

**WestminsterResearch**

<http://www.westminster.ac.uk/westminsterresearch>

**Revisiting the host city: an empirical examination of sport involvement, place attachment, event satisfaction and spectator intentions at the London Olympics**

**Brown, G., Smith, A. and Assaker, G.**

NOTICE: this is the authors' version of a work that was accepted for publication in *Tourism Management*. Changes resulting from the publishing process, such as peer review, editing, corrections, structural formatting, and other quality control mechanisms may not be reflected in this document. Changes may have been made to this work since it was submitted for publication. A definitive version was subsequently published in *Tourism Management*, 55, 160-172.

Tourism Management is available online at:

<https://dx.doi.org/10.1016/j.tourman.2016.02.010>

© 2016. This manuscript version is made available under the CC-BY-NC-ND 4.0 license

<http://creativecommons.org/licenses/by-nc-nd/4.0/>

---

The WestminsterResearch online digital archive at the University of Westminster aims to make the research output of the University available to a wider audience. Copyright and Moral Rights remain with the authors and/or copyright owners.

---

Whilst further distribution of specific materials from within this archive is forbidden, you may freely distribute the URL of WestminsterResearch: (<http://westminsterresearch.wmin.ac.uk/>).

In case of abuse or copyright appearing without permission e-mail [repository@westminster.ac.uk](mailto:repository@westminster.ac.uk)

# **Revisiting the host city: an empirical examination of sport involvement, place attachment, event satisfaction and spectator intentions at the London Olympics**

## **Abstract**

This paper tests a model based on hypothesized relationships among sport involvement, place evaluations; at the level of venue and host city, and event satisfaction as antecedents of behavioral intentions. The relationships are explored among a sample of people attending the 2012 London Olympic Games (n = 603). Spectators completed questionnaires at event venues, providing responses at the place and time of the consumptive experience. Confirmatory factor analysis was employed to determine the dimensions of the constructs and to test the validity of measurement items. The structural model indicated that sport involvement and place attachment influenced revisit intentions but this was not the case for event satisfaction. This suggests that although tourism will benefit when spectators experience a psychological connection with event venues, the Olympic Games offer a distinctive event experience that does not have a direct influence on intentions to revisit the host city.

**Keywords:** Olympics, Event Satisfaction, Revisit intentions, Sport Involvement, Venue Attachment.

## **Introduction**

The study described in this paper examined the relationship between event satisfaction and behavioral intentions. It was conducted at the 2012 Olympic Games and sought to identify the extent to which spectators intended to revisit London. The research design made it possible to test hypothesized relationships among sport involvement, place evaluations (at the level of venue and host city) and event satisfaction as antecedents of intentions to revisit the host city. It was proposed that event attendance provides an opportunity to become familiar with the destination and the attractions it offers, thereby making decisions about future visitation more informed and less prone to risk. Previous experience with a destination has been found to predict intentions to revisit (Cunningham & Kwon, 2003; Kaplanidou and Vogt, 2007) and over eighty percent of international visitors who attended the 2000 Games as a guest of Olympic sponsors had not previously visited Australia (Brown, 2007). This study responds to requests for holistic studies of the inter-related dimensions of event experiences, from attitudes brought to the event to the event's influence on future behavior (Getz, 2008) and for research which seeks evidence of links between sports and tourism (Weed, 2009). The need to understand factors that may affect the decisions of Olympic spectators is particularly important as opportunities to promote tourism have come to be regarded as one of the main benefits for cities which host mega events (de Groot, 2005).

The Olympic Games temporarily transform global information flows (Short, 2008), offer a language for national ambitions (Ren, 2008) and provide a spectacle of “a (sporting) city and

