Abstract

The purpose of this paper is to explore the financial growth and development of the governing body of Rugby Union in Australia, now known as Rugby Australia. In doing so, the research observes Rugby Australia's transformation from a small amateur organisation into a multi-million dollar enterprise. The study examines 39 years of annual financial reporting from which four key operational phases were identified. Through this analysis the exponential growth of the organisation is quantified. Correspondingly, the composition of the organisation's specific revenue items was shown to have shifted significantly over the four phases. Furthermore, the changing accounting treatment of revenue line items within the financial reporting provides qualitative insight into the organisation's historical philosophy toward individual revenue streams. The study contributes to an emerging field of sport research which utilises financial documents as a primary method to explore organisational performance and development. This offers new empirical insights into the transformation of sport into a sophisticated commercial industry. In doing so, it addresses academic calls for greater adoption of quantitative financial methods to explore both sport history and sport management.

Analysing the commercial development of Australian Rugby utilising financial reporting

Prior to sport being considered as a spectacle for paying consumers it was primarily regarded as a form of recreation and physical activity. The past half century, however, has seen a transformation of many sports and their governing organisations from ‘kitchen table’ operations to sophisticated commercial organisations (Stewart et al., 2004). This has seen the financial significance of the sport industry grow dramatically over the past 50 years. In an Australian context, sport was estimated to produce an annual economic impact of $50 US billion across events, trade, tourism and foreign affairs (Boston Consulting Group, 2017). Most recently, the global sport industry was valued at $488.5 US billion in 2018, and was projected to reach a record $614.1 US billion by 2022: prior to the outbreak of the COVID-19 pandemic (also referred to as the novel Coronavirus).

Commercialisation has caused a shift in the sport paradigm away from amateurism and voluntarism towards sport as a profession and thus an economic activity (Rowe, 1996; Rowe, 2009; Rowe, 2011). This transformation has seen traditional methods of sport funding, such as member contributions, give way to gate receipts and sponsorship, which themselves are now losing dominance to broadcast rights, and intellectual and digital property rights as key revenue drivers (Andreff and Staudohar, 2000). This has also seen a corresponding shift in the sophistication of fiscal management of sport organisations and their reporting as they attempt to legitimise their positioning (Irvine and Fortune, 2016). However, although the commercialisation and professionalisation of sport has seen it increasingly adopt general business pactices, sport has ‘for many years, lagged behind the business sector from a financial management perspective’ (Stewart, 2014, p. 95).

Corresponding to this industry transformation academic interest in the field has since been fuelled by the increasing economic significance of professional sport for a variety of stakeholders (Borland and Macdonald, 2003). In relation to specifically exploring the rise of professionalism, considerable effort has been invested over recent years attempting to understand the forms and processes of sport professionalization (Amis et al., 2002, 2004; Kikulis, 2000; Kikulis et al., 1995), the causes (O'Brien and Slack, 2003; Shilbury and Ferkins, 2011) and the consequences (Auld, 1997; Ferkins and Shilbury, 2010). The consequences of professionalism provides fertile territory when considering the financial changes that have occurred amongst sport organisations, yet research has largely focussed on people and systems rather than financial operations. This has included understanding consequences for governance (Arcioni and Bayle, 2012; Kikulis 2000; Shilbury and Ferkins, 2011), organisational values and strategy (Horch, 1998; Shilbury et al., 2013) and for volunteer management (Auld, 1997; Cuskelly et al., 1998), all of which retain an underlying connection to financial performance and financial management that is rarely the central focus of investigation. It can be argued then that the financial impact of sport's professionalization has been underexplored with the sport studies and sport management literature.

As the industry has grown financially and sporting organisations have increasingly adopted commercial business practices, both an opportunity and necessity exists to explore sport organisational financial performance over time. Sport has historically been considered to exhibit unique features (Smith and Stewart, 2010), which has partitioned the industry from broader academic exploration (Baker et al., 2016; Fujak et al., 2018). Yet, the transition to professionalism, an increasingly commercial orientation and the relative recent financial maturity of the broader industry provide a confluence of factors on which to base an exploration of the financial performance and management of sport organisations. To date the analysis of financial performance has largely remained the domain of sport economists, who have focussed narrowly upon aggregated revenues or operating margins of sport teams, largely disregarding a broader financial perspective to evaluate potential managerial implications (Galariotis et al., 2018). Correspondingly, despite the availability of financial information for many sport organisations, historical analysis of their financial reporting is limited (Irvine and Fortune, 2016). This corresponds to the work of Nagel and colleagues (2015), who identify the longitudinal analysis of the professionalization of sport federations over the course of time as a key priority. As a result, few studies have demonstrated the impact of commercial growth upon the financial performance and management of sporting organisations.

Through this research we address this critical gap by providing an exploratory analysis of the longitudinal financial performance of one of Australia's largest national sporting organisations, Australia's governing body for Rugby Union; Rugby Australia. In doing so, the research also addresses a call by Vamplew (2016) for the greater use of quantitative methods in the exploration of sport history. Rugby Australia are a notable case as they govern one of Australia's larger commercial sports, yet were the last to transition to professionalism in 1995 (Dabscheck, 2007; Macdonald and Booth, 2007). Accordingly, to better understand this transition, financial data was collected from Rugby Australia annual reports covering the period 1980 – 2018 and analysed. Rugby Australia is also notable by virtue of their dual role in providing a team for international competitions and contributing to a traditional club competition. Accordingly, the second objective of this paper is to examine how the components of Rugby Australia's operations contribute to its overall financial performance.

The paper is presented in five parts. The first part examines the relevant literature in respect to sport financial performance. The second part outlines the methods deployed in this study. Subsequently, the third part of the paper includes the presentation of results and findings, and the fourth part discusses their implications. The fifth and final part the paper concludes with ideas for future research.

Literature Review

The distinct financial, management and governance of sport organisations

Sport is said to retain unique industry characteristics and peculiar features which influence its structure and correspondingly, its finance, management and governance (Neale, 1964; Noll, 2003). Such characteristics are worth noting, given their likely impact upon the financial structure and performance of sport organisations that may distinguish them from typical commercial enterprises (Szymanski, 2003). These economic features are now identified and briefly discussed.

