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**Sports Events and Interaction among Spectators: Examining Antecedents of  
Spectators' Value Creation**

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**Keywords:** Football, customer-to-customer interaction, team identification, satisfaction,  
word-of-mouth, Sport Value Framework, Customer Dominant Logic

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## **Abstract**

**Research question:** Spectating at sports events comprises on-pitch and off-pitch benefits.

Value may also derive from spectator-to-spectator interaction, however, we do not know whether all types of interaction have similar effects on value creation and subsequent word-of-mouth behaviours. We investigate two types of spectator-to-spectator interaction - between known/familiar others, and between unknown others. We study their effects within a framework grounded in Customer Dominant Logic and Sport Value Framework, integrating on-pitch sport performance, off-pitch service quality, overall satisfaction, team identification and word-of-mouth intention.

**Research methods:** Hypotheses were tested using a survey of 1,002 spectators of a British Premier League football club. Respondents were asked about the last game they attended. Data was analysed using Structural Equations Modelling and PROCESS analysis.

**Results and Findings:** Customer-to-customer interaction was antecedent to overall satisfaction and team identification. Satisfaction and team identification led to word-of-mouth intention, with team identification having greater effect. Evaluation of on-pitch performance (the football match) influenced overall satisfaction more than off-pitch service quality. The study contributes to knowledge in finding that customer-to-customer interaction with familiar companions influenced satisfaction more than interaction with anonymous-other spectators. However, the latter contributed more to team identification and indirectly to word-of-mouth.

**Implications:** The study highlights the importance to sports events organisers of facilitating customer-to-customer interaction. While promotion of many sports events focuses on game performance, this study highlights the importance of promoting the social benefits of attendance in increasing positive word-of-mouth. Suggestions are made, including provision of social media platforms within events to promote interaction among spectators.

# **Sports Events and Interaction among Spectators: Examining Antecedents of Spectators' Value Creation**

## **Introduction**

Attendance at live sporting events continues to be an important objective of sports organisations' business planning (Biscaia, 2015; Gallagher, O'Connor, & Gilmore, 2016). Spectating at a sports event may comprise a complex bundle of on-pitch and off-pitch benefits, typically corresponding respectively to the match itself, and supporting services such as bars, car parking and information provision. A consumer behaviour lens has been increasingly used to understand the complex construction of value which may derive from a combination of these on-pitch and off-pitch processes (Bodet & Bernache-Assollant, 2008; Fyrberg Yngfalk, 2013). In this paper, we additionally investigate how interactions between spectators of a sports event contribute to value creation and specifically distinguish interaction with unknown other spectators from interaction with friends and other familiar companions.

The idea of sports event spectators co-producing benefits is not new, for example, one strand of research has investigated tribal behaviour among supporters (Dionisio, Leal, & Moutinho, 2008) and the association of team identification with a range of social and psychological health outcomes (Wann, 2006; Wann, Waddill, Polk, & Weaver, 2011). Service Dominant Logic (SDL) (Vargo & Lusch, 2004, 2008, 2016) has provided a broad framework which conceptualises consumers as active participants in processes of value creation and has been widely applied in services sectors generally. One of the central tenets of SDL is that value is co-created by multiple actors including the beneficiary and service providers can only offer propositions for potential value creation, implying that value is always determined by the beneficiary (Vargo & Lusch, 2016). This is consistent with Customer Dominant Logic (CDL) (Heinonen, Strandvik, & Voima, 2013) which has built on SDL by arguing that a service can

only be defined by customers - other, provider-led definitions are secondary. Therefore, if a sports event spectator defines the event as a social meeting place where a football match happens to be taking place, it may be presumed that the emphasis of value creation derives from the social interaction rather than the match. A notable context-specific extension to SDL is the Sports Value Framework (SVF) which defines sporting events as platforms for value creation and recognises the distinctive nature of sport fans as users and providers of value propositions (Woratschek, Horbel, & Popp, 2014).

Despite identifying the important role of customer-to-customer interaction (CCI) in building spectators' experiences (Fyrberg Yngfalk, 2013; Horbel, Popp, Woratschek, & Wilson, 2016), previous studies have not fully acknowledged the role of customers in the value-creation process (Woratschek et al., 2014). An exception is Urich (2014) who presents a typology of customer-to-customer value co-creation platforms and explores practices in team sports. While this seminal study extends the literature on customer-to-customer value co-creation, it remains exploratory in nature, and the author called for quantitative research to investigate the consequences of value co-creation among customers. Our study fills a gap in the sports management literature by empirically investigating the relative importance of different value propositions by both the event provider and spectators, and through application of new theoretical approaches based on CDL/SVF (Woratschek et al., 2014). Additionally, previous research on CCI has inadequately distinguished interaction occurring with anonymous/unknown others in a crowd, from interaction with known, familiar companions (e.g. friends and family).

Value creation indicators, such as satisfaction and identification as antecedents of word-of-mouth (WOM), have now been extensively studied in spectator sports contexts, either by considering the antecedent variables as independent of each other (e.g. Hightower, Brady, & Baker, 2002; Martin, O'Neill, Hubbard, & Palmer, 2008; Yoshida, Heere, & Gordon, 2015;

Yoshida & James, 2010), or interdependent (e.g. Bodet & Bernache-Assollant, 2011; Gray & Wert-Gray, 2012; Matsuoka, Chelladurai, & Harada, 2003). We extend this literature, by incorporating two types of interaction among spectators within a comprehensive framework based on CDL/SVF. We contribute to the emergence of CDL and SVF by studying a sports event context rich in diverse forms of interaction and respond to previous calls for a holistic approach to examine sports event loyalty, integrating satisfaction, team identification and interaction (Bodet & Bernache-Assollant, 2011; Lee & Kang, 2015). We incorporate evaluations of on-pitch and off-pitch activities within our conceptual framework, thereby allowing us to investigate, for example, whether satisfaction and team identification are more likely to be influenced by on-pitch sport performance or CCI with family and friends, and in turn, to assess their relative effects on WOM.

The plan of this paper is as follows. We first provide a conceptual overview of value creation at sports events, distinguishing between value propositions deriving from the sport event host (as platform provider), and those deriving from spectators. We frame these within CDL/SVF which we extend and develop through our study. We review literature on satisfaction and identification within sports events contexts and identify gaps in knowledge relating to types of interaction between spectators which forms a principal contribution of this study and an extension to SVF. We then present a conceptual framework and specify hypotheses. These are tested with a predominantly quantitative methodology, following which, conclusions and implications are drawn.

