesenne, 2000; Garcia-del-Barro and Szymanski, 2009; Sloane, 2015; Szymanski and Kuypers, 1999), while the picture of financial health and a comparative analysis across leagues is less well covered. Consequently, this body of work brings together findings from three of the top four English sports, based on their revenue generation and number of broadcast hours and driven largely by the gap in the literature and the contemporary nature of the issues facing these sports. My approach since 2009 has been to explore the financing of professional sports leagues. This has been achieved by submission of conference abstracts for peer-review. Once disseminated these abstracts have been refined and developed into full papers, each learning from each other to establish a coherent whole.

The next section of this paper presents a review of the relevant academic literature and highlights the gaps that have been addressed by this body of work, identifies which paper fills the gap and summarises the 'plugging' of these gaps. The discussion that follows is not intended to reproduce the findings, rather to indicate the 'fit' of the published works within the extant literature base. The detailed findings of the research programme can be found in the publications that have been cited with the contribution to knowledge discussed later in this paper.

Literature Review and Research in Context

When we consider professional sport teams 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. Among others, Carlsson-Wall et al (2016), Chadwick (2009), Fort and Quirk (2004), Pawlowski (2013) and Szymanski (2003) contend 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 [Refs: 2, 3 and 6].

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. 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. They state that while sports and business logics sometimes compete with each other, in other situations they are in harmony, something that needs to be tested further. There is some 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) but the outputs are mixed and need to be further examined across all major sports [Refs: 2, 3, 6 and 7].

The Economic Theory of Professional Sports Leagues

Professional team sports are intrinsically different from other businesses, in which a firm is likely to prosper if it can eliminate competition and establish a position as a monopoly supplier (Dobson & Goddard, 2011). In sport, however, it does not pay for one team to establish such a position due to the joint nature of “production” in sports. The theoretical literature on the determinants of the degree of competitive inequality in sports leagues was first developed by U.S. sports economists, with North American team sports primarily in mind. Naturally, the development of this literature has led to comparisons between the North American and European model (see Hoehn & Szymanski, 1999; Andreff & Staudohar, 2000; Sloane, 2006; Szymanski, 2003). The European model has remained unique, to date, but there appears to be convergence on certain features. In both Europe and the United States, we have seen the emergence of

joint ventures that can be viewed as a single entity. Clubs are separately owned with discretion to set prices, market the games, and adopt strategies to compete with other clubs. There are, however, several key differences between the two models, all of which ultimately impinge on factors such as revenue generation and ability to compete. Firstly, the American sports model operates a draft system where the best performing rookie is assigned to the worst performing team. In 2000, two American sports leagues operated under salary caps (the National Football League and National Hockey League), share television revenue equally, and compete exclusively in domestically structured leagues (aside from a handful of Canadian franchises) (Andreff & Staudohar, 2000), this has extended to 3 with Major League Soccer and both the National Basketball Association and Major League Baseball operate under soft caps and/or luxury taxes. 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). However, Szymanski and Zimbalist (2005) contrast the development of baseball and soccer, with the latter spreading throughout the world, first under the influence of British expatriates and then by local elites, whereas baseball was much more inward looking and concerned with commercial development. 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” while 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 Garcia-del-Barro & Szymanski, 2009; Kesenne, 2000; Sloane, 1971). Furthermore, Zimbalist (2003) found little convincing evidence distinguishing it-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 (a point that we will revisit shortly). 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 break away 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. The papers exploring the performance of each of the three sports in this body of work are connected with this literature in both sporting and non-sporting performance terms [Refs: 1, 2, 3, 6 and 7].

Measuring Performance in Professional Team Sports

Reconciling the “on-field/off field” debate is not easy and, as indicated earlier has proved highly contentious. Yet, there is already partial recognition that on-field and off-field performances may be linked (e.g., Cornwell et al., 2001). It is within the measurement of both on-field and off-field performance that grey areas remain, and the overriding conclusion is that there is currently no set definition as to what measures to include each time. Despite this problem, there is convergence in certain areas. First, measuring off-field performance is normally undertaken by conducting financial analysis on the financial statements of clubs.

Under UK accounting law, every limited company must report its financial information in line with the principles and formats of UK Generally Accepted Accounting Principles (GAAP). As such, financial analysis can, and has been undertaken on any registered company, particularly in larger organisations such as professional sports teams where more detailed information is available in a standardised format. However, while this standardised format and the data contained within it have been used for the purposes of this research, it should be noted that accounting theory is contested by its very nature, something that will be examined in detail in the methodology.

One of the most popular and applied forms of financial measurement is ratio analysis. The measurement of variables under these headings has been utilised extensively in academic research, ranging across a variety of industries. Indeed, Feng and Wang (2000); Ponikvar, Tajnikar, and Pusnik (2009); and Sueyoshi (2005) have all incorporated similar areas of financial performance, namely debt, liquidity, and profitability, in their respective analysis of the airline industry, the American power/energy industry, and the Slovenian manufacturing industry.

As has been inferred, with regard to sporting performance, the literature suggests that there is a link between sporting and financial performance (see Szymanski & Kuypers,

1999), but there remains a pragmatic problem with the debate surrounding cause and effect. Most studies that have focused on sporting performance have used “league position” or “league points won” as a measure for their analysis. Upon 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. However, as stated by Szymanski and Kuypers (1999), in the past, when club directors did not place great emphasis on financial success, this did not matter [Ref: 1]. In practice, financial performance can be measured by more than just the profit figure taken from the club accounts, just as playing performance can consist of a number of different variables in addition to league position.