From a functional perspective, among the most significant features of sport that distinguishes it from many typical industries relates to the joint production of its output. While typical firms produce several products from indivisible processes, sporting firms produce an indivisible product from the separate processes of two or more firms (Dabscheck, 2010; Neale, 1964). Sporting organisations therefore act as cartels to produce their product cooperatively, despite the highly competitive nature of the industry (Stewart et al., 2005). Corresponding to this joint production is the production supply schedule. The production supply schedule of sport is comparatively fixed as compared to typical industries, in which supply can be adjusted more readily to adapt to fluctuations in demand. Additionally, sport performance is fundamentally unstable, leading to increased product variability that requires management (Smith and Stewart, 2010). A further structural distinction of the sport industry is the divergent agendas between participants focused upon win-maximization and those that are profit orientated (Fort and Quirk, 2004).

Aside from unique economic-structural features of sport, the financial strength of sport clubs from a managerial perspective specifically is also noteworthy. The work of Foster and colleagues (2006) suggests that the financial strength of a professional sports club is dependent on six main drivers. The first driver is the scale and strength of the league to which the club belongs. The second driver is the clubs current level of performance and the size and scale of its supporter base. The third driver is the club brand and the associated history and traditions. The fourth driver is the stadium in which the club plays its home matches. The fifth driver is the city or region in which the club is located. The final driver is the attributes of the team owners and the club culture that is maintained. Notably, only the final driver somewhat partly relates to the broader financial management practices of the organisation, with the first five all focused on sport specific environment.

Accounting for sporting performance

Over the past few decades a growing number of studies have been conducted that have explored the nexus between accounting and sport. These studies can broadly be placed into three particular streams (Rika et al., 2016). The first stream has explored how clubs and leagues account for players in their financial reports and statement (Trussell, 1977). The second stream has examined the relationship between accountability and power in professional sport (Cooper and Johnston, 2012), whilst the third stream has investigated how team performance on the field of play impacts the financial performance of the club (Pinnuck and Potter 2006). It is this third stream that is most relevant to this paper.

The work of Pinnuck and Potter (2006) found a positive relationship between on-field performance of a club and their off-field financial performance. Their work examined the Australian Football League (AFL), with on-field performance defined in terms of wins in the three most recent games and current position on the AFL ladder. Off-field performance was measured via revenue collected through gate-takings, sponsorship and match attendance. A similar study was completed a few years later by Panagoitis (2009) on the Greek football league. This study found that the profitability of Greek clubs competing in the league was positively associated with their short-run success but not their long-run success. According to

Rika et al. (2016) the poor association over the “long-run can be explained by fan loyalty” that tends to “remain stable over several seasons” due to the unlikely event of committed fans continually changing who they barrack for within a league. Attendance at games however within a season will be impacted by the success of a team thus in turn impacting gate related revenue streams. An important study on English football by Szymanski and Smith (1997) likewise demonstrated a coordination failure that encouraged the owners of clubs to neglect investment in infrastructure such as venues while concentrating on short-term on-field performance. Given this view Szymanski and Smith (1997) argued that it was of little surprise that “most clubs live on the brink of financial failure” (136).

An explanation for this behaviour may have been suggested by Gerrard (2005). His modelling of English Premier League teams for the period between 1998 and 2002 determined that financial performance was significantly influenced by ownership structure. Clubs listed on the stock market exhibited lower wage costs, higher revenues, and higher operating margins, *ceteris paribus,* compared to clubs privately owned. Publically listed teams were therefore associated with efficiency gains in financial performance. Through their quantitative study, Pinnuck and Potter (2006) also demonstrated that the most significant contributions to total AFL club revenue, in order were: marketing and commercial revenue, direct distributions from the AFL, membership revenue, fundraising and match receipts. Marketing and commercial receipts are primarily generated through sponsorship and are a function of the likelihood for future success, popularity, past sponsorship, match attendance and marketing costs. Distributions from the AFL are derived from league revenue and according to Booth et al., (2012) league revenues, in 2005, were primarily (55%) sourced through broadcasting rights and sponsorship. Membership revenue is a function of perceived success in the season to come, habit of membership and marketing costs. Fundraising is the capital generated by the club through various fundraising activities. Finally, match day receipts are a function of both socioeconomic and football factors: the football factors are the uncertainty of outcome, and short and long run success of the club.

In their study match attendance was used as the metric rather than match receipts due to the availability of data. However, in supplementary analysis, a strong correlation was found between match attendance and match receipts. A positive association was also demonstrated between uncertainty of outcome and attendance at the game. Uncertainty is based on the outcome of the game and the season. Additional control variables included stadium capacity and membership at the beginning of the season.

Pinnuck and Potter (2006) demonstrated the correlation between on-field performance and revenues from marketing, membership and match receipts. A relationship was demonstrated with a teams' performance over the previous two years and marketing receipts. A positive correlation was also found between attendance and marketing receipts. Given that improved on-field performance leads to improved attendance this is further evidence to increased revenue. A strong correlation was demonstrated between marketing receipts and the level of on-field success in the two years prior. Whilst a weak correlation was shown between previous ladder position and membership revenue, supporters of a club are more likely to become members in the case that they perceive their club likely to achieve success in the coming season.

The study also showed that clubs are rewarded by their supporters through increased membership when they have a successful year, more so than they are penalised by their members ceasing their membership, when they have a poor year on the field. A strong correlation was identified between match attendance and on-field performance in the short term, whilst long-term performance had a greater correlation for the away team. One reason for this may be the correlation to long-term success is at least in part that it can be seen as an indicator for short-term success, style of play, or the existence of star players that attract fans. Furthermore, Peel and Thomas (1992, 1996) have demonstrated that the probability of a win is also an important indicator of match attendance. For a team that is performing well their probability of winning is greater and therefore an increase in match attendance is observed.

As outlined above, Pinnuck and Potter's (2006) research is supported by Panagoitis (2009) investigation into the financial and on-field performance of Greek football teams. Panagoitos (2009) suggested a correlation was demonstrated between profitability and on-field performance in the short-term but not the long-term.

In summary, the relationship between on-field performance and financial success is important for sports managers to understand. Rugby Australia is distinct from domestic competitors that have previously been studied given they are responsible for governing the sport domestically and managing a representative national team. Furthermore, Rugby Australia must collaborate with the New Zealand and South African Rugby Unions in the coordination and delivery of the Super Rugby competition. In the case of Rugby Australia identifying and understanding patterns in financial performance due to on-field and off-field variables would not only enable them to predict expected outcomes it would also assist in identifying the impact on financial performance due to managerial strategy and decision making.