## **Theoretical Background and Conceptual Development**

### ***Emergence of the Sport Value Framework (SVF)***

There have been advances in the conceptualisation of value creation at sports events. SDL provided a broad framework integrating operant and operand resources of a service provider

with inputs supplied by consumers in a process of value co-creation (Vargo & Lusch, 2004). Emerging from this, CDL positions customers as the primary value creators and organisations as mere platforms for value creation by customers (Gummerus, 2013; Heinonen et al., 2010; Heinonen et al., 2013). CDL recognises that customers' interactions among each other during a service process contribute to the overall experience in the service environment (Yoo, Arnold, & Frankwick, 2012). As a framework, CDL has particular legitimacy for collectively experienced services, such as sports events, where value is potentially created or destroyed by the volume and quality of interaction with other consumers (Drengner, Jahn, & Gaus, 2012).

SDL and CDL have been criticised for not sufficiently explaining value creation in sports events contexts and subsequently SVF (Woratschek et al., 2014) has been proposed to challenge an assumption that sports events may be created by several collaborating service providers, who then make the event available to be passively consumed by spectators (Borland, 2006). Instead, by SVF logic and through its 10 foundational premises, the sports event is used by spectators and others as a platform to co-create value. Foundational Principle 6 emphasises the central role of customers as integrators of resources from their social groups.

SVF has built on extensive literature recognising diversity of benefits that spectators seek from attending live sports events. However, many researchers have called for more empirical research into social interactions and their role in services co-creation (Edvardsson, Tronvoli, & Gruber, 2011; Hilton, Hughes, & Chalcraft, 2012; Nicholls, 2010; Rihova, Buhalis, Moital, & Gouthro, 2013). It may be expected that CCI is a particularly important source of value in contexts where social interaction among customers is an important part of the service experience (Harris & Baron, 2004; Verhoef et al., 2009), typical of sports events.

In the following sections, we review the value propositions presented by sports events organisers and by their audiences. We consider these within a framework of CDL and use SVF to highlight specific sports events applications.

### *Value Propositions by the Provider within Sport Contexts*

Value propositions by the organiser of a sporting event may derive from diverse features, processes and activities, some of which are primarily associated with things that happen on the pitch and others with supporting off-pitch activities. The services marketing literature has evolved from general description of core and secondary service features (e.g. Czepiel, Solomon, Suprenant, & Gutman, 1985; Lewis, 1987; Lovelock, 1995). Within the sports marketing literature, there is consensus that the core attribute of a sports event typically comprises the on-pitch game, while peripheral services refer to the servicescape surrounding the sporting event (Fernandes & Neves, 2014; Kelley & Turley, 2001; Tsuji, Bennett, & Zhang, 2007; Zhang, Smith, Pease, & Lam, 1998). Nevertheless, within a CDL/SVF framework, this remains largely a presumption. To avoid these presumptions and limitations of production-led definitions, we distinguish in this paper between on-pitch sport value propositions (typically referring to the performance of players) and off-pitch facilitating value propositions (typically referring to service elements such as seating, staff, car parking). This is consistent with other studies adopting the SVF framework, for example Horbel et al. (2016) who conceptualised the value contribution of the actual game as ‘perceived team performance’ and distinguished this from service-quality related aspects of the overall event experience.

The dominance of player-related factors (e.g. perceived game or team performance) has been identified as the main source of experiential value derived from football match attendance (Theodorakis, Alexandris, Tsigilis, & Karvounis, 2013), and strong effects of the game on satisfaction has been reported in numerous studies (Brady, Voorhees, Cronin Jr, & Bourdeau, 2006; Ko, Zhang, Cattani, & Pastore, 2011; Tsuji et al., 2007). Sporting events are typically hedonic services where spectators expect suspense, thereby evoking affective responses (Koo et al., 2009; Uhrich & Benkenstein, 2010).



In addition to game related factors, numerous studies in the field of sport marketing have found a positive link between perceived off-pitch service quality and satisfaction (Greenwell, Fink, & Pastore, 2002; Tsuji et al., 2007; Uhrich & Benkenstein, 2012; Wakefield & Blodgett, 1999; Yoshida & James, 2010). It has been suggested that during unsuccessful games, off-pitch service quality may become an alternative source of satisfaction (Greenwell et al., 2002). Our firstset of hypotheses examine these associations within our proposed holistic framework.

**H1a/b:** (a) Perceived on-pitch sport performance and (b) perceived off-pitch service quality associate positively with overall satisfaction.

### **Value Propositions by Customer-to-Customer Interaction (CCI)**

CDL conceptualises customers as assemblers of value and the focal point for value creation (Heinonen et al., 2013). SVF (Woratschek et al., 2014) extends this by postulating that value is co-created in a collaborative process between customers. Uhrich (2014) identified engaging in and sharing consumption experiences as key customer-to-customer value co-creation practices in sports settings. Drengner et al. (2012) noted that the presence, behaviour and interaction of fellow customers can improve an individual's satisfaction with a service. We argue that this effect is grounded in social impact theory (Latané, 1981) which proposes that people are influenced by the presence or actions of other people or groups. In the case of hedonic collective services consumption, which are associated with evocation of emotions (Drengner et al., 2012; Ng, Russell-Bennett, & Dagger, 2007), emotional contagion may occur among customers (Rosenbaum & Massiah, 2011).

There is emerging consensus in the services marketing literature of the importance of social interactions in shaping evaluations of service experiences (Caru` & Cova, 2006; Verhoef et al., 2009). For example, Huang and Hsu (2010) examined CCI as the sole driver of satisfaction. In sporting event contexts, empirical research found a positive relationship

between spectators' interactions and event enjoyment, leading to satisfaction (Kuenzel & Yassim, 2007; Wann & Wilson, 1999). However, the literature has tended to focus on short interactions with co-consumers who are *strangers* (Moore, Moore, & Capella, 2005; Nicholls, 2010). While the impact of strangers on service evaluations is important, the effects of accompanying customers who are *familiar others* (such as friends and family) has been relatively overlooked. In this study, we build on previous research which has recognised these two types of interactions (e.g. Greenwood, Kanters, & Casper, 2006; Katz & Heere, 2013; Lock & Funk, 2016; Wann, 2006). For example, Wann (2006) has distinguished between *temporary* and *enduring* connections among sports spectators, which correspond, respectively, to our definitions of interaction with *anonymous others* and *familiar companions*. We build on this study and propose that sharing an experience with familiar companions and anonymous others is associated with spectators' overall satisfaction. Hence, we hypothesise:

**H2a/b:** Spectators' evaluations of their CCI with (a) familiar companion(s) and (b) anonymous other spectators associate positively with overall satisfaction.

