

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

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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 United Kingdom (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 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 1997-8 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 has 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% 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 one 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.*, 2006; 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 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 doesn't 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-Barro 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 regards 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 forty football clubs between the years 1978-97 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 *et al.* (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 1990's 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 10 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).

<Figure 1 about here >

The 'new' environment for rugby union (see figure 1) 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 was obtained by dissecting the annual accounts of 9 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 was 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, 9 clubs were taken forward for analysis where full accounts were available to provide comparable results.

Analysis was performed using the Performance Assessment Model (PAM) (see Plumley *et al.*, 2017) which is developed from the ExPAM (see Plumley *et al.*, 2014). 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 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 et al. (2017) for more information on this subject. However, for reference, a working example of the PAM is provided in figure 2.

<Figure 2 about here>

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; Wilson *et al.*, 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 3 charts the average revenue, debt and 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.

<Figure 3 about here>

Total average revenues have risen from £8.4m to £15.1m (an increase of 79.8% in total). However, total debt has also increased by 218.6% during the same period (increasing from £4.3m 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 £15.1m 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% in 2015 (because of the salary cap) although average wage costs have doubled since 2006 rising from £4.4m 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 versus sporting performance

Figure 4 examines the relationship between financial and sporting performance over 10 seasons. Here a club's average financial score is plotted against its average sporting score. Figure 4 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 United States 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 4 within a profit versus utility maximisation debate. Profit and utility maximisation ultimately represent 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 (Syzmanski 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 4 certainly supports this theory.

<Figure 4 about here>

Figure 4 shows that during the last 10 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. e.g. Buraimo *et al.*, 2006 and Dobson and Goddard, 2011) although Plumley *et al.* (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 4 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 *et al.*, 2017) and rugby league (e.g. Wilson *et al.*, 2015). Figure 4 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 5 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.

<Figure 5 about here>

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 5 it is evident that there is no clear pattern emerging over time in relation to performance. There are certain instances 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 6) 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.

<Figure 6 about here>

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 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. Figure 7 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 figure 7 is that of the best performing clubs in relation to figure 3 (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.

<Figure 7 about here>

In that regard, it is interesting to note the decision of London Wasps to re-locate 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 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

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3 conferencing and banqueting facilities, effectively doubling the capacity for conferences and
4 other events. This redevelopment plan has been aligned to attendance demand from when the
5 club were competing in the second tier of English rugby union (where demand was lower) to
6 the present day competing in the Premiership and potentially European competitions (where
7 demand will inevitably be higher). A stadium redevelopment carried out in phases is also a
8 rare occurrence in English team sports as most capital re-building projects tend to be done to
9 completion in one stage. However, it is clear that Exeter Chiefs have seen this project as
10 long-term investment which mirrors the clubs' on-pitch performance and progression. Such
11 an approach is vital in rugby union where the revenue potential of clubs is not as high.
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15 One positive for the future is the increase in the television rights deal with BT Sport which is
16 due to run until 2021. It has been suggested that the new deal represents an 80% increase on
17 the previous £152m contract which would mean an approximate value of £274m if the reports
18 are correct. At the present time, it is difficult to find an exact figure in relation to this new
19 deal and it is yet to be realised in the clubs' annual accounts owing to the data available at the
20 time of writing. Premiership Rugby chief executive Mark McCafferty has been very bullish
21 about the deal, however, stating that it will almost "close the gap entirely" with the French
22 Top 14 (the flagship rugby union competition in France). McCafferty also cites Exeter Chiefs
23 as a good example of how clubs can bridge the gap between the Premiership and
24 Championship (tier 2) and has confirmed that plans are well underway to expand the
25 Premiership to include more clubs, which may mean temporarily scrapping the process of
26 promotion and relegation. Here is another example of rugby union borrowing from the
27 principles of American team sports by potentially closing their leagues to allow for
28 expansion, presumably by the manually inputting of more clubs based on certain entry
29 criteria.
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35 A further point of contention in recent years has been the decision to increase the salary cap
36 in rugby union. When it was first introduced in 1999 it stood at £1.2m per club but this figure
37 has since increased to stand at £6.5m for the 2016-17 season with a further rise to £7m agreed
38 for the period 2017/2018 - 2019/2020 (BBC Sport, 2016). There was talk of raising the salary
39 cap further but clubs voted unanimously against any further rises recently with concerns that
40 any further rises would lead to wage inflation. Indeed, the Chairman of Exeter Chiefs (a club
41 hailed for their sustainable approach to growth) recently stated that it is important to 'strike a
42 balance' and that wages must not be allowed 'to spiral out of control (BBC Sport, 2016). In
43 contrast, there have other clubs (most notably Saracens) calling for the removal of salary caps
44 altogether, which is perhaps unsurprising given the amount of overseas investment they have
45 had in recent years. Regulation can often restrict clubs who want to invest quickly for short-
46 term gain but regulation is also necessary at certain times to safeguard the future of the sport
47 itself. In respect of the salary cap, there are concerns that raising it even further is not the
48 right answer, particularly if the relationship with broadcasters becomes fragile. From a
49 financial standpoint, the principle of prudence is of vital importance. Significant expenditure
50 must not be considered without the guarantee of increased revenue. In relation to our analysis
51 and current average revenue figures, it is clear that some clubs may come under pressure
52 from the increase in the salary cap if revenues fail to increase substantially also. If all clubs
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were to maximise their salary costs to the top of the cap, based on current averages over the last 10 years, then the wages to turnover ratios of four clubs (Newcastle (100%), London Irish (98%), Saracens (81%) and Wasps (81%)) would become a cause for concern based on the projected figures. In 2014 Wasps actually recorded a wages/turnover ratio of 103% 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 *et al.*, 2006 and 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 focuses 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.