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, professional sport teams exist in a peculiar emotional and social space, where unusually strong relationships often exist between the company (the club) and stakeholders (alongside others, the fans). Unsurprisingly, these relationships can have an impact on business behaviour and decision making. For example, the objectives of football clubs, in particular the desire for on-field success, are likely to have implications for business decision making (Morrow, 2003) [Refs: 4 and 5]. In addition, the presence of non-financial objectives also raises the question of how to measure the performance of football clubs (Guzman & Morrow, 2007) in line with their pursuit of twin objectives that can potentially conflict with each other. This point is pertinent in respect of a paper by Rascher (1997) who examined the individual owner’s choice of talent, the league’s choice of revenue-sharing arrangement, and a salary cap policy in both a profit-maximising model and a utility-maximising model. In a profit-maximising model, the paper found that owners would be in favour of lowering the salary cap if it were a sufficiently small or a sufficiently large decrease and that the optimal revenue-sharing agreement and salary cap level are generally found to be 100% and 0%, respectively, from the owner’s perspective (Rascher, 1997) i.e. reduce cost with marginal impact on playing performance with the intention of making more profit.

A further consideration in relation to financial performance is the application of weighting factors to each individual variable or measure [Refs 2 and 7]. Previously it has been commonplace for analysts to assign equal weights to all ratios considered in

the analysis. A more robust and scientific technique would be to weight factors of significant importance higher than others. However, there is no set definition for assigning weighting factors and, once again, it is at the discretion of the authors what weightings are set. Indeed, few academic papers cover this topic. Fadhil Abidali and Harris (1995) suggest a questionnaire or interview-based approach focusing on industry experts to determine how variables should be weighted, but there is very little empirical evidence in relation to this matter.

Previous academic research has examined the relationship between on-field and off-field performance in professional sports organisations (e.g. Guzmán and Morrow, 2007; Rascher, 1997; Szymanski and Kuypers, 1999). Whilst the majority of authors researching this field agree that on-field and off-field are indeed linked, that is to say a club that performs well in financial terms is also more likely to finish higher up the league table. However, 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 i.e. does financial performance drive league position or does league position drive financial performance? 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. As indicated already when considering financial performance, there exists an accounting framework in most European countries that dictates how financial performance is recorded within organisations with ratio analysis being used as an applied form of financial measurement. Such analysis also transcends sectors of industry with similar ratio measurements being used extensively in academic research across 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 [Refs: 2 and 7]. 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) [Refs: 2, 3, 6 and 7]. Moreover, the literature on competitive balance is fairly clear (for US sports at least) with several authors developing measurement tools with outputs which demonstrate a financial impact (e.g. Maxcy and Mondello, 2006; Zimbalist, 2002 and Williams 2012). Both models of professional team sport (European

and North American) consider the importance of competitive balance in their structure and the implications it may have on demand for the ‘product’. Indeed, in relation to successful sport leagues, Groot (2008) stated that “each competitor has an inherent interest in maintaining the health of their rivals” (p.25). A potential implication in this context is that an excessively imbalanced competition might have a negative effect on fan interest and, hence, on demand (Késenne, 2006; Zimbalist, 2003) which, in turn, presents a challenge for revenue generation, financial performance and sporting performance. The issues of sporting performance and competitive balance are not disconnected and there is obvious overlap between the two [Ref: 8].

Key Issues

It is evident that there are many different types of performance measurement and that each method has its respective strengths and weaknesses. However, it is apparent from the literature, that the choice of ratios is largely down to the discretion of individual researchers rather than rigorously tested scientific protocols. There is, at the present time, no set definition as to which ratios or variables to use. In actual fact, it appears that researchers instead opt for certain ratios or variables that fit best within the context of the study and the industry in which a business operates. It is important to understand that ratio analysis is also often used as a benchmarking tool within industries, and it makes good business sense for organisations to benchmark themselves against their direct competitors. However, in the context of sport, and more specifically professional football, this is difficult to replicate. For example, both Manchester United and AFC Bournemouth were in the EPL in the 2015–2016 season, yet it is unrealistic that the two clubs would be in direct competition in a financial sense, similarly Leicester Tigers and Worcester Rugby or Wigan Rugby League and Wakefield Wildcats. Furthermore, despite the importance of benchmarking, there is little literature about benchmarking in professional team sports. Consequently papers 1-3, 6 and 7 explore the gap in the literature relating to sporting and non-sporting performance. Papers 4, 5 and 8 then provide insight into the impact of decision making and regulation.

In summary, sport is different from other products and industry sectors (Chadwick, 2009). To be successful there is a performance measurement objective of balancing on-field success with business performance. However, at present, the performance measurement debate is seen as being one which involves a tension between the effectiveness of on-field performances and the effectiveness of off-field financial performance (Chadwick, 2009). This body of research seeks to establish the impact of

decision making on performance by exploring the individual performance of teams in sporting and non-sporting contexts (highlighted in blue in Table 1); the factors affecting the performance of clubs (highlighted in purple); and the impact of club performance on league integrity (highlighted in green). It achieves this by filling some notable gaps in the research field (see table 1). In doing so, we can draw conclusions about the nature of English professional team sport to determine whether problems are unique to single sports or commonplace in the professional game.

