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The unintended consequence of Financial Fair Play
An examination of competitive balance across five European football leagues

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Abstract
Purpose – The purpose of this paper is to examine competitive balance in European football leagues before and after the inception of Financial Fair Play (FFP) regulations by Union of European Football Associations in 2011, designed to bring about financial stability and improve competitive balance in the European game.

Design/methodology/approach – The research focuses on the top division football leagues in England (English Premier League), Germany (Bundesliga), France (Ligue 1), Italy (Serie A) and Spain (La Liga). The paper is organised into two distinct time periods: pre-FFP, comprising the six seasons between 2005/2006 and 2010/2011; and post-FFP, comprising the six seasons between 2011/2012 and 2016/2017. The paper uses recognised measures of concentration and dominance to measure competitive balance.

Findings – The results show a statistically significant decline in competitive balance post-FFP for leagues in Spain, Germany and France but not for England and Italy. Furthermore, the results report significantly higher levels of concentration and dominance by a select number of clubs in Germany.

Originality/value – The paper is one of the first to analyse competitive balance in this way both pre- and post-FFP. Whilst the paper cannot demonstrate a causal link between FFP and competitive balance, there are strong indications that competitive balance has been adversely affected (for some leagues) since the regulations have been imposed. To that end, the paper argues that FFP has had “unintended consequences” in respect of competitive balance.

Keywords Financial Fair Play, European football, Competitive balance

Introduction
Against wider economic pressures, the European football market has grown exponentially over the course of the last two decades. A significant proportion of this growth is attributed to what is collectively known as the “big five” leagues in European football, namely, the English Premier League (England), Bundesliga (Germany), La Liga (Spain), Serie A (Italy) and Ligue 1 (France). Between them, these five leagues account for 54.5 per cent of the total revenue generated by the whole market (£24.6bn). At the time of writing, the English Premier League sits comfortably above its main four rivals (from a revenue perspective) as the highest revenue generating league in European football, grossing £4.87bn in 2015/2016, over £2bn ahead of its nearest rival the Bundesliga in Germany (£2.71bn), with Spain (£2.44bn), Italy (£1.92bn) and France (£1.49bn) lagging some way behind revenue list (Deloitte, 2017).

However, despite such increases in revenue, European football clubs have, in the past, found it difficult to balance the books. Indeed, at the turn of the last decade (2010), there was a growing concern about the financial plight of European club football with Storm and Nielsen (2012) stating that, despite ever-increasing revenues, clubs were still collectively failing to break-even. Net losses among the 734 European member clubs had increased by 760 per cent over the five-year period between 2006 and 2011 (Franck and Lang, 2013) and European club football had a substantial debt problem.
It was against this backdrop that the governing body of the sport, the Union of European Football Associations (UEFA), intervened and introduced financial regulations titled “Financial Fair Play” (FFP). FFP was implemented in 2011 and was designed with two primary objectives in mind. The first was to provide a means through which to introduce discipline and rationality to club finances to help safeguard the stability of European football (UEFA, 2015). In essence, clubs were being told to spend within their means (hence the fundamental concept of “break-even”). The second was the narrative that these regulations would enable the industry (and individual leagues) to become more competitively balanced. It is not clear whether or not the definition of competitive balance put forward by UEFA is aligned with the theoretical definition of competitive balance found in academic literature but it is evident that UEFA are indeed concerned with the concept of “competition” between teams in their respective member leagues. It is still too early to suggest, empirically at least, that either objective is being met but there is some evidence that the general picture of financial performance is improving in some leagues linked to the first objective of FFP. Indeed, as financial regulations at both a European and domestic level continue to have an impact, in 2015/2016 only Ligue 1 and Serie A of the “big five” leagues recorded aggregate operating losses (Deloitte, 2017). However, there is very little evidence at the present time as to the veracity of the achievement of the second objective of FFP in relation to competitive balance.

Furthermore, there has been extensive criticism of the regulations in academic literature, particularly linked to suggestions that the regulations may in fact have an adverse effect on competitive balance and only actually maintain the status quo of keeping the top clubs at the top of the game (e.g. Lindholm, 2010; Plumley, Wilson and Ramchandani, 2017; Sass, 2014; Szymanski, 2014). Indeed, the UEFA President himself, Aleksander Ceferin, stressed recently that “the biggest challenge [to develop football in Europe] over the next few years will be competitive balance” (Inside World Football, 2017), something which, in theory at least, the FFP regulations should be doing.

Consequently, this study aims to analyse these suggestions further, by examining the competitive balance of the “big five” leagues in European football in a post-FFP climate. We focus our analysis on two important points. First, we examine the trend in competitive balance pre- and post-FFP using recognised measures of competitive balance. Second, we examine a unique measure of competitive balance in relation to individual leagues – the level of dominance by a select number of clubs in terms of title wins and top four finishes (which usually means qualification for the flagship European football competition – the UEFA Champions League). Our paper contributes to both the academic and policy discussion surrounding this topic area and offers statistical insight into whether or not the FFP regulations have altered competitive balance in European football.

The rest of the paper is structured into the remaining sections. Next, the theoretical background and literature review is discussed before the methods section that details the analysis undertaken. Following this, we present the empirical evidence from our study before discussing the implications and providing some concluding thoughts and recommendations for future research direction.

Theoretical background and literature review
This section explores the existing body of literature related to the two main areas of enquiry based on the research aim: competitive balance and regulation in professional football. Both these areas can be traced to literature on the economic structure of professional team sports and the joint nature of production. Most of the theoretical literature in this area covers the debate between the operating objectives of North American vs European team sports leagues and this forms the conceptual framework for our study. However, a full review of this literature is not deemed necessary here as the
discussion will be well known to scholars in the field. Readers are referred to Dobson and Goddard (2011), Leach and Szymanski (2015) and Wilson et al. (2015) for confirmation of this received theory.

Competitive balance
Professional team sports are intrinsically different from other businesses, in which a firm is likely to prosper if it can eliminate competition and establish a position as a monopoly supplier (Dobson and Goddard, 2011). In sport, however, it does not pay for one team to establish such a position due to the joint nature of “production” in sports. It is this notion that fundamentally drives the concept of competitive balance in professional team sport leagues. Their structure and regulations may have implications for competitive balance and, in turn, the “product”. Indeed, in relation to successful sport leagues, Groot (2008) stated that “each competitor has an inherent interest in maintaining the health of their rivals” (p. 25). A potential implication in this context is that an excessively imbalanced competition might have a negative effect on fan interest and, hence, on demand (Kesenne, 2006; Zimbalist, 2003). Narrative surrounding fan interest in relation to competitive balance has led to two distinct strands of academic literature as outlined by Fort and Maxcy (2003). They categorise the theoretical and empirical literature on competitive balance in terms of: first, analysis of competitive balance (ACB) literature, which focuses on what has happened to competitive balance over time or as a result of changes in the business practices of sports leagues; and second, literature on competitive balance that analyses its effect on fans, i.e. which tests the longstanding uncertainty of outcome hypothesis (UOH). It is the first of these approaches (i.e. ACB) that this research is concerned with given the need to track ACB over time against FFP regulations.

Freestone and Manoli (2017) provided an overview of some of the angles of enquiry relating to competitive balance studies that focus on league organisation that have previously been studied including talent distribution (e.g. Kesenne, 2006; Winfree and Fort, 2012), salary caps (e.g. Dietl et al., 2011; Maxcy and Milwood, 2018), number of opponents and participation in international competitions (e.g. Pawlowski et al., 2010). Naturally, given the origins of the concept of competitive balance, there have also been a number of studies that cover ACB in sport leagues in North America (see e.g. Lenten, 2015; Maxcy and Mondello, 2006; Mills and Fort, 2014; Price and Sen, 2003; Salaga and Fort, 2017; Zimbalist, 2002).


Contrastingly, a number of other authors do report a decline in competitive balance in some European leagues, with some findings even being cited in the same studies above. For example, Goossens (2006) found a decline in competitive balance in the English and Italian first divisions, whilst Groot (2008) reported similar findings for the English, German and Italian first divisions. Additionally, a number of more recent studies have stated a decline in competitive balance in the Spanish first division between 1928/1929 and 2011/2012 (Montes et al., 2014) and the English first division (both as an individual league over time and compared to the rest of the English football league industry (three other divisions) between 1992/1993 and 2015/2016 (Plumley, Wilson and Ramchandani, 2017). This finding was partially influenced by the financial disparity between clubs in the EPL and the Football League.
disparity between clubs in the EPL and the Football League (in particular the Championship) and the impact on competitive balance has since been further confirmed by Wilson et al. (2018) who found that parachute payments (payments paid to relegated clubs from the EPL) were having a negative impact on the overall competitive balance of the Championship between the years 2006/2007 and 2016/2017.

Hypothetically, a decline in competitive balance and an increase in financial disparity between clubs and leagues could lead to a situation whereby a league is dominated by a select number of clubs. Indeed, there has already been evidence to suggest that this is potentially happening in the EPL in a paper by Curran et al. (2009). Their paper focused more on measures of dominance to track competitive balance over time in the EPL. The authors formulated a “Top 4 Index” by counting the number of occasions that each team finished a league season in the top four places, summing the incidence of the four teams with the most occurrences and expressing the total as a proportion of the total number of available places over the period of the measure. They calculated values from the 1948/1949 to 2007/2008 seasons (inclusive) and for ten year intervals. Their findings suggested that competitive balance in the English top league has decreased and that the league is in danger of becoming a monopoly of the few. Our study examines this issue further by considering whether or not the FFP regulations are assisting the maintaining of certain monopolies by a select number of clubs across the major European leagues.

The contrasting nature of these findings means that there is an area of disagreement amongst academics in relation to competitive balance. For example, Pawlowski (2013) stated that it may be that the empirical evidence is “wrong” because the proxies used to measure competitive balance are inadequate. Indeed, the measurement of competitive balance has a long history of competing methods (Freestone and Manoli, 2017; Martinez and Willner, 2017). There is also an academic argument that competitive balance is not as important as previously suggested in past studies (e.g. Andreff and Scelles, 2015; Pawlowski and Anders, 2012; Scelles et al., 2013) but these papers focus more on analysing competitive balance against the concept of UoH and fan attendance.

**FFP regulations**

The dynamics of competition in club football have led to a situation where wealth is one of the most important competitive drivers (Franck, 2010; Freestone and Manoli, 2017). Arguably, this is nothing new; financial resources have always been integral to the success of football clubs historically, although the situation became exacerbated around the mid-2000s due to two factors in particular. First, a significant number of football clubs across Europe were financially unstable. Many individual clubs had unsustainable debt levels and numerous academics cited a “financial crisis” across many European football leagues including France (Andreff, 2007), Spain (Ascari and Gagnepain, 2007), Portugal (Barros, 2006), England (Buraimo et al., 2006) and Germany (Dietl and Franck, 2007).

However, despite this scenario, very few football clubs actually went into administration and ceased to exist, something which could conceivably happen if a “normal” business was consistently recording high-losses. This is partly due to the recognised ideal that the survival of football clubs is viewed as highly desirable in a wider social context which means that there is reluctance, particularly among state creditors, to liquidate a football club (Freestone and Manoli, 2017). It is this unique position of power that football clubs hold that leads us to the second significant factor. This factor has been termed by some commentators as “financial doping” and concerns the practice of relying on significant funding from external benefactors in order to cover perpetual losses, thus, gaining a financial advantage over the competition (Muller et al., 2012). Again, this is not necessarily a new phenomenon (wealthy benefactors have often propped-up football clubs financially), yet it has taken greater precedence over the last 20 years as the amount of money coming into the game has
increased. As such, these external benefactors have also been referred to as “sugar daddies” and have invested enormous sums of money to the clubs that they have acquired an interest in, typically in the pursuit of prestige and sporting success and with little or no regard for the financial losses that such endeavours required (Lang et al., 2011). The application of the term “doping” in this context is indicative of clubs’ attempts to gain an illegitimate advantage through the artificial manipulation of the natural competitiveness inherent in sport (Schubert and Könecke, 2015; Freestone and Manoli, 2017). Whether or not such a powerful term as “financial doping” is required in this context is open to debate but evidence does confirm a decline in competitive balance across major European football leagues during the last two decades (Ramchandani et al., 2018), a time period that coincides with an increasing amount of revenue and external investment in the game.

It was against the backdrop of the implications of “financial doping” that UEFA introduced its own FFP regulations, which were designed to regulate the financial behaviour of clubs competing in UEFA club competitions (Freestone and Manoli, 2017). It is worth noting here that because these regulations only apply to clubs that compete in UEFA competitions (a maximum of 235 clubs out of 734 in Europe’s top-divisions each season) other national associations across Europe (including the EPL and the Football League in England, for example) have implemented their own versions of FFP regulations in their respective league systems (Szymanski, 2014). FFP has two main objectives: the no overdue payables rule and the break-even rule (Peeters and Szymanski, 2014). Within the break-even rule, there is also a stipulation that losses can be incurred to account for transitions in business practice (defined as “acceptable losses”). Presently, the acceptable loss permitted is based on a three-year rolling average and has a cumulative total of €30m for the seasons 2015/2016, 2016/2017 and 2017/2018 (UEFA, 2015). Various other adaptions of FFP around Europe differ slightly in terms of specific details but are all derived from UEFA’s FFP regulations and, therefore, have the same legal framework (Freestone and Manoli, 2017).

However, despite the positive intentions of FFP to bring about financial sustainability in European football, the regulations themselves have received a number of criticisms. These criticisms are centred on: the legality of the FFP (e.g. Long, 2012; Peeters and Szymanski, 2014; Szymanski, 2014); the impact of FFP on the quality of all teams (e.g. Drut and Raballand, 2012; Madden, 2012); the impact that FFP could have on player wages (e.g. Dietl et al., 2009; Peeters and Szymanski, 2012; Freuss et al., 2014); and the fact that FFP actually prevents the industry (and clubs) from benefitting from substantial injections of external financing (e.g. Madden, 2012; Franck, 2014). The final criticism here is perhaps most pertinent to the paper in respect of what impact the FFP regulations may have on competitive balance. Constraining clubs to spend within their means is fine in principal (from a business perspective) but this will be dependent on the clubs own market potential, meaning a club with a bigger market potential will outperform a club with smaller market potential, thus making it difficult for smaller clubs to compete (Lindholm, 2010; Sass, 2012). The effect of this would be to further cement the existing hierarchy of European club football; strengthening the power of the wealthiest clubs by constraining the smaller clubs (Sass, 2014; Szymanski, 2014). Vopel (2013, p. 17) confirmed this point by stating that the spending power provides the true competitive advantage in football, making it “almost impossible to catch-up to bigger clubs without external funding”. The “big five” leagues in European football have historically been characterised by competitive imbalance and dominance by a select number of clubs (Ramchandani et al., 2018).

These findings are at odds with the theoretical structure of sport leagues in professional team sport. FFP was devised to negate a volatile financial situation in the European football market. However, we question whether or not the FFP regulations have had “unintended consequences” when it comes to competitive balance. This paper will provide empirical evidence against this question by considering competitive balance in the “big five” European football leagues pre and post the implementation of FFP.
Methods
Our research focuses on the top division football leagues in England (English Premier League), Germany (Bundesliga), France (Ligue 1), Italy (Serie A) and Spain (La Liga). At the time of writing, there have been six completed seasons in each of these leagues following the formal introduction of FFP regulations in 2011. In order to examine changes in competitive balance in each league before and after FPP was introduced, we organised our study into two distinct time periods: pre-FFP, comprising the six seasons between 2005/2006 and 2010/2011; and post-FFP, comprising the six seasons between 2011/2012 and 2016/2017.

There are a variety of measurement techniques used when considering competitive balance in professional team sports, which have their respective strengths and weaknesses (see Mills and Fort, 2014; Owen and King, 2015). Our analysis utilises Mitchie and Oughton’s (2004) Herfindahl Index of Competitive Balance (HICB) to measure within-season competitive balance which is an industry standard measure adapted from the Herfindahl–Hirschman Index. The rationale for using HICB to measure overall league concentration is two-fold. First, it has been used in previous academic research focusing on football leagues (see e.g. Pawlowski et al., 2010; Plumley, Ramchandani and Wilson, 2017); second, it allows comparisons between leagues, with a different number of teams and, within leagues when the number of teams changes over time. HICB scores were calculated using the following formula:

$$\text{HHI} = \frac{1}{n} \sum \frac{C_i}{C_0}^2$$

where \( \text{HHI} \) is the sum of the squares of the points share for each club contesting a league in a given season and \( n \) is the number of teams in that particular league and season. For a perfectly balanced league of any size, the index takes a value of 100. As the index rises, competitive balance declines.

Our research also examined specific aspects of competitive balance that are likely to be of interest to both fans and league authorities: competition for the title and competition for survival. Our approach to this analysis utilises the methods proposed by Plumley, Ramchandani and Wilson (2017) in their analysis of the English football league system. For all five leagues, competition for the title was measured using the formula:

$$\text{TG} = \text{PPM}_1 - \left( \frac{\text{PPM}_2 + \text{PPM}_3 + \text{PPM}_4}{3} \right)$$

where \( \text{TG} \) is the title gap between the points per match won by the team finishing first (\( \text{PPM}_1 \)) and the average points per match won by other likely title contenders, who were judged to be the teams that finished second (\( \text{PPM}_2 \)), third (\( \text{PPM}_3 \)) and fourth (\( \text{PPM}_4 \)).

To investigate the competition for survival, we used the following formula to compare the average points per match of the teams ranked in the bottom three places in each league with the equivalent number of teams that finished immediately above them in the league:

$$\text{SG} = \left( \frac{\text{PPM}_{n-3} + \text{PPM}_{n-4} + \text{PPM}_{n-5}}{3} \right) - \left( \frac{\text{PPM}_{n} + \text{PPM}_{n-1} + \text{PPM}_{n-2}}{3} \right)$$

where \( \text{SG} \) is the survival gap, \( \text{PPM} \) is points match of a team and \( n \) refers to the total number of teams in each league. For example, in the EPL, \( n \) is equal to 20, so \( n-1 \) equals 19, \( n-2 \) equals 18 and so on.

An independent sample \( t \)-test was used to establish whether the differences in the competitive balance scores for HICB, title gap and survival gap in each league before and after FFP were statistically significant. A further piece of analysis, informed by previous research by Syzmanski and Kuypers (1999) and by Curran et al. (2009), was to examine the levels of dominance in each league pre-FFP and post-FFP including the number of different teams to win the league title and the number of different teams to finish in the top four positions.
Results

**HICB**

Figure 1 shows the mean HCB scores for each league for the six seasons immediately prior to the implementation of FFP (from 2005/2006 to 2010/2011) and for the six seasons immediately following the implementation of FFP (from 2011/2012 to 2016/2017). For all five leagues the post-FFP mean HICB score was found to be higher than their pre-FFP mean HICB score. The variation between the pre- and post-FFP mean HICB scores appears to be most prominent for Spain and least pronounced for England. An independent samples t-test confirmed that the mean difference in HICB scores pre- and post-FFP was statistically significant for Spain ($t(10) = -3.235$, $p = 0.009$), Germany ($t(10) = -2.740$, $p = 0.021$) and France ($t(10) = -2.244$, $p = 0.049$) but not for England ($t(10) = -0.340$, $p = 0.767$) and Italy ($t(10) = -0.868$, $p = 0.406$).

*Title and survival gap*

For each league examined pre- and post-FFP, Figure 2 shows the difference in the points achieved by the team that won the league title and the average number of points achieved by the teams that finished in second, third and fourth place (i.e. title gap). This difference is expressed on a “points per match” basis to facilitate a better comparison between the different European leagues. For example, each team in the EPL contests 38 matches whereas those in the Bundesliga contest 34 matches. Lower gap scores in Figure 2 indicate better competition for the title. For the pre- and post-FFP time periods, Figure 2 also shows the absolute gap between the average points per match achieved by the bottom three teams in each league and the average points per match achieved by the equivalent number of teams finishing immediately above them (i.e. survival gap).

At face value, there has been in increase in the title gap in all five leagues in the post-FFP period accompanied by an increase in the survival gap for three leagues. However, with the exception of the pre- and post-FFP title gap for Germany ($t(10) = -4.150$, $p = 0.02$), no significant differences were detected ($p > 0.05$) for the other leagues by an independent sample t-test.
Dominance

Table I presents the different teams that have won the domestic league title and the title-winning frequency of each team pre- and post-FFP. Based on these data, in Figure 3, we have plotted the number of different teams in each of the five leagues to have won their domestic league title during the six seasons between 2005/2006 and 2010/2011 (pre-FFP) on

<table>
<thead>
<tr>
<th>League</th>
<th>Team</th>
<th>Pre-FFP</th>
<th>Post-FFP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premier League</td>
<td>Manchester United</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Premier League</td>
<td>Chelsea</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Premier League</td>
<td>Manchester City</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Premier League</td>
<td>Leicester City</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Bundesliga</td>
<td>Bayern Munich</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Bundesliga</td>
<td>Borussia Dortmund</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Bundesliga</td>
<td>VfB Stuttgart</td>
<td>1</td>
<td>0</td>
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<td>Bundesliga</td>
<td>VfL Wolfsburg</td>
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<td>0</td>
</tr>
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<td>Bundesliga</td>
<td>Werder Breman</td>
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<td>0</td>
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<tr>
<td>Ligue 1</td>
<td>Lyon</td>
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<td>0</td>
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<td>Ligue 1</td>
<td>Bordeaux</td>
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<td>Ligue 1</td>
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<td>Serie A</td>
<td>AC Milan</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Figure 2. Title and survival gap by league pre- and post-FFP

Table I. Teams winning the domestic league title by league pre- and post-FFP
the horizontal axis against the corresponding figure for each league during the six seasons between 2011/2012 and 2016/2017 (post-FFP) on the vertical axis. The axes intersect at the median scores for the pre- and post-FFP time periods (three in each time period).

It can be seen that five different teams won the domestic league title in Germany in the pre-FFP period, which reduced to just two in period following the implementation of FFP. An increase in dominance of one or a few teams is also evident in the case of the domestic leagues in Italy (three league title winners pre-FFP vs one post-FFP) and France (four pre-FFP vs three post-FFP). Conversely, in the case of England and to a lesser extent Spain, there appears to have been a reduction in dominance for the league title with more teams winning the domestic title in these leagues in the post-FFP period.

If we broaden our analysis to consider the dominance for the top four positions in each league (see Table II and Figure 4), then we find improvements in Spain (+2), England (+1) and Italy (+1) by virtue of more teams securing a top four finish in these leagues post-FFP. Two fewer teams finished in the top four positions in Germany post-FFP. There was no change noted in the case of France, with Ligue 1 continuing to be the least dominant relative to the other European leagues examined.

Discussion
Our results provide mixed findings in relation to the “big five” leagues in European football in a post-FFP climate but they do reveal some interesting discussion points regarding competitive balance in European football post-FFP. Descriptively, all leagues have seen a decline in competitive balance post-FFP. Furthermore, this decline is statistically significant for the leagues in Spain, Germany and France – although the French league still has better levels of competitive balance in relation to the rest. For England and Italy, there is no significant difference in the levels of competitive balance pre- and post-FFP. In respect of England, our findings are in line with Freestone and Manoli (2017) who found no indication that the FFP regulations have resulted in a decline in competitive balance in the EPL, instead hinting that a positive effect may have been caused. Our results, however, do not
confirm this positive link, with evidence suggesting that the overall balance of the league has declined but not significantly when analysed statistically. Furthermore, the decline in competitive across all five European leagues is indicative of past research in the field, confirming the findings of a number of authors including Goossens (2006), Groot (2008), Montes et al. (2014), Plumley, Ramchandani and Wilson (2017) and Ramchandani et al. (2018).

In relation to competition for the title, survival and measures of dominance, our results again point to mixed evidence. All five leagues have seen an increase in the gap for the title race, indicating that whichever club(s) are winning the league are winning by bigger points margins. Additionally, for Italy, France and Germany, the number of different title winners has decreased since the advent of FFP. Germany was also the only league to see a reduction in the different number of teams that finished in the top four positions post-FFP.

The standout discussion point in our results is the case of the German Bundesliga. In relation to all our measures of analysis, the Bundesliga performed poorly and saw a significant decline in competitive balance and a significant increase in the gap for the title as

<table>
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Table II. Teams securing a top four place by league pre- and post-FFP
as well as seeing fewer title winners and fewer clubs finishing in the top four positions in total. In this case, the standout performer (from a sporting perspective) was Bayern Munich (five title wins and six top four finishes in six seasons post-FFP) whilst the rest struggled to match their dominance. It can be argued from the data that Bayern Munich are creating a monopoly in German football, similar to what Curran et al. (2009) suggested was happening in English football with a select number of clubs, and certainly something which goes against the fundamental premise of competition in professional team sports (Dobson and Goddard, 2011).

The findings for Germany are also interesting given the ownership structure of clubs in Germany and the 50+1 rule. Indeed, associations (Verein in German) hold 50 per cent plus 1 voting right of any football club company, which then limits the power of clubs financiers (Dietl and Franck, 2007). This system means that, historically, German clubs have been averse to financial takeovers and whilst from a positive perspective this means that clubs are unlikely to accumulate debts over a long period (especially since its indebtedness capacity is low) (Franck, 2010) it can also be to the detriment of clubs that are trying to improve their performance within such a system as they cannot catch-up to the bigger clubs without external funding (Vopel, 2013).

A case in point here is the situation of RB Leipzig, who has circumvented some of this regulation in Germany to a certain extent. Leipzig was only founded in 2009 when Red Bull (the energy drinks company that own the club) acquired the license of a now-obsolete fifth-tier club. Since then, Leipzig secured four promotions in seven years to join Germany’s top flight in 2016/2017, consequently finishing second and qualifying for the UEFA Champions League. However, the latest figures available show that Leipzig owe Red Bull €83m (World Soccer Talk, 2018) and there have been suggestions as to whether or not the club is acting within the spirit and ethos of the league in regards to ownership structure. Irrespective of this, it is a clear example of Vopel’s (2013) point surrounding the necessity of external funding in football clubs to catch the established elite. Interesting, at the time
of writing, the German clubs have decided to retain the 50+1 rule after there were discussions about relaxing the regulations to spur outside investment (First Post, 2018) despite the CEO of the DFL stating that he finds the rule “a little excessive”. The role of external investors here is also particularly important in this context with reference to the extant literature surrounding “sugar daddies” (Lang et al., 2011). These external investors/benefactors have had a significant impact in some European football leagues in recent years (in particular the EPL) and have invested enormous sums of money to the clubs that they have acquired an interest in, something which may also have impacted on club financial performance in both pre- and post-FFP climates.

Whilst we cannot obviously claim causation in respect of FFP in the context of our results, we can partially attribute a decline in competitive balance to the sizeable financial gap that has developed between clubs during this period, caused in part by increases in prizemoney, primarily generated by income received from broadcasting contracts in respective leagues and through pan-European competitions such as the UEFA Champions League (Pawlowski et al., 2010). Despite some of the broadcasting distributions offering shared revenue for certain proportions of the deal across individual leagues, there is no true revenue sharing across European team sports. This leads to a situation whereby the wealthiest and most successful clubs continue to earn a significant share of that income stream, to the detriment of other clubs in the league (Szymanski and Kesenne, 2004; Lee and Fort, 2012). With reference to Germany and Spain (two leagues where there has been a significant decline in competitive balance post-FFP) both have just moved to a more collective distribution of their broadcasting rights amongst clubs whereas previously clubs were free to negotiate their own rights (meaning that Barcelona and Real Madrid in Spain and Bayern Munich in Germany were able to hold monopoly power in relation to broadcasting income). In contrast, the EPL has one of the most equal broadcasting distribution mechanisms to clubs and this league has not seen a significant change in competitive balance for the time period studied. It is too early to tell at this stage whether or not a move to a more collective distribution will benefit the competitive balance of these leagues (Germany and Spain) and future research is needed in this area once the figures become available. Additionally, we have not empirically tested for competitive balance against TV deals and subscriptions so it is important not to generalise here and recognise that there are other potential factors at play.

The aims of the FFP regulations laid out earlier in the study provide some interesting reflection points and questions for further discussion in light of our findings. As suggested in some of the figures provided by Deloitte (2017) in their Annual Review of Football Finance publication, the regulations appear to be having an impact, generally speaking, on financial health. However, whilst we cannot say that FFP is causal, because of significant other factors being at play, our results do indicate a general decline in competitive balance for the big five European leagues since the introduction of the regulations. With this in mind, and given that FFP limits the losses a club can make and external investment into the club, how are the smaller clubs ever going to close the gap to the bigger clubs both financially and on the pitch? Will the regulations, in their current format, only serve to maintain the status quo in European football? We have provided statistical evidence that this may be the case for some of these leagues in a post-FFP climate, in particular the German Bundesliga.

Conclusion
This study set out to analyse the level of competitive balance in the “big five” European football leagues by measuring the six seasons post-implementation and the six seasons prior to the regulations being introduced. There have been a number of criticisms levelled at FFP in past academic papers, particularly in relation to competitive balance and the preservation of the status quo of the wealthy elite clubs (Sass, 2014; Szymanski, 2014).
The results from this study, in part, provide evidence to support such claims, particularly in the context of the elite leagues in Germany, Spain and France. Furthermore, under the current regulations it will also be difficult for any of the “smaller” clubs to close this gap given that the regulations limit significant external investment. Thus, clubs must look to other long-term financing strategies or innovation in their strategic direction to be able to compete. However, innovation and long-term financing will only get you so far in respect of the revenue that you can actually generate. Under a break-even principle, the clubs that earn more will ultimately always have more to spend. There is no doubt that FFP was introduced with good intentions but it may have had an unintended consequence in relation to the competitive balance of European football leagues.

Our study is the first of its kind to test for changes in competitive balance in domestic European football leagues post-FFP. However, it is premature to draw definitive conclusions at this stage for three reasons. First, our analysis indicates mixed evidence of changes in CB in terms of the five leagues analysed. Second, in leagues where there has been a significant decline in CB, a causal link with FFP cannot be established with certainty. Third, given that there are 54 domestic top-division football leagues in Europe, we feel that it is difficult to provide definitive implications towards UEFA at this stage without investigating changes in CB across all European leagues.

There are a number of future research recommendations that will help provide more empirical evidence on this topic area. First, it is necessary to obtain a full European picture on competitive balance, incorporating all national football associations that make up UEFA. This would allow for a full industry picture and it would allow conclusions to be drawn about the potential wealth gap between the “big five” leagues in Europe and the rest. Second, it would be useful to analyse the data on competitive balance alongside the financial health of European football clubs both pre- and post-FFP given the two primary objectives of the regulations. This would enable us to see whether or not the regulations are doing what they set out to do in practice. A third potential area for future research is to replicate this study and the additional areas above focusing solely on the UEFA Champions League and UEFA Europa League (and the clubs within it) to see whether or not there has been a change in the competitive balance of this competition. This would enable like-for-like comparisons in relation to the regulations as all clubs that compete in these competitions (235 each season) as they would all have to conform to the UEFA FFP regulations.