### ***Satisfaction and Word-of-Mouth (WOM)***

The importance of fans' WOM is well established in the sports management literature (Theodorakis & Alexandris, 2008). WOM can take several forms, involving communication by current customers to other current or potential customers. Such communication can be directly targeted at known individuals, or broadcast to groups of people who may not be individually known to the sender. Within the sports sector, WOM has been recognised as a key facet of loyalty and a key communication strategy for recruiting new customers and reinforcing existing ones (Alexandris, Dimitriadis, & Kasiara, 2001), increasingly so in a social media environment (Swanson, Gwinner, Larson, & Janda, 2003). WOM is a spectator-initiated social behaviour and its importance may be amplified in socially dense settings, such as football

matches. When sharing an enjoyable experience with other fans, satisfied consumers are likely to be motivated to encourage their friends and family to participate in the behaviour (i.e. positive WOM).

Satisfaction has been at the heart of understanding customers' behavioural intentions in service settings, with a dominant view that satisfaction occurs where customers' expectations are met (Parasuraman, Zeithaml, & Berry, 1985). Hedonic experiential service contexts, such as sport events, evoke affective responses which play a critical role in understanding consumer satisfaction (Hightower et al., 2002; Wirtz, Mattila, & Tan, 2000). However, while emotions are often an antecedent of (dis)satisfaction, they are not necessarily the same as being satisfied (Hightower et al., 2002; Wirtz et al., 2000). In the context of an emotionally charged sports event, satisfaction thus derives from cognitive and affective evaluations. Previous research has reported that sports spectators' overall satisfaction increases loyalty (intentions to attend) (Matsuoka et al., 2003) and WOM (Biscaia, Correia, Rosado, Maroco, & Ross, 2012; Bodet & Bernache-Assollant, 2011). In this study, we investigate the effect of satisfaction on WOM as a standalone construct with the following hypothesis:

**H3:** Spectators' overall satisfaction associates positively with their WOM intentions.

### ***Team Identification***

There is extensive literature on the role of sports teams in contributing to an individual's identity. Social identity theory (Tajfel, 1978) states that an individual acquires identity by reference to others, and identity is about stressing points of similarity with some groups and differences to others. The practice of associating and dissociating from particular groups of other customers has been identified as an important customer-to-customer value co-creation activity by facilitating sports team followers to exhibit who they are and who they are not (Uhrich, 2014). This idea is consistent with previous studies which have applied social identity

theory to explain sports fans' identification with their team, noting a range of antecedent motivations and psychological, physiological and sociological outcomes (Greenwood et al., 2006; Katz & Heere, 2013; Lock & Funk, 2016; Spaaij & Anderson, 2010; Tyler, 2013; Wann, 2006). Specifically, team identification has been associated with a need for geographically, ethnically and socially defined community groups to come together in times of adversity (Inoue, Funk, Wann, Yoshida, & Nakazawa, 2015), to express their national pride and cultural identity (Bernache-Assollant, Bouchet, Auvergne, & Lacassagne, 2011), providing psychological relief from feelings of depression and alienation, whilst promoting feelings of belonging and self-worth (Branscombe & Wann, 1991).

Early literature on sports team identification tended to focus on the sports team as an institution in which on-pitch sporting activities (including achievements and prestige) drive identification with the team (e.g. Bauer, Stokburger-Sauer, & Exler, 2008; Gwinner & Swanson, 2003). Added to this has been a growing stream of literature which conceptualises sports teams as vehicles for reinforcing individuals' identity based on religious, ethnic or class differences (e.g. Bradley, 1995; Duerr, 2017) and as an instrument for socialisation from childhood (Spaaij & Anderson, 2010). Identification deriving from non-sporting factors followed later, often associated with cynicism that identification could derive from off-pitch activities which might be completely unrelated to sporting activity. In this vein, Giulianotti (2002) scathingly observed four types of spectator identity: supporters, followers, fans, and flâneurs and noted a trend towards a more detached, consumer-orientated identification of the team as a consumer item. Subsequently, the literature has explored many more avenues through which identification becomes associated with sports clubs, for example local residents with no interest in sport may identify with a successful local sports team which brings pride to their city, and agencies' efforts at place marketing often build on identification with a successful local sports team (Heere, James, Yoshida, & Scremin, 2011; Kaplanidou & Vogt, 2007).

In the context of sporting events, there is only limited evidence of the extent to which spectators' evaluations of different service aspects influence team identification (Lee & Kang, 2015). Fink, Trail, and Anderson (2002) highlight the importance of vicarious achievement for team identification. Fisher and Wakefield (1998) established that perceived team performance was the most important antecedent of identification for supporters of winning teams, however, this factor was insignificant to supporters of unsuccessful teams. In a recent study, Lee and Kang (2015) found support for the positive effect of a team's performance on fans' identification with the team, but no effect of ancillary entertaining events. The evidence linking fans' team identification with on-pitch team performance is greater than evidence linking identification with off-pitch service factors and for completeness, we investigate both linkages in the following hypotheses:

**H4a/b:** (a) Perceived on-pitch sport performance and (b) perceived off-pitch service quality associate positively with team identification.

In sports marketing contexts, there has been extensive research on the relationship between team identification and interaction among fans, for example Gibson, Willming, and Holdnak (2002) talked about identification-based rituals associated with "serious leisure" of college students' interaction at football matches. The bi-directional nature of this relationship has been recognised, for example, Wann (2006) avoided imputing causality by noting that sharing team identification provides a basis for both temporary and enduring connections (i.e. team identification leads to interaction among fans), while also allowing for the possibility of temporary and enduring connections to enrich identification with the sports team and the experience of attending its matches (i.e. interaction leads to team identification) (e.g. Lock & Funk, 2016; Spaaij & Anderson, 2010). Bi-directional effects may be complex, with nuances which may best be investigated through qualitative and / or longitudinal research approaches.

Although we now know a lot about the link between fans' interaction at a sports event and their identification with the team, we know very little about the possible differing effects of interaction between *familiar accompanier(s)* and between *anonymous others*. For example, Tyler (2013) conducted an inductive, ethnographic study providing some insights to the types of relationships which exist between fans and how the nature of these links forms identification, noting that social interaction within a shared space deepened participants' sense of community and identification with the group, while members who were unable to engage in regular social interaction within communal space saw their sense of identification diminish.

Greenwood et al. (2006) found that friends and family as well as the atmosphere created by other spectators influence team identification. More research has been called for to disaggregate these forms of interaction, to provide quantitative support for previous largely qualitative findings (Biscaia et al., 2016; Yoshida, Heere, et al., 2015). We address this gap by testing the following hypotheses:

**H5a/b:** Spectators' evaluations of their CCI with (a) familiar accompanier(s) and (b) anonymous other spectators associates positively with team identification.