Table 1: Plugging the gaps

Paper # Theme	1	2	3	4	5	6	7	8	9
Sporting Performance		✓	✓			✓	✓	✓	✓
Non-sporting Performance	✓	✓	✓	✓		✓	✓	✓	✓
Ownership Impact	✓	✓	✓			✓			✓
Managerial Change				✓	✓				
Competitive Balance								✓	

Methodological Considerations

Research paradigms

The term 'research' has been defined differently by authors with a variety of factors influencing the nature of people's research. Long (2007), included in these influences, a researchers own beliefs about the world and how best to conduct investigations, what they can reasonably be expected to find out, the policy context, and sometimes, who is paying for the research. A glance at research methods literature typically identifies two broad traditional schools of thought, or paradigms, that exist in the social sciences – positivism and interpretivism (e.g. Finn, Elliot-White, & Walton, 2000; Gratton & Jones, 2004; Veal, 2006). There are different philosophies that operate between these two extremes. The positivist and interpretive paradigms have very different ontological and epistemological assumptions. In this context, ontology refers to the form and nature of reality (i.e. what is real?), whereas epistemology deals with what counts as knowledge (i.e. how can we know anything?).

The ontological position of positivism acknowledges the existence of a single, objective, knowable reality. Interpretivism, on the other hand, suggests that different people experience what appears to be the same thing in different ways. In epistemological terms, the positivist paradigm advocates that human behaviour is observable and measurable objectively, using methods of the natural sciences, on the basis of which laws can be developed to explain or predict future behaviour. By contrast, the interpretive paradigm places more reliance on subjectivity and focuses on understanding and interpreting human actions through less tangible concepts such as feelings and emotions.

Each research paradigm has its relative merits and criticisms, however the philosophical stance taken within the 'positivist-interpretive' spectrum ultimately has a bearing on the overall research design, including the way in which data are collected and subsequently analysed and reported. Positivism is typically associated with a quantitative approach to data collection, involving the use of numerical measurement and analysis which provides an appropriate framework for carrying out secondary data analysis on financial reports, competitive balance indices and managerial change. An interpretivist approach, by contrast, is concerned with understanding the world as it is from subjective experiences of individuals (Howell, 2016). Using meaning (versus measurement) oriented methodologies, such as interviewing or participant observation, that rely on a subjective relationship between the researcher and subjects.

In broad terms, this body of research is oriented on this spectrum, towards the positivist end, particularly in the case of data collection and analysis reflecting the author's philosophical stance of what constitutes acceptable knowledge and the nature of the investigation. In short, the research programme was underpinned by the following key assumptions: the phenomena of interest (i.e. financial health, sporting and non-sporting performance, competitive balance and managerial change) tend to be well-suited to scientific measurement, indeed they have been previously (see the review of literature); and the process of measurement can be conducted, by the researcher, objectively and without personal bias or prejudice. Moreover, the investigation itself is delimited to measurable facts, be it in monetary terms or using other quantities (points gained, or league positions for example), and is not concerned with understanding, or getting 'under the skin' of, the deeper meanings attached to an individuals' decision making consciousness and/or subjective judgements - this is identified as an avenue for future research.

Notwithstanding this position i.e. an approach that is orientated towards positivism, through the analysis of the data there has been a degree of interpretation with conclusions being drawn from the statistical tests and ratio analysis. This approach is found at the other end of the epistemological continuum and provides a subjective commentary of the results. When challenged, this softer approach to research philosophy positions the research in the constructivist domain, a place sitting between the two extremes and one which offers a compromise between objectivism (the positivist end of the continuum) and subjectivism (the interpretivist end of the continuum) and one which, given the post hoc nature of this research, is more appropriate and recognises the importance of post-positivism (Howell, 2016). Post-positivism softens the stance of pure positivism by acknowledging that a reality exists, but qualifies this by suggesting that we can only know this reality in part and on the basis of probability rather than certainty. Furthermore, as Howell (2016) suggests, positivists accept that the influence of researchers through their knowledge, values and theories can influence what is observed or reported. In summary, and taking a reflective position on the approach to each paper over an extended period of time, While acknowledging the contested nature of accounting data (outlined below), I would argue that my work can be characterised by a data collection and analysis approach which was achieved in an objective, neutral way (i.e. a positivist approach) with the interpretation of the results allowing for a more post-positivist approach which allows some subjective

interpretation. As a post-positivist I have not sought a universal truth but rather an objective collection of data and the interpretation of the findings.

Methods

A suitable description of methods employed in this programme of research, the rationale for their selection and any limitations identified are articulated in the published works. Consistent with the underpinning post-positivist paradigm and the research agenda, the overall research design was quantitative and involved secondary, desk-based, research of datasets (e.g. financial reports, league tables, performance outcomes) and literature. As with the approach to data collection, the analysis was also quantitatively driven with analytical techniques ranging from descriptive analysis of the data (e.g. averages, frequencies, percentages etc.) to the use of recognised inferential statistical tests and procedures (e.g. t-test, ANOVA and correlations), as deemed fit for purpose by the research questions, literature, and the published approaches by the author and others.