Further research into the impact of FFP on the European football industry is paramount moving forward both in relation to understanding the changing business models of clubs in this climate and how this can manifest into maintaining healthy competition between clubs in individual league structures.

References


Further reading


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Sport technology consumers
Segmenting users of sports wearable devices based on technology readiness

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Abstract

Purpose – The development of wearable technology has significantly changed the way people participate in physical activities. The purpose of this paper is to segment users of sports wearable devices based on technology readiness (TR).

Design/methodology/approach – Participants comprised a convenience sample of 356 participants using sports wearable devices in South Korea. Cluster analysis was performed to identify clusters of sports wearable users based on their TR (i.e. motivating and inhibiting beliefs regarding technologies). Analysis of variance and post hoc Tukey’s test were used to determine whether there were significant differences among the clusters.

Findings – Clustering identified three groups of users of sports wearable devices: Explorers (high motivation, low inhibition), Laggards (low motivation, high inhibition) and Pioneers (high motivation, high inhibition). Each group demonstrated significant differences in TR (i.e. optimism, innovativeness, discomfort and insecurity). It also found that Laggards are more likely to be female and older users (i.e. over 40 years old).

Originality/value – This study explores characteristics of possible market segments and provides a better understanding of user profiles of sports wearable devices. These findings provide insightful implications for marketers of sports wearable devices, who can tailor marketing strategies to each segment. Designers of sports wearable devices can benefit from the user profiles and develop more appropriate products for users.

Keywords Cluster analysis, Market segmentation, Technology readiness, Sports wearable technology

Paper type Research paper

Introduction

With the development of wearable technologies, sports wearable devices (hereafter referred to as sports wearables) have revolutionized the way that people exercise and monitor their fitness and health. Sports wearables, commonly called by their main function as fitness trackers, are any devices using sensors to track and monitor physical activities and record data (Stein, 2014). Most sports wearables have built-in or associated mobile applications that offer training plans, assist with fitness activity tracking, collect and process health- and fitness-related data, and provide feedback on users’ performance (Lee et al., 2016; Gee et al., 2015; Swan, 2012; Lunney et al., 2016). For example, wearable device brands such as Fitbit have launched fitness bands with mobile applications to monitor and track fitness-related metrics, such as walking steps, running distance, calorie consumption, heartbeat and quality of sleep. These data are transferred to the more integrative Fitbit smartphone app, which allows users to review their health and wellness and set goals for exercise activities and calorie consumption. These may help users stay healthy, get active, and improve their quality of life.

Sports wearables’ primary user base was originally elite athletes, who wore them to improve their performance and avoid injuries on the field (Bailey, 2017). More recently, sports wearables have been widely advocated by health-conscious consumers who want to track their daily activities (Cruyff Institute, 2017; Bailey, 2017). Increasing awareness of fitness and health has led to the growth and popularity of sports wearables; according to a
market research report, the global sports wearables market is estimated to grow from US $3.5bn in 2014 to US$15bn by 2021 at a compound annual growth rate of 23.11 percent between 2014 and 2021 (WinterGreen Research, 2015). Due to the overwhelming demand for sports wearables, not only wearable tech companies but also traditional sports equipment companies are developing and launching information and communication technology (ICT)-based sports wearables (Hobbs, 2016); examples include Nike+ FuelBand, Adidas Fit Smart and the Under Armour Band.

Although sports wearables have become more prevalent in recent years, over 30 percent of users abandon their sports wearables after the devices lose their sense of novelty (Gartner, 2016). From a developer perspective, the discontinuance usage leads to insufficient longitudinal data from users for developing and modifying future products (Ledger, 2014). From a user perspective, the short-term usage of sports wearables cannot benefit their health and quality of life (Lee et al., 2016). In order to derive sustained health and wellness benefits from sports wearables, it is necessary to understand consumers’ profile and usage pattern (Fox et al., 2017; Janssen et al., 2017; Adapa et al., 2018). Therefore, the classification of distinct groups among current users of sports wearables is necessary. In the increasingly competitive sports wearables market, a company will fail to gain a strong foothold in the marketplace if these users are not clearly identified. Identifying distinct clusters of consumers is known as market segmentation, which is often used to develop marketing strategies tailored to different users. Therefore, this study investigated segments of sports wearables users.

Technology readiness (TR)
Due to technology’s expanding role in people’s daily lives, it is necessary to explore consumers’ readiness to use technology-based products and services (Parasuraman, 2000; Parasuraman and Colby, 2015), as people’s dispositions toward using technology-based products and services differ. Research has suggested that technology adopters can be categorized into different psychographic typologies based on their attitude, interest, opinion and motivation (Massey et al., 2007). For example, according to the relative strength of openness to technology, Parasuraman and Colby (2001) classified technology users into five groups based on different characters, ranging from “innovators” to “laggards.” Such psychographic typologies provide insights to understand the profiles of consumers in the current market.

Parasuraman (2000) initially proposed a multifaceted concept of TR as individuals’ general beliefs about innovative technology; TR is defined as “people’s propensity to embrace and use new technologies for accomplishing goals in home, life, and at work” (p. 308). It proposed that individuals’ interaction with new technologies simultaneously present different views (i.e. beliefs, perceptions, feelings and motivations) which can be categorized into four factors (Parasuraman, 2000; Meng et al., 2009). Two of the factors – optimism and innovativeness – are favorable drivers that motivate individuals’ acceptance of new technology; while the other factors – discomfort and insecurity – are unfavorable inhibitors that restrain the acceptance of new technology. Briefly, optimism is a positive attitude on technology and a belief that technology offers people increased control, flexibility and efficiency in their lives; and innovativeness reflects a tendency to be a technological pioneer and thought leader. Conversely, discomfort is a perceived lack of control over technology and a feeling of being overwhelmed by it; and insecurity reflects distrust of technology, stemming from skepticism about its ability to work properly and concerns about its potentially harmful consequences (Parasuraman, 2000, p. 311). It should be noted that TR reflects a set of beliefs about technology, but is not necessarily indicative of an individual’s competency in using technology (Parasuraman and Colby, 2015).

Since Parasuraman’s (2000) initial development of the Technology Readiness Index (TRI 1.0) to measure individuals’ TR, it has been widely applied to examine consumers’ usage of different technology-based products and services over the last two decades, such as self-service
technology (Lin and Chang, 2011; Elliott et al., 2012; Liljander et al., 2006), IPTV (Son and Han, 2011), internet banking (Ho and Ko, 2008), SNS usage (Borrero et al., 2014; Jin, 2013) and online shopping (Mummalaneni et al., 2016). Despite the increasing usage of sports wearables among consumers, there has, to our knowledge, been little discussion of consumers’ TR toward sports wearables so far. Studies have shown that TR is an important factor influencing individuals’ willingness to try and use technology-based products and services (e.g. Borrero et al., 2014; Son and Han, 2011). As such, it is necessary to explore whether consumers are “ready” to use technology products (i.e. sports wearables).

However, it has been argued that TRI 1.0, which was proposed in the early 2000s, has become outdated due to rapid technological development. Several technologies considered revolutionary in the early twenty-first century (e.g. mobile commerce, social media and cloud computing) are now widely adopted as significant elements of daily life. To better assess modern individuals’ beliefs regarding technology-based products and services, Parasuraman and Colby (2015) updated and improved TRI 1.0 to TRI 2.0. The updated TRI 2.0 consists of the same constructs (i.e. optimism, innovativeness, discomfort and insecurity) with refined items (Parasuraman and Colby, 2015). For example, the item “I like the idea of doing business online because I am not limited to regular business hours” was removed, and the new item “Technology makes me more productive in my personal life” was added in the construct of optimism.

Market segmentation via TR
Market segmentation is an approach widely used to classify diverse consumers according to multiple attributes into groups sharing similar characteristics (Armstrong et al., 2014). This approach is a useful tool to help marketers better understand consumers and develop their marketing strategy (Armstrong et al., 2014). Wilkie (1994) argued that a successful market segmentation practice includes three core requirements. First, consumers within a segment must be clearly identifiable by a characteristic that is clearly distinct from consumers within other segments. Second, consumers within a given segment must behave in a similar manner and, more importantly, respond analogously to a specific marketing strategy. The third requirement is that an organization must be capable of practically producing a marketing mix reaching each segment.

TR, combining both motivators (optimism, innovativeness) and inhibitors (discomfort, insecurity) toward technology, has been used to segment consumers into distinct groups (Tsikriktsis, 2004; Parasuraman and Colby, 2015). For example, Parasuraman and Colby (2015) identified five distinct groups based on TRI 2.0: Explorers (high motivation, low inhibition), Pioneers (high motivation, high inhibition), Skeptics (low motivation, low inhibition), Hesitators (moderate-low motivation, moderate inhibition) and Avoiders (low motivation, high inhibition). Explorers, a relatively easy group to attract, represent the early adopters when a new technology-based product or service is introduced. Avoiders, also known as Laggards, are the opposite of Explorers, ranking lower in motivating factors and higher in inhibiting factors. Avoiders are typically the late adopters of a new technology-based product or service. The middle three segments (Pioneers, Skeptics and Hesitators) have more complicated beliefs about technology. Pioneers desire the benefits of using new technologies but are more practical about the difficulties and challenges. Skeptics are dispassionate about technology but have few inhibitions; they must be convinced of benefits. Hesitators are not interested in using technology-based products, but they are concerned about risks, exhibiting moderate levels of discomfort and insecurity.

TR has also been applied as a segmentation tool to analyze individuals’ beliefs toward technology-based products or services in a variety of contexts. For example, Victorino et al. (2009) segmented hotel customers based on TR to understand their use of technology-based services offered by hotels. Badri et al. (2014) assessed the TR of school teachers and
identified groups differentiated by their beliefs regarding the use of technology in all dimensions of the education process, including curriculum and student-learning environments. Melas et al. (2014) investigated the TR of medical employees and identified different segments of beliefs regarding the use of ICT systems in healthcare settings. These studies found TRI a useful segmentation tool, as the findings identified distinct segments in different contexts, each with its own demographic characteristics and usage patterns. However, it is worth noting that the TR profiles of different respondents (i.e. users of online service, hotel customers, school teachers and medical staff) are diverse from each other. This indicates that market segmentation using TR can results in different sub-groups of consumers in different contexts (Victorino et al., 2009; Badri et al., 2014; Melas et al., 2014; Massey et al., 2007). As such, in order to understand the TR of sport technology consumers (i.e. sports wearable users), this study attempted to identify segments of sports wearable users based on their readiness on using technologies.

Research objectives
The primary purpose of this study was to determine the number of segments, with characteristics and differences among segments of the sports wearable consumers based on TR. It was expected that the TR profiles of each segment may differ in observed demographic variables (i.e. gender, age, income and exercise frequency). Since TR is an individual-specific construct as opposed to system-specific constructs such as usefulness and ease of use, investigating consumers’ readiness toward technologies could be a starting point for understanding consumers’ adoption of sports technology and sports wearables.

Methods
Survey instrument
The survey instrument used in this study was adapted from the Technology Readiness Index 2.0 (TRI 2.0) developed by Parasuraman and Colby (2015), including optimism (four items), innovativeness (four items), discomfort (four items) and insecurity (four items). TRI 2.0 is an updated version of TRI 1.0 and measures an individuals’ beliefs regarding the adoption of technology within their home and work environment (Parasuraman and Colby, 2015). Moreover, TRI 2.0 has demonstrated adequate reliability and validity in different contexts such as mobile shopping (Celik and Kocaman, 2017) and healthcare (Crundall-Goode et al., 2016).

Since this study was conducted in Korea, a back-translation procedure (Brislin, 1970) was conducted to minimize discrepancies between the original and translated questionnaires. First, the original items were translated from English to Korean by two experts. After researchers compared and adjusted any discrepancies between these two drafts, a final draft for a Korean version was completed. Next, two other experts individually back-translated the Korean version into two English versions. The two back-translated English versions were then compared with the original English questionnaire to ensure the meaning was conceptually equivalent. Finally, the Korean questionnaire was assessed by a panel of three sports management professors in Korea to ensure the validity of the questionnaire items. These items were assessed on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Respondents and procedure
A pilot study was initially conducted with 30 undergraduate students from a large university in Seoul using convenience sampling to evaluate the survey instrument’s internal consistency and clarity. The results revealed all survey items possessed an appropriate level of internal consistency reliability, with Cronbach’s α for all scales used in this study
exceeding the recommended value (0.7) proposed by Nunnally and Bernstein (1994), indicating good reliability. The examination of the item-to-total correlations showed all items correlated highly with their own constructs. After minor amendments, the survey was finalized for data collection.

In the data collection stage, convenience sampling was used to recruit 400 participants using sports wearables. Undergraduate students who participated in the pilot study were not included in this phase. Specifically, mall-intercept personal interviews were conducted by two survey administrators in shopping malls and other public spaces with crowds in the Seoul region. To maintain the robustness of the study, survey administrators first explained the research purpose, definitions and examples of sports wearables to respondents and asked them “Are you currently using sports wearables?” Only respondents using sports wearables were included in this study. More specifically, only users of “wristwear” sports wearables were included, as they are the most common types of sports wearables, accounting for over 90 percent of total wearable market (Statista, 2015).

After the refinement processes, 44 invalid questionnaires (11 percent) were eliminated due to missing responses and untrustworthy answers with repetitive patterns. In total, 356 questionnaires, accounting for an 89 percent response rate, were included for further analysis. The final sample contained nearly equal numbers of male and female users, and most of the respondents were in the 20–29 age range (n = 211, 59.3 percent). The gender and age characteristics of this sample were similar to the results of a Nielsen report on wearable technology (Nielsen, 2014). Statista has also reported that consumers between ages 18 and 34 make up over 50 percent of sports wearable users (Statista, 2017). As such, it can be assumed that the sample of this study represented to some extent the current demographic characteristics of sports wearable users. More detailed information is reported in Table I.

Data analysis
To avoid common method variance bias often found in cross-sectional research design, Harman’s single factor test was conducted. It revealed that a single factor accounts for

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>184</td>
<td>51.7</td>
</tr>
<tr>
<td>Female</td>
<td>172</td>
<td>48.3</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20–29</td>
<td>211</td>
<td>59.3</td>
</tr>
<tr>
<td>30–39</td>
<td>96</td>
<td>27.0</td>
</tr>
<tr>
<td>Over 40</td>
<td>49</td>
<td>13.8</td>
</tr>
<tr>
<td><strong>Income (Korean Won)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 1,000,000</td>
<td>176</td>
<td>49.4</td>
</tr>
<tr>
<td>1,000,001–2,000,000</td>
<td>42</td>
<td>11.8</td>
</tr>
<tr>
<td>2,000,001–3,000,000</td>
<td>50</td>
<td>14.0</td>
</tr>
<tr>
<td>3,000,001–4,000,000</td>
<td>54</td>
<td>15.2</td>
</tr>
<tr>
<td>Over 4,000,001</td>
<td>34</td>
<td>9.6</td>
</tr>
<tr>
<td><strong>Exercise frequency (per week)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1–2 times</td>
<td>142</td>
<td>39.9</td>
</tr>
<tr>
<td>3–4 times</td>
<td>88</td>
<td>24.7</td>
</tr>
<tr>
<td>Over 5 times</td>
<td>126</td>
<td>35.4</td>
</tr>
</tbody>
</table>

Table I. Demographics of respondents

Note: n = 356
45.15 percent of the total variance, which is less than the suggested value (50 percent), indicating no significant common method variance bias (Mackenzie and Podsakoff, 2012; Podsakoff et al., 2003). Confirmatory factor analysis (CFA) was also conducted to ensure the reliability and validity of TRI 2.0 in this study.

In order to identify clusters of consumers that have similar intra-group values in TR dimensions, we conducted two-stage cluster analysis following the procedure recommended by Punj and Stewart (1983). The first step in the two-stage cluster analysis process determines the number of clusters within the sample using a hierarchical method. In the second step, a nonhierarchical $K$-means analysis of the hierarchical clustering results was used to define cluster groups. After clustering was complete, analysis of variance (ANOVA) and post hoc Tukey’s test were used to determine whether there were significant differences between the TRI dimensions (i.e. optimism, innovativeness, discomfort and insecurity) among the clusters. Finally, cross-tabulation analysis was conducted to examine the differences in demographic variables of each cluster.

**Results**

**Confirmatory factor analysis**

CFA was carried out to evaluate the TRI 2.0. It fulfilled criteria proposed by Hair et al. (2010), indicating a highly appropriate model fit, with a $\chi^2$ (98) of 182.381, a $\chi^2$/df of 1.861, a confirmatory fit index of 0.953, a non-normed fit index of 0.942 and a root mean squared error of approximation (RMSEA) of 0.052. Next, Cronbach’s $\alpha$ and composite reliability (CR) were calculated to assess the reliability of the measures. As reported in Table II, values of Cronbach’s $\alpha$ for all measures exceeded the threshold value of 0.70 (Nunnally and Bernstein, 1994) and CR values for all measures were above the threshold value of 0.70 (Fornell and Larcker, 1981), suggesting that all measures are sufficiently reliable. The validity of the measures was evaluated using construct validity and discriminant validity. Construct validity was evaluated by calculating the average variance extracted (AVE); these were greater than 0.50 for all constructs, meeting the criteria of Hair et al. (2010) for sufficient validity. Discriminant validity is also supported because the AVE square roots (ranging from 0.674 to 0.780) were greater than inter-construct correlations (ranging from −0.172 to 0.456) (Fornell and Larcker, 1981).

**Cluster analysis**

Cluster analysis was conducted based on factor means to identify sports wearables users with similar TR factors. The results showed a three-cluster solution was the most coherent and interpretable for the sample ($n = 356$) as it showed the highest degree of dissimilarity among the clusters. Discriminant analysis was carried out to validate the three-cluster solution. Two canonical discriminant functions were used in the analysis. The canonical correlation for functions 1 and 2 were 0.759 and 0.701, respectively. The eigenvalue of the first discriminant function was 1.359, explaining the majority of variance in the relationship. Wilks’ $\lambda$ of the first discriminant function was close to 0, and the $\chi^2$ of both functions were statistically significant. Last, the analysis revealed 93.0 percent of the respondents through the classification matrix used to define the effectiveness of the functions (Table III) (Figure 1).

<table>
<thead>
<tr>
<th>Construct</th>
<th>Cronbach’s $\alpha$</th>
<th>Factor loadings</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimism</td>
<td>0.847</td>
<td>0.664–0.825</td>
<td>0.973</td>
<td>0.900</td>
</tr>
<tr>
<td>Innovativeness</td>
<td>0.824</td>
<td>0.708–0.757</td>
<td>0.883</td>
<td>0.654</td>
</tr>
<tr>
<td>Discomfort</td>
<td>0.758</td>
<td>0.639–0.757</td>
<td>0.801</td>
<td>0.502</td>
</tr>
<tr>
<td>Insecurity</td>
<td>0.711</td>
<td>0.514–0.823</td>
<td>0.797</td>
<td>0.501</td>
</tr>
</tbody>
</table>

**Notes:** $\chi^2$ (98) = 182.381, $\chi^2$/df = 1.861, CFI = 0.953, NNFI = 0.942, RMSEA = 0.052

**Table II.** Summary results of CFA
As reported in Table IV, cluster 1 was labeled Explorers ($n = 151$), as they scored generally high scores for optimism ($M = 4.27, SD = 0.49$) and innovativeness ($M = 3.27, SD = 0.67$), and the lowest scores among all clusters for discomfort ($M = 2.26, SD = 0.43$) and insecurity ($M = 2.62, SD = 0.60$). Explorers are early adopters with higher levels of motivating beliefs and lower levels of inhibiting beliefs. Cluster 2 was named Laggards ($n = 106$) because they had the lowest levels of optimism ($M = 3.39, SD = 0.88$) and innovativeness ($M = 2.32, SD = 0.58$) among all clusters and relatively high levels of discomfort ($M = 2.93, SD = 0.64$) and insecurity ($M = 3.30, SD = 0.70$). Laggards are the mirror opposite of the Explorers. Finally, cluster 3 was labeled Pioneers ($n = 79$), as they showed generally high scores for optimism ($M = 3.95, SD = 0.75$), innovativeness ($M = 3.03, SD = 0.79$), discomfort ($M = 2.73, SD = 0.69$) and insecurity ($M = 3.11, SD = 0.76$). Pioneers are different from Explorers and Laggards as they tend to hold both relatively strong positive and negative beliefs about sports wearables.

In addition, to discern significant differences among the three groups and interpret these groupings, we conducted ANOVA and post hoc Tukey’s test for each of the four factors. The results showed that the three groups differed significantly ($p < 0.001$) in their mean scores. Cross-tabulation analysis was conducted to examine the differences in demographic

<table>
<thead>
<tr>
<th>Discrimination function</th>
<th>Eigenvalue</th>
<th>Variance (%)</th>
<th>Canonical correlation</th>
<th>Wilks’ $\lambda$</th>
<th>$\chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.359</td>
<td>58.4</td>
<td>0.759</td>
<td>0.216</td>
<td>539.445***</td>
</tr>
<tr>
<td>2</td>
<td>0.967</td>
<td>41.6</td>
<td>0.701</td>
<td>0.508</td>
<td>237.825***</td>
</tr>
</tbody>
</table>

**Table III.** Discriminant analysis

**Note:** In all, 96.0 percent of original grouped cases correctly classified, and 95.7 percent of cross-validated grouped cases correctly classified. ***$p < 0.001$
variables of the three clusters. The results showed three clusters had different ratios in gender ($p < 0.005$) and age ($p < 0.035$) but had similar ratios in income ($p < 0.557$) and exercise frequency ($p < 0.101$). Details of the cluster profiles are presented in Tables IV and V.

Discussion

The primary aim of this study was to segment users of sports wearables based on their TR. Results showed the TRI 2.0 was a reliable method for segmenting consumers. The CFA confirmed the reliability, validity and four-factor structure of the TRI 2.0. Three groups among users of sports wearables with different TR profiles were identified, the characteristics of which are discussed below.

Cluster 1, Explorers, possessed higher levels of contributing beliefs (optimism and innovativeness) and lower levels of inhibiting beliefs (discomfort and insecurity), representing the “first wave” of adopters of sports wearables. Compared to the other segments, Explorers are more likely to believe sports wearables improve their health or lives, and are typically on the leading edge of exploring and trying sports wearables. These early adopters are important, as they could serve as “evangelists,” encouraging other consumers to try newly released sports wearable products (Parasuraman and Colby, 2015). Their referrals and recommendations have a positive influence on potential consumer awareness of sports wearables newly released in the market.

Cluster 2, Laggards, as suggested by their significantly lower scores on optimism and innovativeness and relatively high scores on discomfort and insecurity, are the late adopters of sports wearables. Laggards revealed a low level of motivation to adopt sports wearables because they doubt whether sports wearables can benefit their lives. It also found that Laggards are more likely to be female and older users (i.e. over 40 years old). These users may have a lower level of knowledge about and interest in new technologies. Therefore, the usability and
functionality of sports wearables should be emphasized for this segment to educate them as to how sports wearables can contribute to their health (Massey et al., 2007). Moreover, continuous technology support and assurance can play an important role in satisfying their needs.

Finally, cluster 3, Pioneers, have more complicated beliefs about technology. They have optimistic and innovative beliefs about new technologies, yet revealed high levels of discomfort and insecurity when using new technologies. Although Pioneers are innovative, optimistic and highly ready to adopt sports wearables, they are concerned about the downsides of using sports wearables and unconvincing that sports wearables are useful in their daily lives. It should be noted these users may quit using sports wearables soon after purchase because they perceive a high level of discomfort and insecurity. Continuously tracking their usage of sports wearables and providing them with substantial support may decrease their resisting beliefs of using sports wearables (Badri et al., 2014).

Parasuraman and Colby (2015) initially applied the TRI 2.0 to explore the characteristics of US adults, segmenting them into five groups. The three-segment classification of sports wearable users was different from the segments of previous studies in different contexts (e.g. hotel, education, healthcare, or online service) (Victorino et al., 2009; Badri et al., 2014; Melas et al., 2014; Massey et al., 2007). Some of these studies revealed a high percentage of Skeptics, who have a detached view of technology, with less extreme positive and negative beliefs (Melas et al., 2014; Parasuraman and Colby, 2015; Massey et al., 2007). Some studies also found a sizeable segment of Laggards who have a high degree of resistance to using new technology (Victorino et al., 2009; Badri et al., 2014). These studies showed that most of the respondents have indifferent or negative beliefs toward using technology-based products or services. However, this study identified most of its respondents as Explorers (42.4 percent), suggesting highly positive views on sports wearables.

A possible explanation for this could be the product attributes of sports wearables. Sports wearables are designed as an “everyday piece” worn by users who want to track their daily physical activities. Therefore, users are more likely to gain benefits from their daily usage of sports wearables and to more easily adopt sports wearables. Also, sports wearables need to be connected to a smartphone app. Therefore, it can be inferred that users of sports wearables are also smartphone users, and that they have more positive beliefs toward using technology products. In this sense, users of sports wearables are more “ready” to use technology and, therefore, most of them are categorized as Explorers in this study.

**Practical implications**

The findings of this study demonstrate three distinct clusters of sports wearable users. The segments of sports wearable users identified in this study will help marketers gain a better understanding of sport technology consumers, as well as helpful for developing personalized marketing strategies to existing consumers. For example, the findings found both Laggards and Pioneers express high levels of discomfort and insecurity in using new technologies. Therefore, marketers must offer a compelling value proposition for consumers, using communication and educational strategies to lower consumers’ doubts regarding sports wearables. Marketers can build an online community for users of sports wearables as a platform to discuss their experiences and ask for help from product designers or developers. The sharing and opinions of advanced users (e.g. Explorers) in the community could also significantly get Laggards more interested in sports wearables. These strategies can reduce consumers’ discomfort and insecurity when using sports wearables. To tailor for the Explorers, marketers should ensure they have a positive experience using sports wearables and strategically encourage them (e.g. with rewards) to share their experiences with other potential users. Moreover, a strategic program for introducing new sports wearables should initially be targeted toward the Explorers, as they are the first to adopt sports wearables. These individuals could subsequently serve as change agents influencing
the rest of the members of the internal social network (Zampetakis and Moustakis, 2007), and their positive word-of-mouth could help the promotion of sports wearables and co-create its value with designers or developers (Canhoto and Arp, 2017).

Limitations and future research
This study is not without limitations. First, this study was conducted using a cross-sectional design. Therefore, it is impossible to assess the change of users’ TR toward sports wearables. Future research should use longitudinal data to examine transient and evolutionary effects regarding users’ reactions to technology. Second, the three clusters we found in Korea may not be generalizable to other countries and cultures. Therefore, there is a need for future researchers to include more users from different cultural backgrounds. Third, demographic information collected from respondents to this study was limited to gender, age, income and exercise frequency. Future studies should include more information on the specifics of users’ sports wearables, such as their chosen brands and usage occasions. Fourth, the convenience sampling was conducted in this study, resulting in that all respondents were below 40 years old. As such, older users aged over 40 years old, who could be relatively unfamiliar with wearable devices, should be taken into consideration for future studies. Finally, future studies should examine different consumption behaviors among the three clusters using socio-psychological theories, such as the theory of planned behavior (Ajzen, 1991) or technology acceptance model (Davis, 1989), to gain a better understanding of the consumption behavior of sports wearables in each cluster.

References


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Market valuation and risk profile of listed European football clubs

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HSBA Hamburg School of Business Administration, IMF Institute for Mittelstand and Family Firms, Hamburg, Germany, and
Lars Tegtmeier
Department of Business Administration and Information Sciences, University of Applied Sciences Merseburg, Merseburg, Germany

Abstract

Purpose – The purpose of this paper is to explore whether stocks in football clubs are valued in line with the valuation of other capital assets in the capital market. Moreover, it analyzes the risk profile of football stocks. By taking this perspective, the paper also contributes to the discussion on the motives of those who invest in football clubs, particularly the question of whether they expect extra benefits, i.e., in addition to dividends and share price appreciation, from the investments.

Design/methodology/approach – The empirical study analyzes the share prices of 19 listed European football clubs from January 2010 to December 2016. Building on the capital asset pricing model, the authors used Zellner’s (1962) seemingly unrelated regressions.

Findings – The results indicate that the majority of the football clubs in the sample are overvalued. This implies that investments in football stocks are mainly attractive for those investors who expect to derive extra benefits from their investment. That might be likely for strategic, patron and fan investors, but not for purely financial investors.

Research limitations/implications – As a next step, more advanced factor models could be applied to the analysis.

Practical implications – For investors, the results imply that portfolio diversification is particularly beneficial while buying football stocks. For football clubs, the rather low general market risk, combined with the overvaluation, leads to low equity costs when new shares are issued.

Originality/value – The results suggest that dividends and share price appreciation are not the only benefits football stock owners derive from the stocks, thus underlining that further investigations in their motives to hold football stocks are very promising.

Keywords Risk analysis, Asset pricing, Stock returns, Investment decisions, Football stocks

1. Introduction

Exchange-listed football clubs[1] are a manifestation of the commercialization of professional football. Buying some shares on the exchange is typically the only way for small investors to buy a tiny equity stake in a football club. Other equity investors in football clubs, like patron investors, strategic investors or institutional investors, can also make an equity participation in an unlisted club through a private transaction. Since listed European football clubs are not a recent phenomenon, there is a stock of academic literature that has analyzed the share prices of football clubs. This literature clearly focuses on the extent to which the different kinds of information are reflected in the share prices. Two different kinds of information dominate in this context. The first is the link between on-field performance, often in connection with betting market quotes, on share prices. The second focus is on the effect of the general stock market development on the share prices of football clubs. This research covers listed football clubs in England (e.g. Bell et al., 2012; Lehmann and Weigand, 1998; Palomino et al., 2009), Germany (e.g. Stockl and Schulz, 2007), Italy...
Other stock-market-related topics are the on-field performance after an initial public offering (IPO) is issued (e.g. Baur and McKeating, 2009 on the IPOs of European football clubs), the effect of football scandals on the performance of football stocks (Mazanov et al., 2012 analyze the 2006 Italian “Calciopoli” scandal), and the link between football results and the stock prices of non-sport companies (e.g. Erdmans et al., 2007).