The literature examining the effects of fans' identification on loyalty behaviours is well established. Previous studies have found positive links between fans' team identification and WOM communication related to their team (Gray & Wert-Gray, 2012; Madrigal & Chen, 2008; Trail, Fink, & Anderson, 2003; Yoshida, Gordon, Heere, & James, 2015). We seek to replicate previous studies and hypothesise:

**H6:** Spectators' team identification associates positively with their WOM intention.

The conceptual model is shown in Figure 1.

**\*Insert Figure 1 near here\***

## **Method**

### ***Research Context***

We tested the hypotheses in the context of UK Premier League football. Premier League teams are closely followed in the UK and overseas. The nature of attendance at matches has changed considerably over recent years, as clubs have appealed increasingly to family groups with high discretionary spending power, rather than relying on traditional male, working class supporters. A report noted that Premier League football is a very social affair, with 89 per cent of match-goers attending with friends or family, including 70 per cent who bring children (Premier League, 2016). Off-pitch facilities have been greatly extended, partly to allow for increased non-sports related use (e.g. conferences and meetings) but also greater social interaction among fans before, during and after matches. Facilities such as bars and restaurants which were once very basic are now often seen as desirable destinations in their own right.

### ***Sample and Procedures***

This study adopted a largely quantitative approach, collecting data from football spectators of a British Premier League football club, which collaborated in this study. Because of variation between clubs, which might explain differences in patterns of CCI, we collected data based on only one club, which was placed in the middle of the league at the time of study.

A convenience sample consisting of all fans registered on the club's database who had bought tickets to see matches was employed for this study. Of those contacted, 3,780 opened the e-mail with a URL link to the online survey relating to the last game that they had attended in the 2014 season. A small incentive to receive a summary of the results and to enter a prize draw to win sport memorabilia was offered to participants.

Overall 1,105 responses were received. Respondents who completed the survey more than once, had low variation in responses across items (i.e. same response for several questions), completed the survey too fast, or where responses regarding the last game attended did not match the date or opponent team were eliminated from the analysis. The final sample comprised 1,002 respondents, of whom 84.7% were male, 77.4% were season ticket holders and the majority regularly attended games (1-10 matches per year 17.2%; 11-20 matches 20.4%; 21-38 matches 52.4%; >39 matches 10.1%). All age ranges were represented (18-34 years 19.5%, 35-44 years 21.3%, 45-54 years 27.4%, 55-64 years 18.5% and 65 years or more 13.4%). The last game that 67.8% of the respondents attended was lost by the home team and 84.7% of the respondents referred to the last game as a *home* game.

Non-response bias was examined by comparing responses of early and late respondents (i.e. after last reminder was sent) (see Armstrong & Overton, 1977; Jordan, Walker, Kent, & Inoue, 2011). Independent samples t-tests showed no significant differences in responses between these two groups, thus no evidence of response bias was found.

### ***Measures***

Previously developed and validated measurement scales were adapted to the context of a UK football game day experience on the basis of exploratory qualitative research and survey pre-tests with field experts, comprising academics, professional marketers and fans of three leading UK football teams. Following Yoshida and James' (2010) player performance scale and Ko et al.'s (2011) skill performance scale, on-pitch sport performance was captured with four items adapted to our context. Off-pitch service quality was measured with six items adapted from Martin et al. (2008) which were considered to be highly relevant to the evaluation of a game day experience.



Regarding the evaluation of different types of CCI, this study was exploratory in nature. CCI was conceptualised as the extent to which respondents enjoyed sharing their visit with family/friends and with other spectators/fans. Drawing from Funk, Ridinger, and Moorman (2003), familiar-accompanier CCI was measured with one item from the ‘Bonding with Friends/Family’ scales, while anonymous-other CCI was captured with one item from the ‘Socialisation’ scale. We adapted only one item per type of CCI, as the remaining scale items either related to reasons/motivations for attendance or were too general and deemed in the exploratory qualitative research unsuitable to the context of evaluating a game day experience.

Overall satisfaction was measured with five items from Hightower et al. (2002) who adapted Oliver’s satisfaction scale (1997) to sports contexts. Building on Mael and Ashforth’s (1992) organizational identification framework, six items assessed team identification. Following Zeithaml, Berry, and Parasuraman (1996) and Hightower et al. (2002), WOM was captured with two items. Appendix A lists the measurement items and factor loadings for the main constructs of this study.

Respondents’ reports referred to numerous “last game attended” and it is possible that variation in conditions at each of these different games might explain some variance in our hypothesised model. To reduce this variation, we statistically controlled by using dummy variables for any potential effects of a won vs. lost game, home vs. away game, and whether respondents were season ticket or non-season ticket holders.

### ***Data Analysis***

Confirmatory factor analysis (CFA) using AMOS (v. 20.0) was conducted to examine reliability and validity of the measures, while the direct hypothesised effects were tested using structural equation modelling (SEM) (Anderson & Gerbing, 1988). As recommended by Hair et. al. (2010), multiple fit indices with the following cut-off points were applied to evaluate a

model's goodness-of-fit: (1) chi-square value divided by the degree of freedom  $\chi^2/df$ . of less than 5 (Schumacker & Lomax, 2004), (2) incremental fit index: comparative fit index (CFI) above .9 (Hu & Bentler, 1999), (3) goodness-of-fit index: Tucker-Lewis Index (TLI) above .9 (Anderson & Gerbing, 1988; Bentler & Bonett, 1980), and (4) absolute fit/badness-of-fit index: root mean square error of approximation (RMSEA) below .6 (Hu & Bentler, 1999).

The mediating role of overall satisfaction and team identification, as implied by the conceptual model, was examined by applying the bootstrapping bias-corrected confidence interval procedure with 5,000 iterations using the SPSS-macro syntax PROCESS. This approach was favoured due to various theoretical and mathematical limitations of traditional approaches for assessing mediation (Hayes, 2009). Bootstrapping procedures, which rely on creating multiple random samples to test a model's predictive ability, are superior to Baron and Kenny's (1986) method for mediation and the Sobel test (Williams & MacKinnon, 2008). In addition, bootstrap methods are more robust to non-normal data distribution whilst providing stronger accuracy in confidence intervals (Preacher & Hayes, 2008).