The methods used in empirical research in the social sciences include quantitative techniques such as surveying, sampling, and statistical analysis; as well as qualitative methods such as interviews, focus groups, and case studies. The choice of methodology and methods then raises the question of the quality of evidence gathered. In order to make judgements about the quality of evidence the Centre for Evidence Based Management (CEBM, 2015) illustrates a hierarchy of evidence that ranges from 'randomised controlled studies' which are designed to establish causality to 'expert opinion' that relates to formulating hypotheses. Using this same hierarchy the individual publications provided in this body of work align most closely to the 'cross sectional studies and case studies' level, which falls toward the bottom end of this hierarchy of evidence but is more relevant to the nature of the investigation.

Most of the data used in this body of work is derived from the annual reports and financial statements of each of the clubs under investigation and, while these findings were materially confirmed using Deloitte data and the financial database, FAME, it should be noted that there is both a contested, conceptual framework for accounting and there is no guarantee that two accountants would adjust a set of accounts in the same way. This is problematic when drawing comparative conclusions and when positioning the research within a research philosophy paradigm as it infers that financial statements are not an objective reality - hence the post-positivist stance which is flavoured with interpretivism and constructivism.

The contested nature of accounting theory

Throughout history the legitimacy of accounting practices and principles have been questioned. Much of this questioning surrounds the change from historical cost accounting to fair value accounting which is widely accepted as the dominant practice at the present time (Gassen and Schwedler, 2010). Laux and Leuz (2009) among others indicate that it will remain difficult to measure financial performance objectively. It is evident that many organisations report financial performance in different ways, often combining historical cost accounting with fair value accounting. In professional football this problem has been detailed in Italian football and in the context of player valuations and their contracts (Morrow, 2003).

Through the collection of data, every effort was made to standardise the financial information using Wilkinson-Riddle and Barker's (1988) structured approach to ratio analysis and the data were compared to determine any material differences with the Deloitte reports where possible.