However, extant literature has not tackled some important aspects yet. First, research has not analyzed the price level of football stocks, i.e. whether football stocks are overvalued, correctly valued or undervalued in the market. This question is obviously relevant for those football clubs that are listed. However, capital market data are also used to value non-listed entities by identifying similar companies and applying their data in the discounted cash flow (DCF) approach and in the market comparables approach (de Fontenay, 2017, particularly pp. 490-494; Admati and Pfleiderer, 2000; Fox and Weimar, 2012, discuss the multiples approach in the football context). Thus, the valuation of listed football clubs is also important for unlisted clubs, which is the clear majority. However, advanced knowledge of this topic also allows some inference to be drawn about the kind of benefits football stock investors are willing to pay for. Are dividends and share price changes the only sources of benefit for an investor? Or, are there other sources that might justify buying an overvalued stock? An example could be the benefits from a business relation between the club and the investor which is substantiated by the shareholding, as it could be assumed for the shareholding of a strategic partner of the football club, e.g. a long-term sponsor. As another example, fan shareholders might receive an emotional dividend when they support their favorite club as an equity provider and, therefore, they might be willing to pay a price that is overvalued with respect to ordinary standards. Second, research has not explored the risk features of football stocks that have been the cornerstones of standard stock analysis for decades and are highly relevant for investors. More specifically, research has not yet studied the extent to which the risk of holding football stocks is idiosyncratic. If the major part of the risk is idiosyncratic, investors need not worry about high volatilities, as they can diversify away most of the total risk. In relation to that, research has also paid only modest attention to the $\beta$ of football stocks. $\beta$ measures the exposure of an asset to undiversifiable – i.e. systematic – risk, and it is considered to be a superior measure of risk compared to volatility, which does not distinguish between idiosyncratic and systematic risks (see, e.g., Brealey et al., 2011, pp. 191-198). So far, research has typically taken into account the impact of the general market on the share prices of football companies only as the control variable.

Our paper has addressed these issues by applying a framework based on the well-established capital asset pricing model (CAPM) (Lintner, 1965; Mossin, 1966; Sharpe, 1964) on a sample of 19 listed European football clubs. Kavussanos et al. (2003) employed this approach successfully to investigate the valuation and the risk-return profiles of the international shipping industry. Our results show that the clear majority of the football stocks in the sample are overvalued and, turning to the risk profile, are only weakly linked to the general market development.

Of course, the empirical results have practical implications for investors, i.e. the investors should be aware of the high valuation level and know that most of the risk caused by holding football stocks is idiosyncratic and, thus, can be diversified away. Our findings also contribute to the discussion on the objectives of football clubs, the relative power of the various stakeholders trying to determine club policy and the potential motives of investors buying shares in football clubs. The results support theories hypothesizing that investors in football stocks derive benefit not only from dividends and share price rises, but also from other sources.

The results are based on capital market data, a data source that has rarely been used to consider these issues so far. The study that comes closest to ours is the one conducted by
Among other things, they analyzed the risk-return profile of an investment in the Dow Jones STOXX Football Index and found out that in terms of the Sharpe ratio, such an investment would be unattractive. Aglietta et al. (2010) only explored the index, whereas our study focuses on single stocks. Moreover, Aglietta et al. (2010) did not consider valuation issues at all. Furthermore, two single-club studies can be mentioned here. They focus on the effect of on-field results on stock returns, but the results they show can also be used to draw conclusions about the valuation and the risk profile of the respective stocks. For the stock of Borussia Dortmund, Stadtmann (2006) found an overvaluation and only a small exposure to general risk factors (systematic risk). Jørgensen et al. (2012) discovered for Brøndby IF also an overvaluation, but exposure of stock returns to systematic risk was much stronger. In any case, capital market data are an attractive data set because it aggregates the information and attitudes of many market participants in a highly condensed manner. This is called the “wisdom of the crowd” today, but Hayek (1945) had already described “the use of knowledge in society” in 1945.

The paper has been structured as follows. In the next section, based on the literature, two hypotheses will be developed—the valuation hypothesis and the risk hypothesis. After the methodology section, the data set will be introduced. Next, the results will be shown, which will be interpreted and evaluated in the discussion section. The conclusion will summarize the findings, discuss the limitations and opportunities for future research, and close with the managerial implications of our results.

2. Theoretical background and hypotheses

2.1 Valuation hypothesis

The valuation hypothesis to be developed in this section asks whether listed football stocks might be overvalued. Stock market valuation is not compared to the company values derived from a valuation model like the one that Markham (2013) developed specifically for football clubs. Instead, applying the risk and return set-up of the CAPM, football stocks’ performance will be explored whether it is consistent with the entirety of the investment alternatives available in the capital market. Indeed, our analytical approach does not require a company valuation model at all. But as they are useful as frameworks for discussion and hypotheses development, two models will be briefly introduced.

2.1.1 Company valuation models. There is no such thing as a single true model to determine the value of a company. A highly established approach in company valuation is the DCF method (for the following, see, for instance, Damodaran, 2016). Transferred to listed companies, the DCF method becomes the dividend discount model (DDM). In an efficient market, the share price should be equal to the present value ($P_0$) of all future dividend payments ($DIV_t$) of the respective company. The present values have been calculated with the discount rate $R$ (Brealey et al., 2011, p. 108):

$$P_0 = \sum_{t=1}^{\infty} \frac{DIV_t}{(1+R)^t}$$

Scelles et al. (2016) encourage researchers to apply the multivariate valuation model developed by Markham (2013). Markham (2013) found that his model valued English Premier League clubs more accurately than other valuation models (see Markham, 2013, pp. 17-18, for an explanation of the formula’s logic; Tiscini and Dello Strologo, 2016, pp. 674-675 discuss the model):

$$\text{Club valuation} = \frac{(\text{Revenue} + \text{Net assets}) \times \left(\frac{\text{(Net profit} + \text{Revenue})}{\text{Revenue}}\right) \times \text{Stadium capacity \%}}{\text{Wage ratio \%}}.$$
Please note that according to the DDM, the dividend payments and the price they get by selling the stock are the only benefits the shareholders earn by holding the stock. These matter for the share price (due to the infinite time horizon of the DDM, the selling price for an individual shareholder does not show up in the formula, but is represented by the future dividends to be received by the shareholders who own that stock after him). Therefore, the DDM is an appropriate framework to discuss whether certain types of football club shareholders derive additional benefits from their stockholding and would, thus, be willing to pay higher prices compared to that calculated with the DDM (capital market research discovered some occasions on which a premium is paid in addition to the price derived from the DDM, e.g. control premiums in the case of control changes in a company (Dyck and Zingales, 2004) or voting rights attached to stocks (Kalay et al., 2014)). Accordingly, the Markham model, though richer in details, in its general form, is also a representation how a representative, standard investor without particular interest neither of a financial kind nor of any other kind (e.g. an emotional kind) in the asset to be valued would value a football club (of course, valuation models could be individualized to reflect the value a specific investor would derive from owning a specific asset, in our case from owning (parts of) a football club. For instance, private benefits that a specific investor could derive from ownership could be added to the formula; see as an example, Damodaran, 2012, p. 692, on the valuation of a company from the perspective of a dominating owner. However, further investigations into the individualization of valuation models would go beyond the scope of this paper).

Since share prices are the result of negotiations and auctions, they represent the supply and demand functions of all capital market participants interested in a specific stock. Supply and demand functions, in turn, display the preferences of these participants. There is already a stock of literature that explores shareholders in football clubs. More specifically, literature defines the categories of shareholders and discusses their motives. This strand of the literature will be exploited to consider whether certain investor types could be expected to derive benefits holding football club stocks not fully captured by the DDM and the Markham model in their general forms (please note that also in the Markham model, like in the DDM, the benefits of holding football club shares for the standard investor stems from dividend payments and price changes of the stake held by the investor).

2.1.2 Football shareholder types. Literature provides several classifications of football shareholder types that are not fully compatible with each other (see Rohde and Breuer, 2017, for a recent survey, and Buchholz and Lopatta, 2017). Our approach has mainly built on Chemnitzer et al. (2015), Frigge and Vöpel (2014), Rohde and Breuer (2017), Ruoss (2009) and Teichmann (2007). We have distinguished between financial investors, strategic investors, patron investors (sugar daddies) and fan investors. To keep the discussion short, we will discuss these kinds of investors as pure cases, though real-world shareholders of football clubs might have qualities of more than one investor type.

Financial investors are “investors with little or no interest in the business other than the returns it can generate either through the payment of dividends or the appreciation of the share price” (Leach and Szymanski, 2015, p. 28). Examples might be institutional investors holding shares of listed football clubs or private equity funds buying stakes in unlisted football clubs, like Kohlberg Kravis Roberts in the case of Hertha BSC Berlin. The benefits which financial investors derive from their shareholdings are fully captured by the DDM or the Markham model in their general forms. This feature distinguishes financial investors from all other kinds of investors. Those investors might also, to a varying degree, keep an eye on dividends and share price development, but they are assumed to receive additional benefits from being the shareholder of a football club.

A strategic investor is a company that has a business relation with the football club apart from the shareholding. Buying a stake in the football club is supposed to deepen and
substantiate this business relation. Such a move might be particularly apt for major sponsors of a football club or media companies that invest heavily in football. A good example is Adidas, which became the first external shareholder of Bayern Munich in 2001, paying EUR75m for the shares. The reasons given for this investment were, *inter alia*, safeguarding Adidas’s position as Bayern Munich’s main supplier of sporting equipment and a positive image transfer to their own brand (Kupfer, 2006; as referred to in Bühler *et al.*, 2013, p. 553). In addition to the equity stake and due to the voting rights attached to it, Adidas also holds a seat on the supervisory board as an additional channel to protect its interests in Bayern Munich. Such motives for holding the shares of a football club have a long tradition. For instance, in England, where football clubs were incorporated very early on, equity investments of local breweries in the football club had the major purpose of supporting the main business of the brewers, i.e. selling beer at the stadium (Beech, 2010; Leach and Szymanski, 2015; see Dixon *et al.*, 2004, for an analysis of shareholdings in English football clubs 1880–1900). Thus, this is an early example of benefits from shareholding not covered by the DDM or the Markham model in their general forms.

Referring to French football, Andreff (2007, p. 6) characterized patron investors as the shareholders who “behave as non-profit-seeking investors, patrons, or tycoons (see Beech, 2010, for a historical account of private club owners and their motives in the UK).” “Sugar daddy” is a more recent term for this kind of wealthy businessmen who buy a significant stake in a football club. This group of investors is very heterogeneous. It includes, for instance, a very successful businessman like SAP Co-founder Dietmar Hopp, who supports the Bundesliga club TSG 1899 Hoffenheim and many other local sport activities in his home region, as well as Businessmen like Roman Abramovich, who picked a football club without having any previous connection to it. In view of this diverse set of patron investors, Rohde and Breuer (2017, p. 281) deserve full support when they identify the vagueness of this investor group as a research gap. Rohde and Breuer (2018) themselves provided recent supporting empirical evidence. They showed that large domestic and foreign private investors in English and French clubs behave differently, possibly because the latter group disposes of more resources and is less emotionally attached to the club (see Wilson *et al.*, 2013, for the latter argument). Moreover, among the foreign private investors, they could distinguish between a group of loss generating and a group of profit generating investors. The former resemble patrons, whereas the latter could be filed under financial investors. Be that as it may, for the purpose of our analysis, it is sufficient to state that this group of investors derives private benefits from being a (significant) shareholder of a football club, like social and political acceptance, or enjoyment (Franck, 2010), which are not included in the valuation models in their general forms.

Patron investors typically hold larger stakes in football clubs that allow them to have a significant say in the club policy, whereas fan investors hold only a few shares in their favorite football club. Due to the small investment size, investment opportunities for fan investors are limited to listed football clubs[2]. Their emotional attachment to the club, and not the financial return, is expected to be the main reason for the investment (Bell *et al.*, 2012; Ruoss, 2009, pp. 68-69). Pioneering empirical studies in this field were conducted by a researcher group around Gandar, Lamb and Zuber. Starting with basketball (Bloše *et al.*, 1998) and continuing with the English Premier League (Zuber *et al.*, 2005), they concluded “that the results point to a new type of investor in professional sports (Zuber *et al.*, 2005, p. 305). They “exhibit a tremendous passion for the team” (Bloše *et al.*, 1998, p. 78), and they are “insensitive to traditional financial information” (Zuber *et al.*, 2005, p. 313), i.e., their bidding behavior is determined by factors not included in the valuation models in their basic forms. Supporting empirical evidence for this view on fan investors was provided, for example, by Huth *et al.* (2014), asking investors in bonds issued by German football clubs for...
their motives to buy these securities, and by Demir and Rigoni (2017) who inferred that due to emotions on the side of the fan investors results of the archrival led to price reactions in the share of their favorite club.

2.1.3 H1. The common thread of the discussion above is that there are highly relevant types of investors in football clubs who derive additional benefits from holding the shares that are not included in the valuation models in their general form. Only financial investors solely focus on dividends and share price appreciation. All other things being equal, the investors who expect additional benefits from holding shares, called private benefits of control and the socio-emotional benefits by Tiscini and Dello Strologo (2016), are willing to pay a higher price than that indicated by the valuation models, which are the benchmark for the financial investor. This leads to:

\[ H1. \] Football stocks are overvalued with respect to standard valuation benchmarks.

A reader who is familiar with the discussion on professional football clubs might ask whether there is a direct link between \( H1 \) and the discussions about the objectives of professional football clubs and the stakeholders of these clubs. We think there is only a minor linkage. There is an established discussion on the stakeholders of football clubs, like club members, fans, equity and debt providers, sponsors and many others (see, e.g. Anagnostopoulos, 2011; Senaux, 2008). The partly conflicting goals of the stakeholders and the relative weight of each stakeholder group in the club’s decision-making process can be considered to be the micro-foundation of the club’s objective discussion, going back to Rottenberg (1956) and Sloane (1971), and were formalized, for instance, by Madden (2012) (see Rohde and Breuer, 2018, for a recent summary of the club objective discussion; see Prigge (forthcoming), for a case study on the preferences of the members of a Bundesliga club which became visible when the football department was outsourced from the membership association to a stock corporation). The upshot of these two related strands of discussion is that there are good reasons to assume that even listed football clubs are not market value maximizers (Walters and Hamil, 2010 and Wilson et al., 2013 interpret the withdrawal of institutional investors and the going private of most listed English clubs soon after the IPO wave in the early 1990s as an indication that even listed clubs followed a multi-objective approach instead of pure market value maximization). Nevertheless, this does not affect the applicability of the DCF approach to valuation. This simply requires the forecasts of future cash flows – whether they are maximized or not – and the estimation of a risk-adjusted discount rate. The minor linkage between a stakeholder and the club’s objective discussion on the one hand and \( H1 \) on the other is that the former discussion provides the foundation for the hypothesis – that there are equity providers whose investment goal goes beyond dividends and share price appreciation.

2.2 Risk hypothesis

2.2.1 Systematic risk, unsystematic risk and \( \beta \). According to the CAPM of Lintner (1965), Mossin (1966) and Sharpe (1964), shareholders can expect a higher return when they hold a riskier stock. However – and this is the main contribution of the CAPM – this applies not to the total risk of a stock as measured with the standard deviation (volatility), but only to that part of the risk that is caused by general factors like the business cycle. This part of the risk is called “systematic risk” and is measured with \( \beta \). \( \beta \) is defined as the covariance between the returns of the respective stock and the market portfolio, divided by the variance of the market portfolio’s return. The market portfolio includes all assets of an economy and is approximated by broad stock indexes.

The higher the \( \beta \) of a stock, the higher, all other things being equal, its expected return will be. The intuition behind this concept is that the systematic risk has to be borne
inevitably by all the market participants, whereas the remaining part of the total risk of a
share, the unsystematic or idiosyncratic risk, could be eliminated by the shareholders via
diversification. Thus, there is no reason why bearing unsystematic risk justifies a higher
expected return. This applies only to systematic risk.

2.2.2 Reasons for low risk of football stocks (H2a). Fluctuations within the business cycle are
the major source of systematic risk. The link between the football industry and the general
economy is rather weak. Even during the severe recession caused by the financial crisis in 2008,
revenues in each of the Big Five European football leagues increased almost every year even
though GDP growth rates in all the five respective countries became sharply negative at least for
2009[3]. Professional football seems to have been undergoing a separate booming business cycle
in recent years. Another argument supporting a weak link between the football industry and the
general business cycle could be found in the discussion of the various investor types above.
At least for fan investors and patron investors, it seems plausible to assume that their demand
for football shares is only loosely tied to the general business cycle. Moreover, several studies
found a strong influence of on-field results – clearly a club-specific risk factor – on stock price
volatility (e.g. Benkraiem et al., 2009, 2011).

Taken together, the above reasoning yields:

H2a. The systematic risk of football stocks is low. In technical terms, they are expected
to dispose of a low \( \beta \) and a low share of systematic risk in the total risk.

2.2.3 Reasons for a high risk of football stocks (H2b). However, there are also reasons to
assume that the \( \beta \) of football stocks is higher than that for the average stock, all other things
being equal. The operating leverage increases the \( \beta \). The higher the share of fixed costs in
the total costs, the stronger is the reaction of the present value of profits to changes in
the rate of output (Brealey et al., 2011, pp. 250-251). The \( \beta \) of a stock typically mirrors the
operating leverage of a company (Lambrecht et al., 2015, p. 1016). It can be argued that the
cost structure of football clubs is characterized by a high degree of fixed costs, as much of
the players’ wages and the depreciation of the asset values of the players are not strongly
related to on-field success and revenues (Chemnitzer et al., 2015, p. 10). In addition to that,
corporate finance literature is very much aware of the effect of financial leverage on stock \( \beta \):
a higher financial leverage increases the financial risk of a company, as a smaller amount of
equity has to buffer profits and losses, making the market value of equity more volatile
(Brealey et al., 2011, pp. 455-456). Financial leverage in the football industry is greater than
the market average. Buchholz and Lopatta (2017, pp. 12-13) have reported for their sample of
football clubs from 21 European countries from 2002 to 2015 an average debt-to-asset ratio
of 1.06, “indicating a very high leverage ratio compared to conventional sector ratios.”
The above reasoning leads to:

H2b. Above-average levels of operational and financial leverage in the football
industry reinforce the covariance risk and, thus, cause, ceteris paribus, higher \( \beta \)s for
football stocks.

3. Methodology
In this section, we will follow Kavussanos et al. (2003), who employed the CAPM to
investigate the risk-return profiles of the international shipping industry. According to the
CAPM, the expected return on a firm’s equity can be explained as a linear function of a
single factor, the expected return on the market portfolio assets. Mathematically, the idea of
the CAPM can be summarized in the following equation:

\[
R_{it} - R_{Ft} = \alpha_i + \beta_i (R_{Mt} - R_{Ft}) + \epsilon_{it},
\]
where $R_{it}$ is the holding period return on the equity of company $i$ in period $t$; $R_{ft}$ is the risk-free rate; $R_{Mt}$ is the holding period return on the market portfolio of stocks in period $t$, while $\varepsilon_{it}$ is the residual left unexplained – the non-systematic or specific risk.

$\alpha$ ($\alpha_i$) and $\beta$ ($\beta_i$) are the CAPM parameters for stock $i$. The $\alpha$ indicates whether the stock is correctly priced. The $\beta$ is a measure of the stock’s sensitivity to changes in the expected market return. The CAPM suggests that an average stock in the market portfolio would have a $\beta$ value of 1 and, if correctly priced, an $\alpha$ of 0. A stock with $\alpha > 0$ is underpriced since its expected return is higher than that implied by the CAPM, whereas a stock with $\alpha < 0$ is overpriced since its return is lower than that implied by the CAPM. Implied by the CAPM means that the return of the stock under consideration is compared with the return to be expected in the capital market from an investment of equal systematic risk. This benchmark return is calculated with the CAPM. Framed in a value instead of a return perspective, the actual share price is compared with the artificial CAPM benchmark share price. In case $\alpha < 0$, the actual share price exceeds the benchmark share price, and the difference between both might represent the value of private benefits of control or of socio-emotional benefits. A stock with a $\beta$ greater (or lower) than 1 carries above- (or below-) average systematic risk. Investors would, therefore, require a higher (or lower) expected return to hold it.

In all time-series regressions in Equation (2), we used Zellner’s (1962) seemingly unrelated regressions (SUR) to obtain the estimates for $\alpha$ and $\beta$ for each club. This technique allows for contemporaneous shocks across equations. In our setup, the resulting coefficients are the same as in a simple ordinary least squares framework, but the standard errors are more efficient.

Two different types of hypotheses were examined with respect to the average of $\alpha$ and $\beta$ coefficients associated with each listed football club of our sample in the SUR system of equations. Our first null hypothesis investigated whether the average $\alpha$ of all football clubs is equal to 0 to test whether the stocks of the football clubs are correctly priced. Our second null hypothesis investigated whether the average $\beta$ of the football clubs under investigation is equal to 1, which indicates that the stocks of the football clubs exhibit, on an average, the same level of systematic risk as the market portfolio. To test the two hypotheses, we ran the Wald tests.

4. Data
Our empirical work focused on European exchange-listed football clubs. Our sample was based on the stocks that are included in the STOXX Europe Football Index. In addition, we consulted Aglietta et al. (2010), who gave an overview of all European football clubs ever listed. We identified a sample of 19 stocks with at least 84 monthly observations from January 2010 to December 2016. The sample comprises clubs from Denmark (four), Italy (three), Portugal (three), Turkey (three), England (one), France (one), Germany (one), the Netherlands (one), Scotland (one) and Sweden (one). The stock prices were taken from Macrobond. The share prices were denominated on a EUR basis and adjusted for capital actions and dividends. While we could not make sure that we included all listed European football club stocks, our sample of traded stocks was collected from prominent sources.

The Morgan Stanley Capital International (MSCI) European stock market index was our proxy for the market portfolio. We continuously calculated compounded excess returns on a monthly basis for each club and the market portfolio proxy. Given the practice of evaluating industry-specific stocks by benchmarking on sectoral indices, the STOXX Europe Football Index was also used for investigation. The one-month Euro LIBOR interbank rate was used as the risk-free interest rate to compute excess returns, i.e. subtracting the risk-free interest rate from the actual return of a certain club in a given month yields its excess return.

Summary statistics of the listed football clubs are presented in Table I. The monthly mean excess returns on football clubs fall into the range of 2.05 percent (Borussia Dortmund) to −2.80 percent (AGF Kontraktfodbold). Note that the clear majority of mean
excess returns are negative (13 out of 19). The monthly mean excess return on the STOXX Europe Football Index is negative as well (0.12 percent) and the MSCI Europe monthly mean excess return amounts to 0.66 percent. The monthly standard deviation of the football clubs ranges between 3.96 percent (Ajax Amsterdam) and 22.09 percent (Aalborg Boldspilklub).

The huge differences in volatility between the football clubs are also mirrored in the enormous differences that can be seen when comparing the range between minimum and maximum excess return. The standard deviations of the STOXX Europe Football Index and the MSCI Europe are substantially lower and amount to 5.74 and 3.65 percent, respectively.

The same tendency can be found for the range between minimum and maximum excess return. Another observation is that the skewness for the football clubs is predominantly positive. Investors prefer investments that are positively skewed because this indicates that the excess returns occur in a greater magnitude and with a higher probability than that implied by the normal distribution. Furthermore, the kurtosis is greater than 3 in most instances. This points to a higher likelihood of an extreme event compared to the normal distribution (fat tails). Specifically, a kurtosis above three implies that the distribution has a higher peak around the mean and fatter tails. Looking at the Jarque–Bera test statistic, the null hypothesis of a normal distribution must be rejected in most of the cases at the 1 percent significance level for the excess returns of the football clubs.

### Table I. Summary statistics of excess stock returns

<table>
<thead>
<tr>
<th>Team</th>
<th>Observations</th>
<th>Mean (%)</th>
<th>SD (%)</th>
<th>Minimum (%)</th>
<th>Maximum (%)</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>Jarque–Bera</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aalborg Boldspilklub</td>
<td>84</td>
<td>-1.74</td>
<td>22.09</td>
<td>-83.24</td>
<td>94.10</td>
<td>0.50</td>
<td>10.46</td>
<td>198.31***</td>
</tr>
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<td>AGF</td>
<td>84</td>
<td>-2.80</td>
<td>13.25</td>
<td>-25.34</td>
<td>45.47</td>
<td>1.16</td>
<td>5.11</td>
<td>34.33***</td>
</tr>
<tr>
<td>Kontraktfodbold</td>
<td>84</td>
<td>-0.68</td>
<td>12.32</td>
<td>-30.65</td>
<td>54.44</td>
<td>1.10</td>
<td>7.67</td>
<td>93.28***</td>
</tr>
<tr>
<td>Ajax Football</td>
<td>84</td>
<td>0.73</td>
<td>4.06</td>
<td>-7.04</td>
<td>18.93</td>
<td>1.56</td>
<td>9.00</td>
<td>160.04***</td>
</tr>
<tr>
<td>Arsenal London</td>
<td>84</td>
<td>-0.25</td>
<td>15.85</td>
<td>-38.15</td>
<td>104.95</td>
<td>3.39</td>
<td>24.63</td>
<td>1798.04***</td>
</tr>
<tr>
<td>AS Roma</td>
<td>84</td>
<td>-1.16</td>
<td>18.10</td>
<td>-47.57</td>
<td>69.30</td>
<td>1.31</td>
<td>7.63</td>
<td>72.78***</td>
</tr>
<tr>
<td>Benfica Lissabon</td>
<td>84</td>
<td>0.36</td>
<td>16.77</td>
<td>-49.94</td>
<td>57.77</td>
<td>0.77</td>
<td>5.40</td>
<td>28.36***</td>
</tr>
<tr>
<td>Besiktas Istanbul</td>
<td>84</td>
<td>0.20</td>
<td>10.30</td>
<td>-20.14</td>
<td>57.40</td>
<td>1.47</td>
<td>9.69</td>
<td>186.91***</td>
</tr>
<tr>
<td>Borussia</td>
<td>84</td>
<td>-2.73</td>
<td>21.35</td>
<td>-100.00</td>
<td>92.12</td>
<td>-0.64</td>
<td>17.19</td>
<td>710.77***</td>
</tr>
<tr>
<td>Brondby IF B</td>
<td>84</td>
<td>-0.82</td>
<td>7.55</td>
<td>-31.13</td>
<td>23.98</td>
<td>-0.36</td>
<td>6.26</td>
<td>38.91***</td>
</tr>
<tr>
<td>Celtic Glasgow</td>
<td>84</td>
<td>1.23</td>
<td>8.19</td>
<td>-11.26</td>
<td>60.10</td>
<td>4.79</td>
<td>39.90</td>
<td>3663.031***</td>
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<td>84</td>
<td>0.70</td>
<td>10.94</td>
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<td>25.96</td>
<td>0.07</td>
<td>3.37</td>
<td>0.54</td>
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<tr>
<td>FC Porto</td>
<td>84</td>
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<td>17.91</td>
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<td>11.47</td>
<td>-69.33</td>
<td>37.56</td>
<td>-2.01</td>
<td>18.61</td>
<td>909.37***</td>
</tr>
<tr>
<td>Istanbul</td>
<td>84</td>
<td>0.62</td>
<td>15.09</td>
<td>-33.69</td>
<td>94.78</td>
<td>2.88</td>
<td>19.69</td>
<td>1091.15***</td>
</tr>
<tr>
<td>Juventus Turin</td>
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<td>0.50</td>
<td>10.80</td>
<td>-36.46</td>
<td>38.25</td>
<td>0.57</td>
<td>8.99</td>
<td>36.74***</td>
</tr>
<tr>
<td>Lazio Rom</td>
<td>84</td>
<td>-0.89</td>
<td>14.89</td>
<td>-31.62</td>
<td>45.73</td>
<td>0.87</td>
<td>4.27</td>
<td>16.41***</td>
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<tr>
<td>Olympique</td>
<td>84</td>
<td>0.72</td>
<td>15.48</td>
<td>-30.29</td>
<td>39.31</td>
<td>0.14</td>
<td>3.68</td>
<td>1.91</td>
</tr>
<tr>
<td>Olympique</td>
<td>84</td>
<td>-0.12</td>
<td>5.74</td>
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<tr>
<td>Sporting Lissabon</td>
<td>84</td>
<td>0.66</td>
<td>3.65</td>
<td>-10.85</td>
<td>7.98</td>
<td>-0.54</td>
<td>3.45</td>
<td>4.75*</td>
</tr>
</tbody>
</table>

Notes: This table shows the summary statistics (number of observations, mean continuously compounded excess return, standard deviation, minimum return, maximum return, skewness, kurtosis and Jarque–Bera test of normal distribution) of the listed European football clubs and the MSCI Europe, as well as the STOXX Europe Football equity indexes. Excess returns are calculated by subtracting the actual one-month Euro LIBOR interbank rate from the actual return. All figures are on a monthly basis. The sample period lasts from January 2010 to December 2016. *,**,***Statistically significant at the 10, 5 and 1 percent levels, respectively.
5. Results

Table II shows the results of market model regressions of Equation (2) with the MSCI Europe stock market index as the proxy for the market portfolio.

Looking first at the values of the $\alpha$, which indicate possible mispricing of football clubs when they are different from 0, the clear majority (13 out of 19) of the $\alpha$ coefficients show a negative sign, indicating an overvaluation. However, only the alpha coefficient of AGF Kontraktfodbold is statistically significant at the 5 percent level. According to the Wald test, it can be rejected at the 10 percent level so that the average $\alpha$ of all football clubs is equal to 0.

Next, we turn to the estimated $\beta$ coefficients. A first observation is that the vast majority (11 out of 19) of the $\beta$ coefficients are not significantly different from 0. The values of $\beta$ range between 0.05 (Arsenal London) and 1.02 (Benfica Lisbon). Furthermore, almost all the $\beta$ coefficients are clearly below 1 (16 out of 19), indicating a comparatively weak sensitivity to the general market movement. A group of three clubs (Benfica Lisbon, Fenerbahce Istanbul and Olympique Lyonnais) have a $\beta$ around 1. The weaker sensitivity to general market movements is also reflected in the $\beta$ value of 0.57 of the STOXX Europe Football Index. The Wald test states that the hypothesis that the average $\beta$ value of all football clubs equal to 1 can be rejected at the 1 percent level.