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Figure 1 - The 'New' Environment for Rugby Union

	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

Figure 2 - The Performance Assessment Model (PAM) for a sports team

Dimension	Sub domain				Dimension		OPS
	<i>Indicator</i>	<i>League rank</i>	<i>Weight</i>	<i>Score</i>	<i>Score</i>	<i>Weight</i>	
Financial	Revenue	2	0.15	0.30			
	Pre-tax profit/(loss)	4	0.15	0.60			
	Net assets/(liabilities)	3	0.15	0.45	4.15	0.625	3.59
	Net funds/(debt)	8	0.15	1.20			
	Wages/Turnover	4	0.40	1.60			
Sporting	League Points	5	0.333	1.665			
	Total Game Variance	2	0.333	0.666	2.66	0.375	
	Attendance Spread	1	0.333	0.333			

Figure 3 - Average revenue, debt and wage costs for Premier ships clubs 2006-2015

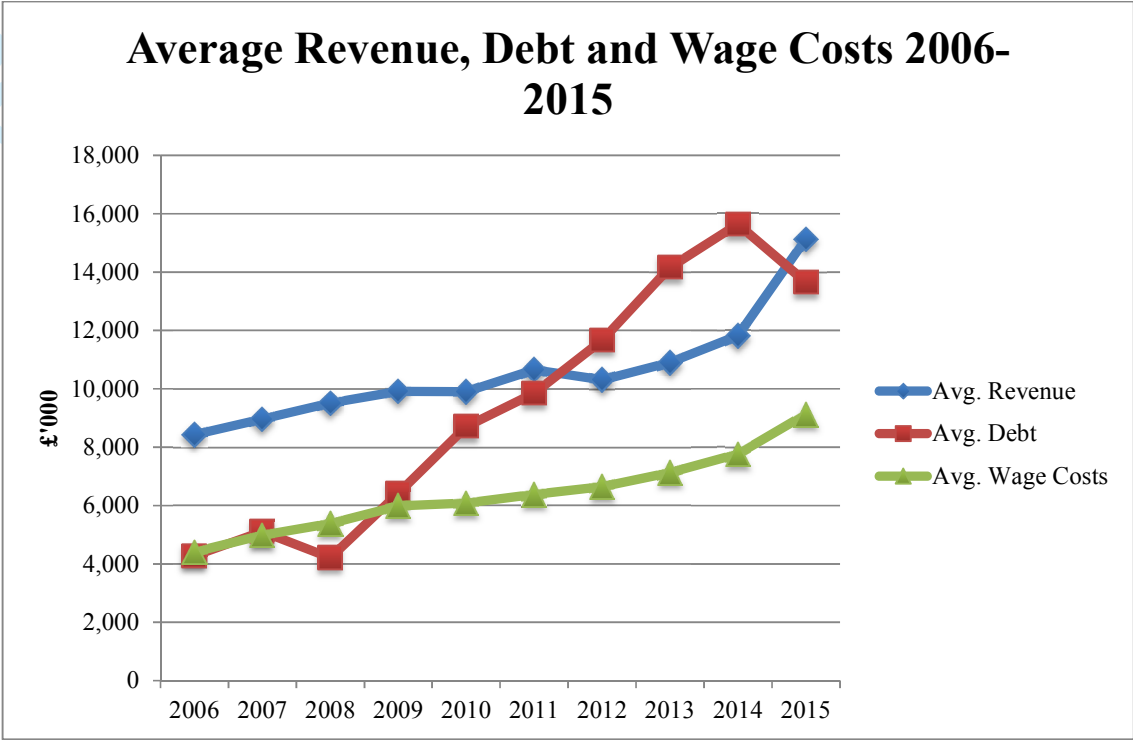


Figure 4 - Average financial versus sporting performance

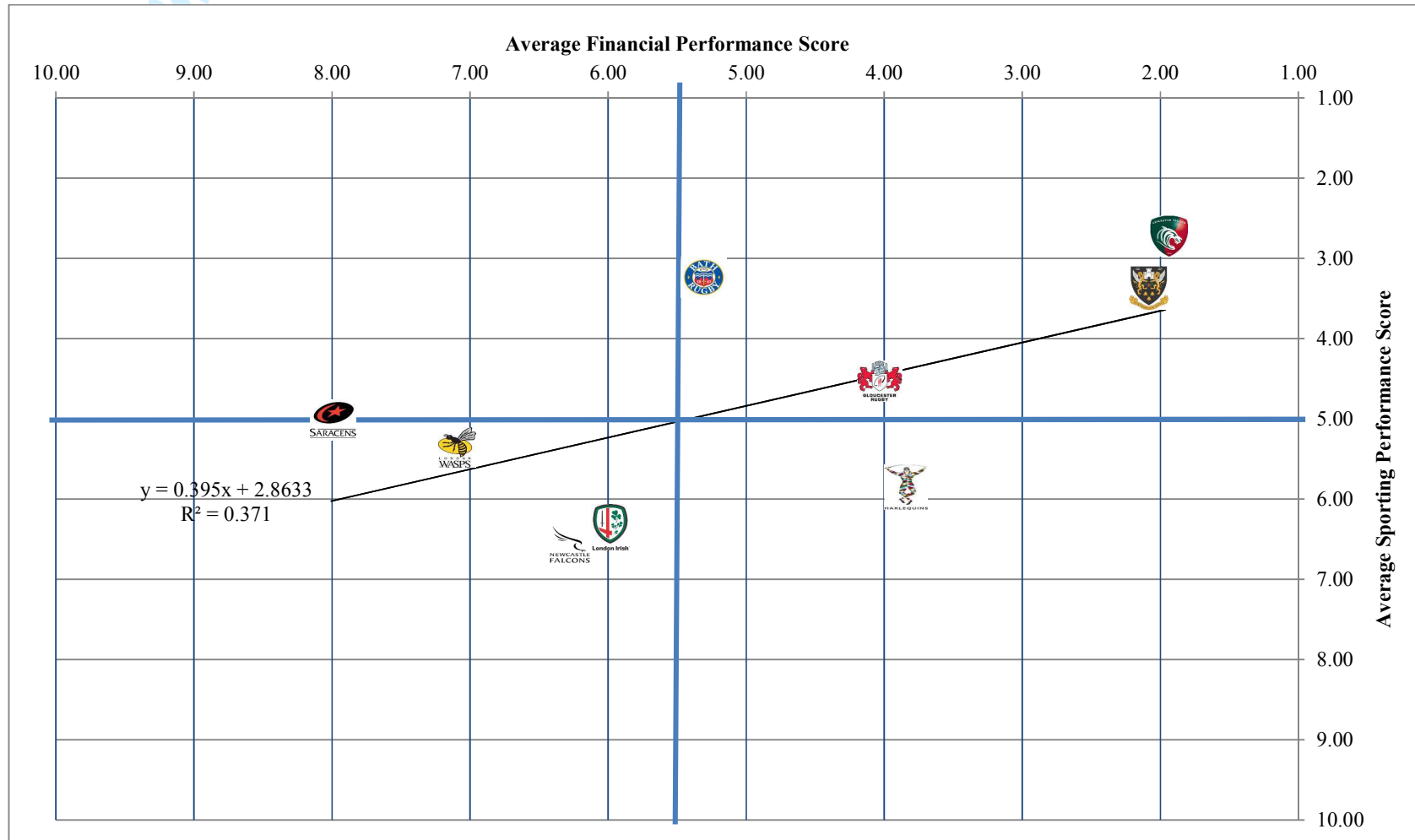