nation collapsed into (simple) tourist images” (Silk, 2011, p. 736). They showcase host cities (Smith, 2005a) and the strategic use of the Games to gain a distinctive global position has been widely reported in the events literature (Faulkener, Chalip, Brown, Jago, March & Woodside, 2000; Gold & Gold, 2007; Hall, 1992; Roche, 2000; Zhang & Zhao, 2009). The Games can influence future tourism demand (Solberg & Preuss, 2007) and, after the 2000 Olympic Games, the Director of Marketing at the International Olympic Committee (IOC) stated that Australia had been the first host nation to use the Games “to vigorously pursue tourism for the benefit of the whole country” (Payne, 2000, cited in Brown, 2001, p. 138). Experiences at the Games are gained in settings that have been consciously designed to influence cognitive and affective outcomes and visitors have been classified as either Olympic spectators or Olympic tourists, depending on the relative importance placed on event or destination experiences (Kaplanidou, 2007). In the current study, it was hypothesized that event satisfaction may be affected by levels of sport involvement and place attachment with intention to revisit the host city influenced by the level of satisfaction gained when attending the event. Although there has been a “proliferation of scales in leisure and recreation fields measuring the relationship between place attachment and personal involvement” (Prayag & Ryan 2012, p. 343), such scales have rarely been used in events research and not previously in the context of the Olympic Games.

## **Literature review**

### *Event Satisfaction*

Satisfaction is a subjective evaluation made as a post-choice cognitive judgment (Day, 1984) or an emotional response to an act of consumption (Westbrook & Reilly, 1983). Evaluations may be based on perceptions of quality or on prior expectations and the relative influence of

determinants may vary by individual and situation (Oliver, 1993). In the context of sports events, spectators' satisfaction has been defined as a "pleasurable, fulfilment response to the entertainment of a sport competition and/or ancillary services provided during a game" (Yoshida & James, 2010, p. 340). While some studies have found that the core sport product (the sporting competition and its outcomes) had the strongest effect on satisfaction (Brady, Vorhees, Cronin, & Bourdieu, 2006; Tsuji, Bennet, & Zhang, 2007), others have found ancillary services (which include the service environment) to be more predictive of satisfaction (Greenwell, Fink, & Pastore, 2002). The relationship between the service environment and satisfaction features prominently in this study which examines the perceived significance of key characteristics of sport venues on event satisfaction. The link between customer satisfaction and loyalty has been studied extensively in marketing (Chi & Qu, 2008) and the relationship between satisfaction and behavioral intentions is well documented in service settings (Theodorakis, Alexandris, Tsigilis & Karvounis, 2013). After commenting that satisfaction has been one of the most researched areas in tourism, Lee and Beeler (2009) stated that "visitors with high levels of satisfaction are more likely to have an affirmative attitude of the experience, have higher intentions of revisiting a destination or purchasing tourism-related products" (p. 18). Although support for the relationship between satisfaction and destination loyalty has been found (Chi & Qu, 2008; Yoon & Uysal, 2005), some authors believe that the strength of the effect may be limited due to time and cost factors associated with the decision to revisit a destination (Michels & Bowen, 2005). In events, satisfied visitors are more likely to spread positive word-of-mouth, and to be repeat visitors (Cole & Illum, 2006) and a study of spectator sports found that satisfaction mediates the relationship between service quality and behavioral intentions (Brady, et al., 2006).

In the case of recurring sports events, satisfied spectators can make repeat purchases by frequently attending games and renewing season tickets. At less frequently held events, behavioral indicators of loyalty may be less readily identifiable and attitudinal measures - particularly intention to attend future events - have been the most widely-used outcome variables. A study of a festival in Korea, found that “54% of the variance in the behavioral intention of revisit is explained by overall satisfaction” (Son & Lee, 2011, p. 300). In their conceptual model of sport event tourism, Shonk and Challadurai (2008) acknowledged that spectators may return to the event or the place where it is held. Osti, Disegna, and Brida (2012) examined the extent to which attending a Biathlon World Championship in Italy influenced intentions to revisit the destination and also nearby destinations at other times of the year and for other leisure purposes. The survey conducted at the Biathlon found that respondents were likely to return to the event but not to the destinations - leading to the suggestion that “loyalty does not exist for the destination” (Osti et al., 2012, p. 38). Lee, Kyle and Scott (2012) examined whether visitors to agricultural festivals in Texas intended to return to host cities at times when the festivals were not being held. The authors treated place attachment, which features as a key variable in the current study at the London Olympics, as a mediator between festival satisfaction and loyalty to the destination. Although, in terms of total effects, satisfaction did not have a significant effect on revisit intentions, it had a positive indirect effect through place identity / social bonding. Another study found that visitors who were highly involved in a festival’s programs and activities were more likely to be satisfied and express an intention to return in the future (Lee & Beeler, 2009) and it has been suggested that the extent to which involvement levels may influence sport tourists’ behavior should be included in future research (Kaplanidou, Jordan, Funk, & Rindinger, 2012; Yoshida & James, 2010). The studies reported above help

justify an analysis of the relationship between event satisfaction and intentions to revisit the host city of the Olympic Games. Further, and consistent with the findings of Brady et al. (2006), the role of satisfaction as a mediator between involvement and revisit intentions, and between venue attachment and revisit intentions are tested.