Another interesting measure is the coefficient of determination, $R^2$. It indicates how much of the return variance of the listed football clubs can be explained by the variance of the general stock market. The values for the $R^2$ range between 0.00 (Aalborg Boldspilklub, AGF Kontraktfodbold, AIK Football, Arsenal London, Celtic Glasgow, and Trabzonspor) and 0.11 (Olympique Lyonnais). In most of the cases, the $R^2$ is rather low. For 16 clubs, it is not greater than 0.1. In six of these cases, it is less than 0.01. It is interesting to note that the $R^2$ for the STOXX Europe Football Index (0.14) is greater than the maximum $R^2$ for a single

<table>
<thead>
<tr>
<th>Team</th>
<th>$\alpha$</th>
<th>$\beta$</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aalborg Boldspilklub</td>
<td>−0.0188 (0.0243)</td>
<td>0.21 (0.6396)</td>
<td>0.00</td>
</tr>
<tr>
<td>AGF Kontraktfodbold</td>
<td>−0.0296** (0.0145)</td>
<td>0.25 (0.3850)</td>
<td>0.00</td>
</tr>
<tr>
<td>AIK Football</td>
<td>−0.0073 (0.0136)</td>
<td>0.08 (0.3681)</td>
<td>0.00</td>
</tr>
<tr>
<td>Ajax Amsterdam</td>
<td>0.0007 (0.0042)</td>
<td>0.34*** (0.1125)</td>
<td>0.10</td>
</tr>
<tr>
<td>Arsenal London</td>
<td>0.0069 (0.0045)</td>
<td>0.05 (0.1212)</td>
<td>0.00</td>
</tr>
<tr>
<td>AS Roma</td>
<td>−0.0075 (0.0172)</td>
<td>0.75 (0.4665)</td>
<td>0.03</td>
</tr>
<tr>
<td>Benfica Lissabon</td>
<td>−0.0184 (0.0185)</td>
<td>1.02* (0.5292)</td>
<td>0.10</td>
</tr>
<tr>
<td>Besiktas Istanbul</td>
<td>0.0015 (0.0184)</td>
<td>0.35 (0.4986)</td>
<td>0.01</td>
</tr>
<tr>
<td>Borussia Dortmund</td>
<td>0.0162 (0.0118)</td>
<td>0.65*** (0.3186)</td>
<td>0.05</td>
</tr>
<tr>
<td>Brondby IF B</td>
<td>−0.0327 (0.0233)</td>
<td>0.82 (0.6316)</td>
<td>0.02</td>
</tr>
<tr>
<td>Celtic Glasgow</td>
<td>0.0116 (0.0090)</td>
<td>0.12 (0.2445)</td>
<td>0.00</td>
</tr>
<tr>
<td>FC Copenhagen</td>
<td>−0.0108 (0.0082)</td>
<td>0.39* (0.2214)</td>
<td>0.04</td>
</tr>
<tr>
<td>FC Porto</td>
<td>−0.0114 (0.0119)</td>
<td>0.52 (0.3218)</td>
<td>0.03</td>
</tr>
<tr>
<td>Fenerbahce Istanbul</td>
<td>−0.0150 (0.0193)</td>
<td>0.98* (0.5242)</td>
<td>0.05</td>
</tr>
<tr>
<td>Juventus Turin</td>
<td>−0.0067 (0.0124)</td>
<td>0.39* (0.3365)</td>
<td>0.03</td>
</tr>
<tr>
<td>Lazio Rom</td>
<td>0.0025 (0.0165)</td>
<td>0.56 (0.4467)</td>
<td>0.02</td>
</tr>
<tr>
<td>Olympique Lyonnais</td>
<td>−0.0116 (0.0112)</td>
<td>0.96*** (0.3040)</td>
<td>0.11</td>
</tr>
<tr>
<td>Sporting Lissabon</td>
<td>−0.0144 (0.0161)</td>
<td>0.82* (0.4558)</td>
<td>0.04</td>
</tr>
<tr>
<td>Trabzonspor</td>
<td>−0.0077 (0.0171)</td>
<td>0.07 (0.4624)</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Wald test on average $\alpha = 0$
Wald test on average $\beta = 1$

STOXX Europe Football Index $-0.0050 (0.0059)$

Note: This table shows the results of market model regressions using the MSCI Europe equity index as a proxy of the market portfolio. The estimation uses Zellner’s (1962) SUR technique. The standard errors of the estimated coefficients are presented in the parentheses. The sample period ranges from January 2010 to December 2016. **,***,****Statistically significant at the 10, 5 and 1 percent levels, respectively
club even though the overlap between the index portfolio and the clubs in the sample is rather large. As this aspect is related to risk composition, the following complementing numbers are also of interest: decomposing the total risk yields for the sample stocks, the systematic risk is 1.84 percent on average and the unsystematic risk is 13 percent. The respective figures for the STOXX Europe Football Index are 2.08 and 5.32 percent, respectively.

Since some clubs belong to the same country, it is also interesting to explore if there are any country patterns in the results. Indeed, the result for the four Danish clubs is rather homogenous; for all clubs, the $\beta$ coefficients (except for Brøndby IF B) are on a similar level. The three Portuguese clubs also form a homogenous group, as all of them show comparatively high $\beta$ coefficients. The same applies to the three Italian clubs. For the three Turkish clubs, no uniform patterns can be observed.

Finally, we implemented two unreported robustness checks. In the first robustness check, we repeated the calculations by using the respective MSCI country index consisting of large, mid and small-cap stocks as a proxy of the market portfolio instead of the MSCI Europe Index which only covers large and mid-cap stocks. Apart from slightly higher values of $R^2$, which come as no surprise, the results did not change substantially[4]. The second robustness check deals with the impact of return outliers. For this purpose, we run robust regressions using Huber’s (1973) M-estimator as a robust alternative to obtain estimates for $\alpha$ and $\beta$. Looking at the $\alpha$ coefficients, the results show a stronger tendency that football stocks tend to be overvalued than our main SUR calculations. With respect to the estimated $\beta$ coefficients and the $R^2$, the results did not change substantially[5].

6. Discussion
The valuation hypothesis is supported by empirical evidence. $H1$ stated that football stocks are overvalued compared to standard valuation benchmarks. This is in line with our reasoning that the bidding behavior of investor groups that derive extra benefits from holding football stocks in addition to dividends and share price appreciation cause an overvaluation. If one accepts the CAPM as an appropriate analytical framework, the results for the $\alpha$ values indicate an overvaluation of 13 out of the 19 sample clubs. For the entirety of the sample, the Wald test found a statistically significant overvaluation.

The overvaluation figured out from the data also supports the reasons for this overvaluation given in $H1$. However, overvaluation is also consistent with other explanations. Our explanation assumes rational investors who calculate the maximum price they are willing to pay for the stock by considering standard valuation models like the DDM or the Markham model, and the extra benefits that come from stock ownership. But capital market research shows that not all investors behave rationally all the time (see Hirshleifer, 2015, for a recent survey on behavioral finance). For instance, investors could be subject to specific biases, heuristics and framing effects. Examples could be excessive optimism (about future benefits), overconfidence about ability and knowledge (might particularly apply to strategic investors and their ability and knowledge to actually generate the assumed extra benefits for their company), and confirmation bias (selective perception of information in favor of the investment in the club) (see Shefrin, 2018 for these and further examples of irrational behavior). Apart from that, football might be an industry about which investors are more emotionally concerned than usual, making irrational behavior more likely (see the effects of the archrival’s results documented by Demir and Rigoni, 2017).

Irrespective of the specific reasons for the overvaluation, it can be stated that our results are in line with those of Aglietta et al. (2010). They found out that investment in football stocks, proxied by the DJ STOXX Football Index, offers risk-return combinations inferior to other investment alternatives and is, thus, unattractive to institutional investors. In our
classification, institutional investors would be financial investors. According to our results, financial investors should be careful regarding investments in football stocks, as these lack extra sources of benefits besides dividends and share price appreciation from holding the stock to compensate for paying a purchase price that is too high.

The main part of the risk hypothesis stated that the systematic risk of football stocks is low (H2a). There is good support for this hypothesis for most of the clubs in the sample, i.e. for the clubs with a $\beta$ value clearly below 1 and a low value of $R^2$. These results are also in line with the explanation developed for $H1$ that the football sector is a sealed-off industry in which supply and demand are not so much influenced by general factors.

Put differently, the low systematic risk of football stocks means that much of the risk is specific risk. Specific risk is often divided into company-specific risk and industry-specific risk. The fact that the value of $R^2$ for the Euro STOXX Football Index (0.14) is much higher than the $R^2$ values for the single stocks indicates that the company-specific risk is of considerable size. That is because the index portfolio is hardly exposed to any company-specific risk: the risk has been eliminated via diversification. The only unsystematic risk left for the index portfolio is more or less industry-specific risk. This interpretation of the data is supported by the figures for risk decomposition given above, which indicate a much lower degree of unsystematic risk for the index (5.32 percent) than for the sample shares on an average (13.00 percent).

Partly, the results of the risk profile also provide some support for the view on the investors in the football sector. These results might be explained by an increasing role of noise traders (Aabo et al., 2017, and the literature cited therein) in the form of patron and fan investors. Aabo et al. (2017) examined the market efficiency implications of firm-specific return variation measured by absolute idiosyncratic volatility. They found evidence that the absolute idiosyncratic volatility displays a positive and robust relationship with mispricing, which reflects an increasing role of noise traders. The terms “noise” and “noise trader” were coined by Black (1986). In its original meaning, “noise trader” describes an investor who makes decisions regarding buying and selling shares without using fundamental data. Sometimes, patron and fan investors may not make their investment decisions based on fundamental data. Since patron and fan investors hold a significant stake in football clubs, this could provide an explanation for these results.

The fact that the returns of stock-listed football clubs are afflicted with a relatively high share of non-systematic or specific risk is also relevant for investors. They can eliminate a huge part of the total risk of football stocks by forming a portfolio. A low $\beta$ makes investments in listed football clubs more attractive for investors from a diversification perspective.

How does $H2b$ fit into the picture, which stated that above-average levels of operational and financial leverage in the football industry causes, ceteris paribus, higher $\beta$s for football stocks? The effect of both financial and operating leverage on a stock’s $\beta$ can be considered as an established fact in finance (see references above). The fact that both the leverages are above-average in the football industry, whereas the $\beta$ values in our results are quite low, support the idea that the $\beta$ values adjusted for the effect of the leverages would be even lower compared to the average market with average leverage ratios. Thus, taking the effect of the two leverages into consideration, the argument that the listed football industry, as a sealed-off sector, plays by its own rules gets further support.

7. Conclusion

7.1 Results and contribution

Based on theoretical reasoning and empirical results from the extant literature, this paper developed hypotheses regarding the valuation and the risk profile of listed football clubs and tested these hypotheses on a sample of 19 listed European football clubs. Thus, the contribution of this paper to research is, first, the discussion of different kinds of
shareholders in football clubs and their bidding behavior, and, second and foremost, the empirical analysis using an established approach from financial research. To the best of the authors’ knowledge, this kind of empirical investigation has not been conducted in the context of football before. Applying a CAPM framework, the results indicate that the majority of the football clubs (13 out of 19) are overvalued. This is in line with our discussion of investor types buying football club shares. Apart from financial shareholders, all other kinds of shareholders (strategic, patron and fan investors) derive extra benefits from owning football stocks in addition to dividends and share-price appreciation and would, thus, be willing to bid higher prices, leading to overvaluation, when measured with conventional standards. The storyline building on investor types that take into account extra benefits while determining their bidding behavior is also in line with the view that the football sector is only weakly linked with the general business cycle and plays by its own rules. This view is supported by the risk profile of football stocks, measured with $\beta$ and $R^2$: For most of the football stocks, the effect of general market developments on their prices is rather weak, which means that the $\beta$ values are usually clearly below one and that the total risk of football stocks includes a huge portion of unsystematic risk that can be eliminated via diversification.

7.2 Research implications, limitations and opportunities for future research
The results imply that football stocks are special in terms of their valuation and risk profile. As trading, both publicly (on the exchange) and privately, in football stocks can be assumed to grow further in the future, this field offers research opportunities with a strong practical relevance. As in most cases, opportunities for future research are closely connected to the limitations of the study at hand. Two will be discussed in some detail. First, the CAPM is an established theory in finance with a convincing theoretical foundation. Nevertheless, it has been criticized to be a single-factor model in which shareholders can only expect a return higher than the risk-free rate when they bear a general market risk. Though its theoretical foundation is weaker, a three-factor model has also become widespread in finance. In addition to the general market risk, the three-factor model also considers risk premiums for small firms and for firms with a high book-to-market ratio (Fama and French, 1995, 1997). Sometimes, momentum is added as a fourth factor (Carhart, 1997). Applying the three-factor or four-factor model to football stocks could provide further evidence about valuation and risk profile. Second, stock prices reflect the aggregated bidding behavior of all investors. However, theoretical discussion suggests that there might be different kinds of investors in football clubs. For our empirical analysis, this was not such a grave problem, as reasoning for three kinds of investors pointed at the same direction, i.e. they would all be willing to bid more than what is justified by expected dividends and share-price appreciation. Nevertheless, a separate analysis of the bid-formation process for each investor type would be quite a promising next step. Possibly, interviews and experiments could be useful instruments to advance research. Regarding valuation and performance of listed football clubs, one of the reviewers proposed a further research opportunity, i.e. contrasting actual outcomes with the views of stock analysts and other industry experts.

7.3 Managerial implications
For the investors, the overvaluation, when only dividends and share price appreciation are considered, should be a reason to scrutinize carefully whether the extra benefits they expect to derive from holding the football stocks at least compensate for paying the inflated share price. Moreover, the investors should really consider diversifying their portfolio. A huge part of football stocks’ total risk can be eliminated via diversification. For the clubs, our results provide good arguments for using equity financing. If the investors point to the high total risk of football stocks and demand higher returns, i.e. lower share prices, when new
shares are issued, the clubs simply need to mention the low \( \beta \) and the fact that much of the risk is diversifiable to justify higher share prices. Put differently, according to the risk profile, the costs of equity for football clubs should be comparatively low. This is even more the case when the clubs can issue the shares at overvalued (according to the CAPM) prices. However, the clubs should also know that the extra benefits the shareholders are assumed to derive by holding the shares and, which cause the overvaluation, might be (hidden) extra costs for the clubs. These must be added to the costs of equity to get a complete picture. For instance, a strategic investor might use its investment to block attractive opportunities for the club to safeguard its interests. For example, Adidas might use its stake in Bayern Munich to block attractive offers by other equipment providers like Nike. Similar examples for patron and fan investors can be easily sketched as well. Thus, football clubs would also profit very much if research generates more knowledge about the demand functions for the stocks of different kinds of investors.

Notes
1. Applying legal terms strictly, one would have to speak of football corporations instead of football clubs as being listed, as a listing necessarily requires the legal form of a corporation. However, following common parlance, we use the term “club” throughout the text, except where indicated, in a general sense but not in its specific legal meaning.
2. Collective investment vehicles like supporters’ trusts could be a means for (small) fan investors to hold a stake in an unlisted football club. However, this train of thought goes beyond the scope of this paper. On supporters trusts, see, for example, Kelly et al. (2012) and Ruoss (2009).
4. Our results for Borussia Dortmund and Brøndby IF are directly comparable with those of the single-club studies by Stadtmann (2006) and Jørgensen et al. (2012), respectively. They are similar for Brøndby (negative alpha values, comparatively high beta values), but partly different for Dortmund (Stadtmann calculated a negative value of alpha, whereas ours is positive). However, as sample periods, proxies for the general market, and model specifications differ, a comparison of our findings with the results of the two other studies is only partly meaningful. On the contrary, it highlights the advantages of the study at hand as it analyzes all clubs following the same standard.
5. For the sake of brevity, we make the respective results available upon request from the authors.

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Event sport tourism business models: the case of trail running

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Abstract

Purpose – Sporting events are the core of sport tourism. However, when it comes to business models (BM) in the context of event sport tourism, that is, how value is created and delivered at events, there is an obvious lack of research. The purpose of this paper is to deepen the understanding of BMs in the specific context of event sport tourism.

Design/methodology/approach – Focusing on trail-running sport events which are rapidly growing in popularity, the paper assesses actual events relative to the existing conceptual BM framework by using the analytical possibilities of the multiple-case study and by applying the interview and observation methods.

Findings – The results indicate that the core logic of the examined event-related sport tourism practices is very similar, although there are some significant differences. In addition, this study raises questions concerning potential modifications within the applied framework. Primarily, these relate to the partner network being identified as a second-order theme and an independent BM category and, communication with stakeholders (primarily with competitors), as a key process within the event BM.

Originality/value – This paper focuses on under-researched topics in the context of tourism, that is, the BM concept in relation to event sport tourism in general and trail-running sport tourism in particular. The paper provides a better understanding of the BM concept as a whole, and trail-running event sport tourism suppliers could benefit from the research findings by potentially avoiding business mistakes.

Keywords Business models, Event sport tourism, Trail running

Paper type Research paper

Introduction

The EU recognizes sport as a strong driver of economic growth. Sport contributes €294bn to EU gross value added and employs 4.5m people. The tourism industry benefits from an annual 12–15m sport-related international trips (European Commission, 2014, p. 3) and from the development and sales of other sport-related tourism products. The perspectives on sport and the perspectives on tourism cannot be ignored in researching sport tourism (Weed, 2009a) due to the fact that it undoubtedly derives from both. Indeed, the findings of studies that approach the aforementioned perspectives separately can only be partial (Weed and Bull, 2009).

There are as many niches of sport tourism as there are sports. Taking on a variety of specific forms due to combining experiences and performance orientation, sport tourism products are challenging tourism providers to excel while the monetary value of such products exceeds the ones of the general tourism orientation. Sport events are no exception as they generate the largest sport-motivated tourist flows. Active sport tourists are especially sensitive to the quality of a sport-specific tourism product and its elements. It is thus fundamental that service providers (i.e. sport event organizers) consciously approach

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all tangible and intangible elements of a sport tourism product and its value. More precisely, they need to be familiar with their organization’s business model (BM).

Although there is a lack of consensus regarding the definition of a BM and, in particular, regarding the elements of a BM, most academics and practitioners agree a BM can be considered as a bigger picture of an organization’s business. Linking strategy with operations, BMs describe and explain the attributes of a business in order to better understand how the business works (Johnson et al., 2008; Zott et al., 2011; Roome and Louche, 2016). Despite constant development in the field, there is a lack of BM research in the context of tourism, especially sport tourism.

The purpose of this paper is to deepen the understanding of BMs in the specific context of event sport tourism, by assessing the BMs of a sample of trail-running sport events. The research is based on the theoretical framework of a sport tourism BM, in adherence to which the actual events were assessed by using the analytical possibilities of the multiple-case study, applying the interview method, complemented by observation.

In line with the objective of the paper – to study sport tourism BMs in the context of trail running, the structure of this research paper consists of three main parts, in addition to the introduction and conclusion. Theoretical background aims at giving a short overview of the existing body of knowledge in the fields of sport tourism and sport events, BMs in relation to tourism, and trail running. The section entitled Research design and methodology follows the research logic by identifying the research scope, the theoretical framework utilized as the research base and the data collection and analysis techniques. In Results and discussion, the authors present the outcomes of the conducted research, together with conclusions on the relationships and patterns of BMs (and their elements) in trail-running events.

Theoretical background

Sport tourism (events)

Changing demographics of tourism demand and the evolution of lifestyles has allowed sports activities to become an increasingly important component of global tourism. “Alternative experience” seekers have emerged as a complex and sophisticated type of sport tourism demand. The role of sport tourism in the lives of participants takes many forms (e.g. Wheaton, 2004), playing an important role in shaping actual lifestyles and the projections of lifestyles of sport tourists (Weed, 2009b).

Although many potential categories of sport tourism have been identified (e.g. Hinch and Higham, 2004; Kurtzman and Zauhar, 2003; Weed and Bull, 2009) in addition to events, Deery et al. (2004, p. 235) argued that “sport tourism is essentially event tourism.” Sport events are an intricate and very specific tourism demand generator due to the variety of impacts their realization implies. Since this field was established in the last decade of the twentieth century, much academic interest has been focused on researching the largest (“mega”) sport events (e.g. Kenyon and Bodolet, 2018; Knott et al., 2015; Liu et al., 2017; Muller, 2017; Reis et al., 2017). However, it is important to note that “smaller” events do not lack the power to attract tourists (McKelvie and McKelvie, 2004), although on a proportionally smaller scale.

Hall (1989) argued that regional events surpass the larger events in the level of authenticity and indigeneity of experience (as cited in Reeves, 1999, p. 80). Other studies also confirm small-scale sport tourism events to be a viable and sustainable form of tourism on a local level (Duglio and Beltramo, 2017; Gibson et al., 2012). From the perspective of tourism destinations, the “value” of sport events for a destination depends on the desired outcomes and the way of evaluating achievements. Moreover, outdoor sports are often regarded as a territorial resource (Hautbois et al., 2009; Perrin-Malterre, 2018).

For the sport tourist, event participation results in both the travel and the event experience (Getz, 2008), while attempting to satisfy the needs, expectations and motivations
that encouraged participation. Sport tourists and the participants of sport events are fundamentally divided into active and passive participants (Getz, 2008; Gibson, 1998, 2006; McKelvie and McKelvie, 2004). More precisely, sport event tourism demand is made up not only of competitors but also of officials, entourage, suppliers, event management, staff members or spectators, media representatives and VIPs (Masterman, 2004). Nonetheless, the intent to participate in a sport event (regardless of the manner in which the participation is realized) is common to all participant groups.

A decade ago sport tourism research recognized the need to “move beyond the level of events toward an understanding of the processes that produce them” (Downward, 2005, p. 315). There have been some interdisciplinary and multidisciplinary contributions to understanding the underlying processes within different types of events, but not through the lens of BMs.

**Business models in tourism**

The underlying logic within BMs refers to value – how value is created, delivered and captured (Abdelkafi and Tauscher, 2016; Johnson et al., 2008; Osterwalder et al., 2005; Perić et al., 2017a, b; Roome and Louche, 2016; Zott et al., 2011). In tourism as a traditional service sector, this process of creating and capturing value (for both consumers and providers) is more complex due to the immaterial character of the tourist experience which is the ultimate value tourists are seeking (Klaus and Maklan, 2011; Perić and Wise, 2015; Prahalad and Ramaswamy, 2004; Souto, 2015).

Most of the research on BMs in tourism is focused on e-tourism, travel agencies and BM innovation (e.g. Chen and Yung, 2004; Corigliano and Baggio, 2004; Joo, 2002; Ping, 2010; Rayman-Bacchi and Molina, 2001; Sigala and Marinos, 2009). BMs in tourism should be customer oriented and should support the firm’s overall strategy (Kandampully, 2006). Value proposition, target customer, revenue model and cost control are among the key BM elements (Coles et al., 2016; Mosleh et al., 2015; Runfola et al., 2013) that require dynamic handling so that the incremental innovation of BM elements might lead to the competitive advantage of a tourism company (Souto, 2015).

Despite the aforementioned theoretical and practical considerations, sport tourism in general and event sport tourism in particular have just recently been integrated with the BM concept. Perić and Wise (2015) juxtaposed the BMs of two firms in sport tourism and argued that different BM approaches – different resources and processes – are capable of delivering fairly homogenous (tennis) experiences. Perić et al. (2016) offered an innovative conceptualization of BMs for sustainable sport tourism. In comparison with various BM frameworks suggested by other authors, this proposal includes five new elements (experience, safety, security, environment and environmental protection) that have been only marginally recognized in previous contributions. This innovative BM approach consists of 27 different elements within four broader categories – namely, value proposition, key resources, key processes and value capture. Also, a new service research agenda has been proposed (Perić, Wise and Dragićević, 2017), linking the concepts of BMs, sport tourism experiences and sport management. However, the implementation of BMs in sport tourism in general, and BMs of sport events in particular, remains under-researched. There are no studies directly examining BMs within the context of event sport tourism, but some conclusions could be drawn indirectly from research on sport event experience generation. Arising as a subjective interpretation of organizational, infrastructural and environmental event attributes within the context of sport tourism (Funk, 2017; Harrison-Hill and Chalip, 2005; Kaplanidou and Vogt, 2010), sport event experiences were often conceptualized next to event preferences and consumer choice, service quality and event satisfaction and behavioral loyalty as well (e.g. Buning and Gibson, 2016a, b; Du et al., 2015; Getz and McConnell, 2011; Ko et al., 2011; Newland and Aicher, 2018; Yoshida, 2017; Yoshida and
In this regard, distinct event attributes can be considered the building blocks of a sport event’s BM, contributing to value creation and delivery. Still, more research is needed to better understand the analytical possibilities of a BM concept within this particular area of research.

**Trail-running: the current momentum**

As previously stated, sport event studies often focus on participants’ experience in relation to event preferences, service quality, derived satisfaction and event loyalty. Regardless of the difference in the size of events (from small local to large international events), the focus in research on running events is found to prevail on the demand side. Nevertheless, the majority of these studies offer practical implications for the supply side of the market (event organizer, destination, etc.) as well.

The bulk of researcher attention is paid to event loyalty and recurring participation. Some papers focus on service (event) aspects (Alexandris *et al.*, 2017; Schoemaker and Tinaz, 2015). Others highlight the variety of impacts on runners’ involvement in activity and event participation (Koronios *et al.*, 2016, 2018) by focusing on key drivers of intention to revisit (Hallmann and Wicker, 2012) and/or psychological determinants like life satisfaction derived from event participation (Sato *et al.*, 2015; Zhou *et al.*, 2018) and by comparing the motivation of residents and tourists (Aicher *et al.*, 2015).

Most trail-running studies also focus on the demand side of the market. Different perspectives to researching the motivation to participate in trail-running events and get involved in this activity are found in the existing studies, which either focus solely on trail runners (Farias Torbidoni *et al.*, 2015; Nagai and Take, 2018) or compare them to participants in different sports (Getz and McConnell, 2014; Hodeck *et al.*, 2018). The contribution of nature sport events to the development of tourism destinations is researched in greater depth by Duglio and Beltramo (2017) and Perrin-Malterre (2018) who investigated the economic and social impacts of this kind of sport (events). The aspect of trail running’s ecological impact is also not neglected in the existing body of literature (Cernaianu and Sobry, 2015; Juliao *et al.*, 2018; Ng *et al.*, 2018).

Trail running is an outdoor sport, the unique experience of which derives from the genuineness of the landscape and the simplicity of enjoying nature while also challenging one’s mind and body. Undoubtedly, trail running is getting more and more commercialized. Rapidly growing in popularity, trail-running event experiences are shaped by the behavior of a variety of stakeholders – the runners, the organizers and the public. The fact is that different organizers approach event execution differently. Nevertheless, because they deal with a demand niche of similar preferences (trail running in this case), all events have in common the key components of the perceived experience (for the participant) at the least, regardless of whether the event organizers recognize those key components as a BM or not.

**Research design and methodology**

The aim of the empirical part of this research was to study the BMs of trail-running events. Because of the scant number of studies on sport event BMs and none on trail running, and after evaluating the multitude of trail-running events being offered, the authors chose a convenience sample of three specific events, differing in scope, international recognition, orientation and location.

The authors opted to study the 100 Miles of Istria, one of the world series internationally recognized trail races; the Ultra Trail Vipava Valley (UTVV), a national trail-running race that has emerged in recent years and is growing in importance; and the Risnjak Trail, a well-established event that is part of a regional series and does not strive for mass participation. The sampling is justified by the variety of trail-running event types and the need for the most common ones to be represented in this research.
The analytical potential of multiple-case study in real-life contexts (Yin, 2009) is considered an appropriate tool in examining the BMs of the chosen sample and comparing the models to the theoretical concept and to each other, while taking into consideration the setting of the events although it can be difficult to separate the outdoor experience of trail running from the experience of nature in which it takes place.

Research context

The 100 Miles of Istria is an annual event organized by the company Sport Box together with the sport club SRK Alba and their partners. This partial self-sufficiency trail-running race across the Istrian peninsula has a six-year tradition and has been one of the Ultra-Trail® World Tour races since 2017. In the 2017 edition, athletes from 37 different countries participated in the race. In 2018, besides the longest course (RED – 168 km) which gives its name to the race, there were three other courses, all starting and finishing in urban areas: BLUE (110 km), GREEN (67 km) and YELLOW (41 km). There is also a kids’ race during the four-day race program. The identity of the race and its realization are inextricably connected to Istria – one of Croatia’s most prominent tourist regions, which offers a variety of coastal and inland destinations and is also recognized by the outdoor sports and activities offering.

Vipava Valley is one of the fertile rural regions of Slovenia, situated between the Friulian lowland, the Italian border and central Slovenia. The UTVV is a Ultra trail du Mont Blanc-qualifying two-day event, made up of three courses in 2018 – 100UTWT (106-km-long UTVV), UT50 (trail marathon) and T30 (trail), also accompanied by a City Run race on the day of the event. All courses, except the latter one, are organized by the Sport Association Tura. Races are held in a medium- to high-mountain environment, but the start and finish are in urban settlements. On average, half of the participants are international.

The Risnjak Trail is one of the four events gathered under the umbrella regional trail-running brand Kvarner Trails. It takes place in June, in the protected natural area of Risnjak National Park, and will be held for the sixth time in 2018. Risnjak National Park is situated in mountainous Gorski Kotar, a naturally well-preserved but generally under-developed Croatian region, relative to its potential. Its tourism strengths lie mostly in its nature, so outdoor sport events are considered an excellent offering contribution. The event offers two courses to its participants: Risnjak (30 km) and Ris (16 km). It is a circular race, unlike the former two.

Research framework and data collection

This research is grounded in the BM framework for sustainable sport tourism, suggested by Perić et al. (2016). This innovative conceptualization of a BM consists of 27 elements within four major categories (Figure 1). The suggested BM framework is considered to be the best suited for this research because it incorporates all significant BM components in managing outdoor sport experiences.

The first category, value proposition, is considered to give an overall view of what kind of benefits (products/services and experiences) an organization provides and to whom (targeted customers). This category consists of five elements: product, service, experience, customer and safety. In the second category, key resources are the assets that will be transformed into specific benefits. This category encompasses seven elements: employees, technology, equipment, information, partner networks, environment and competencies. The third BM category, key processes, implies operational and managerial processes that ensure benefits will be delivered repeatedly and, if necessary, on a different scale. The main BM processes are product design/development/manufacturing, marketing, security, environmental protection, hiring and training, IT, sourcing/investments and rules. Finally, value capture refers to the generation of value (profit, in most cases) for the
organization itself. Elements important to this category refer to price, revenue, cost and margin model.