Methodology

Research context: Rugby Union in Australia

Australia may be the world's most concentrated sporting landscape, home to 24.5 million residents who sustain more than 70 elite commercial sport teams within seven mainstream sports across only 12 cities (Fujak, Frawley, and Bush, 2017). Rugby Union holds a comparatively long history in the Australian market, being the first type of football to be established in Sydney, with the Sydney University club founded in 1864. Although the sport's popularity has fluctuated, it has long been embedded within the market. In 1907, for instance, a then record crowd of 50,000 spectators were in attendance to watch Australia play New Zealand at the Sydney Cricket Ground (Hickie, 1993).

Despite long-held potential as a commercial operation, the amateur ethos of Rugby Union was long central to its identity. In 1907, Rugby League was formed by players as a breakaway code due to the resistance of Rugby Union to financially compensate them for injuries that would preclude them from working (Collins, 2013). Despite such early competitive pressures, the central objective of retaining Rugby Union's amateur status was maintained by the sport's governing body, the International Rugby Football Board (IRB) from 1890 through to 1995 (Dabscheck, 2007). This amateur status however did not preclude improvements in governance. In 1949, the IRB allowed representation by Australia, which required the formation of a national body, hence the commencement of the Australian Rugby Union, now rebranded as Rugby Australia. Throughout the mid-20th century despite Rugby Australia implementing sound governance and management practices the amateur status of the sport hampered the full commercialisation of the sport (Allison, 2001).

The greatest pressure to commercialise the code culminated in 1995 with the establishment of a rival organisation called the World Rugby Corporation (Dabscheck, 2010). This rebel organisation threatened to disrupt international Rugby Union, and thereby forced the IRB's hand with the hasty repeal of Rugby's amateur status (Skinner et al., 1999). As such, the IRB enabled member organisations such as Rugby Australia to begin paying players. This disruptive external pressure to professionalize represents a notable departure from the experience of most sport federations, who more typically face a mix of external factors and internal characteristics as part of a professionalization transition process (Thibault and Babiak, 2005).

The revocation of Rugby Union's amateur principles resulted in new challenges for Rugby Australia which could now obtain additional capital through the professionalization of the game, using these funds to invest into the growth of the sport including the payment of players (Skinner et al., 2003). This change presented the organisation with a much greater incentive to start competing more fiercely with other professional sports in Australia such as AFL, Cricket, Rugby League and Association Football (Macdonald and Booth, 2007). Correspondingly, a new competition named 'Super Rugby' was created, featuring teams from Australia, New Zealand and South Africa. The rights to the competition were sold to Rupert Murdoch's News Corporation as part of his organisation's strategy to utilise sport as the central content to launch pay television across the southern hemisphere (Rowe, 2011; Rowe, 1996).This resulted in a 10-year, A$550 million deal for television rights (Dabscheck, 2010). The introduction of this competition and corresponding needs of media stakeholders resulted in fundamental changes to the game, resulting in a particularly acute realignment from amateurism to corporatisation (Horton, 2009).

Corresponding with the 10 year broadcast deal, Super Rugby remained a relatively stable competition for the period 1995 to 2005. This coincided with a period of general prosperity for the code in Australia, culminating with the successful hosting of the Rugby World Cup (RWC) in 2003. The event was not only able to generate a profit though strong attendances, but appeared to spur growth in the participation base of the sport (Frawley and Cush, 2011). The event therefore appeared to contradict much of the criticisms that laden mega sport events (Alm et al., 2016; Preuss, 2004). Rugby Union in the southern hemisphere appeared to enter a period of substantial change commencing in 2006, with an additional team from both Australia and South Africa added to Super Rugby and a fifth Australian team added in 2011. In 2016, the competition expanded substantially to include an additional three teams, one from South Africa, one from Japan and one from Argentina (Bond et al., 2017).

Two teams, including one Australian team, were subsequently removed in 2017, indicative of the greater level of general volatility for the code in Australia.

Rugby Union, both globally and in Australia, hence provides a unique opportunity to explore the transition of sport federations from amateur to professional management. Professionalism has been observed to typically occur as part of a transition process, leading towards organizational rationalization, efficiency and business-like management that results in profound organizational change (Dowling et al., 2014). Yet, distinct from most sports and their respective federations, Rugby Union was disrupted by external forces that led to a comparatively dichotomous switch from amateurism to professionalism in 1995 (Skinner et al., 2003). This is best reflected by the timing of events in that particular year. Rugby Australia (along with South Africa and New Zealand) entered their broadcast rights arrangement with News Corporation on the 23rd of June 1995, yet the game did not officially become sanctioned as professional until two months later at an International Rugby Board (IRB) meeting on the 27th of August. This meant that the Australian Rugby Union had committed to a half billion dollar commercial undertaking without any players signed to professional playing contracts, given their pre-existing amateur status (Dabscheck, 2010). Accordingly, Rugby in Australia provides an opportune setting to explore the financial management of sport federations, given its comparatively neat transition from an amateur to professional code (Nagel et al., 2015).

Materials and procedures

To better understand the financial performance of Rugby Australia, financial information was hand collected from annual reports for the period 1980 – 2018 inclusive. More recent annual reports were available from the Rugby Australia website, whilst older reports were accessed from the Clearinghouse for Sport (https://www.clearinghouseforsport.gov.au/), a portal funded by the Australian Sports

Commission. In total then, the financial performance of the organisation is tracked longitudinally over 39 years, comfortably spanning the entirety of the game's professional period (23 years). The length of the sample period is also significant as it is able to capture cyclical variation caused by the sport's major events calendar. For Australia, these include the quadrennial RWC, as well as tours by the British and Irish Lions which occur every 12 years (most recently in 2013).

As the focus is on financial performance, data was extracted from the income statement (statement of financial performance) with a focus on revenue to provide an overall summary of performance over the period in question. Further analysis then delves deeper into the individual components of revenue, in which the dataset contains 17 disaggregated revenue line items. To aid in the analysis, the various revenue line items presented over the sample period were simplified to seven overarching revenue streams:

- Match day – includes all gate receipts, and corporate hospitality revenue
- Government grants – all grants received from Federal and State Governments
- Broadcast – includes all broadcasted related funding
- Sponsorship – includes all sponsorship funding
- World Rugby Grants and World Cup – primarily these relate to funds received from World Rugby in relation to prize money, etc. for competing at various international tournaments (i.e. RWC, Junior RWC, etc.)
- Licensing – licensing revenue for merchandise
- Other – often no details are provided, but also includes finance income, dividends, etc.

It must be noted that due to shifts in the way Rugby Australia grouped different line items together, it was not always possible to get a consistent measure throughout the entire sample period. Where possible we have grouped similar items together. All figures presented are in Australian dollars, adjusted for CPI with December 2018 as the index base.