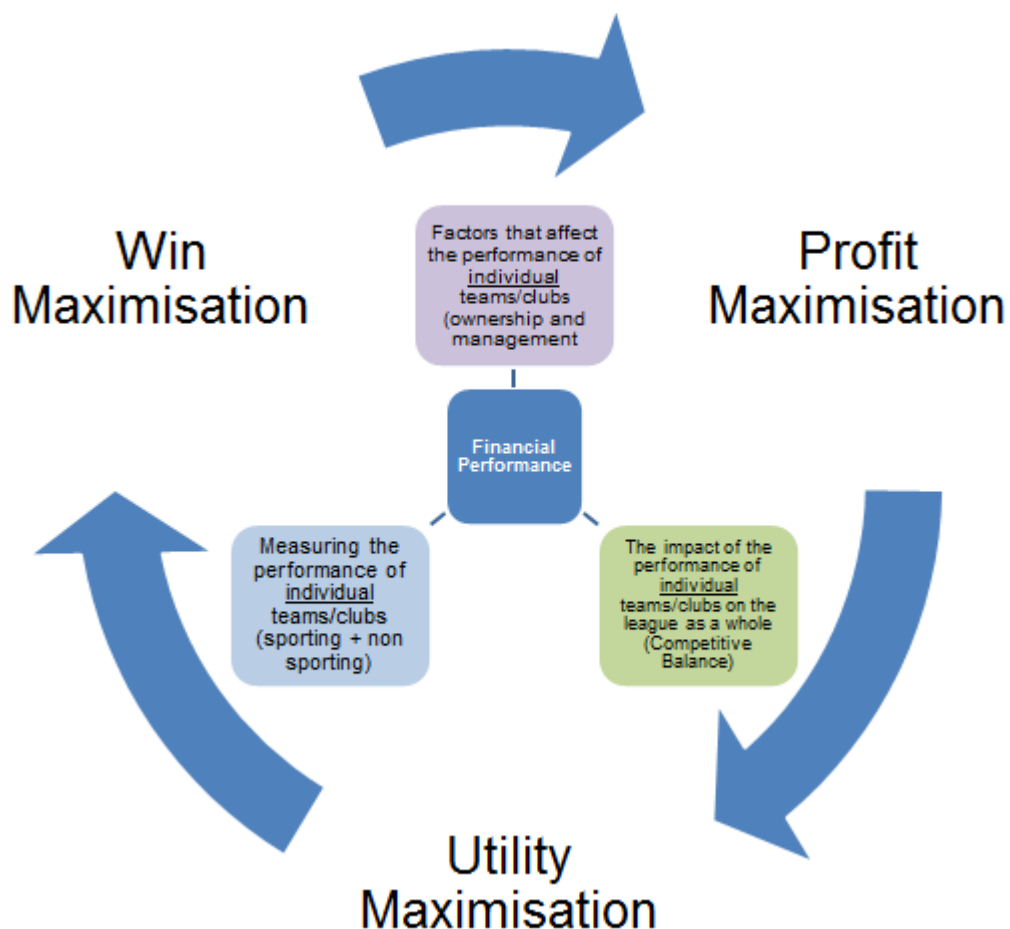
Critical Contribution

Ostensibly the following three sections outline the factors affecting financial performance in professional team sport in England and how performance affects decision making. The principles of uncertainty of outcome and competitive balance dictate that higher levels of interest will be the result of close competition yet in the case of the three sports examined here there is evidence to indicate that (particularly in professional football) revenues have grown against a backdrop of a moderate decline in competitive balance. This is in contrast to the theoretical debates surrounding league production and may well present a longer term challenge for each sport. While this finding is most obvious in the data from the English Premier League, the increases in broadcast income and domination of select teams in both rugby league and rugby union signify a tipping point for league integrity, particularly in the context of the findings of Dobson and Goddard (2011). Moreover, the theoretical provision of profit, utility and win maximisation strategies (Andreff, 2009) does not fit completely with clubs in each sport; rather clubs operate on a continuum determined by owner objectives, revenues, regulation, competition and sporting outcomes which is more consistent with Marham & Teplitz (1981), Fort and Quirk (2004) and Zimbalist (2003), see Figure 2, with clubs moving along the continuum depending on the influence of these factors. It follows that this evidence builds on the existing literature that highlights the peculiar economics of professional sport. As will be detailed, we find a business sector that craves on-field success yet rejects mainstream business propositions and is consumed by irrational and emotional decision making.

Revenues in each of the three sports examined here have been growing significantly over the last 20 years particularly in professional football but in a similar way in both codes of professional rugby. This new revenue has brought with it new business and ownership models, increased levels of expenditure on infrastructure, pressure on governance structures and managers to a new challenge for league intensity. As a whole, the programme of research contributes to a better understanding of some of these factors, in particular those that are associated with the financial performance of clubs and leagues in each of the three sports examined [Refs: 1, 2, 3, 6 and 7]. The research advances academic and industry knowledge in relation to the routes to their measurement, the extent to which they occur and the underlying factors that affect their occurrence [Refs: 4 and 5] and the impact of individual performance on the league system [Ref: 8]. In doing so, the research is closely aligned with the call made by some

professional team sport experts for more research on the themes of 'financial stability' and 'team sport objectives' (see Carlsson-Wall, Kraus, and Messner, 2016 and Gammelsaeter, 2010). Within these themes, 'balancing multiple objectives' and 'financial impacts' were found to be the two most important topics for future research. Both topics are well represented in the author's published works. The author's research also investigates the holistic measurement of professional team sports, building on the outcomes of Plumley's (2014) PhD which devised a model for assessing professional football in England.

Figure 2: Interconnected dimensions of financial performance and the theory of professional team sport continuum.



A “New” Environment for professional team sport

Overall, the findings of this body of work highlight a “new” environment for professional team sport (see Table 2) that outlines how the landscape has changed since the 1990s. Papers in this body of work has found that, across all three sports there is evidence that there has been significant revenue growth, principally driven by broadcasting, less reliance on match day income, yet a continuation of spiralling

expenses and, in some cases, levels of debt. Financial discipline is an essential element to grow the game both on and off the pitch.

Table 2 - The 'new' environment for professional team sports

	<i>Yesterday....</i>	<i>Today....</i>
Revenues	Spectators (Match day receipts)	Broadcasting Income
Costs	Player Registrations	Wages & Transfer Fees
Investment	Public Money/Funding	Private funding
Ownership	Private (Domestic)	Private (Foreign)
Regulations	None	Financial Fair Play, Licensing, Salary Caps

In all three sports we see a move away from traditional forms of match day revenue towards an era dominated by broadcasting. While the values are highest in the English Premier League, the move towards broadcast revenue dependency by teams in all sports presents an acute problem. In many ways this broadcast revenue is unearned and, if taken away, as it was during the collapse of ITV digital in the Football League or when Bradford Bulls entered administration it can lead to major financial difficulty which, in turn, can threaten the integrity of a league system (as will be shown later). Moreover, the evidence presented in this body of work demonstrates that rather than flowing into a club to provide financial stability, the additional or 'new' revenues are spent, ostensibly, on player transfer fees, registrations and/or wages. All we have seen, therefore, are financial challenges remaining irrespective of the triple digit growth in revenue across each sport.

There is a valuable contribution here to the study of league production away from American team sports which supports the theoretical development of the European team sport model as a viable and sustainable alternative to those found in North America. While rugby league takes its origins from both the European and American models of professional team sports with rugby union and football being more aligned to a traditional European one, this body of work presents a timely and significant contribution to the evaluation of professional sports leagues and clubs. This collection also contributes to extant literature that has documented the issues in professional team sports in the UK in recent years such as football (e.g. Buraimo, Simmons, & Szymanski,

2006; Wilson et al., 2013), cricket (e.g. Shibli & Wilkinson-Riddle, 1997) and rugby union (e.g. Hogan et al., 2013; O'Brien & Slack, 1999, 2003).

Measuring the performance of individual teams/clubs

Initially, and with regards to football, the analysis suggests that performance is not evenly distributed and that there is in fact a considerable disparity between the best performing clubs and the worst across both sporting and non-sporting performance; disparity which has been polarised by Manchester United across both measures of performance. This single team domination is less obvious in both codes of rugby, indicating better competitive balance in the leagues for both codes (though both Leicester Tigers and Saracens [rugby union] and Wigan and Leeds Rhinos [rugby league] did see extended periods of success). There is an argument here that Manchester United had, over the period under review, established a form of a monopoly over the rest of the league, a scenario that Dobson and Goddard (2011) state is not beneficial for a football club or indeed the league as a whole presenting conflict with the theory of uncertainty of outcome explored in the literature overview. The EPL, however, does not appear to be hindered by this particular situation and it has established itself as a highly successful product, becoming, and retaining its status, as the largest revenue generating league in world football and the largest revenue generating professional team sport in Europe (Deloitte, 2017). However, it is important not to dismiss the argument of Zimbalist (2003), who stated 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, something we can take from the analysis of each of the team sports in this body of work; all leagues exhibit signs of a differentiated approach to objective setting, for example in the EPL clubs' objectives will have changed over time when coupled with ownership structure [Ref: 1], making arguments around profit versus utility maximisation increasingly difficult to contextualise with reference to the modern industry of professional team sports. Based on the data, it is possible to draw conclusions that Chelsea FC, once aligned to a profit maximising strategy turned towards a win maximising position following the takeover by Roman Abramovich in 2003. More recently, as a result of tighter regulation through financial fair play, Chelsea have moved toward the profit maximising end of the continuum. This