In addition to examining the potential application of the theoretical concept to a trail-race-specific setting, the purpose of the multiple-case study is to research and compare the BMs of the actual sport events. The scant amount of research on this specific sport has restricted this study to some extent. The analytical possibilities of the multiple-case study were supported by secondary data gathered during the desk research stage. In an attempt to realize the full context behind trail-running event execution, the authors extensively researched a variety of available information. Official race websites along with general trail-running sites made up most of the multiple online data sources. The authors consulted the available online information about the trail-running event market, as it is the same information available to runners.

Primary data were derived from interviewing key informants and from the observation of case study events. The study featured five semi-structured two-hour interviews conducted with trail-running event organizers – race directors and the core management team responsible for event strategic planning and operational execution. More precisely, three interviews were conducted with the representatives of the 100 Miles of Istria and one with the representative of the UTVV, as well as one with the Risnjak event organizer. All interviews were conducted by both authors between two event editions, from December 2017 to February 2018, using the same basic set of questions, grounded in the four BM categories according to the identified research framework – value proposition, key resources, key processes and value capture – and the 27 elements those categories incorporate. The individual course of each interview allowed for further exploration of particular strategic points of event organization and even for the collection of some insider information about the research subjects. The researchers also spent time observing operations during the selected trail-running events to gain a better understanding of planning and managing operations. The authors recorded their field notes during observations at all site visits. However, the characteristics of the researched events (primarily the length of the race courses) limited researcher presence to all segments of event execution during observation. Both interviews and observations helped identify the BM elements and outline the BMs of actual sport events, of different scope, on the example of trail-running sport. This enabled the evaluation of the theoretical framework potential in a real-life sport event context and resulted in well-founded conclusions on the topic.

**Data analyses**
The experiences, perceptions, thoughts and contemplations collected from stakeholders’ interviews and field notes relating to BM categories and individual BM elements were
analyzed by both authors independently. Multiple-case study data gathered through empirical research were grouped according to the four BM categories of the theoretical BM framework and their 27 elements (sub-categories).

The authors individually analyzed the data before generating conclusions on the relationships inside each event’s BM category and patterns across cases, facilitating deductive coding. In order to better base the conceptual and comparative conclusions of this study – on the applicability of the framework in changed conditions (specifics of trail running) – the authors discussed the findings of their individual analyses. When the authors reached a consensus and concurred on the conclusions (because of the overlapping between some BM elements, the final solution presented 23 elements within four categories), in accordance with Creswell (2012) a summary of the interview and field notes was sent to participants via e-mail to confirm notes and interpretations. The participants expressed no concerns with the content, so this validated the data. Results are detailed in the Results and Discussion part of this paper.

The value of such an approach lies in the insights gained. It was assumed that the patterns and relationships of the theoretical and actual BMs possessed certain similarities and this research, although limited in its scope, has contributed to understanding the extent of those similarities. In line with the selected research base, the BM framework (Perić et al., 2016), data emerging from the collecting procedures are exhibited under the pre-defined themes of the BM in Results and Discussion.

Results and discussion

Value proposition

The analysis within the value proposition category starts with the product – the race, and the experience it provides (see Table I). There are shorter and longer courses on all the examined events although the distances for the two ultra-trail events (100 Miles of Istria and UTVV) are significantly longer than those of the Risnjak Trail. Consequently, the 100 Miles of Istria and the UTVV are multiple-day events, also supported by a few accompanying events. In the case of the Risnjak event, the course length and the additional programs are limited by the boundaries of Risnjak National Park and the start/finish area capacity.

The key difference between the events is in International Trail-running Association (ITRA) certification. Both the 100 Miles of Istria and the UTVV take advantage of being a part of ITRA (unlike the Risnjak trail), and Istria has gained more popularity by entering the UTWT series, an elite level of trail competition. Also, the 100 Miles of Istria and Risnjak races benefit from the strong ties between the event and the region, confirming that event image and destination image are related and influence each other (Hallmann and Breur, 2010; Kaplanidou and Vogt, 2010; Pereira et al., 2015).

All races group their participants by gender and age. Regarding the number of participants, 100 Miles of Istria is the largest event (+1,300 participants), while Risnjak and the UTVV are quite similar (400–500 participants). However, organizers of the 100 Miles of Istria and the UTVV event realistically expect their events to grow in the coming years (40–50 percent more participants), while Risnjak is limited by the carrying capacity of the National Park. The analyzed races were not the first editions, and the organizers have accumulated considerable knowledge about event participants’ profiles, motivation and experiences over the years, from both the registration list data and personal acquaintance. The common characteristic of the events is that they are predominantly attended by well-trained male recreational athletes. The managing director of the Risnjak race confirmed:

Participants live healthy lifestyles with trail-running being an important part of it […] I would say they are mostly serious recreationists, many of them “want-to-be” and “serious leisure” athletes, but I am sure there are at least 3% of what I call “hard core” recreationists. (January 31, 2018)
As part of the UTWT series, the 100 Miles of Istria attracts even athletes who are classified as elite according to the ITRA performance index. In addition, at least 50 percent of the participants of all researched events are international. In this regard, the managing director of the 100 Miles of Istria race highlighted their plan for the future:

Our intention is to focus more on foreign participants since we believe both the event and the destination as a whole would benefit from more international arrivals. (December 13, 2017)

Participants’ experiences could be explained by focusing on their motivation for participating. This approach seems valid since individual motives are found to be the base for creating experiences (Weed and Bull, 2009; Klaus and Maklan, 2011; Getz and McConnell, 2014). Sport event experiences are subjective interpretations of the event context and these interpretations directly depend on personal motivation to participate in sports activities (Funk, 2017; Kaplanidou and Vogt, 2010; Perić, Wise and Dragićević, 2017; Yoshida, 2017). In this case, it is the organizers informed belief that the participants’ primary motivation is not about prizes. Instead, it is more about proving to themselves that they can do it and about enjoying the natural environment. The UTVV race director supported that claim saying “People come because of the natural environment; they want to enjoy its beauty” (January 30, 2018).

<table>
<thead>
<tr>
<th>BM category</th>
<th>BM element</th>
<th>100 miles of Istria Ultra Trail</th>
<th>Risnjak Trail</th>
<th>Ultra Trail Vipava Valley</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value proposition/Service</td>
<td>Four races (ITRA certified, a part of UTWT): RED – 171 km, BLUE – 108 km, GREEN – 69 km and YELLOW – 42 km (gender and 3 age categories); race packs for all participants; prizes for winners and finishers’ medals; refreshments and hot meal; sports fair and kids race</td>
<td>Two races (a part of Kvarner Trails series); Risnjak – 32 km and Ris – 16 km; different gender and age categories; race packs for all participants; prizes for winners; lunch; music by local performers before the start; no accompanying events</td>
<td>Three races (ITRA certified); UTVV100 – 110 km (individuals and teams); UT50 – 50 km; T25 – 25 km (National Championship) (gender and age categories); prizes for all participants and winners and finishers’ medals; refreshments and hot meal; City Run</td>
<td></td>
</tr>
<tr>
<td>Customer</td>
<td>Croatian, 60% foreign from 37 countries (≈1,800 – 2018); M &gt; F; few elite athletes (according to the ITRA performance index), others well-trained recreationists; work, healthy lifestyle</td>
<td>501 participants (50% Croatian, 50% foreign, from Slovenia and neighboring countries); M &gt; F; mostly well-trained recreationists (80%), only 2–3% hard core recreationists; usually repeat his/her visit to the event</td>
<td>434 participants (≈800 – 2018) (50% from Slovenia, 50% from abroad – Italy, Hungary, Poland, Serbia, etc.); M &gt; F; mostly well-trained recreationists, ≤5% hard core recreationists; middle age, healthy lifestyle</td>
<td></td>
</tr>
<tr>
<td>Experience</td>
<td>Main motivations to participate proving to myself (I can do it) to experience natural environment identification and belonging to the trail community</td>
<td>Main motivations to participate fun and enjoyment to experience natural environment socializing to test their own capabilities</td>
<td>Main motivations to participate the beauty of nature competition and comparison with the best good event organization</td>
<td></td>
</tr>
<tr>
<td>Safety</td>
<td>(Explanation provided within Table III under Key processes/Security)</td>
<td>(Explanation provided within Table III under Key processes/Security)</td>
<td>(Explanation provided within Table III under Key processes/Security)</td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Value proposition of the three analyzed events in 2017
What's more, the promotional online material of Kvarner Trails (of which Risnjak is a part) clearly states “Kvarner Trails. Just Nature & Running,” supporting the argument that the natural environment is not only a physical resource that sport and tourism share intensively, but also an attraction in its own right (see Bouchet et al., 2004; Han et al., 2015; Hall and Page, 2014; Hinch and Higham, 2011; Holden, 2016; MacIntosh et al., 2013). Also, according to all interviewed organizers, experiencing fun and socializing strongly determine the overall participant experience, in addition to the physical challenge. All the interviewed event organizers agreed that their focus is beyond the event itself.

Safety, another highly individual construct, also influences the individual tourist experience (Otto and Ritchie, 1996; Buning and Gibson, 2016a) and is therefore an important element of the proposed value. However, the discussion on safety issues showed that the interviewed event organizers focus on current and future activities to maintain and improve the participants' safety, activities which actually appertain to the BM category of key processes. Thus, they are analyzed in more detail in the corresponding section.

Key resources
Key BM resources analysis starts with the employee and partner network (see Table II). Sport associations are present in the organization of all studied events, but private companies are also involved (the 100 Miles of Istria and Risnjak races). Small businesses (like the ones researched) predominate in the outdoor sports economies (Langenbach and Tuppen, 2017). There are a handful of full-time employees only within private companies, while core event organization teams consist from around 10 (Risnjak and UTVV) to 30 people (100 Miles of Istria). Core teams are responsible for specific processes within event planning and realization, such as race course route, safety, press and social media operations. Also, the studied events strongly rely on volunteers, whose numbers relate to the course length – the 100 Miles of Istria and the UTVV have more than 300 volunteers.

Core teams closely cooperate with different public and private event partners as well. In line with some theoretical contributions (see Borgatti et al., 2009; Langenbach and Tuppen, 2017; Parent et al., 2017), the events’ stakeholder networks are multi-sectoral and composed of organizations connected to each other based on prior contact and exchange, affiliation or role. For instance, medical assistance and the Mountain Rescue Service are involved with regard to safety and security, while local authorities and local tourist boards help in organizing the events and, together with sponsors, provide financial support to the events. Part of the studied events’ activities is delegated to various subcontractors (e.g. time tracking, accommodation and food service). As part of the race information package (available on event websites), organizers provide the competitors with information on a variety of options regarding their travel, stay and racing. The managing director of the Risnjak race said “I think it is a good way to avoid dealing with questions regarding accommodation which is time consuming [...]” (January 31, 2018). A special feature of the Risnjak race is cooperation with the Public Institution Risnjak National Park and the provision of both accommodation (limited capacity) and meals after the race on site. Individual strategies (like the ones found at the researched events), when applied to a number of businesses, could form a “localized outdoor sports tourist system” and give an impetus to the competitiveness of the destination (Duglio and Beltramo, 2017; Langenbach and Tuppen, 2017; Perrin-Malterre, 2018).

Networking and the capacity to establish strategic partnerships with key stakeholders is crucial for activities in which the organizer does not have adequate competence and for securing the capital needed for the organization of the event (see Duglio and Beltramo, 2017; Perrin-Malterre, 2018). Long-term partnerships with key stakeholders (see partner
network above) and the acquired knowledge and experience in trail-running event organization are certainly key competences of the core organization teams. The 100 Miles of Istria proved to possess viable core competences by entering the UTWT series. The UTVV organization is still striving to do so.

The natural setting is another key resource for all events. Comprehending the physical spaces and the possible environmental influences of all parts of the sport tourism product is imperative when designing outdoor sport tourism events and experiences (Kaplanidou and Vogt, 2010; Mykletun and Rumba, 2014; Perić et al., 2016; Weed and Bull, 2009). All three events are held in specific mountainous areas. Additionally, Risnjak and 100 Miles of Istria completely or partially take place within a protected natural environment. The natural environment is not only a physical resource that sport and tourism share intensively but also an attraction in its own right (Bouchet et al., 2004; Han et al., 2015; Hall and Page, 2014; Hinch and Higham, 2011; Holden, 2016; MacIntosh et al., 2013).

### Table II.

<table>
<thead>
<tr>
<th>BM category</th>
<th>BM element</th>
<th>100 miles of Istria Ultra Trail</th>
<th>Risnjak Trail</th>
<th>Ultra Trail Vipava Valley</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees</td>
<td>Sport Box Ltd and SRC Alba; core team = three persons (full-time) + 26 persons in charge of race sectors and control points (volunteers); &gt; 400 volunteers from 13 countries</td>
<td>Ad Natura Sport Ltd and Ad Natura Association; core team = 10 persons (only one is full-time employee) + 40–60 volunteers from local area (even a few from Italy)</td>
<td>Sport Association Tura; core team: 10 persons (no full-time employees) + 300 volunteers from local area (even a few from abroad)</td>
<td></td>
</tr>
<tr>
<td>Technology</td>
<td>Information technology: official website; online pre-registration; social networks; eCHIP</td>
<td>Official website; online pre-registration; Social networks; eCHIP</td>
<td>Official website; online pre-registration; social networks; eCHIP</td>
<td></td>
</tr>
<tr>
<td>Equipment</td>
<td>Time measuring equipment (subcontracted); transport vehicles</td>
<td>Time measuring equipment (subcontracted)</td>
<td>Time measuring equipment (subcontracted); transport vehicles</td>
<td></td>
</tr>
<tr>
<td>Partners network</td>
<td>ITRA, sponsors, hospitality and media partners, public services, the Istrian Region, local authorities and tourist boards, subcontractors</td>
<td>Public Institution Risnjak National Park, local authority and tourist board, sponsors (main: Solomon), other stakeholders and subcontractors</td>
<td>Two local authorities, sponsors (Solomon, SportHG, Magnesia, etc.), local food suppliers, subcontractors</td>
<td></td>
</tr>
<tr>
<td>Environment</td>
<td>A low-mountain environment; Nature Park Učka; start and finish in urban areas</td>
<td>Risnjak National park (a medium high-mountain environment)</td>
<td>Urban and rural area (a medium high-mountain environment)</td>
<td></td>
</tr>
<tr>
<td>Competencies</td>
<td>Knowledge and experience of the core team (organization of other trail events); long-term partnerships with key partners</td>
<td>Knowledge and experience of the core team (organization of other trail events); partnerships with key stakeholders</td>
<td>Knowledge and experience of the core team; partnerships with key stakeholders</td>
<td></td>
</tr>
<tr>
<td>Information</td>
<td>Internal and external information (watch and learn from others/best practices)</td>
<td>Internal and external information (watch and learn from others/best practices)</td>
<td>Internal and external information (watch and learn from others/best practices)</td>
<td></td>
</tr>
</tbody>
</table>
Regarding technology, organizers point to their events’ official websites where online registration is realized. Without a doubt, social networks are identified as crucial in communicating with the participants. The managing director of Risnjak confirmed:

If there is any news the race participants should know about, I publish it on a social network rather than on the official event website. This way, I am sure more people will get the news and be informed. (January 31, 2018)

Furthermore, participants are obliged to collect race numbers and eCHIPs on site (the evening before the race or on the morning of the race). At all events, organizers use off-road vehicles to monitor the race and for transport. Sophisticated time measuring is outsourced. Moreover, the organizers gather relevant and timely information from both inside and outside the organization (i.e. event). In this regard, researchers noted a kind of “industrial espionage” present at all organizing teams. The UTVV race director admitted:

I often go to other events, either as a competitor or as a spectator, and I try to figure out what new practices my event could implement. Watching and learning from events that are better than we are, is the only way to improve ourselves. (January 30, 2018)

The aforementioned resources cannot exist alone and certain activities are needed which will encourage the transformation of all resources into the final products. In other words, the identified BM key resources interplay with each other through key processes, described in the next section of this paper.

**Key processes**

Findings regarding the key processes of the three studied sport events are included in Table III. The race, as the core product designed, varies each year in length and route. As soon as the event finishes, planning and designing of the next edition starts. Organizers agreed with the estimation that 70–80 percent of their work is related to event planning. The 100 Miles of Istria and the UTVV are enriched with additional programs such as shorter distance races for kids and citizens and/or a Sports Fair. At Risnjak there are no such initiatives.

Furthermore, while the core teams are stable (no new employees), volunteers supporting the organization fluctuate yearly. Thus, training is important, and organizers also conduct selection interviews with volunteers who register online on the event site, before hiring them. The managing director of the Risnjak race declared:

Lot of volunteers apply, but I want to be sure they will do their best. Therefore, I interview the applicants about their motivation. It is nice if they want to have fun, but I need to ensure the job will be done, and later we can have fun. (January 31, 2018)

Marketing activities have a special role in event and destination cognition and an event’s positioning in the market (Harrison-Hill and Chalip, 2005). Marketing activities rely on technology. The events researched are mainly promoted online and publicized in a few lifestyle and trail-running magazines. There are also occasional presentations in local newspapers and radio. Social networks are essential for short and fast communication with international audiences and participants. There is no live video streaming from the races, but there is a system of tracking the racers in real time. Also, participants are obliged to grant the copyright for their photos/videos to the organizer. Getting race sponsorship has proved to be a hard task. In the case of the 100 Miles of Istria, the organizers even pay for the right to link the race’s name to a global brand (Compressport), stating:

It is beneficial for our event to be linked to the Compressport brand and, for now, we have to pay them [referring to the Compressport] for this privilege. We hope that our event will gain more international popularity and that we could be equals and not obliged to pay for this partnership. (December 13, 2017)
<table>
<thead>
<tr>
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<th>Ultra Trail Vipava Valley</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key processes</td>
<td>Design/product development/ manufacturing</td>
<td>Modification of courses each year; surrounding events/ program (Sports Fair and Kids Race)</td>
<td>Modification of courses each year; no surrounding events</td>
<td>Modification of courses each year; surrounding events (City Run, workshop for UT runners)</td>
</tr>
<tr>
<td>Marketing</td>
<td>Promotion worldwide (online, in trail-running magazines, in Compressport magazine); competitors’ blogs; short communication via social networks; local newspapers and radio; no TV transmission; create promotion material and race summary on their own; sponsors and partners (see partners network)</td>
<td>Online promotion (social networks are a must); trail-running magazines; local newspapers and TV but no TV transmission; create promotion material and race summary on their own; few sponsors and partners (see partners network)</td>
<td>Mainly digital marketing – social networks; local radio and TV but no live transmission; race leaflet (low impact)</td>
<td></td>
</tr>
<tr>
<td>Security</td>
<td>ITRA Guidelines; participants must have a set of obligatory equipment (including mobile phone, stock of water, food reserve, survival blanket, etc.); each participant competes at his/her own risk; refreshment, Mountain Rescue Service and first aid posts are positioned throughout the course; white reflective way markers; Insurance policy (the organizer has civil responsibility insurance; competitors should have their own accident insurance (e.g. ITRA insurance); visibility of staff</td>
<td>List of highly recommended equipment for participants (whistle, backpack or waist belt, bidon or camelback, first aid kit, etc.); each participant competes at his/her own risk; refreshment, Mountain Rescue Service points throughout the course; way markers; no insurance policy for the organizer; participants must have basic medical insurance; a medical team (two doctors)</td>
<td>Participants must have a set of obligatory equipment (including mobile phone, full water container, survival blanket, etc.); each participant competes at his/her own risk; refreshment. Mountain Rescue Service and first aid posts are positioned throughout the course; way markers; civil responsibility insurance for the organizer</td>
<td></td>
</tr>
<tr>
<td>Environmental protection</td>
<td>No official certificate; Environmental protection measures focused on minimizing ecological/carbon footprint: competitors have their own glasses (no glasses at refreshment points); time penalty for throwing litter; no permanent way markers, no point on the course; cleaning the course after the race, etc.</td>
<td>No official certificate; within race rules participants are encouraged to respect nature – disqualification for throwing rubbish along the course; no permanent way markers; cleaning the course after the race</td>
<td>No official certificate; within race rules participants are encouraged to respect nature – penalization and possible disqualification for disposal of trash on the trail; no permanent way markers; cleaning the course after the race</td>
<td></td>
</tr>
<tr>
<td>Hiring and training</td>
<td>Volunteers register online; introductory seminar for volunteers</td>
<td>Selection interview with volunteers about their motivation</td>
<td>Volunteers register online; meeting with volunteers</td>
<td></td>
</tr>
<tr>
<td>IT</td>
<td>Internet = official information and communication. medium – website and social networks</td>
<td>Internet (website and social networks) is the official medium for event information</td>
<td>Internet (website and social networks) is the official medium for event information</td>
<td></td>
</tr>
<tr>
<td>Sourcing/ Investment</td>
<td>Activities related to partners (see resources/partners network)</td>
<td>Activities related to partners (see resources/partners network)</td>
<td>Activities related to partners (see resources/partners network)</td>
<td></td>
</tr>
<tr>
<td>Rules</td>
<td>Race rules for participants; internal procedures and rules regarding communication (WhatsApp) and decision making</td>
<td>Race rules for participants; internal procedures and rules regarding communication and decision making</td>
<td>Race rules for participants; internal procedures and rules regarding communication and decision making</td>
<td></td>
</tr>
</tbody>
</table>

Table III. Key processes of the three analyzed events in 2017
Security management has proved to be an important BM component and process (Kaplanidou and Vogt, 2010; Perić et al., 2016). At all three events, ensuring safety and security is another important process of the sport event provider. By submitting the registration form, each participant declares to be healthy and fit to compete in the race, at their own risk. However, some risks (e.g. unintentional injuries) cannot be completely eliminated and organizers need to be prepared. Common practice includes strict security rules – 100 Miles of Istria and UTVV regulations bind the participants to have with them a set of mandatory equipment (mobile phone, water and food reserve, etc.) during the race, while in the case of Risnjak, such equipment is highly recommended.

Trails are marked with standard hiking trail markers, supported by sections of white reflective material for better night vision (Istria, UTVV). Medical and Mountain Rescue teams are deployed along the course. Although the police must be notified of the events, their actual engagement is evident only at the 100 Miles of Istria race (special traffic regulation). The 100 Miles of Istria and UTVV organizers apply civil responsibility insurance for the duration of the event, while the Risnjak organizer said “Insurance costs a lot and I haven’t had it before, but for the next editions I am going to have to think about getting it” (January 31, 2018). On the other hand, it is recommended that each competitor should have their own accident insurance to cover any potential costs of search and rescue.

Despite the broad scope of event activities, when estimating the extent of the work related to safety and security issues, the organizers surprisingly stated it accounted for only between 5 and 10 percent of all work in both the planning and implementation phases. The UTVV race director said:

Well, I’d say it takes up only 5% of the total time. But there is another issue to highlight. I believe safety and security work is more about constant communication with stakeholders. Two thirds of the overall time is devoted to communication. (January 30, 2018)

Other organizers expressed very similar views. Actually, this study confirms that 60–70 percent of the work related to event implementation relates to various types of communications, with communication with competitors accounting for around 50 percent.

Since all three trail races are outdoor events, and two (100 Miles of Istria and Risnjak) take place within protected natural areas, organizers are extremely aware of the importance of environmental protection. A specific natural environment is one of the main motivations to participate and is often highlighted in promotional materials (see sections above). Therefore, respecting and protecting nature is found to be imperative for the organizers in maintaining the appeal of their event. The Official Website of the 100 Miles of Istria (2018) states:

We are trying to minimize to the maximum the environmental impact connected to the functioning of our organization, in particular by decreasing the volume of our impact and by reducing our greenhouse gas emissions connected to professional transport. We would like to invite you to improve your knowledge of the mountains, their ecosystem and fragilities, not to become an expert but so as to act with responsibility and awareness.

If the implementation of environmental measures is considered an investment, environmental management encourages pro-environmental behavior among sport participants, resulting in many benefits (Coles et al., 2016; Han et al., 2015; MacIntosh et al., 2013; McCullough and Cunningham, 2010). Although there are no official eco-certificates found at the researched events, there are many actions to protect the environment. Environmental issues are addressed in the races’ regulations with special attention given to waste collection (e.g. participants would be penalized and/or disqualified in case of littering along the course). In addition, no permanent trail markers are used. They are collected after the last competitor passes the course, and immediately after the event finishes the start and finish areas are cleaned up, waste collected and transferred to
recycling, and assembly facilities taken apart and prepared for transport. Estimating the amount of the total work that went into environmental issues, the interviewed organizers stated it amounted to only 2–5 percent in the planning phase, but in the cases of Risnjak and the UTVV this increased to 10 and 20 percent, respectively, in the implementation phase.

Regarding IT support, all official event communication (information, rules, results and any changes concerning the events) is online, on the events’ websites. However, as already mentioned, social networks are potentially more important. Research revealed some internal procedures and rules regarding hierarchy in communication and decision making in order to ensure smooth implementation of events. Sourcing and investment efforts are found to relate to the challenging task of attracting major partners and sponsors in order to ensure financial support for the event organization (partner network, addressed in previous sections).

**Value capture**

Private companies involved in the organization of the 100 Miles of Istria and Risnjak race make these events for-profit. On the other hand, the UTVV is organized by a sport association and is a not-for-profit event. Nevertheless, revenues at all events are generated in a similar way and rely strongly on race fees (see Table IV). Depending on the course length and date of registration, race fees range from the cheapest at €25 (Risnjak) to the highest at €140 (100 Miles of Istria). The race fees of Istria, however, are lower than at other races in the UTWT. Notably, relatively expressing the fees (per length unit) demonstrates that Risnjak (especially the shorter course) is the most expensive. On this topic, the managing director of the Risnjak race declared:

“Our intention is to position the Risnjak race as one of the top trail races in Croatia and the race fee has to be appropriate. Still, when compared with races abroad, our fees are lower. (January 31, 2018)

Considering the number of participants, all three researched events showed the ability to collect significant revenues. The revenue generated, however, is hardly enough to cover the operating costs. The specificity of the 100 Miles of Istria event is that the organizer chose to pay a running-apparel company with a world-known brand to put the event’s name and logo on their popular items (see marketing activities within key processes). Therefore, all events

<table>
<thead>
<tr>
<th>BM category</th>
<th>BM element</th>
<th>100 miles of Istria Ultra Trail</th>
<th>Risnjak Trail</th>
<th>Ultra Trail Vipava Valley</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value capture</td>
<td>Price</td>
<td>RED: €130/€130/ €140</td>
<td>16 km – €27</td>
<td>100UTVV: €60/€75/€90</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BLUE: €100/€110</td>
<td>32 km – €34</td>
<td>100UTVV teams (3 members): €105/€120</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GREEN: €60/€70</td>
<td>More expensive than other similar races!</td>
<td>UT50: €40/€50/€60</td>
</tr>
<tr>
<td></td>
<td></td>
<td>YELLOW: €50/€60</td>
<td></td>
<td>T30: €25/€30/€35</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kids race: free of charge</td>
<td></td>
<td>Similar to other races!</td>
</tr>
<tr>
<td></td>
<td>Cost</td>
<td>Cheaper than other UTWT races!</td>
<td>Fees; additional donations from sponsors, local authorities and tourist boards</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Standard organizational costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Margin model</td>
<td>Compressport (the right to use this brand), other organizational costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>For-profit; currently financially unsustainable (revenues &lt; costs); there are other services that generate revenues to support the event (shop and travel agency)</td>
<td>For-profit; revenues &gt; costs</td>
<td>Not-for-profit; revenues &lt; costs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Standard organizational costs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table IV. Value capture of the three analyzed events in 2017
seek additional financial (and material) support from local authorities and private sponsors. The 100 Miles of Istria, the most developed among the studied events and part of the UTWT, has had more success in comparison with others.

Expectedly, financial results of the races differ. Despite the limited number of participants, which was in line with the carrying capacity of the protected area, the Risnjak race generated more revenue than costs (i.e. profit) in 2017. On the other hand, the UTVV had a rather balanced revenue and cost ratio and, despite global recognition and the support from its partners, the 100 Miles of Istria race organizers still struggle to cover costs. In this regard, the managing director of the 100 Miles of Istria said:

Unfortunately, our race is currently unsustainable. Revenue from fees and sponsorships cannot cover all the costs and we had to find other ways of making money. Now, we also have a shop with outdoor apparel and equipment, and a travel agency. These proved to be complementary activities to race organization. (December 13, 2017)

It seems that the size of the event does not guarantee success. Evidently, more efforts are needed in converting an established brand name into profit, especially in case of the 100 Miles of Istria.

Conclusion
The Results and discussion section indicates both similarities and differences in the organization of the researched trail-running events. Although those events and associated races differ, the core logic is very similar. The primary focus is on well-trained recreational athletes who are looking for physical challenge while enjoying the natural environment—a context that should not be neglected. Organizers of the analyzed events confirm findings, from many previous studies, on the natural environment being a key resource for tourism (Hall and Page, 2014; Holden, 2016) and, consequently, an important element of their event’s BM. This is especially the case with Risnjak. For this reason, organizers design their events to be environmentally friendly and, therefore, implement many measures to support the pro-environmental behavior of stakeholders, protect nature and control impacts, as suggested by Han et al. (2015) or MacIntosh et al. (2013).

Similar standpoints on security management have also been found. The analysis showed that security planning and implementation are needed to minimize risks to which participants are exposed and to ensure that all participants feel safe on the course and at the event as a whole. Although some measures are undertaken by the organizers themselves, a network of partners is also engaged. Failure to implement security measures could have a negative impact on future event attendance. Accordingly, since the 100 Miles of Istria and UTVV races take place during tourism shoulder seasons (i.e. April), and the Risnjak race takes place in a less-developed tourism destination, environmental and safety incidents could have an impact on the development of these destinations and their tourism.

Partner networks are found to be especially significant with regard to safety, marketing and sponsorship issues. As corroborated by the organizers, gathering partners of different roles and from different sectors confirms the value of such multi-sectoral approach (see also Parent et al., 2017). Furthermore, the results point to another aspect of networking with stakeholders that is worth underlining and challenges the BM framework used as the base for this study—the most time-consuming activity is communication with stakeholders, especially competitors (unlike environmental and security management issues, as one would expect due to their importance in BMs). However, it seems that partner networks and communication are areas where all organizers are still struggling. This is considered to reflect on the events’ ability to generate revenue and cover their costs. The scope and reputation of the 100 Miles of Istria race enable organizers to generate more revenue than the other two events, but the race’s operational costs are also the highest among the three.
events, and the event alone is not financially sustainable. Risnjak is the single profitable event but its scope cannot be compared to that of Istrija or the UTVV. The possible conclusion that it is easier for small events to reach break-even point should be examined and verified by future studies.