## **Results**

### ***Scale Evaluation***

The final measurement model demonstrated good fit to the data ( $\chi^2$  is 539.69 with 183 degrees of freedom ( $p < .000$ ),  $\chi^2/df=2.95$ , CFI =.97, TLI =.96, RMSEA =.044). Two items were dropped from the off-pitch service quality scale and one item from the team identification scale due to low factor loadings. All remaining standardised loading estimates were statistically significant and were higher than the commonly used threshold of .5 (Hair et al., 2010). With one exception the average variance extracted (AVE) estimates were above the recommend threshold of .5, thus supporting partial convergent validity (Fornell & Larcker, 1981). Only the AVE for off-pitch service quality (.47) fell slightly below .5.

The square roots of AVE for each construct were greater than the corresponding inter-construct correlations, thus confirming discriminant validity (Chin, 1998). The reliability of the constructs was assessed using the measure of construct reliability (CR), which is computed from the squared sum of factor loadings and the sum of error variance terms (Hair et al., 2010). All composite reliabilities exceeded or were very close to .7 demonstrating adequate reliability. Table 1 shows the mean, standard deviations, CR, AVE and the correlation coefficients.

**\*Insert Table 1 near here\***

### *Evaluating Common Method Bias (CMB)*

Common method bias could arise as the study employed data from a single source. A variety of recommended procedural techniques were utilised, including proximal separation of predictor and criterion variables in the online survey, variation of scale end labels, randomising the order of some scale items to avoid response sets and including carefully constructed pre-tested questions adapting previously validated scales to avoid ambiguity (Podsakoff, MacKenzie, & Podsakoff, 2012).

In addition to these procedural remedies, we statistically examined the likelihood of CMB post-hoc as recommended in the literature (see MacKenzie, Podsakoff, & Fetter, 1993; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Harman's one-factor test showed that a single-factor only accounted for 34.73% of variance thus not adequately representing that data. In addition, we compared the standardised regression weights from a model including a common unmeasured latent factor (i.e. items loading on their theoretical constructs in addition to an unmeasured latent factor) to those of a model without a common latent factor. We found no large differences between the paths, i.e. structural parameters. On the above basis, CMB is

unlikely to confound data interpretation in this study, as only high levels of common method variance potentially bias actual relationships (Fuller, Simmering, Atinc, Atinc, & Babin, 2016).

### ***Hypothesised Effects***

The structural model statistically controlling for the effects of different games and season ticket holder status showed acceptable fit ( $\chi^2=598.39$ ,  $df=232$ ,  $\chi^2/df=2.58$ ,  $CFI=.97$ ,  $TLI=.96$ ,  $RMSEA=.040$ ). The model explains 74.4% of variation in overall satisfaction, 15% of team identification and 37.6% in WOM intention.

Both the perceived on-pitch sport performance ( $\beta=.480$ ,  $p<.000$ ) and the off-pitch service quality ( $\beta=.178$ ,  $p<.000$ ) had a positive significant association with overall satisfaction, providing support for H1a/b. The value proposition of the on-pitch sport performance had a larger impact on satisfaction in contrast to the off-pitch service quality. Regarding the value propositions by other customers, both, spectators' evaluation of their interaction with familiar accompanier(s) ( $\beta=.298$ ,  $p<.000$ ), as well as their evaluation of their interaction with anonymous others ( $\beta=.100$ ,  $p<.000$ ) significantly influenced overall satisfaction, supporting H2a/b. It is interesting to note that sharing the experience with familiar accompanier(s) had a larger effect on satisfaction than interacting with anonymous other spectators. The well-established link in the literature between overall satisfaction and WOM intention has been confirmed in this study ( $\beta=.289$ ,  $p<.000$ ), supporting H3.

H4a was not confirmed, as perceived on-pitch sport performance had no significant effect on team identification ( $\beta=.033$ ,  $p<.443$ ). However, H4b was supported, showing that off-pitch service quality was positively related to team identification ( $\beta=.111$ ,  $p<.008$ ). With regard to CCI, interactions with anonymous other spectators ( $\beta=.250$ ,  $p<.000$ ), as well as with familiar accompanier(s), albeit only marginally ( $\beta=.077$ ,  $p<.048$ ), led to high levels of team

identification, supporting H5a/b. Team identification had a positive significant effect on WOM intentions ( $\beta=.492$ ,  $p<.000$ ), demonstrating support for H6.

All three control variables had no significant effect on WOM intentions. There was a small significant effect between overall satisfaction and a 'won' game ( $\beta=.105$ ,  $p<.000$ ), as well as season ticket holder status ( $\beta=-.042$ ,  $p<.026$ ), and between season ticket holder status and team identification ( $\beta=.133$ ,  $p<.000$ ). Table 2 provides an overview of the direct structural path parameter estimates.

**\*Insert Table 2 near here\***

### ***Indirect Effects***

PROCESS analysis was employed to test the mediation role of overall satisfaction and team identification in a simple mediation model. The results in Table 3 show that only the direct effect of familiar-accompanier CCI on WOM is significant ( $c_3=.087$ ,  $p<.002$ ).

The true indirect effect of the evaluation of the on-pitch sport performance on WOM via overall satisfaction is estimated to lie between .007 and .070 with 95% confidence ( $a_1b_1=.038$ ). This indirect effect is significant at  $p<.05$  as no zero is included in the 95% confidence interval (Hayes, 2013). As the direct effect of the on-pitch sport performance on WOM was not significant ( $c_1= -.006$ ,  $p<.842$ ) full or indirect-only mediation was confirmed. Hence, positive evaluation of the on-pitch sport performance leads to higher overall satisfaction, which, in turn, leads to higher levels of WOM intentions. The effect of perceived off-pitch service quality evaluation on WOM is also fully-mediated by overall satisfaction, with a significant estimated indirect effect of  $a_2b_1=.022$  (LLCI .004, ULCI .044), as the direct effect is not significant ( $c_2=.066$ ,  $p<.062$ ).

The bootstrap method also indicated a significant indirect effect of familiar-accompanier CCI on WOM via overall satisfaction ( $a_3b_1=.030$ , LLCI .005, ULCI .057). However, due to the significant direct effect of familiar-accompanier CCI on WOM ( $c_3=.087$ ,  $p<.002$ ), only partial mediation of overall satisfaction could be confirmed. The effect of anonymous-other CCI on WOM is fully-mediated by overall satisfaction with a significant estimated indirect effect of  $a_4b_1=.013$  (LLCI .003, ULCI .026), as the direct effect is not significant ( $c_4=.039$ ,  $p<.174$ ). Overall the results confirmed a partial or full mediation effect of overall satisfaction on WOM intentions, thus spectators' evaluation of on-pitch sport performance, off-pitch service quality, familiar-accompanier CCI and anonymous-other CCI have either a direct and/or indirect effect on WOM intentions via overall satisfaction.