#### *Antecedents of event satisfaction*

In a review of sport marketing theory, Theodorakis et al. (2013) provide a detailed discussion of the literature which has examined service quality as an antecedent of spectator satisfaction.

Attention was drawn to the distinction between process or functional dimensions of quality and outcome dimensions. The former includes interactions between customers and employees and between customers and the service environment, and outcome dimensions relate to game quality and competitor performance. Spectator perceptions of the environment at stadiums have been examined in a number of studies (Hill & Green, 2000; Greenwell et al., 2002; Wakefield, Blodgett, & Sloan, 1996) but they have all adopted a purely a functional approach with the inclusion of measures such as facility layout, comfort of seating and cleanliness of restrooms. In the study at the London Olympics it was considered important to focus more on psychological responses to the venue environment and it was thought that reactions to the event setting may be influenced by the spectators' level of interest in the sport. Therefore, both sport involvement and venue attachment are treated in the hypothetical model as antecedents of satisfaction.

#### *Sport involvement*

Involvement refers to levels of psychological connection (Funk, Ridinger, & Moorman, 2004), perceptions about personal relevance (Kyle & Chick, 2002) and the degree to which a person is

committed to an object, activity, place or experience (Gross & Brown, 2008). Based on social judgment theory (Sherif & Hoveland, 1961), the concept was further developed in consumer behavior research (Laurent & Kapferer, 1985; Rothschild, 1984) and an interrelationship between learning and involvement among sport consumers was recognized (Mullin, Hardy, & Sutton, 1993). In a subsequent study, knowledge about hockey was found to predict game attendance (Zhang, Smith, Pease & Maher, 1996). Involvement has been applied extensively in leisure and sport tourism (Dimanche, Havitz, & Howard, 1991) where it has been defined as “an unobservable state of motivation, arousal or interest toward a recreational activity or a product” (Havitz & Dimanche, 1997, p. 246). However there have been few attempts to reveal the relationship between involvement and satisfaction and future intention (Lee & Beeler, 2009) especially in the context of spectator sport (Funk et al., 2004).

A study of spectators in the USA used three items about personal relevance to measure domain involvement in football (Gwinner & Swanson, 2003) but in the influential framework proposed by Laurent and Kapferer (1985), involvement consists of four facets: importance, pleasure value, sign value, risk probability and risk consequences. However, risk factors may play a less significant role in leisure contexts (Kerstetter & Kovich, 1997) and an alternative, three factor model, has included attraction - to represent pleasure and importance - in combination with sign or self-expression and centrality of lifestyle (McIntyre, 1989). In an extensive analysis of the sport literature, Beaton, Funk, Ridinger and Jordan, (2011) suggest that “sport involvement is present when individuals evaluate their participation in a sport activity as a central component of their life and provides both hedonic and symbolic value” (p. 128). The authors conceptualized involvement as a multifaceted construct and used measures of hedonic value, centrality, and symbolic value in their study. A number of studies have taken a multifaceted approach to



measure involvement and pleasure, importance, sign and risk were used to examine the relationship between trip purpose and involvement among people attending the 2004 Olympic Games (Kaplanidou and Havitz, 2010). However, a single-factor model has also been found to be reliable (Kim, Scott, & Crompton, 1997) and was preferred by McGehee, Yoon, & Cardenas (2003) to measure the involvement of road race competitors. A study of international participants in a hallmark running event in Australia by Funk, Toohey and Bruun (2007) used a unidimensional measure of involvement in the operationalization of a psychological continuum model (Funk & James, 2001). It was decided to adopt a unidimensional approach in the in the current study and, consistent with the conceptualization of Beaton et al. (2011), decisions to purchase tickets to particular events and cognitive reactions to the venues were regarded as outcomes of involvement at the London Olympics.