Additionally, this study raised a couple of questions on the importance and place of partner networking and communication within the BMs. First, could partner networks be identified as a second-order theme and an independent BM category and, second, could communication with stakeholders (primarily with competitors) be added as a new key process within this particular BM framework? The issue of partner networks has been addressed in some previous studies (e.g. Johnson et al., 2008; Osterwalder et al., 2005; Roome and Louche, 2016) but with no uniform conclusion. On the other hand, communication was not analyzed within the BM context, but it is considered crucial for managing teams and businesses (Morgan et al., 2014). Finding answers to both of the above questions and understanding the effect (in the form of possible modifications) such answers could have on the applied BM framework is a challenge to BM management and theory, even outside the event sport tourism setting. Such modifications could be analyzed within the global managerial and organizational context of entrepreneurship.

However, the real benefit of this study is practical. Results indicate that the Perić et al. (2016) BM framework can be used in designing sport tourism events and experiences. The interplay of key resources and processes is highlighted in delivering and capturing value. The findings and proposals from this paper are applicable to trail-running events and event-related sport tourism suppliers – both existing and potential ones, on a regional, national or international level. By finding the optimal combination of key resources (e.g. human resources, partners, environment, technology, etc.) and processes (e.g. designing, marketing, security measures, etc.), the existing suppliers could modify and/or innovate their BMs according to the best practice examples (some of which are identified in this study). On the other hand, new entrants could avoid potential mistakes and design appropriate BMs for penetrating the growing sport tourism market. The knowledge of best practices and management and marketing strategies, if applied to a number of businesses, could have an incremental effect on the competitiveness of the destination as a whole. Positive effects might include reduced seasonal fluctuations, new employment, new revenues for businesses and taxes paid to local and national authorities but also some non-economic benefits like improved community pride and cohesion. Since most trail-running studies focus on the demand side of the market, the evident lack of focus on event organization is compensated to an extent by this research.

The case study method shows limitations where generality of findings is concerned. Future studies should thus include more empirical work on the outdoor event sport tourism industry in order to increase the comparability and universality of overall conclusions. Future studies should, as well, focus on stakeholder and communication management, and partner networks within a BM framework in sport tourism. The literature review showed a disproportion in published work on the topic of running/trail running, with most articles focusing on the demand perspective rather than on the supply perspective. Therefore, the standpoint of this paper is considered a contribution to the field. Nevertheless, the inclusion of event participants in future research could provide more profound insights into the value proposed within event BMs (experiences, motivations and personal safety). One limitation is also the lack of financial data that would surely improve the quality of the value capture analysis.

To summarize, this paper examined event-related sport tourism practice by applying the existing conceptual BM framework. By focusing on an under-researched area and by linking the BM concept to the area of outdoor event sport tourism in general and trail-running sport tourism in particular, this paper makes a valuable contribution to the
existing body of knowledge in the academic fields of organization and management, and sport tourism. Using the case study method, event sport tourism practice was analyzed through the lens of the BM concept, and the key organizational activities were analyzed and presented in a novel way, bringing a new perspective on event management theory.

References


Further reading


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Title sponsorship of cause-related sport events

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Abstract

Purpose – Corporations often benefit from associating their brand(s) with a sports property; in some cases, the property is owned or supported by a not-for-profit organization (NFP) championing a cause. Title sponsorship of such a sport event has received limited research attention but is important to a NFP for raising funds and in-kind contributions to support their cause. The purpose of this paper is to investigate title sponsorship of cause-related sport events.

Design/methodology/approach – This research examines the title sponsorship of a cause-related sport event and its effectiveness in relation to the event, the organization, the cause and other sponsors of the NFP. Specifically, this study examines these questions in the context of a specific annual event, Sports Day in Canada organized by ParticipACTION, a national Canadian NFP and whose title sponsor is Royal Bank of Canada (RBC).

Findings – Results show that title sponsorship has significant potential value for the sponsor and the cause, perhaps to the detriment of other (lower tier) sponsors of the event and the NFP.

Originality/value – This research has value to sponsors and cause-related sport events alike. In the case of sponsors, it provides insight into the value of title sponsorship vs other categories of sponsorship, for a brand considering sponsorship of cause-related sport property. For cause-related sport events, the research informs about the importance and possible revenue generation opportunity linked to the title sponsor category.

Keywords Canada, Cause-related marketing, Event management, Sponsorship, Not-for-profit

Paper type Research paper

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Corporate sponsorship of any property has increased globally year over year for more than two decades (IEG, 2016), with similar growth reported in Canada (CSLS, 2018). On the corporate brand side, sponsorship is a key element of their marketing mix (Walraven et al., 2016). In Canada, for example, sponsors report spending more than 20 percent of their marketing communication dollars on sponsorship-related activities (i.e. rights fees plus activation) with more than 60 percent of sponsorship rights fees invested by both sport and non-sport corporations going to sport properties (Berger et al., 2008; CSLS, 2018). Not-for-profit organizations (NFPs) in sport (i.e. leagues, events and clubs) have adopted sponsorship as an important revenue generation tool (Berger et al., 2008; Meenaghan, 2013).

Corporate sponsors are increasingly interested in associating with cause-related sport events organized or founded by NFPs that address causes which resonate with their customers (Babiak and Sheth, 2010). Notably, title sponsorship is one important type of sponsorship that has received limited research attention. Title sponsorship is where the partner is given top-level naming rights to a cause-related sport event. Typically, it is the most expensive sponsorship category. Examples of cause-related sporting events that boast title sponsors are Dick’s Sporting Goods Open (see Endicott, n.d.), Wendy’s Walk for Kids (2017), Hershey’s Track and Field Games (see Run Jump Throw, n.d.), Nike’s Clash of Champions and the Susan G. Komen Race for the Cure (see Komen, 2017). In the NFP sport event context, it is important to recognize that seeking title sponsorship is challenging. This is why, many NFP sport events occur without a title sponsor (Groza et al., 2012). For example, the majority of Disabled Sports USA (2015) events take place without a title sponsor. A key driver of the lack of title sponsors is the need for the evaluation of the ability of the sponsorship to drive consumer awareness and generate return on its investment (PricewaterhouseCoopers, 2010), as well as garner support to the cause (Madill and O’Reilly, 2010).

Title sponsorship differs from other levels of sponsorship. First, the “title” status typically has a higher cost to the sponsor than other sponsor levels and, in turn, increased financial importance for the NFP (Clark et al., 2008). This may lead to increased commitment of the organizations and pressure to evaluate and support the achievement of return on investment for the title sponsor (Groza et al., 2012; O’Reilly and Madill, 2012). Second, since the cause-related objectives are sought by both the title sponsor and the NFP organization, such objectives can be more complicated than for a partnership between two for-profit-based organizations, since the NFP organization may struggle to embrace the profit motivations of the sponsor (Madill and O’Reilly, 2010). For example, RiskVentures (2014), an equity/consulting firm, sponsored a golf event put on by Operation Game On, an innovative rehab program for returning combat-injured troops, as part of its philanthropy strategy. Conversely, Bridgestone Tires’ title sponsorship (see NHL, 2015) of the National Hockey League’s outdoor event (game) known as the Winter Classic, involves two organizations with clear business objectives.

Third, as the title sponsor of a cause-based sport event, the sponsor associates itself with the event of interest, the NFP as well as the cause. For instance, if the event was a charity run for diabetes research, the title sponsor would be associating with the run, the NFP and the cause of disease prevention and cure. This increases complexity, as the sponsor would want to achieve the business objectives and, in most cases, support the pursuit of the objectives supporting the cause (Madill and O’Reilly, 2010). Fourth, due to the close association between the title sponsor and the event, the ability to transfer images (a known benefit of sponsorship) is facilitated more than other forms of sponsorships (Gwinner et al., 2009). In general, an image transfer occurs via marketing when attributes of the event are expected to be transferred to the sponsor via the activation of the sponsorship between the two entities, resulting in the event image “rubbing off” on the sponsor (Grohs and Reisinger, 2014). A classic example of this is Gatorade’s longstanding sponsorship activities in the sport of triathlon which has aided in attributing images of athlete endurance to the energy drink brand.
The current empirical study seeks to address the topic of title sponsorship in cause-related sport events by answering the following research questions:

RQ1. How does the title sponsorship of a cause-related sport event influence evaluations of the corporation?

RQ2. How do consumer evaluations of the title sponsor compare with other sponsors, the NFP, the cause and the event?

RQ3. How does the title sponsorship by a corporation influence the evaluations of other sponsors, the NFP, the cause and the event?

Due to the limited research on the topic, exploratory approach is undertaken in the form of an in-depth empirical study based on multiple data collections around a re-occurring annual event (see Neuman, 2011; Yin, 2003) to answer these research questions. The study reviews a cause-related sport event spread over multiple years where a title sponsor was added during the period of the research. Implications on awareness levels among both the general Canadian population and the target market (event organizers) were measured over the multi-year period and assessed for the title sponsor, secondary sponsors, other partners, the cause and the NFP that was the rights holder for the event.

Research context

The program that is the context for this research is Royal Bank of Canada (RBC) Sports Day in Canada (SDIC), a series of events where communities come together nationally to celebrate sport among Canadians and to promote sport participation across Canada. SDIC was developed by ParticipACTION, a national NFP dedicated to increasing physical activity among Canadians (White et al., 2016). SDIC could be described as an “event of events.” It takes place at the end of a week of thousands of local sporting events and activities and includes a day-long national television broadcast. SDIC was held annually between 2010 and 2015, usually in November. Leading up to the day of the main event, local organizations, communities and schools across the country celebrate sport at the local level and help build momentum for SDIC by participating in thousands of registered open houses, games, competitions, meet-and-greets, tournaments, fun runs, spectator events and pep rallies. ParticipACTION sends promotional materials to each registered event organizing team and lists events on their website. Previous longitudinal research on SDIC found significant increases over time in awareness of SDIC for the Canadian population (White et al., 2016) and that many of the participating organizations benefited from hosting a SDIC event (Luciani et al., 2016).

In terms of title sponsorship, ParticipACTION acquired RBC Bank in 2013, the fourth year of SDIC, for a three-year term. A portion of the RBC title sponsorship allowed ParticipACTION to provide grants to select NFPs to support events as part of SDIC. SDIC fits Yin’s (2003) requirements for a case study because it is significant (i.e. impacted the cause across the country per point below), complete (i.e. multi-year event with full implementation) and displayed sufficient evidence of success. To provide evidence of success, SDIC achieved awareness levels of 47 percent of Canadian citizens in 2013 and 44 percent in 2015 (Sports Day, 2016), and more than 60m media impressions in 2013 (White et al., 2016) and more than 85m in 2015 (Sports Day, 2016).

Literature review and hypotheses development

Sponsorship

Sponsorship generally contains two distinct elements: the mutually beneficial exchange of sponsor resources in return for promotional value and the sponsor’s association with the property (Meenaghan, 2013). Sponsorship continues to be an important part of marketing.
IEG (2016) reported that there was an increase in global sponsorship rights spending from 2012 to 2015, with an annual industry spend nearing US$60bn. In Canada, the CSLS (2018) reported an estimated total industry spend on rights fees of more than CDN$1.96bn in 2016, up from CDN$1.1bn in 2007. The scale of sponsorship spending around major events is also significant. For example, sponsors of the 2012 London Olympic Summer Games spent a combined US$2bn around the event (Meenaghan, 2013).

Discussions regarding the differences between sponsorship and other forms of marketing communications, specifically advertising, are ongoing. Meenaghan (2013) noted that the main differences are “the mutuality of benefit, the consumer interaction process, the comparative nature of the consumer interaction process, and the sponsorship’s location at the leisure end of marketing” (p. 388). It is commonly believed that due to its interactive nature, sponsorship is valued higher than traditional advertising. Advantages of sponsorship over more common forms of marketing include the opportunity to differentiate from competitors, to achieve consumer-oriented objectives, and to achieve competitive advantage (Madill and O’Reilly, 2010).

While traditional sponsorship remains important, many scholars now view sponsorship in a more widespread, digital and strategic way (Meenaghan, 2013), such as building social media campaigns or creating owned properties. Sponsorship as a marketing tool is complex, as its influence is dependent upon several variables including “the demographics of the audience, the product category of the sponsor, and the type of activations used to support the partnership and the communication used to “framework” the sponsorship message” (Pearsall, 2009, p. 25).

**Title sponsorship**
Title sponsorship includes the sponsor’s name in the name of the event (Groza et al., 2012). While the empirical study specific to the case of title sponsorship is limited, corporate sponsor behavior (i.e. higher levels of financial investment in title sponsorship status) suggests that they are interested in title sponsorship in the sports industry (CSLS, 2016). Title sponsorship is the highest form of sponsorship garnering top media coverage and known for generating both brand and product awareness (Clark et al., 2008), through advertising and publicity (Biscaia et al., 2013). Although very similar in nature and often used interchangeably, title sponsorship is commonly categorized for an event (e.g. RBC Sport Day in Canada), while naming rights sponsorship is for a venue (e.g. the Fuqua School of Business, Duke University) or another tangible item (e.g. the John R. Wooden Award). Like title sponsorship, previous empirical research on the naming rights of venues is also limited (Delia, 2014).

**Cause-related marketing (CRM)**
Polonsky and Speed (2000) defined CRM as “the process of formulating and implementing marketing activities that are characterized by an offer from the firm to contribute a specified amount to a designated cause when consumers engage in revenue-providing exchanges that satisfy organizational and individual objectives” (p. 1365). However, these transaction-based CRM partnerships have over time evolved into more strategic alliances (including sponsorships and title sponsorships), where financial contribution is still considered central to the conditions of contract, but less tied to consumer actions of purchasing the brand (Gourville and Rangan, 2004). Financially significant relationships between corporations and NFP organizations have increased in recent years (Simpson et al., 2011) due to reduced or inconsistent funding from the government, leading NFP organizations to seek corporate entities as a funding source (Navarro, 2005), such as title sponsorship of a cause-related sport event, where the support of the sponsor will be positively viewed. The related literature reveals a growing trend toward CRM (Rozensber, 2013). When price and value are comparable,
consumers tend to buy brands associated with CRM (Irmak et al., 2012; CCSIS, 2013). Up from 85 percent in 2010, in 2013, 93 percent of US consumers said that when a company supports a cause, they have a more positive image of the company (CCSIS, 2013). A Canadian study similarly showed that consumers favor ethical products and socially responsible companies (d’Astous and Legendre, 2008). This leads to the first hypothesis to be tested:

**H1.** The corporation will receive positive evaluations as a title sponsor of a cause-related sport event.

Lacey et al. (2010) found that consumer perceptions of the sponsor as socially responsible are positively linked to commitment and purchase intentions. Marketing opportunities involving social needs (e.g. including benefits toward a societal need such as poverty) can assist companies as they differentiate and reposition their brands to increase their return (Lii et al., 2011). CRM is also expected to have a positive effect on consumers’ attitudes toward the brand and the perceived credibility of the campaign (Lii et al., 2011). However, consumers also want to know what cause-related activities companies are aligning their brand with. In other words, it is critical that consumers perceive a fit between the (title) sponsor and the property, as they respond more positively when there is good fit (Polonsky and Speed, 2000), which would include a link to an appropriate cause.

As CCSIS (2013) noted, corporations and brands today cannot just be responsive, they must also be responsible. CRM is ubiquitous in our environment and it plays a vital role in the way a brand is perceived by consumers. The same could be said for title sponsorship of a cause-related event. Indeed, CRM serves dual purposes: to improve firm performance and to support a social cause (Irmak et al., 2012). To improve a sponsor’s performance, there must be a relationship between the brand and the cause. Further, they should have shared objectives, sponsor-property fit, and goal proximity; each of which influences consumers’ perceptions or personal roles in helping the cause (Irmak et al., 2012). To achieve maximum influence on consumer perceptions, firms must be more forthcoming and share with consumers why and how they are involved in socially responsible activities. Notably, consumers must have a clear sense of the sponsor’s role and the ability to drive positive change (CCSIS, 2013). This leads to the second hypothesis:

**H2.** The corporation who is a title sponsor will enhance the evaluations of (a) the cause-related event and (b) the cause.

**Sponsorship evaluation**

Authors of previous research note the significant challenge that surrounds the evaluation of sponsorship (O’Reilly and Madill, 2012). Many early sponsorship evaluations relied on awareness metrics, which is still the case today and may not be a good indicator of the objectives that most sponsors seek to achieve from sponsorship, including attitude changes and brand purchase (Biscaia et al., 2014; Lee et al., 2011; Nufer and Bühler, 2010).

Most of the literature on sponsorship evaluation related to awareness is tied directly to a specific event, often a sport event. Biscaia et al. (2014) defined brand awareness as the consumers’ familiarity with a brand and noted that sponsorship creates another outlet for companies to create more awareness of their brand(s). Creating a synonymous relationship between a cause and a brand through sponsorship can create both positive and negative awareness for the brand (Madill and O’Reilly, 2010). To improve brand awareness and awareness that the sponsor is doing “good,” businesses must understand how to communicate with consumers. The top three most effective communication routes to best create this awareness for information about social and environmental programs and products are via the product, media and advertising (CCSIS, 2013), and industry research
tells us that sponsors want a clean (exclusive) platform to activate and pursue their objectives (CSLS, 2016, 2018). Title sponsorship can provide for each of these programs, products and activations. As sponsor involvement increases with activations (and, by extension, via title sponsorship status) so does consumer awareness, as well as consumer knowledge of the event-sponsor link (Grohs and Reisinger, 2014, p. 1020).

Awareness of the sponsor’s participation is important because awareness must be achieved first in order to set the stage for the attainment of other sponsorship objectives related to affect and behavioral outcomes, such as enhancing image, influencing intent to behave, achieving image transfer, enhancing sponsor associations and increasing sales (Biscaia et al., 2013; Crompton, 2004). To move to the affect/behavior level, consumers must first be aware of what the sponsor is supporting before they create an opinion. Biscaia et al.’s (2014) study of consumer recall of sponsor involvement at a Portuguese professional football game found that more than 82 percent of respondents were able to recall the correct sponsor without any prompting.

Title sponsorship is typically expected to provide a higher return on investment due to its higher cost (Cameron, 2008). This means title sponsorship is often considered to be more challenging to sell than other sponsorships except for the largest and most attractive NFP properties with charitable components or causes that are important to many, such as cancer, heart disease and children’s health. Thus, our third hypothesis to test is as follows:

**H3.** The corporation who is a title sponsor will (a) receive higher evaluations than the NFP who owns the sport event, as well as (b) suppress NFP’s evaluations over time.

The evaluation of a title sponsorship should provide insights to not only the sponsor but to the property as well. Although many sponsors are creatively getting involved past the evaluation of traditional activations (e.g. signage, public announcement), they are still struggling to evaluate not only the return on investment but also the effects of the sponsorship on their specific objectives. The academic literature supports this (O’Reilly and Madill, 2012) and industry research shows that Canadian properties are under-delivering to their sponsors on many of their sought outcomes (CSLS, 2016, 2018) and servicing (O’Reilly and Huybers, 2015). According to Walraven et al. (2014), sponsorship managers do believe that the longer the sponsorship, the better the brand equity. One could infer an advantage to title sponsorship where the exposure of the sponsorship is typically higher, which is tested with the fourth hypothesis:

**H4.** The corporation who is a title sponsor will (a) receive higher evaluations than those organizations who are involved in a lower-profile sponsorship, as well as (b) suppress their evaluations over time.

**Method**

To test these hypotheses, the authors of this study analyzed data from evaluations undertaken from each of the six years of SDIC: 2010, 2011, 2012, 2013, 2014 and 2015. For the 2013, 2014 and 2015 editions, held each November, the event was known as RBC SDIC, presented by ParticipACTION, CBC and TrueSport. Data from 2010 to 2012 are compared to 2013 to 2015 to understand the influence of RBC’s title sponsorship.

The data were collected around each of the six years of SDIC and analyzed to respond to the research questions. To control for extraneous factors year over year, data were collected in the same timeframe (October) each year, immediately following SDIC, where respondents were asked to respond about the property and their activities undertaken in SDIC that year. Each year’s evaluation was undertaken by an independent research agency, IMI International (www.consultimi.com/) from three different sources. First, a representative (by age and gender) national survey of Canadians between the ages of 13 and 65 (controlling
for gender, age, region and language) was undertaken in each of the six years from 2010 to 2015. The sample size ranged from a low of 630 in 2011 to a high of 1,220 in 2013 (see Table I) with each year of the survey independent in terms of respondents. If an oversample bias existed on gender or region, the survey respondents were weighted back to their national representation. Where applicable, data from all six years were compared. All comparisons are based on a 95% confidence interval.

Second, a survey of both event organizers (approximately 400 respondents annually) and ParticipACTION grant recipients (approximately 80 each year) was analyzed. The studies were implemented starting in 2012 and in each of the following three years (to 2015). The event organizer survey helped to evaluate the overall event and allowed for an additional measurement of the objectives, while the survey of grant recipients allowed for an understanding of how awareness for the grant program was generated. Finally, several secondary sources (i.e. event registration from website, broadcast and digital tracking and social media tracking) were obtained to provide additional insights to the amount of event reach and awareness through all media.

### Results

The results of the three data collection methods are organized under four hypotheses. All perceptual differences in this study were measured using Fisher exact $\chi^2$ test. $H1$ proposes that the corporation will receive positive evaluations as a title sponsor of a cause-related event. RBC acquired SDIC’s title sponsorship in 2013, the first of a three-year partnership. Table I provides several key metrics around RBC’s role as title sponsor of SDIC, from both the survey of Canadians and the survey of event operators. Among lay Canadians, aided awareness remained steady from 2013 to 2015 at 28 percent. Unaided awareness and awareness of title sponsorship (among those aware of SDIC) reported by respondents indicate an increase in 2015 over 2014 (20 percent from 14 percent at $p < 0.05$). Among those aware of RBC sponsorship, favorability and consideration for RBC products and services increased significantly.

<table>
<thead>
<tr>
<th>Metric related to title sponsorship</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Among all Canadians</td>
<td>N = 1,220</td>
<td>N = 1,202</td>
<td>N = 1,080</td>
</tr>
<tr>
<td>Aware (unaided)</td>
<td>16%</td>
<td>14%</td>
<td>20%*</td>
</tr>
<tr>
<td>Aware (aided)</td>
<td>28%</td>
<td>28%</td>
<td>28%</td>
</tr>
<tr>
<td>“Saw a promotion at RBC branch”</td>
<td>7%</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>Aware of Title Sponsor (among those aware of SDIC)</td>
<td>16%</td>
<td>10%*</td>
<td>18%*</td>
</tr>
<tr>
<td>Among Canadians who are aware of RBC sponsorship</td>
<td>n/a</td>
<td>N = 126</td>
<td>N = 135</td>
</tr>
<tr>
<td>Favorable to RBC Brand</td>
<td>n/a</td>
<td>49%</td>
<td>56%*</td>
</tr>
<tr>
<td>Consider RBC products and services</td>
<td>n/a</td>
<td>37%</td>
<td>41%*</td>
</tr>
<tr>
<td>Among those aware of RBC sponsorship</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consider changing banking services</td>
<td>68%</td>
<td>57%*</td>
<td>58%</td>
</tr>
<tr>
<td>Consider more banking with RBC</td>
<td>77%</td>
<td>73%*</td>
<td>73%</td>
</tr>
<tr>
<td>Consider RBC for my investments</td>
<td>59%</td>
<td>63%*</td>
<td>63%</td>
</tr>
<tr>
<td>Consider RBC credit cards</td>
<td>67%</td>
<td>68%*</td>
<td>65%*</td>
</tr>
<tr>
<td>Promotes active living and sport participation messages in Canada due to RBC sponsorship</td>
<td>n/a</td>
<td>n/a</td>
<td>61%</td>
</tr>
<tr>
<td>Perception of SDIC due to RBC sponsorship</td>
<td>48%</td>
<td>44%*</td>
<td>59%*</td>
</tr>
<tr>
<td>Intend to register a SDIC event next year because of RBC sponsorship</td>
<td>48%</td>
<td>44%*</td>
<td>58%*</td>
</tr>
<tr>
<td>Will generate local/national media attention because of RBC sponsorship</td>
<td>48%</td>
<td>43%*</td>
<td>51%*</td>
</tr>
</tbody>
</table>

**Notes:** *RBC joins as title sponsor. *Denotes a significant change from the previous year ($p < 0.05$) based on Fisher’s exact $\chi^2$ test

**Sources:** IMI International Annual Survey, IMI Survey of Event Organizers

<table>
<thead>
<tr>
<th>Table I. Title sponsor key metrics</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Among all Canadians</td>
<td>N = 1,220</td>
<td>N = 1,202</td>
<td>N = 1,080</td>
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<tr>
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<td>16%</td>
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</tr>
<tr>
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</tr>
<tr>
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<tr>
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<td></td>
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<td>57%*</td>
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<td>73%</td>
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<tr>
<td>Consider RBC for my investments</td>
<td>59%</td>
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</tr>
<tr>
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<td>n/a</td>
<td>61%</td>
</tr>
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<td>44%*</td>
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<tr>
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<td>43%*</td>
<td>51%*</td>
</tr>
</tbody>
</table>
services enhanced in 2015 as compared to 2014 (49–56 percent and 37–41 percent, respectively, at \( p < 0.05 \)).

Table I further displays results from the sub-sample of respondents who were aware of the sponsorship. This group reported high levels of consideration in 2015 for changing banking services (58 percent), for banking with RBC more (73 percent), for investments (63 percent) and for RBC credit cards (65 percent), although these perceptions were either similar or lower to perceptions in 2014.

The event organizers were similarly asked to rate the influence of the RBC sponsorship on a variety of variables. In 2015, a majority (61 percent) supported SDIC’s promotion of active living and sport participation due to the RBC sponsor, the first year this question was asked. The event organizers also noted strong favorability due to the RBC sponsorship on perception of SDIC in 2015 (59 percent); intention to register a SDIC event next year (68 percent); and SDIC’s ability to generate local and national media attention (51 percent). The 2015 results of these reported perceptions were statistically higher than 2014 at \( p < 0.05 \).

In 2014 and 2015, the survey of Canadian respondents asked additional questions related to sponsorship equity (i.e. the value of the sponsorship for RBC as title sponsor) based on six attributes (as reported in Table II). These attributes were then compared between those respondents who were aware of the RBC sponsorship (\( n = 126 \) in 2014; \( n = 135 \) in 2015) to those who were not aware (\( n = 1,076 \) in 2014; \( n = 945 \) in 2015). Each difference was significant at the \( p < 0.05 \) level with all of the “not aware” group being significantly lower than the “aware” group.

Thus, it is concluded that the data largely support \( H1 \).

In \( H2 \), it was proposed that the corporation who is a title sponsor will enhance the evaluations of the cause-related event as well as the cause. In estimating the findings of the overall Canadian population of 13–65 years old (estimated to be about 24m), about 10m Canadians were aware of SDIC in 2015 and about 4.3m were engaged in the event. Of those engaged in 2015, 62 percent were active participants (i.e. they played a sport, volunteered at an event or attended an event), while 38 percent were non-active participants (i.e. wore a jersey on jersey day or watched the broadcast on television). Note that the active participants may also have participated non-actively.

<table>
<thead>
<tr>
<th>Equity question</th>
<th>Not aware of RBC sponsorship</th>
<th>Aware of RBC sponsorship</th>
<th>Not aware of RBC sponsorship</th>
<th>Aware of RBC sponsorship</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( N = 1,076 )</td>
<td>( N = 126 )</td>
<td>( N = 945 )</td>
<td>( N = 135 )</td>
</tr>
<tr>
<td>RBC is a strong believer that physical activity is important for children</td>
<td>40%</td>
<td>62%*</td>
<td>40%</td>
<td>59%*</td>
</tr>
<tr>
<td>RBC contributes to the well-being of children</td>
<td>35%</td>
<td>61%*</td>
<td>36%</td>
<td>59%*</td>
</tr>
<tr>
<td>RBC supports events and causes that are important to my community</td>
<td>33%</td>
<td>58%*</td>
<td>33%</td>
<td>58%*</td>
</tr>
<tr>
<td>RBC reflects Canadian values in the way it conducts its affairs</td>
<td>32%</td>
<td>49%*</td>
<td>33%</td>
<td>55%*</td>
</tr>
<tr>
<td>RBC helps Canadian communities build a better future</td>
<td>32%</td>
<td>57%*</td>
<td>32%</td>
<td>54%*</td>
</tr>
<tr>
<td>RBC is a company I trust</td>
<td>29%</td>
<td>48%*</td>
<td>29%</td>
<td>53%*</td>
</tr>
</tbody>
</table>

Table II. RBC sponsorship equity measures

\( ^* \)Denotes a significant difference between the aware and not aware groups (\( p < 0.05 \)) of each year based on Fisher’s exact \( \chi^2 \) test

\textbf{Source:} IMI International Annual Survey
When the 2010–2012 average (absence of RBC title sponsorship) is compared with the 2013–2015 average (presence of RBC title sponsorship), findings reveal consistently positive perceptions at $p < 0.05$. Awareness of and engagement with SDIC enhanced by 5 and 4 percent, respectively (see Table III).

Table IV outlines the results from the event organizer/grant recipient surveys. These surveys were first undertaken in 2012 and replicated in 2013–2015 including the three years of the RBC title sponsorship. Of note are the positive results regarding satisfaction of involvement in SDIC by event organizer and grant recipient stakeholder groups.

The secondary sources of data in 2015 provide a snapshot on the scope of SDIC, noting that 289 community-wide events and 2,101 total events/activities were included in SDIC in 2015. The media report estimated that SDIC 2015 achieved 85.5m media impressions. In 2013 (the most recent data available), the SDIC website attracted 38,273 unique views, 1,731 streaming views and more than 115,000 page views.

Finally, in Table V, a change in perceptions among Canadians (13–65 years) toward the cause among those aware of SDIC is reported. Intention to be active and healthy increased from 49 percent (2010–2012) to 57 percent (2013–2015). Similarly, perception that SDIC...
contributes to healthy living increased from 74 to 84 percent during the same period. Both changes were statistically significant at \( p < 0.05 \).

Thus, findings support \( H2 \).

\( H3 \) and \( H4 \) hypothesize influence of RBC on the perceptions toward organizers and other sponsors. SDIC had partners/sponsors since its inception in 2010. In its first three years (2010–2012), in addition to ParticipACTION (the founding NFP organization), two media partners (CBC in English and Radio-Canada in French), two government partners (Government of Canada and Government of British Columbia) and one sector partner (TrueSport, a NFP organization whose mandate is clean, fair sport) were all involved.