Results

The results are presented in two parts. The first part explores the three distinct revenue generation phases experienced by Rugby Australia. The second part presents an analysis of the seven overarching revenue streams, which includes the following categories: match day; government grants; broadcast; sponsorship; World Rugby grants; licensing; and, other.

Four distinct phases

Observation of Rugby Australia's longitudinal revenue pattern suggest there to be four distinct phases in the operating history of the organisation. The first two phases span the amateur period of the game, but are demarcated by two significant distinctions which delineate the periods. The first phase is the 'purely amateur era', spanning from 1980 to 1985. As can be seen in Table 1, revenues over this six year period grew by 56% (although nominal revenue only increased by 4.8%. During this period, match day revenue accounted for 35% of cumulative income. The second phase of the amateur era spans nine years from 1986 to 1994 and is labelled 'embryonic professionalism'. Despite maintaining an official amateur status, this period was characterised by a marked acceleration in revenue, the catalyst for which appears to be the hosting of the inaugural RWC in 1987. The period saw a seventeen fold increase in revenue from $160,962 to $2,801,799 in Rugby's last amateur year in 1994. This period also saw a reduction in the primacy of match day revenue, decreasing to 28% of total revenue for the period.

The third observable period is the 'growth phase' of the professional era, which spans a 13 year period from 1995 to 2007. This period started with enormous change, with total revenue more than doubling between 1994 and 1995 (see Table 1). This period held an annualised revenue growth rate of 20%, but it was this early growth during the period from which revenue compounded that allowed the organisation to become so large. Indeed, from total revenue of just over $2.8 million in 1994, Rugby Australia was generating more than $20 million only four years later. This trend continued such that by 2007 more than $64 million in revenue was being earned by Rugby Australia. A further observation is notable here: although the period was characterised by monumental growth, this growth was achieved relatively smoothly over the course of the period. This exception to this was the monumental revenue impact of the 2003 RWC, which will be discussed later in further detail.

The fourth and final period can be described as the 'volatility phase', covering the period 2008 – 2018 inclusive. During this period Rugby Australia revenues became increasingly volatile, with year on year decreases more prevalent. This had a corresponding impact on profit and loss. During the 39 year period of analysis, Rugby Australia made seven operating loses, four of which occurred during this phase.

INSERT FIGURE 1 ABOUT HERE

Line item analysis

Having examined and explored overall revenue, we now move to examining the different revenue and expense streams of Rugby Australia. To aid the analysis, the various revenue line items presented over the sample period were refined and simplified to seven overarching revenue streams that include: Match Day – all gate receipts, and corporate hospitality revenue; Government Grants – all grants received from Federal and State Governments; Broadcast – includes all broadcast related funding; Sponsorship – includes all sponsorship funding; World Rugby Grants – funds received from World Rugby in relation to prize money for competing at various international tournaments i.e. the RWC, the Junior

RWC, and related events; Licensing – licensing revenue for merchandise; Special Events – including revenue generated from hosting the Rugby World Cup and the British and Irish Lions tour.

As alluded to in the methodology section for a number of years it was not possible to completely disaggregate the revenue streams from the information provided. This means that Government Grants and Sponsorship are combined for the period 1985 – 1987 inclusive, and Broadcast and Sponsorship are combined for 1988 – 2000 inclusive. All revenue breakdowns for the sample period are provided in Table 1 in dollars (Panel A), and as a percentage of annual revenue (Panel B). In addition, Figure 2 provides a graphical representation of the revenue breakdowns for the sample period.

Match day

Because of the consistency in the line items provided, the discussion in this section is focused on the period from 2001 onwards. Match day revenues have increased from $9.9 million in 2001 to $20.2 million in 2018, which equates to an increase of 4.03% p.a. What is evident in the match day revenues is the impact of RWCs staged in 2003, 2007, 2011 and 2015, as well as the British and Irish Lions tour in 2013. Of the four RWCs in the period, only the 2003 RWC was held in Australia and will be discussed in more detail below. In each of the remaining RWC years (2007, 2011 and 2015), match day revenues declined as the RWC reduced the number of home matches played by the Wallabies. In 2007, this decline from the year before was $3.1 million (17.38%), in 2011 it was $4.3 million (20.25%) and in 2015 it was $17.3 million (53.24%). These match day revenue declines are effectively supplemented by increases in World Rugby grants for the same years. Hence, for Rugby Australia there were minimal declines in match day revenue due to participation in the RWC. The impact of the British and Lions tour in 2013 had an enormous impact on revenues with an increase to over $63.5 million.

Sponsorship

Sponsorship revenue increased over the period 2001 – 2017 from $9.8 million, an amount almost identical to match day revenues in 2001, through to $28.2 million, which is an annualised growth of 6.06%. However there does seem to be evident cycles in the sponsorship earnings, with a plateau of approximately $20 million being reached in 2007, which lasted until 2011. Sponsorship then increased to approximately $30 million per year from 2014, with an exception being 2015 ($22.4 million).

Broadcast

Broadcast revenue has always been an important source of income, with nearly $16.5 million in revenue in the 2001 year. This increased steadily through to 2005, when nearly $23.4 million was earned by the Rugby Australia. With the exception of the 2013 British and Irish Lions Tour, when total broadcast revenue totalled $38.1 million, broadcast revenue never materially exceeded the 2005 peak, and had actually reached a 15 year low in 2015 of $17.2 million. The new broadcast deal in 2016 (ABC 2015) witnessed a substantial increase in revenues, to approximately $60 million per year. Broadcast revenue over the period 2016 – 2018 inclusive represented 46.04% of total revenue for Rugby Australia, and the largest single component by a substantial margin.

Special events

What becomes clear when analysing the Rugby Australia financial statements over the extended period is how important special events have been to the organisation. During the sample period, Australia has hosted two RWCs, the first in 1987 during the amateur era, and the second in 2003, during what was a highly successful period for the Wallabies on the field of play.

The financial impact of the 1987 RWC is not overly obvious when looking at Figure 1, however it is clearer when analysing Table 1. Total revenue in 1987 was just over $1.3 million and this was more than three times higher than total revenue in both the prior (1986) and subsequent (1988) years. Turning to 2003, whilst the quantum of revenue is significantly higher, at just over $200 million this was nearly five times higher than the $42.2 million in revenue earned in 2002 and over four times higher than the nearly $50 million in revenue earned in 2004. Whilst there were concomitant increases in expenses related to hosting the RWC, there were substantial profits earned in those periods, especially in relation to other years in the sample. Australia last hosted a RWC in 2003, and with the 2023 RWC already assigned to France, the next possible RWC that can be held in Australia would be in 2027, some 24 after it last hosted the event.