Figure 5 - Overall Performance Variability 2006-2015

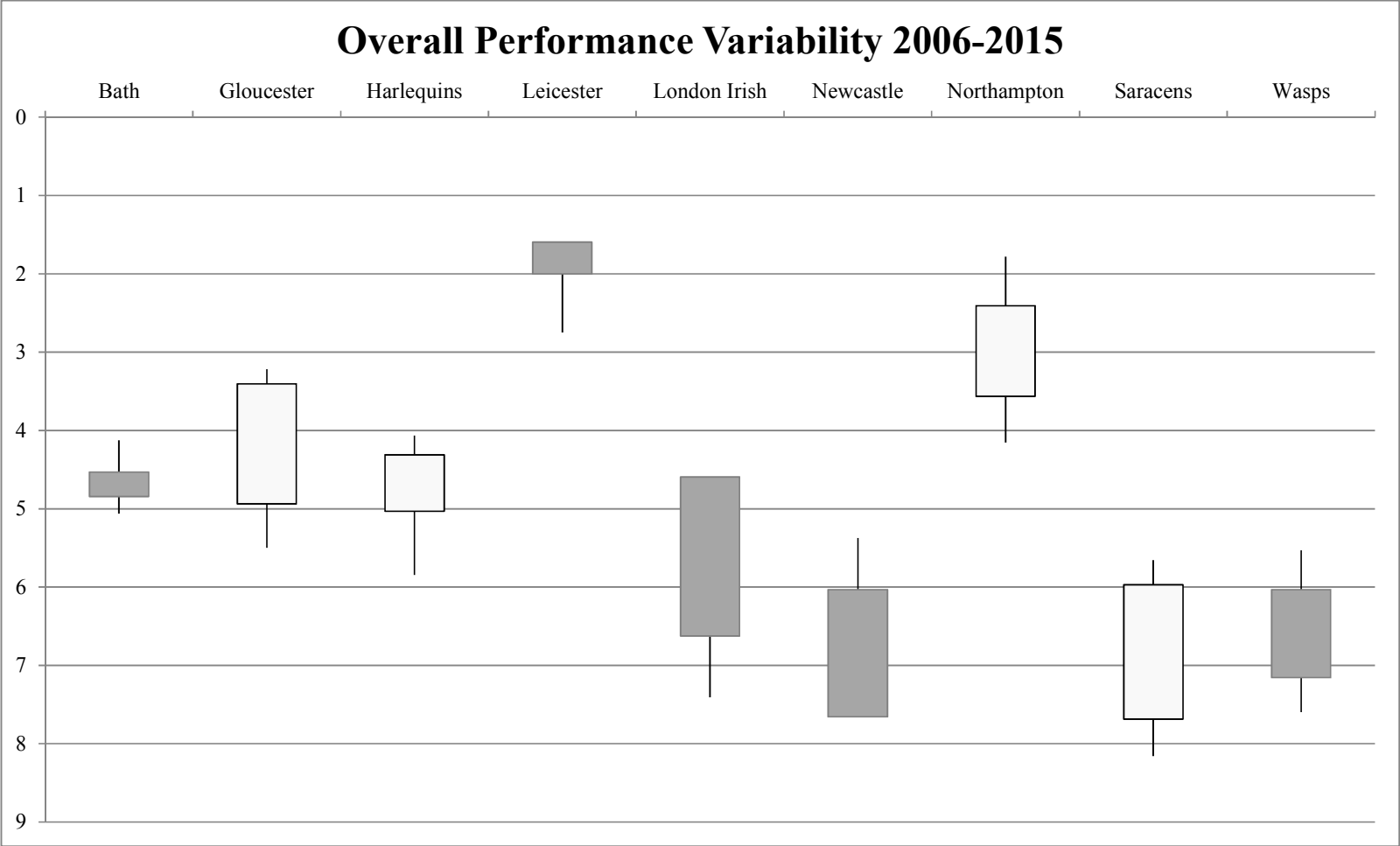


Figure 6 - Overall performance correlations over time 2006-2015

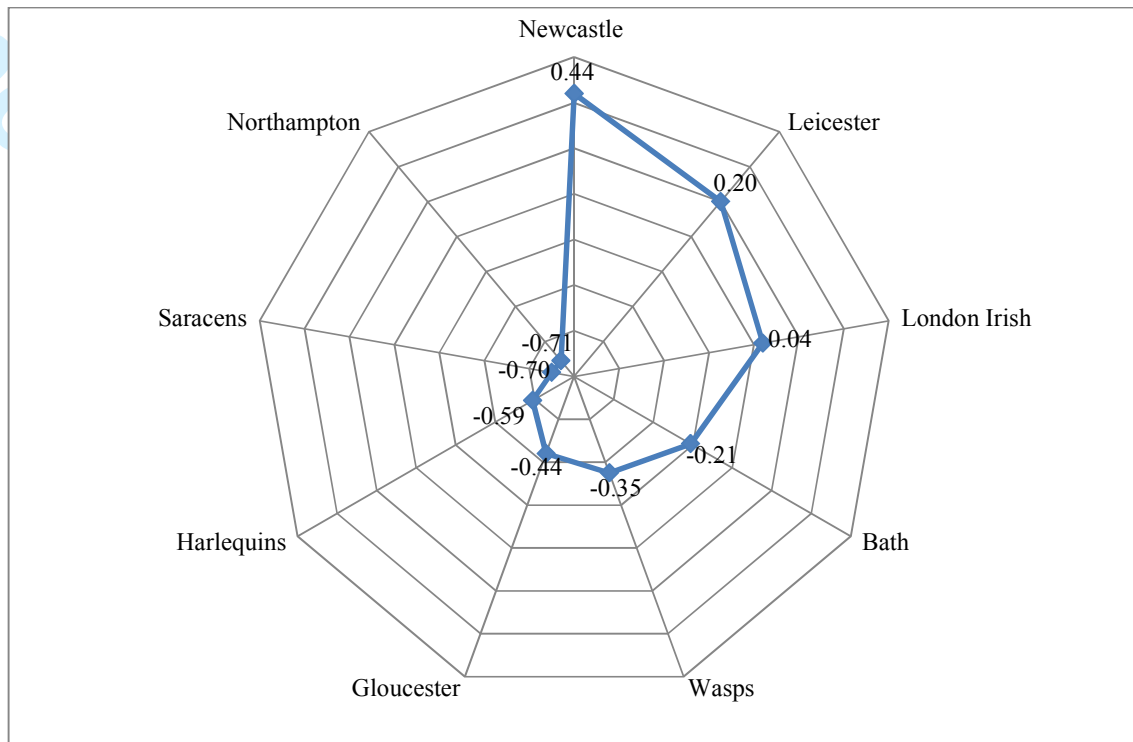


Figure 7 – Club location and competing interests

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