With reference to \( H3 \) (see Table VI), RBC sponsorship awareness levels were consistently lower than ParticipACTION across the three years (e.g. 28 vs 38 percent in 2015) but better than TrueSport (e.g. 28 vs 9 percent in 2015). The results are somewhat different in terms of trends in perceptions for the partner organizations. Upon RBC acquiring title sponsorship, awareness of ParticipACTION decreased from 47 percent in 2012 to 37 percent as average of 2013–2015 (\( p < 0.05 \)), although awareness of TrueSport increased from 3 percent in 2012 to 7 percent as average of 2013–2015 (\( p < 0.05 \)). \( H3 \) was thus partially supported.

To assess \( H4 \), perceptions of RBC were compared with other lower-level sponsors. Although the awareness levels ranged from 25 to 30 percent across six years with a non-significant trend, the respondent consideration for sponsor products and services and sponsor favorability improved. Consideration for products and services increased from 30 percent (average of 2010–2012) to 47 percent (2013–2015, \( p < 0.05 \)). During the same period, sponsor favorability increased from 34 to 58 percent (\( p < 0.05 \)).

As reported in Table VIII, for survey respondents who indicated that they were aware of SDIC, awareness levels for each of the sponsors varied considerably by organization and by year. In the case of RBC, as title sponsor, aided awareness remained steady at 28 percent, while the lead media partner and broadcaster, CBC, had the highest results every year except 2014, when the French media partner/broadcaster, Radio-Canada, was highest. Specific to the title sponsorship which began in 2013, a comparison of the 2013 data vs 2012
(as reported in Table VIII) supports an argument that the addition of RBC as the title sponsor detracted from the awareness levels of the other partners. Based on Fisher’s exact \( \chi^2 \) test, four of the partners experienced significant declines in 2013: CBC was down to 44 percent in 2013 from 60 percent in 2012 \((p < 0.01)\) and remained at those levels in 2014 and 2015, BC Healthy Families went down to 19 percent from 43 percent \((p < 0.01)\) and remained steady at those levels in 2014 and 2015, and Radio-Canada went down to 34 percent from 46 percent \((p < 0.01)\) which increased to 43 percent in 2014 but declined to

<table>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadians (13–65 years)</td>
<td>863</td>
<td>630</td>
<td>731</td>
<td>1,220</td>
<td>1,202</td>
<td>1,080</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sponsor awareness</td>
<td>25%</td>
<td>28%</td>
<td>25%</td>
<td>29%</td>
<td>30%</td>
<td>28%</td>
<td>26%</td>
<td>29%</td>
</tr>
<tr>
<td>Sponsor behavior (consider products and services)</td>
<td>24%</td>
<td>30%</td>
<td>36%</td>
<td>48%</td>
<td>46%</td>
<td>48%</td>
<td>30%</td>
<td>47%*</td>
</tr>
<tr>
<td>Sponsor favorability (average of all sponsors)</td>
<td>24%</td>
<td>34%</td>
<td>47%</td>
<td>59%</td>
<td>56%</td>
<td>58%</td>
<td>34%</td>
<td>58%*</td>
</tr>
</tbody>
</table>

**Notes:** *RBC joins as title sponsor. *Denotes a significant difference between the averages of 2010–2012 and 2013–2015 \((p < 0.05)\) based on Fisher’s exact \( \chi^2 \) test.

**Source:** IMI International Annual Survey

### Table VIII. Title and other sponsor awareness (among those aware of SDIC)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>RBC (Title)</td>
<td>n/a</td>
<td>28%</td>
<td>28%</td>
<td>28%</td>
<td>28%</td>
</tr>
<tr>
<td>CBC (other sponsor)</td>
<td>60%</td>
<td>44%*</td>
<td>42%</td>
<td>40%</td>
<td>42%**</td>
</tr>
<tr>
<td>Radio-Canada Sports (other sponsor)</td>
<td>46%</td>
<td>34%*</td>
<td>43%*</td>
<td>30%*</td>
<td>35%**</td>
</tr>
<tr>
<td>Government of Canada (other sponsor)</td>
<td>34%</td>
<td>28%</td>
<td>36%*</td>
<td>29%*</td>
<td>31%</td>
</tr>
<tr>
<td>Government of British Columbia (other sponsor)</td>
<td>43%</td>
<td>19%*</td>
<td>20%</td>
<td>21%</td>
<td>20%**</td>
</tr>
</tbody>
</table>

**Notes:** *RBC joins as title sponsor. *Denotes a significant change from the previous year \((p < 0.05)\) based on Fisher’s exact \( \chi^2 \) test; **denotes a significant change from 2012 to the 2013–2015 average \((p < 0.05)\) based on Fisher’s exact \( \chi^2 \) test.

**Source:** IMI International Annual Survey

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**Causes-related sport events**

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**Figure 1.** Sponsor perceptions in percent (among those aware of SDIC)
its lowest level of 30 percent in 2015. Government of Canada did not show significant change although it went down to 28 percent from 34 percent in 2013, increased to 36 percent in 2014 but declined to 29 percent in 2015.

When these perceptions were compared between 2012 and an average of 2013–2015, all sponsors except Government of Canada displayed significant decline. CBC awareness declined from 60 percent (average of 2010–2012) to 42 percent (average of 2013–2015); Radio-Canada Sports from 46 to 35 percent; and Government of British Columbia from 43 to 20 percent; all at p < 0.05. Government of Canada awareness declined too (34–31 percent) but the difference was not statistically significant.

Despite these declines, the lower-level sponsors still performed better than the title sponsor. \( H4 \) was thus partially supported.

**Discussion**

In 2010, ParticipACTION and SDIC set out to increase awareness of the benefits of sport and provide Canadian communities the opportunity to celebrate sport. In 2013, RBC became the title sponsor of RBC SDIC. RBC SDIC was a successful (increases over time in awareness, intentions and participation) cause-related sport event (White *et al.*, 2016; Luciani *et al.*, 2016) that added a title sponsor following its third edition, providing the context for this research on title sponsorship of cause-related sport events. Three separate surveys were conducted annually around SDIC to provide the data to test four hypotheses.

Overall, the key contribution of this research is its finding that title sponsorship status has benefits to the sponsor, to such an extent that they can detract from the benefits provided to other (non-title) sponsors of the same property thus building on the limited previous work specific to title sponsorship (Clark *et al.*, 2008). The results further provide insights into perceptions of event and the cause (physical activity and youth) as well as sponsorship outcomes for RBC. Results support that consumers place value in corporations who support events and causes that are important to them and that reflect Canadian heritage. Notably, results indicate that the RBC title sponsorship was shown to increase the trust that Canadian consumers have in RBC as a sponsor. In addition to supporting the notion that title sponsorship is a distinct context from typical sponsorship (Clark *et al.*, 2008), results also support that sponsorship fit is a key attribute in title sponsorship (Madill and O’Reilly, 2010) and note the importance of CRM in a title sponsorship (Simpson *et al.*, 2011). From a practical perspective, these results infer that title sponsorship is a high value proposition for a sponsor who fits with the cause, has a plan to activate the investment using CRM and has clear communicated status as title.

The first hypothesis explored the specific benefits to the title sponsor, RBC. Results provide strong evidence of the awareness value provided to a title sponsor and demonstrate that some benefits (e.g. unaided awareness) increased over the three-year title sponsorship. Sponsorship outcomes for RBC were positive and supported previous literature related to sponsorship’s ability to build a relationship between a corporation and a consumer. First, it has been established in previous research that consumers put value in corporations who support events and causes that are important to them (Westberg and Pope, 2014), which is extended to the specific content of title sponsorship and supported by the results here (Table V). Second, specific to the Canadian context, industry research has shown that Canadians put high value in sponsors who reflect the heritage of Canada and who are seen to be giving back for a better future (Ipsos, 2016), which is a benefit provided to RBC via this sponsorship. Finally, and possibly most important from a marketing perspective, RBC sponsorship increases trust among Canadian consumers, and trust will likely enhance firm–consumer marketing relationship (Danthine and Jin, 2007; Sirdeshmukh *et al.*, 2002).

\( H2 \) was supported by the findings suggesting that having a title sponsor will improve the evaluations of the event and the cause. Although there could be other influencers to
consider and these are the results related to a single title sponsor, the results on these outcomes (support of the event and support of the cause) were significantly higher after the RBC title sponsorship came into effect. The event organizers survey results further supported the finding. These results support the notion that title sponsorship, with the right title sponsor (fit with the cause and the property; O’Reilly and Madill, 2012), benefits both the event and the cause. Practically, this further enforces the value of a title sponsorship above a typical sponsorship for both sponsor and property.

H3 and H4 explored title sponsorship and how it differs from other levels of sponsorship. Findings revealed that for all levels of sponsorship the asset value of SDIC (as a cause-related sport event) was substantiated and supported. This fits with the previous studies on sponsorship evaluation and further reinforces that it is the activation of a sponsorship asset that largely determines its success (O’Reilly and Lafrance Horning, 2013). Second, in terms of unaided awareness, the title sponsor, RBC, had a series of better performance measures than for most of the other partners in 2013–2015, a notable finding given that the other partners associated with SDIC since 2010 and that many of these partners had strong ties to SDIC. This suggests an “awareness advantage” for the title sponsor over other partners. Third, throughout the three years of assessment with RBC as title sponsor, most respondents were aware of RBC as a sponsor and many knew that RBC was the title sponsor. Fourth, and perhaps the most important finding was that awareness levels of ParticipACTION dropped from 47 to 37 percent ($p < 0.01$) from 2012 to 2013–2015 when the RBC title sponsorship launched, suggesting that perhaps some confusion over naming when a title sponsor joins. This apparent disadvantage needs to be weighed against the infusion of financial and in-kind support. Finally, and further evidence of the importance of activation and reach (O’Reilly and Madill, 2012) are the high levels of awareness for the media partners (CBC and Radio-Canada). Thus, in responding to H3 and H4, the data suggest that title sponsor status facilitates the ability to increase awareness for the sponsor, but that success requires effective activation and a strong property to achieve greater return than other sponsorship levels.

Although this research study is exploratory, in terms of benefits for practice, it highlights the need for continued evaluation at multiple levels of sponsorship (and the title sponsorship level specifically) and provides important consideration for NFP organizations, and potential sponsors, to consider. Notably, for managers of NFP organizations seeking to launch or support events related to their cause of interest, the decision to accept a title sponsorship needs to be closely considered given the possible outcome of reduced awareness for the NFP organization. Consideration of the cost benefit of title sponsorship is recommended. Similarly, the reach of the event is shown here to be important (i.e. the number of local events within SDIC), which is something NFP organizations should consider when creating such a property. For corporate sponsors for whom an increased association with a NFP organization or a specific cause could be of benefit, the title sponsorship of a far-reaching cause-related sport event should be an alternative to consider. For corporations seeking to market their brand, products and/or services to target markets, the title sponsorship with a cause and a property that would be appealing to those markets should be an important alternative to consider.

The study has a few limitations. First, due to limitations of data, analysis is restricted to descriptive statistics and lower-order analysis and does not build a model among key variables. This is something that future research should address by collecting data that allow for the confirmation of the exploratory findings and addresses more closely the four hypotheses. Second, the data on participants were collected indirectly from the event organizers. Since the occurrence of physical activity is an important metric of SDIC’s success, collecting data based on direct and systematic observation would enhance the evaluation process and provide a more accurate understanding of audience participation in
the event. Data need to be collected in the future to understand audience demographic profile, their physical activity status and the match with RBC consumer profile. Third, the study investigated awareness, favorability and behavioral potential for title and secondary sponsors. It did not compare the increment in value for these brands because of their sponsorship decision. Future research should explore the improvement in brand value as a result of sponsorship activities.

Fourth, an assumption was made that changes in perceptions 2013 onwards were solely due to RBC acquiring the title sponsorship of SDIC, which may not be true. Other factors such as the year-over-year growth of the event, the increasing importance of the cause or changes in the external environment over time may have influenced these changes.

Finally, the percentage of Canadians who were unaware of SDIC were high. This reflects the weakness of the RBC SDIC campaign and reduces the importance of findings and influence of title sponsorship of a cause-related sport event.

**Conclusion**

This research provides strong support for title sponsorship of a cause-related sport event as a consideration for corporations seeking to market products to people who have an affinity to that cause. If the brand is seeking an investment that also has philanthropic and CSR outcomes, then these types of events and the title sponsorship status increase incrementally. For cause-related sport properties seeking resources to support their event and/or cause, title sponsorship is an appropriate tactic to consider, particularly if there are brands who fit with the event property and the cause.

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Commercial rights management in post-legislative Olympic sponsorship

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Abstract

Purpose – The purpose of this paper is to explore the development of preventative counter-ambush marketing initiatives and rights protection strategies, providing an historical view of rights management and the International Olympic Committee’s sponsorship protection initiatives through ambush marketing’s formative years.

Design/methodology/approach – In examining the antecedents and implications of the Canadian Olympic Committee’s (COC) forward-thinking approach to ambush marketing protection, and to explore the development of preventative counter-ambush initiatives, an historical examination of IOC and COC policies and protocols regarding ambushing and sponsorship protection over a 30-year period was undertaken, informing the development of a proposed model of proactive commercial rights management.

Findings – The findings indicate that a progressive shift in the counter-ambush activities of major commercial rights holders may be underway: increasingly, the COC has stressed education and communication as key components of their commercial rights protection strategy, in lieu of enforcing the legal protection provided them by the Olympic and Paralympic Marks Act of 2007. The resultant commercial rights management model proposed reflects this proactive approach, and illustrates the need for events and sponsorship stakeholders to Anticipate, (Re)Act and Advocate.

Originality/value – The study offers a contemporary perspective into counter-ambush strategies within the context of the COC’s brand protection measures and industry practice. The proactive approach to commercial rights management explored represents a significant step in ambush marketing prevention on the part of the COC.

Keywords Sponsorship, Ambush marketing, Event marketing, Commercial rights management

1. Introduction

The 2014 Sochi Winter Olympic Games represented a watershed moment in commercial rights management and sponsorship protection. Absent the legislative protection afforded the Canadian Olympic Committee (COC) for the 2010 Vancouver Games, Canadian Olympic marketing officials were confronted with two high profile examples of non-sponsor marketing, illustrative of the challenges posed by non-sponsor marketing to events and of an emergent new approach to rights protection strategy.

In November 2013, British outerwear brand The North Face released a line of winter apparel named “Village Wear” which featured international insignia, overt references to Russia and the year 2014 (including the branding RU/14), and accompanying retailer documentation which detailed the line’s Olympic connections and the intentions of the brand (Krashinsky, 2014, 2016; McKelvey, 2016). At the brand’s flagship retail location in Toronto, a North Face employee announced the arrival of the “Village Wear” line on sidewalk chalkboard alongside a drawing of the Olympic Rings, used without the COC’s or the International Olympic Committee’s (IOC) approval (McKelvey, 2016).

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The same year, a more subtle marketing campaign by American brewery Budweiser featured an extension of the brand’s National Hockey League and Hockey Night in Canada-themed “Red Light” promotion, targeting the Olympic ice hockey competition. The Budweiser Red Light campaign offered fans the opportunity to buy or win Wi-Fi enabled goal lights which illuminate when the owner’s favourite team scores (Martin, 2014). The 2014 Olympic-themed promotion included a national advertising campaign playing on Olympic hockey imagery and Russian visual and linguistic cues, and included the flying of a branded red light-shaped zeppelin in major Canadian metropolitan centres, directly competing with official Hockey Canada and COC sponsors Molson Canadian (Infantry, 2014).

The contrasting responses to these two non-sponsor campaigns by the COC offer a valuable case study for commercial rights management practices. In recent years, the IOC and other major commercial rights holders have consistently stressed legislative protection and enhanced intellectual property rights enforcement in response to non-sponsor marketing efforts (James and Osborn, 2016; McKeelvey and Grady, 2008; Scassa, 2011). However, following the expiration of Bill C-47 Olympic and Paralympic Marks Act (2007) upon completion of the 2010 Vancouver Winter Olympic Games, the COC and Canadian Olympic sponsors now operate in a post-legislative sponsorship environment. As such, the COC’s right management efforts in 2014 offer insight into sponsorship protection initiatives for sponsors and rights holders in the absence of ambush-specific legislation; the organisation has instead favoured education and corporate community engagement over legislative enforcement and interventionism (Ellis et al., 2016), a potentially valuable approach to ambush marketing prevention moving forward.

This study seeks to examine the antecedents and implications of the COC’s approach to commercial rights management, and to explore the development of preventative counter-ambush marketing initiatives. As such, the present research endeavours to address two central research questions:

- **RQ1.** To what extent have sponsorship development and early counter-ambush marketing tactics informed contemporary commercial rights management practices?
- **RQ2.** What preventative counter-ambush marketing measures are available to rights holders?

In taking a multi-faceted, longitudinal perspective, an historical examination of IOC and COC policies and protocols regarding ambushing and sponsorship protection over a 30-year period is presented, providing the basis for a proposed model of commercial rights management. This represents a significant step towards better understanding preventative counter-ambush initiatives, and the role ex ante sponsorship protection efforts may play in limiting the efforts and effects of ambush marketers, in lieu of existing ex post facto counter measures. The study’s findings contribute to both the theoretical and practical understandings of ambush marketing and sponsorship protection, and provide a framework upon which to build future research.

### 2. Theoretical framework

Ambush marketing today represents a significant consideration for sponsorship stakeholders. Defined as “the incursive, obtrusive or associative activities of a brand that yields a range of benefits similar or comparable to those typically achieved by brands that have formal, contractual sponsorship agreements with events” (Burton and Chadwick, 2018, p. 289), ambushing offers brands an alternative means of capitalising on the marketing value of sport and an opportunity to take advantage of the awareness, attention and consumer goodwill typically sought by official sponsors, without an official or authorised association with the primary rights holders (Chadwick and Burton, 2011). Such efforts are of concern for sponsors and events alike: ambush marketing has long been theorised to undermine and potentially
devalue sponsorship by cluttering the marketing environment around sporting events and diminishing the effectiveness of official sponsor marketing efforts (McAuley and Sutton, 1999; Payne, 1998, 2005). The protection of sponsors – and defense against ambush marketing – has therefore become a critical factor in sponsorship relations, and an increasingly important and prominent consideration in sponsorship research.

Historically, ambush research has been driven by a view of ambushing as a potentially detrimental or predatory activity (Meenaghan, 1994; Sandler and Shani, 1989). Whilst more recent studies have emphasised a more strategic and associative perspective of ambush marketing, acknowledging the more legitimised and opportunistic form of ambushing which has emerged over time (e.g. Burton and Chadwick, 2018; Chadwick and Burton, 2011), early conceptualisations of ambushing as a form of parasitic marketing have permeated much of ambush marketing research and sponsorship management practice. Key scholarly considerations reflecting this pejorative view have consequently dominated the extant research, including investigations into the legality of ambush campaigns (McKelvey, 2006; McKelvey and Grady, 2008; Scassa, 2011; Townley et al., 1998), the moral or ethical propriety of ambushing (O’Sullivan and Murphy, 1998; Payne, 1998) and the cognitive and affective implications of ambush messaging for consumers (Humphreys et al., 2010; McDaniel and Kinney, 1998; Meenaghan, 1998; Sandler and Shani, 1989).

This view of ambushing as a threat to sponsorship is perhaps no more evident than in the persistent suggestion and investigation of potential means of protecting official sponsorship rights, or preventing ambush marketing, throughout ambush scholarship. Researchers have sought to indemnify sponsors and events through a variety of means, including myriad legal, marketing and legislative counter-ambush measures (Crompton, 2004; McKelvey and Grady, 2008; Meenaghan, 1994). Burton and Chadwick (2009) categorised those counter-ambush measures proposed into two broad areas: reactive, *ex post facto* activities, intended to retroactively punish ambushers or seek recourse for commercial damages to sponsors and event sponsorship programmes; and proactive counter-ambush initiatives, employed by events to limit or prevent ambush opportunities. Although the measures proposed throughout the literature offer insight into the development of sponsorship protection tactics over time, the tactics discussed and employed in practice have enjoyed limited success in preventing ambush marketing proliferation (Burton and Chadwick, 2009).

### 2.1 Reactive counter-ambush measures

Amongst the earliest sponsorship protection initiatives employed a strong emphasis on reactionary measures is apparent. Perhaps, most visible of those early reactive practices was the use of public relations and media sentiment to denigrate ambush marketers and attempt to curry favour with consumers, a tactic commonly referred to as “name and shame”. Such efforts relied on consumers upholding an ethical response to ambushing in line with those allegations made by rights holders in the 1980s and 1990s, who denounced ambushers as seeking to confuse fans as to the identity of official sponsors, or to attack and parasitise official sponsors’ associations (Mazodier et al., 2012).

This tactic has ultimately proven unsuccessful, however; consumer views regarding the ethics of ambushing have historically been mixed, and most directly tied to familiarity with event sponsors and consumer interest or involvement in events (Lyberger and McCarthy, 2001; MacIntosh et al., 2012; Mazodier et al., 2012; McKelvey et al., 2012; Portlock and Rose, 2009; Sandler and Shani, 1993; Shani and Sandler, 1998). Rather, the additional media coverage granted to the ambusher by such public relations tactics has merely succeeded in magnifying the ambush campaigns and providing the ambushing brand additional media attention and focus.

More significant in reactive counter-ambushing has been an emphasis on enforcing events’ intellectual property rights and the pursuit of legal remedies. However, those cases
involving the illicit use of protected marks or copyrighted material have most commonly implicated smaller, local businesses attempting to capitalise on the presence of major events (Burton and Chadwick, 2009), and have posed little concern for sponsors or rights holders. By contrast, the success of legal enforcement in preventing larger-scale ambush activities has historically been limited (Hoek and Gendall, 2002); past court rulings have typically favoured ambushers in those few cases to be argued in court, due largely to the absence of direct intellectual property rights infringements (Coulson, 2004; Crompton, 2004; Kendall and Curthoys, 2001).

The precision and care taken by ambushers with respect to intellectual property rights has instead led to suggestions within ambush research that events may be more successful in alleging misappropriation of goodwill – or in common law, passing-off – and in seeking recourse for unfair competition (Retsky, 1996; Scassa, 2011). Passing-off, commonly defined as the act of selling goods or providing services under the intended assumption of connection with another organisation, provides the most directly related legal construct to ambush marketing. However, the plaintiff must successfully argue that the efforts of the ambush marketer unlawfully or illegitimately misguided consumers by misrepresenting an association and incurring damages to the rightful property (Coulson, 2004). Ellis, Scassa and Séguin (2011) noted that efforts to allege misappropriation are likely to enjoy limited success, as ambushers typically avoid misrepresentation of its wares as those of another, sponsoring brand and instead endeavour to leverage their own brands against the marketing value of an event. This is an important distinction in passing-off law: rather than potentially confusing consumers as to who owns or markets a particular good or service, as would be the case in passing-off, ambush marketers align their brands with sponsored events, activities typically outside the parameters of misappropriation laws.

Ultimately, the reactive tactics employed by rights holders have offered little protection from ambush marketers. Given the short timeframes during which most sporting events take place, and the often quick, timely campaigns utilised by ambushers to maximise their association with an event, lengthy legal proceedings and ex post facto public relations campaigns provide little protection for sponsors. Moreover, ambush marketing’s evolution and proliferation suggests that such measures have had little effect in dissuading ambushing brands from engaging in event-associated or targeted marketing campaigns.

2.2 Proactive counter-ambush measures

As such, commercial rights holders have increasingly adopted more proactive, marketing-oriented counter-ambush measures in place of less effective reactionary tactics (Farrelly et al., 2005; Séguin and O’Reilly, 2008). Amongst those pre-emptive protectionist initiatives implemented have been the implementation of marketing exclusion zones around event host sites and stadia, the inclusion of improved marketing media and leveraging opportunities in sponsorship contracts, and enhanced on-site brand protection policing in and around events (Burton and Chadwick, 2009). Organisations such as the Union of European Football Associations have had success incorporating marketing inventory such as broadcast advertising in their sponsorship contracts, obliging sponsors to leverage their partnerships during telecasts or offering sponsors first right of refusal on advertising inventory, and blocking-out ambushers from potentially valuable marketing time (Mazodier and Quester, 2008; McKelvey, 2000).

Moreover, proactive changes in sport law have seen important developments in counter-ambush strategy. Rights holders have initiated advances in event ticketing regulations and re-distribution, enacted stricter enforcement for on-site fan conduct and involvement in marketing campaigns and incorporated enhanced contractual terminology in sponsorship relations to more clearly assign and communicate the responsibilities of both parties to
monitor and protect against ambushing (McKelvey, 2003; McKelvey and Grady, 2008). Additional restrictions on the marketing activities of participating athletes, teams, nations and sports federations during competition have similarly been included in event marketing programmes and contracts (McKelvey and Grady, 2008; Townley et al., 1998), providing greater protection for sponsors and eliminating potential or known ambush media and opportunities for non-sponsors to exploit.

More prominent, however, has been the enactment and enforcement of anti-ambush marketing legislation in event host countries. The targeted use of trademark and intellectual property rights legislation as a means of deterring and prosecuting ambush marketers began with the Australian Government’s adoption of the Sydney 2000 Games (Indicia and Images) Protection Act in 1996 as protection for the 2000 Summer Olympics Games (Kendall and Curthoys, 2001). Sydney organisers and the Australian Government sought to reinforce existing intellectual property rights protections for the 2000 Games and Olympic sponsors in order to limit potential ambush opportunities (Luck, 1998; Townley et al., 1998). Whilst the legislation enacted did little to dissuade major international instances of ambushing (Vassallo et al., 2005), the legislation was well received by Olympic officials and sponsors and has since become a mandatory component of any Olympic host city’s bid process.

In the wake of the Sydney Games, the remit of ambush legislations has increasingly widened over time, drawing on and adapting from previous events and ambush campaigns (James and Osborn, 2016). The London Olympic and Paralympic Games Act (2006), for example, included specific provisions governing associative advertising termed the “London Olympic Association Right”, which prohibited the use of sporting imagery and terminology during the Games period (James and Osborn, 2016; Scassa, 2011).

The expansion of event-specific ambush legislation to this extent, however, has inspired significant debate and concern amongst citizens, businesses, event stakeholders and the academic community (James and Osborn, 2016; McKelvey and Longley, 2015; Scassa, 2011). The legal and legislative measures enacted have raised concerns over human rights infringements and anti-competitive practices (Louw, 2012), raising doubts over the ethical practices of rights protection. Restrictions imposed on spectators entering venues in South Africa at the 2003 Cricket World Cup, for example, which banned primary school students from bringing non-sponsor beverages and wearing branded t-shirts into the stadium (Kelso, 2003), and legal action which threatened local restaurants for perceived ambush efforts in Canada in advance of the 2010 Winter Olympics (Hume, 2004), have brought attention to the draconian measures in place, and highlighted the rigour with which such means are enforced to the potential detriment of spectators and local businesses.

2.3 Progressing ambush marketing preventative measures
Ultimately, in spite of the advances made in proactive counter-ambush marketing efforts, such tactics have been only moderately effective. Although proactive counter-ambush measures have been intended to limit ambush opportunities and to strengthen sponsors’ connection to events, ambushers have consistently identified and exploited new, unregulated opportunities and have successfully circumvented the restrictions created (Burton and Chadwick, 2009). Events have in turn increasingly depended on legislative protection and legal enforcement, with little consideration of their true impact or effectiveness.

Most recently, ambush scholars have explored the value of educating consumers, commercial partners and potential ambush marketers, as to the rights owned and controlled by events and properties around major events and the opportunities and risks available to non-sponsors in activating around sports properties. Ellis, Gauthier and Séguin (2011) highlighted the value of ambush legislation as a communications tool for events in establishing and relating their intellectual property rights. Koenigstorfer and Uhrich (2017) likewise explored that further the proactive role public relations tactics may play in
sponsorship protection, proposing the use of “counter-ambush communications”, comprising of the traditional “name and shame” ethical tactics of the 1990s and more importantly, educational and humour-based responses on the part of rights holders and sponsors. The Fédération Internationale de Football Association (FIFA), amongst others, has embraced such a proactive communications-based approach, following widely publicised and criticised efforts to curb non-sponsor marketing activities by brands such as Bavaria and Beats By Dre (Chanavat et al., 2017).

Unfortunately, there remains a need for greater investigation into practical and viable counter-ambush measures for events in the extant ambush and sponsorship literature. Ambush marketers have consistently demonstrated an ability to circumvent sponsorship protection mechanisms and regulatory frameworks, evolving over time into a more creative, innovative and opportunistic form of associative event marketing (Chadwick et al., 2016). The ambush literature has offered a number of recommendations for sponsors and events to better limit ambush marketing or mitigate its effects; however, those suggestions made by scholars, and counter-ambush measures practiced by commercial rights managers, have yet to be evaluated in any depth in order to better ascertain their value and effectiveness. Moreover, ambush marketing research – and those measures proposed by scholars to protect official sponsors – continues to uphold and maintain ethical biases founded upon the IOC’s earliest conceptualisations of ambush marketing and initial tactics employed to combat offending campaigns (Burton and Bradish, 2018; Nufer, 2016). The continued reliance on ethically based legislation and intellectual property rights protections risk consumer and commercial backlash (Louw, 2012; McKelvey and Longley, 2015), and have to date proven unsuccessful in restricting ambush marketers’ efforts.

As such, this study seeks to explore the potential for proactive sponsorship management and ambush marketing education as alternatives to the existing counter-ambush measures in place. Recent advances in counter-ambush communications and legislation signify the need and possibility for a more proactive approach to ambush marketing prevention and protection. A more forward-thinking, preventative approach to sponsorship protection is needed in order to better safeguard sponsors’ investments and activations, and to more effectively limit the opportunities and media available to ambush marketers. This need is further magnified by advances in social media and digital marketing, which have given rise to new forms of “social” ambushing and have further complicated the protection of sponsors and prevention of ambush marketing for major events rights holders (Chanavat and Desbordes, 2014).

3. Methodology

This study examines sponsorship protection within the context of the Canadian post-legislative environment, offering a preliminary investigation into the development and employment of preventative counter-ambush initiatives. The research comprised two phases, intended to ground the study in industry practice and to explore in-depth the evolution of counter-ambush strategies employed by commercial rights holders internationally. The methods employed took a constructivist, exploratory perspective (Yin, 2009), drawing upon IOC and COC rights documentation and Games records. The examples of the IOC and COC provided a valuable case through which to explore the antecedents and outcomes of ambush marketing prevention and commercial rights management development, affording the study depth and real-world context (Yin, 2009).