The second special event important from a financial perspective to Rugby Australia is the British and Irish Lions tour, which as noted previously, is hosted by Australia every 12 years. The first tour in the sample took place in 1989, with substantial impacts on both match day (increase of $114,876 or 182.30%) and total revenue (increase of $304,230 or 72.79%). Similar effects took place during the 2001 tour (match day increase of $4.6 million or 88.49% and revenue increase of $11.3 million or 41.08%) and the 2013 tour (match day increase of $33.5 million or 111.85% and revenue increase of $48.4 million or 55.71%). Each of these tours had a positive impact on the Rugby Australia bottom line, and as they are a reoccurring event (albeit every 12 years), it does allow for Rugby Australia management to plan more effectively. The next tour of the British and Irish Lions to Australia takes place in 2025.

INSERT TABLE 1 ABOUT HERE

INSERT FIGURE 2 ABOUT HERE

Discussion

The results of this research cover 39 years of financial analysis, encapsulating 17 discrete lines of revenue. The results provide insight into the longitudinal financial development of a sports organisation within an environment that has featured rapid commercial development associated with technological innovation and changing market dynamics (Fagan, 2005; Rowe, 1996). In doing so, the study addresses both a call by Nagel and colleagues (2015) for greater longitudinal analysis of sport federations and Vamplew's (2016) plea for greater adoption of quantitative methods to explore sport history. The study also begins to address a scarcity of research evaluating the financial consequences of professionalism, which has been overlooked in favour of exploring changes in systems and process (Arcioni and Bayle, 2012; Horch, 1998; Kikulis 2000; Shilbury and Ferkins, 2011; Shilbury et al., 2013). The section that follows therefore provides a discussion of the most significant findings arising from the research.

Four distinct phases

Longitudinal financial analysis of Rugby Australia's Income Statement identified four organisational phases during the observed period. Perhaps the most significant finding within the analysis pertains to the delimitation of the amateur era into two distinct periods. The amateur and professional period is thought of as dichotomous moment of organisational conversion, but it is evident from financial statement analysis that Rugby Australia was transforming into a commercial operation irrespective of its official status (Skinner et al., 1999). This finding is significant, as Rugby Union's change has often positioned as transformative, consistent with a systemic professionalization change process (Dowling et al., 2014; O'Brien and Slack, 2003). Rather, despite Rugby Union's unique official change-over date, their financial professionalization followed a transitionary process common to many of the organizational settings studied to date (Kikulis, 2000; Kikulis et al., 1995; Shilbury and

Ferkins, 2011). That it hosted the 1987 RWC during its amateur period most likely provided the organisation some experience in what would soon become required in becoming a largely more sophisticated commercial operation (Stewart et al., 2004). Consistent with previous research, the findings illustrate that Rugby Australia did not commercialise because of professionalism, but commercialism led to professionalism (Dabscheck, 2007).

A second key observation related to the immediacy and exponential financial growth in the period surrounding Rugby Union's professionalization around 1995. During the four years at the end of the amateurism and the beginning of professionalism (1994 to 1997), Rugby Australia revenue grew at an annualised rate of 82.82%. This resulted in the transformation of an organisation generating $2.8 million (1994) in revenue to one generating over $17 million (1997) within a three year period. This revenue growth speaks to the considerable transformation sport organisations have undertaken in their transition from unsophisticated operations to commercial entities (Stewart et al., 2004). Consistent with the conclusions drawn by O'Brien and Slack (2013) in regards to British Rugby's professionalization, Rugby Australia's revenue growth illustrates the high speed at which the organisation's historically embedded institutional logic required amending to a new business orientation (Fort and Quirk 2004).

The shift in the sport paradigm away from voluntarism towards a professional and economic activity is also evident during this period in the changing size and composition of expenses (Rowe, 1996; Rowe, 2009). For instance, only 15% of Rugby Australia's expenses in 1993 pertained to administration (administration and finances expenses: $264,996), with no line item allocated to marketing expenses. By 1997, administration costs (line item: finance and marketing) had grown to $4,164,437 and accounted for 42% of organisational expenses. Evidently, the professionalization of the game corresponded to a professionalization of its workforce needs and organisational governance (Skinner et al., 2003). While this finding is well documented in the literature (Ferkins and Shilbury, 2010; Shilbury and Ferkins, 2011; Shilbury et al., 2013), the figures quantified above provide an alternative lens through which to comprehend how professionalization has changed the nature of sport organizations.

The instantaneous and exponential financial growth of Rugby, despite professionalism's embryonic status, is a reflection of several key environmental factors. Firstly, although Rugby Union was the last football code to adopt professionalism in Australia, its late development was not a reflection of an absence in underlying popularity (Hickie, 1993). Certainly, it appears that the market existed before the product. Correspondingly, the IRB's decision to succumb to environmental pressures after 105 years of resistances appears historically vindicated (Skinner et al., 1999). Although the transition to professionalism was a reaction to environmental factors rather than a proactive strategy, in an Australian setting Rugby Union appeared to benefit from the timing. Given News Corporation's emphatic desire for content as method to drive the development of subscription television, the introduction of professionalism via the new Super Rugby tournament appears to have been well timed for the market (Rowe, 2011; Rowe, 1996). Although the introduction of professionalism fundamentally changed the culture, community, manner and style of the game, its entrance and acceptance into the sporting market appears instantaneous (Horton, 2009).

Another notable outcome during this early period of professionalization relates to its main beneficiaries and whether profits have been utilised efficiently (Fort and Quirk, 2004; Szymanski, 2003). Despite achieving record surpluses (at the time) between 1994 and 1997, the national body ended up with a weaker balance sheet, owing to its financial distributions over the time period. Rugby Australia generated $14 million in profit over the period but distributed $15.3 million to its state member unions. Ironically then, despite the national governing body's new found success, it ended up in a poorer financial position with total equity decreasing from $1.2 million to negative $66,613 at the end of 1997. While such an outcome could have impacted the financial legitimacy of the organisation (Irvine and Fortune, 2016), this behaviour is consistent with historically observed patterns that sport organisations often neglect longer term infrastructural investment (Szymanski and Smith, 1997). It is also consistent with the 'Machiavellian world of rugby politics' which can often be associated with sport more generally (Dabscheck, 2010: 40).