short example highlights how difficult it is to place any one of the theoretical approaches at an individual club's boardroom.

The problem with objectives is that sports teams have to balance (at least) twin objectives (in this case financial and sporting objectives). There is a clear argument to support this in the academic literature that has already been identified (see Carlsson-Wall et al, 2016). However, what is also clear from this body of work is that there are other factors that determine the objectives of professional sports teams that will subsequently impact on business and sporting performance. This can be best evidenced in the analysis presented in the papers on managerial change and competitive balance [Ref: 4, 5 and 8], alongside the football literature. Primarily, in professional football clubs, there is a pragmatic problem with the objectives of owners yet we also see evidence of the impact on ownership on both codes of rugby union, initially via clubs financial performance. Indeed, this is further compounded by the fact that new owners might come into a club and that as a consequence business objectives might change over time. This is evidenced by the case of Chelsea, Manchester City, and Manchester United in English football. When Roman Abramovich purchased Chelsea FC in 2003 (at a time when there were no restrictions) he primarily invested money into securing the best playing talent in an attempt to improve sporting performance. A similar scenario occurred at Manchester City in 2008 when they were purchased by the Abu Dhabi Group, although the introduction of Financial Fair Play means that Manchester City must balance the books and comply with break-even regulations. The acquisition of Manchester United in 2005 by the Glazer family was slightly different as they purchased the club through a method of debt finance (see Wilson, Plumley and Ramchandani, 2013). Buraimo et al (2006) argue that this may have been the first example of an American owner exerting profit maximisation principles on a UK professional sports team and Manchester United have since floated on the Singapore and New York stock exchange in an attempt to raise further funds.

Given this context, it is difficult to ascertain precisely what the objectives of clubs truly are. However, this body of work does not attempt to indicate that clubs are profit maximisers, utility maximisers or even win maximisers, rather that they show the traits of these extremes to a greater or lesser extent. Notwithstanding the practical problem of owner objectives, it is clear from previous literature that success (in team sports) is a function of a strong stream of revenue (Smith & Stewart, 2010) primarily because teams have to pay the best wages to secure the best playing talent. The collection of papers in

this body of work summarise the 'new environment' for professional team sport clearly in Table 2.

The evidence from paper 5 indicates that there remains a problem with the attractiveness of the Super League which is a product of poor financial management at a club level and a reluctance by the Rugby Football League to undertake radical structural change or sufficient regulation, the latter being something that has been seen to work in football with the introduction of FFP [Ref: 1]. The study focused on three specific measures of performance that included financial indicators, match day attendances and participation to provide a holistic overview of the current state of play at rugby league clubs. Individually, each indicator paints an austere picture. For example, in general terms, revenues are not high enough to generate sufficient growth within the game. Coupled with this is the fact that attendances, across all clubs, are stagnating, with the exception of one-off major events (e.g. "Magic Weekend", Grand Final). However, an increased attendance at these one-off events is on its own not enough to drive attendances. Furthermore, lower attendance figures do not encourage a growth in financial health given that attendance figures are the main source of income generation for the majority of clubs. The vicious circle is completed by the fact that expressed demand for the game, measured by participation figures, is low and has been on a declining trend for the last 10 years.

As Williams (2012) suggested, rugby union has limited its own financial development in part by choosing to remain a more amateur sport until the mid-1990s. This has 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, particularly professional football. 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, rugby union is currently suffering from similar financial problems to that of rugby league outlined above. 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 rugby have suffered as a result of flirtation with the North American model of professional team sports without ever fully committing to all the principles (see Hoehn & Szymanski, 1999; Andreff & Staudohar, 2000; Sloane, 2006; Szymanski, 2003). The Super League is still coming up short in relation to its stated objectives. The creation of the revised league format in 1996, formed using some of the principles present in the American team sports model, was supposed to herald a new era for rugby league. However, not adopting one model or the other in its entirety has meant that the league and its member clubs have suffered. Instead of having a prosperous, growing and profitable league, the picture is instead one of financial insecurity for a majority of clubs, stagnating attendances and declining participation. The data provides a case for the league to rid itself of structural ambiguity and adopt the American model of professional team sport more firmly. 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. The 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. 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 summary, issues with financial performance are prevalent in both codes of rugby and comparisons with other professional team sports will be evident. The picture in professional football is better, albeit one that is wholly reliant on broadcast income. This body of work indicates that across each of the three sports examined clubs do experience similar problems. However, comparisons between football and rugby should be treated with caution and are less relevant given that attendance figures and

participation levels in football are the highest they have ever been. Additionally, the money associated with professional football in line with broadcasting deals and club income streams is a level far above rugby clubs though proportionally, at least, rugby clubs are increasingly reliant on that broadcast income. Despite 20 years of history and a number of structural changes, in general terms, clubs competing in the Super League are failing to generate profits, expand the supporter base or grow commercial revenues with a better national and international profile with a similar picture being present in rugby union. Participation in rugby league is at an all-time low and the game has not grown beyond its heartlands. This all points to a bleak future and that, in line with the objectives that the Super League set itself in 1995, rugby league needs to produce a sustainable business model and if it does not its clubs, and in the turn the sport, will collapse in a similar fashion to that seen at the Bradford Bulls [Ref: 3].