### *Place attachment*

To date, most research has treated the role of sport venues from an almost purely functional perspective and this has resulted in calls for more research to examine links between the physical facility and satisfaction (Greenwell et al., 2002). In the current study of the relationship between spectators and event venues at the Olympic Games, the concept of place attachment was used as it involves “an interplay of affect and emotions, knowledge and beliefs and behaviors and actions in reference to place” (Low & Altman, 1992, p. 5). It concerns the personal connection an individual feels for a place (Kyle, Graefe, Manning, & Bacon, 2003) and the relationship between place attachment and destination loyalty has emerged as an area of interest in tourism research (Prayag & Ryan, 2012; Yuksel, Yuksel, & Bilim, 2010).

The application of attachment theory in environmental contexts initially focused on psychological connections with the home (Buttimer, 1980) but, in a review of over 120 journal articles published in the last forty years about people-place relations, Lewicka (2011) notes that “one of the most visible new trends in studies of place attachment in the last decade is a growing interest in attachment to places other than permanent residences” (p. 213). This trend is partly a result of the work of leisure researchers who have examined the extent to which an attachment to environmental settings makes it possible to achieve desired recreational outcomes (Bricker & Kerstetter, 2000; Hammitt, Backlund, & Bixler, 2006; Kyle, et al., 2003; Moore & Graefe, 1994) and to stimulate proenvironmental behavior (Ramkissoon & Mavondo, 2014).

Hammitt, Kyle and Oh (2009) claim that a two dimensional model of place identity and place dependence has been the most prominently used place attachment model by recreation resource researchers with reliability established across different samples and contexts (Lee et al., 2012). Place identity refers to the way people may identify with places which are considered to be unique (Twiger-Ross & Uzzell, 1996) or to match their own identity (Proshansky, Fabian, & Kaminoff, 1983). Higham and Hinch (2009), claim that Nauright’s (1996) assertion that sport “is one of the most significant shapers of collective or group identity” (p. 69) can be extended to the realm of place identity. They offer a place-related example of identity formation when spectators gain a sense of personal continuity by returning to the same seats at the stadium of their favourite team. This suggests that the level of sport involvement may influence attitudes towards the venue and supports the proposition that events offer opportunities for identities to be created or affirmed (Shipway & Kirkup, 2011). Place dependence concerns the functional qualities of a place and its ability to deliver desired outcomes (Stokols & Shumaker, 1981;

Williams & Roggenbuck, 1989) with evaluative judgments made in comparison with alternative locations. In a more active sense, it allows for a relationship with the attributes of the environment where an activity is taking place to materialize (Williams, Patterson, Roggenbuck, & Watson, 1992). Place affect has been added by some researchers to measure emotional reactions and feelings associated with physical settings (Hinds & Sparks, 2008). At sport venues spectators can experience “high levels of pleasure, sensory stimulation and arousal (Uhlrich & Benkenstein, 2010, p. 217). Berridge (2012) refers to the importance of event architecture and the application of design in the creation of event experiences. He draws on the work of Nelson (2009) who regarded design as a tool used to shape the relationship between individuals and their physical settings, in the creation of emotional connections with experiencescapes (O’Dell, 2005). The idea of an experiencescape, which includes sensory and symbolic dimensions of the setting (Diller, Shedroff and Rhea, 2008), has been influenced by the servicescape framework developed by Bitner (1992) and both involve “the application of environmental psychology to understand how event settings influence attendee behaviour” (Benchendorf and Pearce, 2012, p. 173).

Previous studies provide strong support for the use of place dependence, place affect and place identity to measure place attachment at sport venues where the spectator experience may be superior to that available at other locations and where emotional reactions may shape personal identities. In addition to these widely-accepted dimensions, it was considered important to recognize the symbolic power of sport venues. In an early review of the social anthropological literature Low (1992) nominated Wembley stadium as an example of a place which creates forms of attachment for symbolic reasons. People become attached to places because they possess strong visual symbols (Smith, 2005a) and sport events can communicate imageable landscapes

that come to represent certain sports, events and places (Smith, 2005b). Sport events have been used to reposition or 're-image' places as tourist destinations. For example, since 2008 Singapore has staged a Formula 1 Grand Prix on a street circuit to promote a more exciting image and to draw attention to its new waterfront district (Smith, 2012). Sports venues serve as manifestations of sporting culture and help people maintain memories and reinforce place identities (Ramshaw and Hinch, 2006). In the study at the London 2012 Games, venue attachment was operationalized by including measures of place dependence, place identity, place affect and place symbolism. The suitability of these dimensions had been tested at stadiums used to stage different types of sport events in Australia prior to their use at the Olympic venues (Brown & Assaker, 2013).