Line item analysis

Longitudinal changes to organisational revenue sources

As previously identified, Rugby Australia's reporting structure has evolved over time; creating inconsistencies that impede perfect longitudinal comparison of revenue line items. Although this places limitations on longitudinal analysis, the changing accounting treatment of revenue line items provides some qualitative insight into the organisation's historical view of revenue streams. The changing structure of Rugby Australia's Income Statement appears reflective of broader historical sport commercialisation trends (Stewart et al., 2004). This transformation has seen older methods of sport funding, such as member contributions, be increasingly superseded by gate receipts and sponsorship, which more recently are becoming secondary to broadcast rights, and intellectual and digital property rights as key revenue drivers (Andreff and Staudohar, 2000). This chronology appears consistent with the historical reporting structure of Rugby Australia. For the period, 1985 to 1987 Government Grants and Sponsorship were an amalgamated as a line item, corresponding to a time period where sponsorship was to a degree, still considered a form of philanthropy (Morgan and Summers, 2005). Next, sponsorship was shifted and coupled with broadcast revenue from 1988 to 2000. This combined line item would become the symbolic bucket for commercial revenue, increasing 85 fold over the period and representing 75% of revenue by 2000. Finally, from

2001 onwards, broadcasting and sponsorship were each given distinct line item recognition, recognising the individually large and conceptually discrete nature of their contributions to overall revenue (Booth et al., 2012). These longitudinal changes in reporting structure appear to be a microcosm for the growth and change in the sport industry. Specifically, the structural changes detailed above align to the historical shift from the traditional professional sports model to the contemporary model detailed by Andreff and Staudohar (2000).

A growing reliance on broadcasting

Although it is well accepted that broadcasting has become central to the successful organisation and management of sport organisations, the longitudinal nature of the dataset is able to illuminate the increasing centrality of broadcast rights over time. This research quantifies the hypothesis of Dabscheck (2010), that broadcasting rights were the major catalyst of change within a Rugby Union setting. The importance of broadcast rights however, has continued to grow. Broadcast rights hit peak share of revenue (50.52%) for Rugby Australia in 2018, which coincided with the middle of their most recent broadcast cycle (2016-2020). Although this $60 million per annum represents a windfall for the sport, such a heavy reliance on one revenue source represents an obvious strategic risk to sustainability. This is particularly the case in a modern setting given continued fragmentation within the media industry (Gratton and Solberg, 2007), and the recent $417 million loss by Rugby Australia's current broadcast partner, Foxtel (Loussikian and Duke, 2019). Although the sport product is innately jointly produced through the cooperation of sport organisations (Neale, 1964), Rugby Australia's reliance on broadcasting is a particular strategic vulnerability given their unique cartel arrangement. This is due to their unique cooperative collaborations with the New Zealand and South African Rugby Unions to jointly produce the Super Rugby competition. Accordingly, while this provides them with collective cartel power, it has diminished Rugby Australia's individual control (Stewart et al., 2005).

It should be noted however, that Rugby Australia's reliance is not necessarily unique from the general sport market. At a mega-event scale, the Fédération Internationale de Football Association generates approximately 59% and the International Olympic Committee 48% of their income from broadcast rights (Fujak et al., 2016). In a domestic setting, the AFL generates 49% of their revenue from broadcast rights (Australian Football League, 2016) and the National Rugby League approximately 61% (National Rugby League, 2016). This research finds that the overall distribution of Rugby Australia's revenue is not dissimilar to that of the AFL (Booth et al., 2012; Pinnuck and Potter, 2006).

A continued reliance on special events

Rugby Australia has previously been identified as distinct from many of its local competitors given their dual responsibility of providing a team for international competitions and a cohort of teams within a traditional league competition (Dabscheck, 2010). A by-product of this former role is the organisations ability to derive extraordinary earnings from non-regular special event income. This is a significant distinction from previously researched competitors such as the AFL, who by maintain a relatively steady cycle of events appear more consistent in their earnings patterns (Booth et al., 2012; Pinnuck and Potter, 2006). Rugby Australia is unlike the AFL as it is reliant upon the fixed supply schedules of the international governing body for major events (i.e. the Rugby World Cup), a significant determinant of their revenue potential (Smith and Stewart 2010). The hosting of the RWC in 2003 resulted in greater cumulative revenue than the prior seven years of operation combined, contributing to an overall $23 million dollar operating surplus for the year. The event itself generated a profit of $30 million from 1,837,547 tickets sold and was considered an all-round success for the organisation (Frawley and Cush, 2011). Similarly, the British and Irish Lions tour was shown to cause a significant spike in revenue earnings. Previous research has described Rugby Australia's product output as tiered (Dabscheck, 2010), which appears further validated by the extraordinary earnings the organisation is able to achieve from intermittent events.

The event's contribution to Rugby Australia's financial position is also a notable reflection of the divergent outcomes for stakeholders who contribute to producing mega-events. Mega-events require substantial investment, typically from national governments (Alm et al., 2016). Yet, the benefits of hosting such events have been relatively inconclusive, although indicating than any overall benefit is largely social than economic (Preuss, 2004). Given the considerable financial windfall achieved by Rugby Australia, it appears to have been the primary beneficiary of hosting mega-events.

Conclusion

This research endeavoured to explore the financial growth of a sporting organisation through longitudinal analysis of their Income Statement. In doing so, the research addresses several critical gaps. First, the adoption of a financial analysis methodology provides a new lens through which to explore the professionalization process and decision making of sport organizations. While professionalism has been robustly researched, the field's focus upon changes to systems and processes (Arcioni and Bayle, 2012; Horch, 1998; Kikulis 2000; Shilbury and Ferkins, 2011; Shilbury et al., 2013) has left the financial manifestation of such change underdeveloped. Second, the study also contributes to the nascent field of sport literature which explores such sport organisational performance utilising financial reporting (Irvine and Fortune, 2016). This represents an important contribution, given research exploring the financial performance in sport have typically focused narrowly upon revenue as a proxy for financial performance (Galariotis et al., 2018).

Several notable findings emerge from the exploration. Firstly, the research confirms that the amateur versus professional dichotomy does not robustly capture the transition of

Rugby Union within an Australian setting to professionalism (Dowling et al., 2014). Rather four distinct phases were identified spanning the 39 year tracking period. Consistent to previous research, the findings confirmed that Rugby Australia did not commercialise because of professionalism, but commercialism led to professionalism (Dabscheck, 2007). This commercialism was driven by external pressures, placing it among a smaller subset of studies focussed upon systemic professionalization (O'Brien and Slack, 2003; Skinner et al., 1999) rather than organisational professionalization (Dowling et al., 2014).