With regard to team identification as the mediator, the indirect effects of off-pitch service quality evaluations ( $a_2b_2=.038$ , LLCI .009, ULCI .081) and both types of CCI (Familiar-accompanier CCI:  $a_3b_2=.024$ , LLCI .002, ULCI .048; Anonymous-other CCI:  $a_4b_2=.075$ , LLCI .051, ULCI .105) on WOM via team identification were significant, confirming full or partial mediation. Thus, a more positive evaluation of familiar-accompanier CCI, anonymous-other CCI and off-pitch service quality elements leads to greater team identification which in turn increases WOM intentions.

**\*Insert Table 3 near here\***

### ***Alternative Models***

Because this study conceptualises overall satisfaction and team identification as mediators and because investigation of differential effects of familiar-accompanier CCI/anonymous-other CCI is exploratory, we compared the proposed model with alternative models in an effort to substantiate our findings. Specifically, chi-squared difference test was employed to assess the

first competing model to determine if setting the paths to/from these mediating constructs to zero and adding direct links from the antecedents to WOM intentions significantly reduces model fit. Goodness-of-fit statistics indicated that the competing model fitted the data less well ( $\Delta\chi^2=1096.74$ ,  $\Delta df=6$ ,  $p<.001$ , CFI=.889, TLI=.860, RMSEA=.078). We then used, Akaike's Information Criterion (AIC) (Akaike, 1987) which is also frequently employed in comparing two competing models, with smaller values representing a more parsimonious model than the hypothesized model (Hu & Bentler, 1995). The AIC value for the research model was 784.39, smaller than 1869.13 for the competing model, thus confirming a more parsimonious model when the mediators of overall satisfaction and identification were included. A second competing model with only direct effects for all constructs was tested. Again, the overall model fit was poorer ( $\Delta\chi^2=1147.94$ ,  $\Delta df=4$ ,  $p<.001$ , CFI=.885, TLI=.853, RMSEA=.080), whilst the AIC was 1924.33 and thus higher than the research model.

Additionally, we tested a competing structural model with team identification as antecedent to on-pitch sport performance, off-pitch service quality, CCI with familiar accompanier(s) and CCI with anonymous-others, leading to overall satisfaction and WOM intention. We included the same control variables as the research model. Whilst the overall model fit was similar ( $\Delta\chi^2=155.06$ ,  $\Delta df=2$ ,  $p<.001$ , CFI=.96, TLI=.95, RMSEA=.047), the alternative model explained only 16.0% of variation in WOM intention. In addition, the AIC was 935.45 and thus higher than the research model (AIC=784.39), consequently confirming that the proposed research model was a more parsimonious model.

## **General Discussion**

### ***Theoretical Implications***

This study has used an integrated conceptual framework based in CDL/SVF and replicated and extended findings of previous studies, in the specific context of UK Premier League

football. Perceived on-pitch sport performance contributed more to overall satisfaction than perceived off-pitch service quality. Within a CDL/SVF framework, this would appear to reaffirm that the provider's value propositions based on on-pitch performance rated more highly by spectators than its off-pitch proposition. This finding is consistent with previous studies which found perceived game quality to have a greater effect on spectators' satisfaction than off-pitch value propositions (e.g. Brady et al., 2006; Theodorakis et al., 2013; Tsuji et al., 2007). However, our findings contradict those of Greenwell et al. (2002) and Uhrich and Benkenstein (2012) which emphasised off-pitch value propositions in driving the experience of spectators. Greenwell et al. (2002) found that spectators' perceptions of service personnel and of a sports venue's physical facilities contributed to customer satisfaction more than their perceptions of the game. Similarly, Uhrich and Benkenstein (2012) maintain that stadium environment is a focal driver to spectators' perceived experiences. Unlike previous studies, this study adopts a holistic framework based on CDL/SVF including on-pitch sport performance, off-pitch service quality, two categories of CCI, satisfaction and team identification, which might explain this variation.

It was noted earlier that sports team identification has been linked to many on-pitch, off-pitch and external phenomena and in this study, we have provided further insight to causes and consequences of sports team identification within an integrative framework. On-pitch sport performance had no significant effect on team identification, but we found a significant effect of off-pitch value propositions. This runs counter to much of the literature which has concentrated on the team and its performance as the source of fans' identification and may provide further evidence of sports fans' becoming more consumer-oriented in their perceptions of value creation (Bodet & Bernache-Assollant, 2008; Duerr, 2017; Fyrberg Yngfalk, 2013). For example, Wann, Tucker, and Schrader (1996) found that team and player success were perceived by fans as key antecedents to their identification. Cynics such as Giulianotti (2002)



who have scathingly observed the emergence of sports teams as general consumer brands may be saddened by our findings, but those in the sports sector whose task is to diversify a team's dependence away from complete reliance on team performance may be heartened. Our finding can be attributed to the fact that one match/performance is unlikely to change spectators' level of identification and that it may take several matches to influence fans' identification. Our findings illustrate the relevance of CDL in general and SVF in particular as a platform for value creation and the importance of avoiding provider-led assumptions about fans' sources of value.

Interaction between spectators was found to be antecedent to both overall satisfaction and team identification. This is consistent with Kuenzel and Yassim's (2007) study which indicated that sharing the spectatorship experience with others enhances spectators' emotional states and hence their satisfaction with the experience. Consistent with Wann and Wilson (1999) who defined the social nature of a sports event as a key basis for spectators' enjoyment of attending, this study has found support for the effect of CCI on satisfaction. In addition, our finding of significant effects between social connections and team identification are consistent with Wann's (2006) results.

Our study contributes to understanding the complex nature of CCI by specifically identifying differential effects of two types of CCI on overall satisfaction and team identification. The results demonstrated that interaction with familiar accompanier(s) has a higher effect on satisfaction than interaction with anonymous-other spectators. We also found that interaction with anonymous-others contributes more to team identification than interaction with familiar accompanier(s).

With regards to WOM, team identification had a greater direct effect on WOM than satisfaction, consistent with previous findings (Gray & Wert-Gray, 2012), however, our finding runs counter to Bodet and Bernache-Assollant (2011) who found consumer transaction-specific satisfaction to be the stronger predictor for consumer attitudinal loyalty (i.e. WOM)

alongside team identification coming a close second predictor of WOM. We have therefore added to this debate by simultaneously examining the impact of both satisfaction and team identification and their effects on WOM.

Furthermore, we found a direct positive effect of interaction with familiar companioner(s) on WOM, whilst both types of CCI indirectly influence WOM via satisfaction and team identification. Hence, we add to knowledge by establishing a link between two social behaviours - CCI and WOM – supporting Harris and Baron (2004) who argue that CCI has similarities with WOM as both behaviours involve social interaction.