For Rugby Union 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. 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.

Presented here are new and relevant insights into the economic theory of professional team sports most notably around the relationship between financial and sporting performance, thus building on the seminal work of Sloane (1971) and others (e.g. Kesenne, 2000; Garcia-del-Barro and Szymanski, 2006; Sloane, 2015). The findings across each sport 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.

Factors that affect the performance of individual teams/clubs

The two papers focussing on managerial change were undertaken for two reasons. Firstly to examine whether there was an impact on the points gained per match which could improve final league position and, secondly, whether there was a change in league position and therefore prize money. It was found that that while managerial change does improve points per match, it does not necessarily lead to improved league position an

important finding in the context of financial performance for club boards. Generally speaking any change in manager would only cost a club (given the compensation packages required) and therefore have a negative impact on financial performance. However, the findings also suggested that managerial change would lead to improved performance in the bottom half of the Premier League potentially saving a team from relegation and a reduction in revenue of at least £25 million. For clubs in the top half (those pushing for European qualification or challenging for the title), the results suggested that managerial change was unadvisable.

The results of the present studies should be beneficial for club stakeholders when considering managerial change and can be informative for analysts, with debates common over whether managerial change is the correct decision. Given the different factors that need to be considered and the potential implications of managerial change for clubs in the top and bottom half as alluded to above, the findings of these papers provide new insights that should be taken into account when making decisions about managerial change. For example, the pressure on clubs to remain in the EPL, given the financial benefits, is often cited as the reason for changing a manager and this factor is supported in the findings of these articles.

That said, the findings in this study suggest that league position needs to be considered particularly in instances where a club's objective is to avoid relegation (i.e. if the club is in the bottom half of the table managerial change is more likely to have a positive impact on playing performance), whereas managerial change is less productive for clubs competing in the top half of the table. Thus, the findings suggested that previous managerial change for clubs in the top half of the league in the past 10 years of the EPL (e.g. the dismissal of Luiz Felipe Scolari in 2009 and Jose Mourinho in 2007 by Chelsea FC) were largely ill-informed decisions providing that the objective (something that we can't confirm) was to improve league position [Ref: 4]. From a business perspective, this decision was compounded by the financial implication of the compensation paid to the outgoing manager. This coupled with the cost of the recruitment of a new manager/managerial team can prove a costly exercise influencing financial decision making.

In the papers 4 and 5 it can be seen that managerial change can have a beneficial impact, especially for clubs in the bottom half of the league which may be financial based on the improved final league position, although a more comprehensive examination of the impacts of managerial change in the EPL is warranted that considers the effects beyond

points per match and final league position alongside those that examine other sports to seek comparisons and benchmarking. More research is required to provide an insight into the financial impact of managerial change in the EPL, and indeed other leagues and sports, given that this is likely to carry further effects beyond final league position such as paying an outgoing manager compensation for termination of their contract. In addition, in light of the Union of European Football Association's financial fair play rules that were introduced from the 2011 to 2012 season where there is a window of three years allowing clubs aggregate losses of €45 million, it would be worth revisiting this topic as it is likely that finishing in a higher league position would be more important due to increased prize money meaning greater capital to spend.

The impact of managerial change in football is likely to have a number of implications and with a relatively high number of changes in the EPL, whether it is the right decision or not requires careful consideration. The articles suggested that it can have a beneficial impact on points per match and can improve final league standings of clubs in the bottom half. Deloitte (2017) have stated that relegation from the EPL instantly costs clubs around £25 million in revenue. This loss increases with every subsequent season that clubs fail to obtain promotion as parachute payments decrease. Since publication the EPL has signed renewed broadcasting deals so this £25 million figure will only rise. Consequently, the finding that managerial change for clubs in the bottom half of the league leads to an improvement in final league position becomes increasingly relevant. Given that research in this area is relatively sparse, the two papers need to serve as a catalyst for further research examining the impact of managerial change in professional sport teams.

The impact of the performance of individual teams/clubs on the league as a whole

Throughout this commentary it has been argued that the intensity of competition in league systems is a key component of both revenue generation and consistent interest, which would drive broadcast revenue. Competitive balance of league competitions therefore is an important component of sport economics with evidence suggesting that a less attractive product might struggle to command a high market value. Thus, it is imperative that sport leagues remain competitively balanced with a degree of uncertainty of outcome. This final paper in this body of research examines competitive balance within the English Football League system since the inception of the English

Premier League (EPL) in 1992. It examines variations in overall competitive balance within and between the EPL and the three divisions that make up the football league. Competition for the title, promotion and relegation were also analysed with the results indicating a reduction in competitive balance in the EPL over time and that the EPL is less balanced overall relative to the football league, partly influenced by the higher financial disparity between teams in the EPL. Nonetheless, fan interest in the EPL and the value of broadcasting deals do not appear to be negatively influenced; a unique finding considering the theoretical importance of uncertainty of outcome. In the short term, this will not concern policy makers. However, in the long term, should competitive balance continue to decline, theoretically we would expect to see a reduction in broadcast, match day and commercial revenues which would limit club growth and possibly cause financial problems.