The research found that the influx of revenue did not translate to improved financial wealth during the early period of professionalization. This supports the proposition that sport organisations were slow early adopters of robust financial management practices during professionalization (Stewart, 2014), perhaps reflecting some of the challenges faced by these organisations at the time to plan strategically in accordance with good governance (Dabscheck, 2010; Szymanski and Smith, 1997).

The research also illustrated the changes in the underlying funding structure of Rugby Australia as it has moved away from game day revenue to more sophisticated sources (Andrews, 2000). This builds upon previous such work in other local settings (Pinnuck and Potter, 2006). Firstly in respect to broadcasting, the research suggests the organisation has never been more reliant on broadcast income, which poses a particular strategic risk to the organisation given its cooperation structure with fellow national unions. Secondly in relation to special events, it is evident that the organisation benefits from its ability to leverage non-regular special events. While mega-events typically represent a poor financial investment for host governments (Preuss, 2004), the same cannot be said of the hosting national sporting organisation. However, given the 2023 RWC has already been assigned and the next Lions tour is five years away, Rugby Australia do not appear to have any impending extraordinary earnings to rely on.

There are a number of practical implications of these findings for sporting organisations, which become especially pertinent as the world emerges from the COVID-19 pandemic and sporting competitions resume. The first is that it highlights the importance of sporting organisations diversifying revenue streams away from broadcast rights, as there is no guarantee that the value of these rights will continue into the future. The second is that revenue streams are becoming increasingly volatile, which means the ability for the organisation to act in an agile fashion in relation to their cost structures is crucial.

References

ABC News. 2015. Australian Rugby Union seals massive rise in TV broadcast deal. *ABC News* [Online]. 17 December. Available at: http://www.abc.net.au/news/2015-12-17/australian-rugby-union-seals-massive-rise-in-tv-broadcast-deal/7036348 (Accessed 30 May 2018).

Allison, L. 2001. *Amateurism in sport: an analysis and a defence*, Frank Cass, London.

Alm, J. Lechner, E. and Solberg, H. 2016. "The hosting of sport mega-events: a cost efficient perspective", *Managing Sport Mega-Events*, Routledge, pp. 68-86.

Amis, J., Slack, T., and Hinings, C. R. 2004. The pace, sequence, and linearity of radical change. *Academy of Management Journal*, 47: 15-39.

Amis, J., Slack, T., and Hinings, C. R. 2002. Values and organizational change. *The Journal of Applied Behavioral Science*, 38: 436-465.

Andreff, W. and Staudohar, P. 2000. "The Evolving European Model of Professional Sports Finance", *Journal of Sports Economics*, Vo. 1, pp. 257-276.

Andrews, I. 2000. "From a Club to a Corporate Game: the Changing Face of Australian Football, 1960-1999", *The International Journal of the History of Sport*, Vol. 17, pp. 225-254.

Arcioni, S., and Bayle, E. 2012. *La gouvernance des ONG: Le cas des fédérations sportives internationales* [Governance of NGOs: The case of international sport federations]. In F. Roth (Ed.), La gouverane des enterprises (pp.175-212). Paris: Eds Lavoisier.

Auld, C. J. 1997. Professionalisation of Australian sport administration: The effects on organisational decision making. *European Journal for Sport Management*, 4: 17-39.

Australian Football League. 2016. *Annual Report*, Australian Football League, Melbourne.

Baker, B. McDonald, H. and Funk, D. 2016. "The uniqueness of sport: Testing against marketing's empirical laws", *Sport Management Review*. *19*(4), 378-390.

Bond, D. Frawley, S. and Duffield, R. 2017. "The effect of competition expansion on the volume and distribution of travel for Super Rugby teams", *Sporting Traditions*, *34*(2), pp. 77-88.

Booth. R, Brooks. R, and Diamond, N. 2012. "Player Salaries and Revenues in the Australian Football League 2001–2009: Theory and Evidence", *The Economic and Labour Relations Review*, Vol. 23, pp. 39-54.

Borland, J. and Macdonald, R. 2003. "Demand for Sport", *Oxford Review of Economic Policy*, Vol. 19, pp. 478-502.

Boston Consulting Group. 2017. *Intergenerational Review of Australian Sport 2017*, AIS, Canberra.

Byon, K.K. Zhang, J.J. and Connaughton, D.P. 2010. "Dimensions of general market demand associated with professional team sports: Development of a scale", *Sport Management Review*, Vol. 13, pp. 142-157.

Collins, T. 2013. *Rugby's great split: Class, culture and the origins of rugby league football*: Routledge, London.

Cooper, C. and Johnston, J. 2012. "Vulgate accountability: insights from the field of football", *Accounting, Auditing and Accountability Journal*, Vol. 25 No. 4, pp. 602-634.

Cuskelly, G. McIntyre, N. and Boag, A. 1998. A longitudinal study of the development of organizational commitment amongst volunteer sport administrators. *Journal of Sport Management*, 12: 181-202.

Dabscheck, B. 2007. "From trickles of silver to rivers of gold: The transformation of Australian professional team sports, 1970 to 2007", *Sporting Traditions*, *23*(2), pp. 9-21.

Dabscheck, B. 2010. "Australian Rugby union: Lessons from other codes", *Sporting Traditions*, *27*(1), pp. 37-47.