In summary, this study contributes to the sports marketing literature by empirically examining antecedents of spectators' value creation. More specifically this research investigated the direct and indirect effects of different value propositions on sports fans' WOM via overall satisfaction and team identification. We add to SVF with empirical evidence of the diverse nature of this co-creation, notably the differences which occur between known and unknown other spectators.

### ***Management Implications***

Our findings offer numerous actionable management implications. Sports event organisers should place more emphasis on facilitating CCI. While sports clubs typically advertise their events with a focus on the game performance *per se*, we highlight the importance of promoting the social benefits of attending football matches as a marketing tool to increase positive WOM. Marketing messages should highlight the overall experience that spectators can expect by attending a game. Testimonials from current spectators can be used to promote initiatives such as family and group tickets, children's entertainment and competitions. Also, clubs can motivate spectators to co-create value among themselves by stimulating supporters' rituals, for

example, through the use of spotlights and mega-screens to display the lyrics of the club's anthem (Biscaia et al., 2012).

Event organisers may encourage their loyal/regular spectators, such as season ticket holders to bring a friend or family member to a game by offering incentives, e.g. beverage/food vouchers which facilitate the process of value creation within the extended value creating platform provided by the event's servicescape. Designing of the servicescape should be warm and friendly to facilitate interaction between spectators, thereby enhancing overall evaluations of the event and subsequent WOM. Intra-group bonding could be encouraged by providing activities and program features prior to and/or after the event, such as meeting and greeting players, sharing a meal/snacks/drinks and participating in after-match events (Kuenzel & Yassim, 2007). Our study has suggested that identification in a football context is particularly derived from off-pitch value propositions, therefore offering good physical space for interaction is crucial. This could be via bar areas, or perhaps offering mini-football competitions during interval periods. In addition to physical space, clubs can encourage the feel of togetherness and bonding through implementing acoustics (ripple effect of noises during or immediately before scoring a goal for example) that will enhance the atmosphere in the stadium. Of course, this implies an environment in which spectators are willing to have their environment "managed" by what may be perceived as manipulative, commercially motivated management. There have been many reported cases where fans' sense of identity with the sports team has led to rebellion against management interventions, in the process of creating a renewed sense of identity among fans based on a shared opposition to "the management". While we identify management implications which flow from our analysis, skill and sensitivity are needed for their effective implementation.

In an increasingly digital media environment, CCI could be enhanced by providing online/mobile platforms to extend face-to-face interaction before, during or after event

attendance, for example voting for best player via a mobile phone app, or prize draws for meet and greet after a game, or “selfie” competitions with companions and twitter comments shown on a big screen.

### ***Limitations and Future Research***

This study has extended our knowledge of CCI associated with sports events, but limitations should be noted. The findings are based on one particular sport (football) in one particular cultural context (the UK) and may not be generalizable to other sports and cultural contexts. In addition, only members registered on the database of the collaborating football club and who bought a ticket to see a game were contacted for this study. “Casual” game spectators who were not listed on the database may differ in their evaluation of the value propositions and the resulting outcomes. Consequently, our study results cannot be generalised for all spectator groups. To enhance generalisability of the findings, future studies should replicate the design with a sample drawn from all attendees of a game. In addition, we only studied an event context characterised by professional players and a wide range of off-pitch services – different results may be found in a context of amateur sports with limited off-pitch services. Replication studies could explore the role of the different value propositions for value creation in these contexts.

Whilst the present study focused on WOM as a key outcome variable, further research could include other indicators of loyalty, such as repurchase or revisit intentions. In addition, single item measures were employed for the CCI constructs due to the exploratory nature of the study and for reasons of simplification. To increase the validity and reliability of the CCI measures, future studies should develop multi-item scales to measure how spectators evaluate their experience of CCI with familiar companions and with unknown-others at specific sporting events. We have assumed that familiar companions and unknown-others are

mutually exclusive groups, and scales may be further refined by borrowing scales from sociology to measure the closeness and nature of relationships between familiar companions (e.g. Bukowski, Hoza, & Boivin, 1994). Future studies could employ a better conceptualisation of off-pitch service quality measures based on studies in football settings (e.g. Biscaia, Correia, Yoshida, Rosado, & Marôco, 2013; Theodorakis & Alexandris, 2008; Theodorakis et al., 2013).

Our research design analysed respondents who reported outcomes of the most recent match that they attended, and although we controlled for potential effects of variation of game outcome, further research could investigate long-term effects of teams' winning and losing, and trends in a team's performance. Future studies may investigate possible differences between "die-hard" and "fair-weather" fans in the importance attributed to different aspects of the match experience. Finally, participants were asked to recall a match that they had attended sometime in the past. Due to memory decay, respondents' reports might have been distorted with the passage of time and future research may use "live" recording of data during a match.

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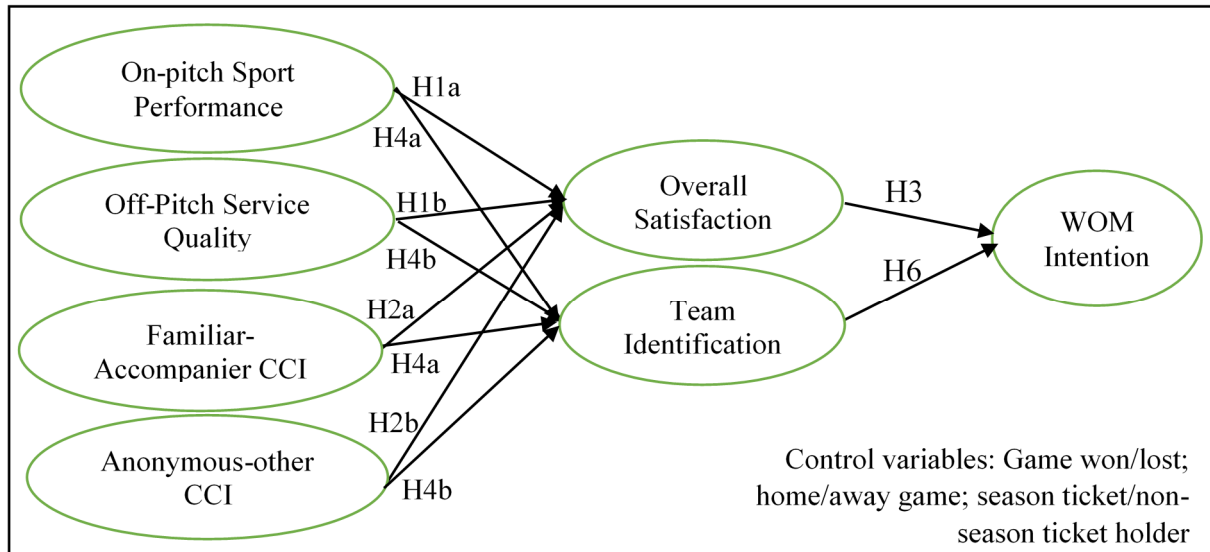
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**Figure 1**  
Conceptual Model