The EPL stands out as the least balanced league in English football and ought to consider how factors such as Pan-European competition revenues, ownership funding and facility fees from broadcasting deals may be affecting the competitive balance of the league itself. This is because the factors listed above will help the league secure club stability and therefore competitive balance within the league. As has been stated a number of times throughout this commentary, we have already seen the introduction of financial fair play in an attempt to curb overspending on players through ownership injections, but the EPL may wish to consider a more equitable distribution of the broadcasting payments they receive and analyse how Pan-European competition revenues may be further affecting the competitive balance of the league. The findings of this final paper present a case for the EPL to propose a more unequal distribution of broadcasting revenues, perhaps mirroring the NFL in America where the bottom teams actually get more revenue than those at the top; however, the sports of rugby union and league have evidence to indicate that the lack of adoption of a single model can have a negative consequence in terms of financial health.

For the football league, it appears that the three divisions remain similarly balanced although there is a suggestion that further negotiations could be had with the EPL to argue for a more equal distribution of solidarity payments to close the absolute financial gap between the Football League and the EPL. The paper suggests that no fundamental change in format and structure of the Football League is warranted and that future research should focus specifically on the finances within the English game and in particular whether and how the parachute payments paid to clubs relegated from the

EPL affect competitive balance in lower tiers of English football. This could then be extended into the other sports covered in this body of work.

Next Steps / Future Research

This body of work has examined the factors affecting financial performance of three of the top four revenue generating sports in England. Factors influencing performance extend to the decision making of boards of directors (through setting business objectives and hiring/firing managerial teams) and through governance considerations which affect financial performance at club level and the regulatory and league structure at a league level. Contained within this body of work are a number of areas for further consideration. In each sport, this body of research explores, largely for the first time, the 'state of' professional football, rugby league and rugby union. Using a published methodology in the form of the Performance Assessment Model (see Plumley, Wilson and Shibli, 2017) it makes sense to extend the analysis to the 'state of' English cricket. The seminal study by Shibli and Wilkinson-Riddle in 1997 provides a basis for this work and would demonstrate how the financial and non-financial health of English cricket has changed over the last 20 years or so. However, as identified in the methodology, there are limitations to the approach, most notably the lack of a qualitative angle which seeks to explore the rationale behind club objectives and decision making. Consequently, to support the development of work in this area it would naturally be beneficial to undertake some qualitative research with club executives with the aim of confirming the interpretation of the quantitative data provided here and to understand the short and long term strategy at club and league level.

Unlike financial health research, the investigation of the impact of managerial change, specifically on league points and league position is still in its early stages and represents a relatively new research agenda. The research showcased in this work provides some useful insights into the likelihood that managerial change can, in some cases, improve league points and league position, but needs to be fully tested across a longer time period and in different sports. A natural extension therefore would be to expand the scope of the research to incorporate rugby league and rugby union who face more obvious sporting and non-sporting challenges. Similarly, future research will benefit from moving beyond football to smaller, less researched sports, in order to look into the wider impacts of managerial change. This complements the academic viewpoint that

more research is needed to uncover the full range of objectives set by club and league owners and the means by which to maximise revenues through broadcast and non-broadcast income (see Carlsson-Wall, Kraus, and Messner, 2016 and Gammelsaeter, 2010).

Having examined the financial health of each of the top three professional team sports in England it is clear that there has been convergence in several areas of analysis and, while the absolute financial detail is stark, the relative comparison indicates that each sport is facing a similar problem; to place financial health at the heart of business objectives and ownership motivation. In doing so, the futures of each sport can be maintained.

The study of competitive balance to date, excluding the work included in this commentary has, for the most part, been approached using analysis of closed league systems in North American. This has led to challenges over the use of methodological techniques but upon publication of the study of English football provides a platform for European sports to be considered more robustly. The evidence provided by Plumley, Wilson and Ramchandani (2017) provides a platform for other, English, professional team sports to be considered. Another pertinent avenue for future research in this area would then be to investigate the relationship between competitive balance, the impact of parachute payments and financial performance and the exploration of the inter-relationships between each of the three research themes. Specifically, it would be worth testing the following;

- The impact of Financial Fair Play on financial health and competitive balance in European football;
- The impact of salary cap changes on competitive balance in rugby league and rugby union;
- The impact of league restructuring on financial health and competitive balance in rugby league; and
- The impact of managerial change in rugby league and rugby union.

More generally, this research has focussed on the sporting and non-sporting performance of professional team sports. There are also smaller professional team sports that should be considered as they face similar business challenges for growth (e.g. Men's Basketball and Ice Hockey or Women's Football and Netball etc.). This will also provide a more rounded view of the consequences associated with running professional teams. The consideration of the research themes suggested above will serve to further

advance academic knowledge in the field of financial health in professional team sport. More importantly, pursuing these lines of enquiry will also facilitate more effective, evidence-based, policy decisions for investment in professional sport teams going forward.

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