Dowling, M., Edwards, J., and Washington, M. 2014. Understanding the concept of professionalisation in sport management research. *Sport Management Review*, *17*(4), 520-529.
Fagan, S. 2005. *The Rugby Rebellion: the Divide of League and Union in Australasia*, London League Publications, London.
Ferkins, L., and Shilbury, D. 2010. Developing board strategic capability in sport organisations: The national–regional governing relationship. *Sport Management Review*, 13: 235-254.
Fort, R. and Quirk, J. 2004. "Owner objectives and competitive balance", *Journal of Sports Economics*, Vol. 5, pp. 20-32.
Foster, G. Greyser, S. A. and Walsh, B. 2006. *The Business of Sports*, Thomson Higher Education, New York.
Frawley, S. and Cush, A. 2011. "Major sport events and participation legacy: The case of the 2003 Rugby World Cup", *Managing Leisure*, Vol. 16, pp. 65-76.
Fujak, H., Frawley, S. and Bush, S. 2017. "Quanitfying the value of sport broadcast rights", *Media International Australia, 164*(1), pp104-116.
Fujak, H., Frawley, S. and Morgan, A. 2016. *Broadcasting Mega Sport Events*. In: Frawley, S. (ed.) Managing Mega Sport Events, Routledge, London.
Galariotis, E., Germain, C., and Zopounidis, C. 2018. A combined methodology for the concurrent evaluation of the business, financial and sports performance of football clubs: the case of France. *Annals of Operations Research*, 266: 589-612.
Gerrard, B. 2005. A resource-utilization model of organizational efficiency in professional sports teams. *Journal of Sport Management*, 19: 143-169.
Gratton, C. and Solberg, H. 2007. *The Economics of Sports Broadcasting*, Routledge, London.
Hickie, T. 1993. *They ran with the ball: how rugby football began in Australia*: Longman Cheshire Pty Ltd, London.
Hogan, T. and Warren, I. 2005. Business, Economic, Legal and Demographic Works, in Hogan, T. (ed.), Reading the Game: An Annotated Guide to the Literature and Films of Australian rules Football. Melbourne: ASSH, pp. 13-27.
Horch, H. D. 1998. Self-destroying processes of sport clubs in Germany. *European Journal for Sport Management*, 5: 46-58.
Horton, P. 2009. Rugby union football in Australian society: an unintended consequence of intended actions 1. *Sport in Society* 12: 967-985.
Irvine, H. and Fortune, M. 2016. The first 25 years of the Queensland Rugby Football League: Claims to legitimacy in annual reports. *Accounting History* 21: 48-74.
Kikulis, L. M. 2000. Continuity and change in governance and decision making in national sport organizations: Institutional explanations. *Journal of Sport Management*, 14: 293-320.
Kikulis, L. M., Slack, T., and Hinings, C. R. 1995. Sector-specific patterns of organizational design change. *Journal of Management Studies*, 32: 67-100.
Kim, Y.K. and Trail, G. 2010. Constraints and motivators: A new model to explain sport consumer behavior. *Journal of sport management* 24: 190-210.
Loussikian, K. and Duke, J. 2019. "Foxtel threatens to cut rugby ties." *Canberra Times*, November 25, 2019.
Macdonald, R. and Booth, R. 2007, Around the Grounds: A Comparative Analysis of Football in Australia. *The Games are not the Same: the political economy of football in Australia Melbourne:* Melbourne University Press, 236-331.
Morgan, M. and Summers, J. 2005. *Sports Marketing*: Cengage Learning Australia.

Nagel, S., Schlesinger, T., Bayle, E., and Giauque, D. 2015. Professionalisation of sport federations–a multi-level framework for analysing forms, causes and consequences. *European Sport Management Quarterly*, *15*(4), 407-433.
National Rugby League. 2016. 2015 Annual Report. Sydney: National Rugby League.
Neale, W.C. 1964. The Peculiar Economics of Professional Sports. *Quarterly Journal of Economics* 78: 1-14.
Noll, R.G. 2003. The organization of sports leagues. *Oxford Review of Economic Policy* 19: 530-551.
O'Brien, D., and Slack, T. 2003. An analysis of change in an organizational field: The professionalization of English rugby union. *Journal of sport management*, 17: 417-448.
Panagoitis, D. 2009. Profitability of the Greek football clubs: implications for financial decision making, *Business Intelligence Journal*, Vol. 2. pp. 159-169.
Peel, D. and Thomas, D. 1992. The demand for football: some evidence on outcome uncertainty, *Empirical Economics*, Vol. 17, pp. 323-394.
Peel, D. and Thomas, D. 1996. Attendance demand: an investigation of repeat fixtures, Applied Economics Letters, Vol. 3, pp. 391-394.
Pinnuck, M. and Potter, B. 2006. Impact of on-field football success on the off-field financial performance of AFL football clubs. *Accounting and Finance* 46: 499-517.
Preuss, H. 2004. The *economics of staging the Olympics: a comparison of the Games, 1972-2008*: Edward Elgar Publishing.
PricewaterhouseCoopers. 2015. At the gate and beyond. Outlook for the sports market in North America through 2019. New York,: PricewaterhouseCoopers.
Rika, N., Finau, G., Samuwai, J. and Kuma, C. 2016. Power and performance: Fiji rugby's transition from amateurism to professionalism, *Accounting History*, Vol. 21, pp. 75-97.
Rowe, D. 1996. The Global Love-Match: Sport and Television. *Media, Culture and Society* 18: 565-582.
Rowe, D. 2009. Power trip: sport and media. *International Journal of Sport Management and Marketing* 6: 150-166.
Rowe, D. 2011. *Global Media Sport: Flows, Forms and Futures*, London: Bloomsbury Academic.
Shilbury, D. and Ferkins, L. 2011. Professionalisation, sport governance and strategic capability. *Managing Leisure*, 16: 108-127.
Shilbury, D. Ferkins, L. and Smythe, L. 2013. Sport governance encounters: Insights from lived experiences. *Sport Management Review*, 16: 349-363.
Skinner, J. Stewart, B. and Edwards, A. 2003. "The Postmodernisation of Rugby Union in Australia", *Football Studies*, Vol. 6, No. 1, pp. 51-69.
Skinner, J. Stewart, B. and Edwards, A. 1999. "Amateurism to professionalism: modelling organisational change in sporting organisations", *Sport Management Review*, Vol. 2, pp. 173-192.
Smith, A. and Stewart, B. 2010. The special features of sport: A critical revisit. *Sport Management Review*, Vol. 13, pp. 1-13.
Stewart, B. 2017. *Sport Funding and Finance*. Routledge.
Stewart, B., Nicholson, M. and Dickson, G. 2005. The Australian Football League's Recent Progress: A study in Cartel Conduct And Monopoly Power. *Sport Management Review* 8: 95-117.
Stewart, B., Nicholson, M., Smith, A. and Westerbeek, H. 2004. *Australian Sport: Better by Design?: The Evolution of Australian Sport Policy*, London: Routledge.
Szymanski, S. 2003. The Economic Design of Sporting Contests. *Journal of economic literature* XLI: 1137-1187.

Szymanski, S. and Smith, R. 1999. The English football industry: profit, performance and industrial structure. *International Review of Applied Economics,* 11: 135-153.

Thibault, L. and Babiak, K. 2005. Organizational changes in Canada's sport system: Toward an athlete-centred approach. *European Sport Management Quartely*, 5: 105-132.

Vamplew, W. 2016. The power of numbers: a plea for more quantitative sports history. *Sport in Society* 19: 313-320.