**Table 1**

Means, standard deviations, composite reliabilities, average variance extracted and correlations

Construct	Mean	SD	CR	AVE	1	2	3	4	5	6	7
1. On-pitch Sport Performance	3.82	.88	.91	.72	.85						
2. Off-pitch Service Quality	4.24	.57	.78	.47	.31	.68					
3. Familiar-accompanier CCI	4.33	.83	n/a	n/a	.40	.43	n/a				
4. Anonymous-Other CCI	4.25	.74	n/a	n/a	.33	.41	.46	n/a			
5. Team Identification	4.19	.65	.85	.53	.14	.24	.24	.33	.73		
6. Overall Satisfaction	4.10	.78	.91	.69	.75	.51	.63	.49	.22	.83	
7. WOM	4.53	.63	.69	.53	.22	.33	.38	.34	.55	.35	.73

Note: SD=Standard Deviation, CR = Composite reliability, Values in the diagonal represent the square root average variance extracted

**Table 2**  
Structural model estimates.

Hypothesized paths	$\beta$	$t$	$p$	Result
H1a On-pitch sport performance $\rightarrow$ Satisfaction	.480	19.92	.000	Support
H1b Off-pitch service quality $\rightarrow$ Satisfaction	.178	6.41	.000	Support
H2a Familiar-accompanier CCI $\rightarrow$ Satisfaction	.298	12.66	.000	Support
H2b Anonymous-other CCI $\rightarrow$ Satisfaction	.100	4.46	.000	Support
H3 Satisfaction $\rightarrow$ WOM	.289	6.87	.000	Support
H4a On-pitch sport performance $\rightarrow$ Team Identification	.033	.77	.443	No Support
H4b Off-pitch service quality $\rightarrow$ Team Identification	.111	2.64	.008	Support
H5a Familiar-accompanier CCI $\rightarrow$ Team Identification	.077	1.98	.048	Support
H5b Anonymous-other CCI $\rightarrow$ Team Identification	.250	6.54	.000	Support
H6 Team Identification $\rightarrow$ WOM	.492	11.09	.000	Support

**Table 3**

Bootstrap results for direct and indirect effects.

Direct Effects	Effect	SE	<i>t</i>	<i>p</i>	
On-pitch sport performance ( <i>c</i> <sub>1</sub> )	-.006	.029	-.199	.842	Not significant
Off-pitch service quality ( <i>c</i> <sub>2</sub> )	.066	.035	1.871	.062	Not significant
Familiar-accompanier CCI ( <i>c</i> <sub>3</sub> )	.087	.028	3.114	.002	Significant
Anonymous-other CCI ( <i>c</i> <sub>4</sub> )	.039	.028	1.362	.174	Not significant
Bias-corrected bootstrap 95% CI					
Indirect effects	Effect	Boot SE	LL	UL	
<i>Mediator: Overall Satisfaction</i>					
On-pitch sport performance ( <i>a</i> <sub>1</sub> <i>b</i> <sub>1</sub> )	.038	.016	.007	.070	Significant
Off-pitch service quality ( <i>a</i> <sub>2</sub> <i>b</i> <sub>1</sub> )	.022	.010	.004	.044	Significant
Familiar-accompanier CCI ( <i>a</i> <sub>3</sub> <i>b</i> <sub>1</sub> )	.030	.013	.005	.057	Significant
Anonymous-other CCI ( <i>a</i> <sub>4</sub> <i>b</i> <sub>1</sub> )	.013	.006	.003	.026	Significant
<i>Mediator: Team Identification</i>					
On-pitch sport performance ( <i>a</i> <sub>1</sub> <i>b</i> <sub>2</sub> )	.010	.010	-.009	.033	Not significant
Off-pitch service quality ( <i>a</i> <sub>2</sub> <i>b</i> <sub>2</sub> )	.038	.018	.009	.081	Significant
Familiar-accompanier CCI ( <i>a</i> <sub>3</sub> <i>b</i> <sub>2</sub> )	.024	.012	.002	.048	Significant
Anonymous-other CCI ( <i>a</i> <sub>4</sub> <i>b</i> <sub>2</sub> )	.075	.013	.051	.105	Significant

Note: Dependent variable = WOM, CI = confidence interval

## Appendix A

Constructs and measures	Standardized loading
<b>On-pitch Sport Performance<sup>1</sup></b>	
I witnessed high quality professional football being played by the club.	.83
The team were accurately passing the ball.	.72
The team gave it 100%.	.92
The team played hard.	.92
<b>Off-pitch Service Quality</b>	
<i>Quality of food and beverage items</i>	n/a
Adequate Seating	.67
Signage and information accuracy	.67
<i>Quality of parking</i>	n/a
Staff helpfulness	.72
Feeling of safety and security	.67
<b>Familiar-accompanier CCI<sup>1</sup></b>	
I have enjoyed sharing the experience of attending the game with <u>my family/friends</u> .	n/a
<b>Anonymous-other CCI<sup>1</sup></b>	
I have enjoyed interacting with <u>other spectators and fans</u> .	n/a
<b>Team Identification<sup>1</sup></b>	
When someone criticises xxx football club, it feels like a personal insult.	.74
I am very interested in what others think about xxx football club.	.55
When I talk about xxx football club, I usually say 'we' rather than 'they'.	.64
The football club's successes are my successes.	.81
When someone praises xxx football club, it feels like a personal compliment	.86
<i>If publicity in the media criticised xxx football club, I would feel embarrassed.</i>	n/a
<b>Overall Satisfaction<sup>1</sup></b>	
I am happy with the experience I have had at the last xxx FC game I have attended.	.89
I have been satisfied with my experience at this game.	.90
I truly enjoy going to xxx FC games.	.53
I am very happy with the experience I have had at this game.	.91
Going to the game has been delightful.	.85
<b>WOM Intention<sup>2</sup></b>	
...recommend xxx FC to someone as a club to support?	.73
...encourage friends and relatives to attend future matches of xxx FC?	.72

**Note:** Items in italics were removed due to low factor loadings, <sup>1</sup> Items were measured on a 5-point Likert-type scale ranging from *strongly disagree* (1) to *strongly agree* (5); <sup>2</sup> Items were measured on a 5-point Likert-type scale ranging from *not very likely* (1) to *very likely* (5)