3.1 Data collection

Archival materials from the IOC’s Library and Olympic Studies Centre provided the principal source of documentation for Phase 1 of the research. Documents pertaining to Olympic sponsorship, marketing, bid procedures and granting, Games marketing
preparation and Games delivery were used to collect the data, whereupon a content analysis of the IOC’s internal records was undertaken. This extensive content analysis provided a comprehensive review of past and current counter-ambush practices internationally, and contributed to an historical, holistic review of the protectionist practices employed at the highest levels of sport. The documentation analysed built upon the theoretical view of counter-ambush practices by providing added detail and context to the regulations and requirements set by the IOC for potential Olympic host cities and nations. This depth and breadth of content provided considerable insight and clarity into RQ1, regarding the evolution and impact of sponsorship developments and early counter-ambushing tactics.

Phase 2 consisted of a comprehensive examination of the COC’s present policies, strategies and documentation regarding non-sponsor marketing. This analysis was intended to better assess the potential for and implications of preventative right protection efforts, as identified in RQ2. The example set by the COC offered unique insight into commercial rights management and brand protection strategy in a post-legislative environment. Whilst the COC retained a number of exceptional protections afforded to them by the OPMA – such as Section 9 Official Marks status under Canadian trademark law – the COC has nevertheless operated post-Vancouver 2010 without ambush-specific legislation following its expiration on 31 December 2010 (Mackin, 2010). Succeeding Olympics in London in 2012 and Sochi in 2014 inspired considerable commercial appeal in Canada, including notable national-level non-sponsor campaigns by the likes of Budweiser, The North Face and Roots Canada. However, without the legislative protection afforded for the 2010 Games, the COC was forced to identify new means of protecting their commercial partners and restricting non-sponsor marketing activities.

Working in collaboration with members of the COC’s commercial rights management unit, this second phase of data collection afforded a look into the counter-ambush measures employed by the COC. Emphasis was placed on the COC’s practices established for and immediately following the 2010 Vancouver Winter Olympic Games, including documentation pertaining to the COC’s proprietary commercial rights management case assessment form, brand use guidelines and case management files.

In total, approximately 2,700 pages of IOC and COC rights management documentation, IOC archival files, memorandums, marketing agreements and confidential Games documents were analysed. Given the Olympic Library’s embargo on confidential documentation (20 years for marketing archives, 30 years for executive board documents), the materials collected from the Olympic libraries covered until 1994 and 1984, respectively. These years were important for consideration: Olympic marketing and sponsorship documentation covering the years 1980–1994 ensured the inclusion of the developmental era of contemporary commercial sponsorship practices. These formative years saw substantial changes made to sponsorship sales and delivery for the 1984 Los Angeles Summer Olympic Games, and the enactment of the TOP sponsorship programme in 1985. This period equally covered the preparations for the third iteration of TOP between 1993 and 1996, and importantly, the early development of counter-ambush measures by the IOC.

3.2 Data analysis
Content analysis of the IOC and COC archival material and internal marketing and sponsorship documentation was conducted manually, due to the format of the materials examined and the confidential nature of the contents. Moreover, due to the confidential nature of the files collected and examined from the IOC, a single-coder manual analysis was determined by the research team to be the most efficient approach. In conducting the analysis, a three-stage coding procedure was undertaken. First, an initial open coding of the
data was guided by concepts and constructs identified within the academic literature concerning rights management and protection (cf. Burton and Chadwick, 2009; McKelvey and Grady, 2008), counter-ambush practices and sponsor–sponsor relations. Legal machinations, legislative enactment and enforcement, on-site fan and athlete marketing regulations, and sponsor responsibilities and allowances were examined and explored throughout this stage, in an effort to determine IOC central rights management practices and their development. Throughout this preliminary analysis, data were assigned to a primary open code (e.g. legal, legislation and contracts), or contributed to the development of a new code (e.g. awareness and National Olympic Committee (NOC) conflict) (Miles and Huberman, 1994). Constant comparison throughout this stage of analysis enabled the research team to identify and create new constructs, as well as to assess and expand upon relationships between variables (Creswell, 2003).

Upon completion of this open coding phase, axial coding was conducted in an effort to identify common patterns and relationships within the data (Miles and Huberman, 1994). Open codes were reconciled and collated across the complete data set, establishing commonalities and links between the historical records and accounts of IOC and official Games sponsorship and ambush marketing tactics, and those of the COC. Central constructs such as the legal terminology employed by representatives of the IOC and International Sport and Leisure (ISL) – the IOC’s marketing agency during this period – which discussed and attempted to deter ambushing (indemnification), the internal discourse from IOC stakeholders and sponsors regarding rights, responsibilities and protections (encumbrance), began to emerge. This axial coding process further afforded the opportunity to establish a timeline of events within Olympic sponsorship management and sponsorship contract development between the IOC and its partners, the evolution of TOP sponsorship programme and the evolution of ambush marketing prevention or interventionism.

Finally, selective coding of the data was undertaken, in order to refine the data into a series of conceptual categories which described the concepts and constructs identified through the open and axial phases. This final coding of the data re-examined the relationships and connections between constructs, wherein legal indemnification, activation and education emerged as central to preventative counter-ambush activities. The resultant analysis provided an important measure of reflection, contrasting past sponsorship protection activities as uncovered throughout the IOC’s documentation and policies with the COC’s more contemporary and forward-thinking approach to ambush marketing prevention and corporate community engagement.

4. Discussion
The data revealed a number of insights into the development of sponsorship protections and rights management activities over the first decade of ambush marketing’s history. The IOC documents examined illustrated and contextualised many of the rights management and counter-ambush practices which today remain commonplace and fundamental to sponsorship protection. Similar to McKelvey and Grady’s (2008) analysis of right protection tactics, the enactment and enforcement of legal protections and strengthened on-site policing emerged over the time period studied and continue to be central to contemporary practice. Likewise, the foundations for event-specific ambush legislation and enhanced, extraordinary protections afforded to the IOC in host countries are manifested through the IOC’s approach to ambushing. These predominantly interventionist, legal mechanisms, however, appear to have made way for a more proactive response on the part of the COC; despite benefiting from similar legislative protections for the 2010 Vancouver Winter Olympics, the example set by the COC in a post-legislative Games environment suggests greater opportunity for prevention is possible.
4.1 Mapping commercial rights management history

Many of the developments apparent in the IOC’s rights management policies in ambushng’s early years illustrate a reluctant move away from predominantly intellectual property rights-focused tactics, towards more marketing-led and management-led protective initiatives. The data revealed that the approach to rights protection fostered by the IOC through the first two cycles of the TOP programme strongly favoured legal protections against ambushing, rather than market-focused remedies intended to prevent or restrict non-sponsor marketing opportunities. Foremost within the IOC’s archival materials were major advances in the sophistication of sponsor contracts, and resultant changes in the relationship between sponsors and the IOC. It is notable that through the first TOP sponsorship quadrennial cycle (1985–1988), zero mention of ambush marketing or competitive marketing practices appeared in any IOC documentation or internal messaging. The only rights protection initiatives included in IOC sponsorship contracts stipulated the procedures incumbent on both organisers and sponsors in the event of intellectual property rights infringements encroaching on a sponsor’s market exclusivity.

The first mention of “ambush marketing” came on 30 June 1989, in a correspondence between the IOC and Coca-Cola regarding potential market challenges to rights protection. This cognisance of ambushing, however, had seemingly little impact on sponsorship practices or relations through the early years of the TOP Programme, as rights responsibilities and protection measures were scarce. Indeed, evidence of the IOC’s awareness of ambushing, and the perceived threat posed to their commercial partners, only appeared in the early stages of TOP’s second cycle (1989–1992), and the planning for the 1992 Albertville and Barcelona Games.

TOP II in turn saw important developments in the IOC’s rights management, including the explicit acknowledge of the perceived threat posed by ambushers internally amongst Olympic stakeholders, and the overt communication amongst sponsorship partners regarding the need for greater Games officials’ involvement in confronting the challenges posed. Amongst the changes enacted for the staging of the 1992 Games included on-site policing of official marks usage and brand infringements at Olympic sites, and increased human resources drafted in by the IOC and local organisers to assist in the legal defence against alleged ambushers and merchandise counterfeiters. ISL and the IOC engaged in active monitoring and cataloguing of ambush marketing cases internationally during the inter-Games period and throughout the 1992 Games, demonstrating a growing awareness and appreciation of the activities of non-sponsors around the Games. Such changes reflected the IOC’s increased awareness and appreciation of the presence and potential effects of ambush marketing around the event. It is notable, however, that the TOP II sponsorship contracts contained no mention of rights responsibilities incumbent on the IOC. Rather, TOP II sponsorship contracts described the need for sponsors to protect the IOC’s marks and ensure fair and responsible usage, and overlooked any assumed responsibility on the IOC’s part to protect their sponsors from ambush marketers.

In this respect, the IOC and ISL’s approach to rights protection was largely inward facing, and placed significant emphasis on legal protections – namely, the immediate distribution of cease and desist letters to companies perceived to be engaging in ambush activities around the Olympic Games, regardless of whether any intellectual property infringement had been committed, or the presence of legitimate ties to the events or participating athletes, federations or NOCs on the part of the implicated brand.

Perhaps most significant, beginning in 1991 evidence suggests that IOC marketing executive Michael Payne pushed for greater engagement and communication between Olympic officials, ISL and TOP sponsors, in order to educate partnering organisations on the marketing opportunities available to them, as well as the potential challenges faced due to ambushing. Throughout the IOC’s preparations for the third TOP Programme (1993–1996),
Payne was vocal in advocating for increased dialogue with the corporate community, and improved communication with Olympic Games Organising Committees (OCOGs), NOCs, and sponsors and non-sponsors alike, regarding the importance of Olympic sponsorship and the purported perils of ambush marketing. Indeed, throughout the IOC’s development of TOP between its first three iterations, a progressive evolution in practices and protections is apparent in this respect (see Table I).

The IOC’s experiences through the first three iterations of TOP illustrate the complications faced in approving and facilitating sponsorship activation efforts for rights owners. Both Albertville and Barcelona provided significant challenges for the IOC and ISL as a result of sponsors’ efforts to maximise their partnerships, most notably in the case of Visa. Despite growing pressure from rivals American Express, internal IOC records indicate that Visa struggled to receive approval on a number of complex leveraging efforts and third-party partnerships, such as French bank Credit Lyonnais. Visa’s sponsorship was ultimately undermined by American Express’s marketing efforts during the Games, both internationally through their much publicised and popularised “You don’t need a visa” campaign (Brennan and Cress, 1992), and closer to home: IOC memos from the 1992 Games document the surprise and indignation of IOC and ISL executives upon their realisation that American Express had agreed an exclusive sponsorship agreement with Barcelona’s Hotel Princesa – the host hotel for the IOC executive during the Games. In response, significant debate throughout the IOC policies and memoranda entering TOP III concerned the approvals processes for sponsorship activations, and the creation of sponsorship workshops and internal communications processes to facilitate best-practice discussions and ISL-led advisory presentations.

These developments across TOP’s first three iterations help contextualise much of what is known about Olympic counter-ambush marketing tactics and planning, and provide important background to the IOC’s internal planning and stakeholder management. As Burton and Chadwick (2009) have noted, many early interventionist activities adopted by rights holders were reactionary and served merely to respond to ambush attempts, rather than to deter. The emphasis placed through TOP I and II on legal protections and intellectual property rights enforcement illustrate the challenge faced by organisers. Entering TOP III, however, the IOC’s positioning of ambushing as parasitic in nature and the use of aggressive public relations campaigns to dissuade would-be ambush marketers and to guide public sentiment suggest that a more proactive, albeit only marginally

<table>
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<th>TOP III</th>
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<td>Heightened awareness of ambushng</td>
<td>Strategic positioning of ambushing as “parasitic”</td>
<td>Aggressive counter-ambush communications emphasising ethics, attacking ambushers</td>
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<tr>
<td>Protection of Olympic brand, marks expected of partners</td>
<td>Enforcement of intellectual property rights, pursuit of cease and desist</td>
<td>Sponsorship contracts include IOC responsibilities for protecting sponsors, sponsor investments</td>
<td>Implementation of event-specific ambush legislation in host countries made mandatory</td>
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<tr>
<td>Little formalized awareness or tracking of non-sponsor activities</td>
<td>On-site policing of protected intellectual property, official marks</td>
<td>Increased legal protections internationally of Olympic marks proposed, framework for legislative approach laid</td>
<td>Improved on-site regulations, commercial protections</td>
</tr>
<tr>
<td>Delayed, deliberate approvals process recognised by sponsors as prohibitive</td>
<td>Scarc contract obligations for IOC to protect sponsors, responsibility on partners maintained</td>
<td>Implementation of marketing workshops across sponsors, suppliers and partners</td>
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Table I. Key advances in TOP ambush marketing responses
effective, approach was emergent. The subsequent enforcement of stricter broadcast marketing rights, on-site regulations for participants and spectators, and securing marketing inventory surrounding event sites and spaces (McKelvey and Grady 2008) further illustrate the importance placed latterly by the IOC on greater planning, preparation and prevention.

However, the manifestation of this preventative approach has most visibly and controversially come in the form of ambush-specific event legislation, today a mandatory requirement of the Olympic bidding process for host city candidacy (Scassa, 2011). Entering the third era of the TOP Programme, IOC and ISL officials had begun formally planning for the implementation of bespoke legislation in host countries to further strengthen intellectual property rights protections; internal communications between the IOC and ISL explicitly stressed the need for the IOC to “create a climate hostile to ambush marketing”. TOP III contracts included specific responsibilities detailing the IOC to protect sponsors’ rights and investment, and marked an important shift in accountability on the part of the IOC. Moreover, internal communications between the IOC, ISL, and local organising committees called for the enactment of the necessary legal and legislative protections for Olympic marks and properties in all IOC recognised countries, and additional protections implemented in host countries. Olympic executives appeared particularly concerned regarding the potential commercialisation of the upcoming 1996 Atlanta Summer Olympic Games, and the wealth of ambush marketing attention developing around the Games.

4.2 Education and communication: commercial rights management and the COC

Given these developments, the more recent experiences of the COC offer an interesting case study in commercial rights management. In contrast to the rights management foundations lain by the IOC through TOP’s first three quadrennials, and the move from Atlanta to Sydney towards a more legislative-focused, interventionist approach to ambush marketing protection, the COC has navigated the Vancouver Olympics and subsequent events without requiring legislative enforcement. Rather, the COC has sought to employ existing legal protections and intellectual property rights protections, and has espoused an increasingly preventative, education-based approach to counter-ambush measures. The examples set by the COC’s response to non-sponsor campaigns staged by The North Face and Budweiser thus offer insight into contemporary rights management practices in a post-legislative environment (McKelvey, 2016).

First, in response to The North Face’s “Village Wear” line, the COC pursued legal remediation and sought to establish new precedence in Canadian law regarding non-sponsor marketing and intellectual property rights infringements (Infantry, 2014; Krashinsky, 2014). Whilst the COC retained some extraordinary protections from the OPMA (including Section 9 protected status for Olympic marks) following its expiration, their response to North Face’s “Village Wear” campaign was based upon traditional trademark law as found in most Olympic nations. Furthermore, whereas The North Face example outwardly appeared relatively straightforward – the use of the Olympic Rings by an unaffiliated or unlicensed entity constitutes standard trademark infringement – the COC’s case extended beyond the erroneous use of the Olympic logo, and contended that the terminology and imagery component to The North Face’s promotional materials and retailer information contained similarly offending references (Krashinsky, 2014).

The COC’s action against The North Face therefore represented a potentially landmark case in ambush marketing law: their pursuit of remediation offered an opportunity to build precedence and re-frame ambushing in legal terms, re-defining the practice as an intellectual property rights concern where previously legal pursuits have proven unfruitful (Burton and Chadwick, 2009). Within the COC, this legal-framing of ambushing and public assertion of its rights and responsibilities was seen as an important means of better protecting their
commercial partners – including Adidas and The Hudson Bay Company – as well as an opportunity to communicate with the Canadian corporate and consumer markets regarding Olympic marks usage. The litigation brought by the COC ultimately resulted in an out-of-court settlement and a “significant” donation made to the Canadian Olympic Foundation by VF Outdoor Canada, The North Face’s parent corporation (Canadian Olympic Committee, 2016a; Krashinsky, 2016).

The COC’s emphasis on education and communication has also seen the organisation embrace “name and shame” public relations efforts, seemingly a return to the IOC’s early counter-ambush activities. In contrast to those early PR campaigns which focused on denigrating ambush marketers and appealing to consumers for support on an ethical basis, however, the COC has instead targeted “name and shame” efforts on communicating the legitimacy of official sponsors, often facilitating sponsor-based communications and public responses to non-sponsor campaigns. This was perhaps best illustrated by the COC’s and Molson’s reply to Budweiser’s “Red Light” Sochi campaign: members of the COC’s rights management and strategic partnerships divisions revealed that discussions with Molson regarding the best and most appropriate course of action resulted in Molson taking a comedic stance in print media and digital advertisements. The brand preferred to highlight the apparent hypocrisy of US Olympic sponsor Budweiser celebrating when rivals Canada scored against the USA. Molson released a series of magazine and newspaper advertisements mocking Budweiser’s marketing in Canada despite their connection to the American national team, which served to illustrate the potential for humour-based counter-ambush communications, an approach advocated by Koenigstorfer and Uhrich (2017).

This collaboration between the COC and Molson further illustrates an important development in sponsorship relations within the COC. Throughout the COC’s marketing policies and rights protection strategies, the role of effective partnership management in ambush marketing prevention is evident. Considerable detail is given to the rights protection responsibilities of the COC in managing the relationship and the fair use of their marks in the industry, as well as the COC’s responsibility to the IOC in protecting and managing the use of Olympic intellectual property in an appropriate manner. This bi-directional monitoring and approvals process constitutes a significant component of the COC’s commercial rights management activities, and reflects an increasingly sophisticated and robust approach aimed at preventing non-sponsor opportunities and better regulating the event marketing environment for official sponsors.

For sponsors, this approach has necessitated greater integration and cooperation with rights holders in order to protect their own investments, setting out expectations of rights holders and more effectively communicating their own association with the event. Sponsors have been required to assume greater responsibility for the protection of their partnerships, creating activation campaigns designed to more fully establish their market presence and better own the event marketing space.

Perhaps most important in the COC’s efforts, however, has been the extension of the Vancouver Olympic Games Organising Committee’s (VANOC) brand protection practices and OPMA educational commitments to day-to-day strategic partnership planning and delivery. VANOC and the COC’s rights protection efforts emphasised education and collaboration with sponsorship stakeholders across the corporate community, whilst the organisation adopted a less forceful approach to spectator restrictions and on-site brand policing than previous Games. Entering the 2010 Vancouver Games, organisers were aware of potential public backlash to overly draconian counter-ambush measures, particularly following criticisms over the perceived heavy-handed approach taken to rights protection in the run-up to the Games (Hume, 2004). As such, VANOC and the COC sought to enable greater sponsor activation and fan engagement in lieu of more forceful traditional on-site
marketing restrictions. Highly popular and visible sponsor sites such as the Molson Canadian Hockey House were designed to offer national-level and COC sponsors greater opportunity to establish their presence, and to encourage fans to engage directly with sponsors (Semansky, 2009).

Most significant, the COC developed a publicly available series of “Brand Use Guidelines” for consumers, public institutions, media, sponsors, competitors and members of the corporate community (Canadian Olympic Committee, 2016b). The guidelines, which have evolved over time from detailing specific rights usages and regulations to a more instructional focus on brands’ and organisations’ allowances, represent an important internal and external resource for the COC. The documentation shared with interested parties provides a scorecard template by which the COC evaluates non-sponsor marketing activities and ascribes a point value in order to determine the best course of action in a rights management capacity. Externally, the COC has used these guidelines as a means of dissuading potential ambushers from engaging in activities which might disrupt sponsors’ activities or infringe on Olympic marketing rights, and instead educating brands on what is allowable for non-sponsors in order to facilitate a more positive and open corporate community around the Games.

4.3 Towards a new model of rights management practice

Based on the example set by the COC, and the progressive evolution in commercial rights management practices witnessed throughout the IOC’s early encounters with ambush marketing and international sponsorship rights management, a number of important directions can be drawn. These include: the management of rights holders’ legal, contractual and legislative involvement; the management of rights holders’ own internal practices, including the strategic awareness and decision-making behind sponsorship management and protection; and the management of sponsorship-linked marketing activities to maximise the value and activation of sponsorship and prevent potential ambush marketing opportunities. The core rights holder competencies and activities identified here reveal an increasingly proactive and strategic approach on the part of the COC in preparing for and addressing the challenges posed by ambush marketers, and provide a potentially valuable template upon which to build future commercial rights management processes. Building on these core concepts, a model has been created to illustrate the managerial implications of ambushing for sport sponsorship (see Figure 1).

Importantly, the model proposed emphasises the need for shared awareness and protection on the part of sponsors and rights holders, and encourages greater cooperation and interaction in building successful sponsorship-linked marketing campaigns and

![Figure 1. Modelling proactive commercial rights management](image-url)
sponsorship protection activities. Contemporary ambush marketing presents a collective challenge for sponsorship programmes and stakeholders, and necessitates a more collaborative approach to sponsorship management, relations and protection. This collaborative perspective of sponsorship strategy follows previous suggestions throughout the sponsorship literature for the need for increased involvement and integration on the part of sponsors in event sponsorship programmes. Chanavat et al. (2009) argued, for example, that: “a sponsorship program might be more efficient when managers and marketers know the combination, aggregation, and influence of multiple entities to maximise the perceived value of sponsorship” (p. 666). Greater synergy in sponsorship programmes, and improved co-sponsor relations which engage brands and sponsors in multiple tiers and secure assets within the same property, present the opportunity for sponsors to establish a more significant association with an event, and to communicate more effectively with their target audiences (Chanavat et al., 2009). Such extension of a sponsor’s official ties to an event would equally benefit the defense against non-sponsor marketing by limiting the available ambush opportunities and the threat posed, as well as providing the sponsor with additional legitimacy in communicating their association to consumers.

In this respect, the manner in which rights holders Anticipate, (Re)Act and Advocate is imperative to the successful management of sponsorship agreements and rights protection activities. Properties must understand ambush marketing and be aware of potential non-sponsor marketing opportunities, and should embed within their practices and agreements protections intended to limit non-sponsor access to events. The IOC’s evolution through the preliminary phases of the TOP Programme highlighted the importance placed on the indemnification of sponsorship rights, strengthening sponsorship contracts to include responsibilities on the part of both sponsor and sponsee regarding rights protection. Currently, though, much of the onus for ambush marketing prevention lies with sport properties; however, within partnership contracts should be included the requirement for sponsors to effectively activate their partnerships and to occupy available media in order to block-out would-be ambushers. Moreover, the terms and conditions negotiated by sponsorship stakeholders present significant human resources considerations for both rights holders and sponsors: staff to adequately police potential ambush campaigns and to effectively promote sponsor associations must be considered and included in sponsorship agreements in order to effectively integrate and enforce rights management activities.

The study’s findings therefore provide impetus for host NOC’s and the IOC to work in tandem to better protect Games partners, and to move towards a more synergistic and collective rights management approach. As James and Osborn (2016) noted, the institutionalisation and internationalisation of Olympic law and ambush legislation has led to succeeding Games’ legal frameworks building on and adapting those of previous events, in order to plug perceived holes in the legislations and to account for opportunities exploited by non-sponsors.

The cooperation and collaboration between host NOC’s, OCOG’s and the IOC must extend further than this, however; greater integration between all sponsorship stakeholders implicated in rights management and the delivery of major events is required. Sponsors, NOC’s and the IOC must align and ensure that responses taken to counter non-sponsor marketing attempts are reflective of the sponsor’s wishes and communications strategy, akin to the approach Molson and the COC took. Examples such as FIFA’s draconian efforts to counteract Bavaria’s marketing at the 2006 and 2010 FIFA World Cups, which necessitated official sponsor Budweiser to distance themselves from the event’s rights protection activities (Play The Game, 2009), place sponsors in an unenviable position. By improving the strategic integration and interaction between host organisers, the IOC and event- and national-level sponsors from anticipation through advocacy, the model proposed here may afford events and rights holders a more effective and synergistic approach for future Games.
Where ambush campaigns cannot be prevented through anticipation and preparation, the reaction of rights holders in appropriately enforcing legal or legislative protections or publicly condemning an ambusher’s attempt is integral. Irrespective of the presence of bespoke ambush marketing legislation, existing intellectual property rights in host countries provide a measure of protection against minor infringements; it is imperative that rights holders enforce such legal protections responsibly and strategically and avoid overtly draconian or heavy-handed approaches. Legal recourse in the form of cease and desist letters, court-ordered injunctions and litigation exist, but should follow education and improved communication with potential ambushers and members of the corporate community.

The example set by the COC in emphasising education and outreach over enforcement thus provides a valuable template for events and rights holders to follow. The legislative protections afforded to the COC through Canada’s OPMA served as a valuable educational tool for Vancouver organisers and the COC during the 2010 Games preparations. Internal communications between the COC and National Sport Organisations evidenced consistent dialogue between sponsorship stakeholders describing the rights allowances and restrictions under the new legislation, in an effort to limit NSO-sponsor ambush activations around the Games. Ellis, Gauthier and Séguin (2011) argued that the OPMA served as a useful educational tool for the federations and their commercial partners; the authors rightly suggested that the key to ambush legislative effectiveness may be as a tool to facilitate communication with sponsorship stakeholders regarding their rights and allowances, as well as those areas restricted to official Olympic sponsors, rather than in the strict enforcement of the law.

This focus on education and communication should be central to contemporary rights management programmes moving forward, alongside improved advocacy and the promotion of official partners. The potential benefits for sponsors and rights holders of this approach are manifold: as well as serving to deter non-sponsors from operating in specific spaces or media (and thus subtly guiding their activities into non-invasive, non-impactful territory), greater engagement with the corporate community potentially opens the door to new partnerships with brands currently operating outside of the official sponsorship programme. Such open communication with consumers and commercial stakeholders may further yield specific advantages for sponsorship returns. Advocacy to consumers about sponsors’ identities, roles and importance to the event or property has been theorised as a means of mitigating the deleterious effects of ambush marketing (Lyberger and McCarthy, 2001). Indeed, education and communication may reinforce the credibility and legitimacy of sponsors and the sponsorship programme overall, and could thus improve the cognitive effects of sponsorship activation (Berger-Walliser et al., 2012; Humphreys et al., 2010). Such positive outcomes are important to the continued success and viability of preventative counter-ambush initiatives.

5. Conclusion
This research has sought to examine the influence of early IOC-led counter-ambush marketing practices on contemporary commercial rights management, and to identify potential future counter-ambush initiatives in a post-legislative sponsorship environment. As such, the study presents a contextualised perspective of Olympic sponsorship protection efforts over a 30-year period, and offers new insight into the internal policies and practices of the IOC during ambush marketing’s formative years and the COC’s current efforts to contemporise counter-ambush practices and employs preventative initiatives. This represents an important step in understanding and articulating the developments and opportunities facing commercial rights holders in combating ambush marketers. The study’s findings therefore make a valuable contribution to both the theoretical and practical understandings of ambush marketing and sponsorship protection, and provide a framework upon which to build future research.
The findings presented here suggest that a progressive shift in the counter-ambush activities of major commercial rights holders is underway: increasingly, the COC has stressed education and communication as key components of their commercial rights protection strategy. This represents a significant step towards ambush marketing prevention for commercial rights holders, but remains a largely untested approach. The historical reliance of major events and sports properties on intellectual property rights legislation and legal protection suggests an over-emphasis on the legality of ambushing, and a lack of awareness or concern for the myriad examples and opportunities which fall outside the parameters of the law. Rather, a consistent rise in the volume and scale of ambushing over time at major events is apparent, as ambushing brands have successfully identified new, unregulated ambush opportunities and have successfully circumvented the restrictions put in place (Burton and Chadwick, 2018; Chadwick and Burton, 2011).

As a result, commercial rights holders and event organisers have been forced to increase their own involvement in sponsorship, both in facilitating sponsorship-linked marketing and in protecting sponsors from offending campaigns. Major advances in contractual sophistication, on-site regulation and interaction between stakeholders across the Olympic sponsorship industry, have provided the basis for much of the contemporary measures employed in commercial rights management. However, as the example set by the COC demonstrates, sponsors and commercial rights holders must embrace a more strategic, relational approach to sponsorship agreements, and continue to build upon the processes and protocols developed over the past 25 years.

For upcoming and future events, as well as official sponsorship stakeholders and event managers, the model of commercial rights management proposed here thus offers a template upon which to build preventative rights protection and to improve strategic relations between event sponsorship stakeholders. Governing bodies such as the IOC and FIFA, as well as event hosts and organising committees, must take greater steps towards engaging with local, regional and national corporate communities in host cities and countries, and must seek to create more positive relations with event stakeholders. These relationships – and local organisers and host committees and federations – represent important means of preventing potential ambush attempts, and reflect an increasingly important proactive component of rights management in the COC mould. The recent 2018 FIFA World Cup and preparations for the 2020 Tokyo Summer Olympic Games offer some encouragement that such a proactive, preventative approach is near, as domestic sponsors have taken greater prominence and local markets have earned greater awareness. These developments must be contrasted against the continued rise of social ambushing, and the complex and complicated digital environment now facing sponsors and rights holders (Chanavat and Desbordes, 2014). An evolution in rights protection practices is therefore essential.

5.1 Limitations and future research

The IOC’s embargo policies on internal documentation and executive meetings do represent an important delimitation of the present research; it would be informative and beneficial to revisit the IOC’s documents to include the 1996 and 2000 Summer Olympic Games in the future, in order to further interpret the IOC’s rights protection policies as they evolved through subsequent iterations of the TOP Programme. Furthermore, the practical effectiveness of the measures described must be examined in order to better ascertain the long-term viability and value of preventative counter-ambush activities. Considerable research to date has identified and described potential rights protection activities (e.g. Burton and Chadwick, 2009; McKelvey and Grady, 2008), yet there has thus far been a dearth of research into the actual effects and relative success of these tactics and strategies identified.

Given the dynamic nature of ambush marketing, continued advancement and adaptation on the part of commercial rights holders and official sponsors is imperative. The measures
presented here therefore represent a preliminary view of the preventative measures available to sponsors and rights holders in dealing with ambush marketers and illustrate the changes and adaptations ambush marketing has demanded of sponsorship stakeholders. Continued development on the part of both sponsors and rights holders is required, as ambush marketers have consistently demonstrated a willingness and ability to circumvent the commercial rights management activities employed by events. Nonetheless, the initiatives presented here, and the adoption of a more preventative approach to sponsorship protection, represent an important step in sponsorship management, away from the reactive, archaic tactics still employed by many organisers and rights owners today, and towards a more strategic and purposeful rights management policy.

References


Further reading

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