Recent studies have presented alternative positions on the relationship between place attachment and satisfaction. Lee et al. (2012) have argued that place attachment is the product of satisfaction whereas Prayag and Ryan (2012) claim that ambiguity exists and cite research which found place attachment to influence satisfaction (Hwang, Lee, & Chen, 2005; Yuksel, Yuksel, & Bilim, 2010). It is proposed that, in the context of experiences at the Olympic Games, an attachment to event venues will enhance satisfaction. In line with previous tourism and leisure studies (Ramkissoon, Smith, & Weiler 2013; Brown & Assaker, 2013), a second-order reflective scheme for venue attachment is assumed. The reflective scheme for the second-order venue attachment construct means that the arrows indicate movement from lower-order constructs (e.g., place dependence, place identity, place affect, and place symbolism) to the second-order construct of venue attachment (Wetzels, Odekerken-Schroder, & Van Oppen, 2009). Thus, venue attachment

exerts a mutual effect on the first-order constructs of place dependence, place identity, place affect, and place symbolism.

*Destination perception.*

Environmental settings that affect spectator attitudes and behavior extend beyond competitive arenas into the destination where it is held (Kaplanidou et al., 2012). People attending events gain a variety of place experiences (Hinch and Higham, 2004) and are able to enjoy the atmosphere offered by the host environment (Chalip, 1992). Evidence for the role played by the destination in the visitor experience was found in a study at the 1996 Athens Olympics where spectators who attended the Games as a secondary activity gave high scores for situational pleasure involvement with the destination (Kaplanidou & Havitz, 2010). Destination attractions, the quality of the tourism experience and perceptions of the destination have been found to exert a positive influence on satisfaction and behavioral intention (Chi & Qu, 2007; Kaplanidou et al., 2012; Krohn & Backman, 2010; Shonk & Chelladural, 2008). At the same time, events can have a positive impact on destination perceptions (McCartney, 2005; Xing & Chalip, 2006) especially when there is a good strategic fit between the event and the destination (Jago, Chalip, Brown, Mules & Shameem, 2003) with the potential for both to benefit from the transfer of positive imagery (Chalip & Costa, 2005).

A study by Chen and Funk (2010) identified specific destination image attributes that influenced sport tourists intention to revisit but, in contrast with this type of attribute based approach, destination image may take the form of a more holistic impression (Echtner & Ritchie, 2003).

This is consistent with an early definition in the tourism literature which described destination image as the sum of beliefs and ideas a person holds about a place (Crompton, 1979). More recently, Tasci, Gartner and Cavusgil (2007) described image as “an interactive system of thoughts, opinions, feelings, visualizations, and intentions toward a destination” (p. 200). The research at the London Olympics responded to the suggestion that destination image should be included in studies at sporting events (Shonk & Chelladurai, 2008) to examine its impact on event satisfaction and behavioral intentions.

## **Methodology**

### *Proposed Hypothesized Model*

Figure 1 illustrates the full hypothesized model to be tested in the context of the present study. It depicts the underlying specifications for each construct and the proposed causal relationships among the constructs. The venue attachment construct is hypothesized as a second-order reflective construct, which is determined by four first-order dimensions: place dependence, place symbolism, place affect, and place identity. Each of these first-order dimensions are measured by a set of indicators. Involvement with sport is posited to be a first-order reflective construct, and is measured by nine observed indicators. The host city evaluation, satisfaction, and visitation intention constructs are also hypothesized as first-order reflective constructs that are each determined by three observed indicators. All of the indicators corresponding to the constructs, along with their respective means, standard deviations, skewness and kurtosis, are presented in the Appendix (Table A1).

**[INSERT FIGURE 1 ABOUT HERE]**

Based on the literature review, a number of hypotheses are proposed. The degree to which tourists are involved with sport has a positive, direct impact on their level of attachment to the venue where the sporting event is held and on their level of event satisfaction:

*H1: Involvement with sport has a positive impact on tourists' venue attachment.*

*H2: Involvement with sport has a positive impact on event satisfaction.*

The sport venue serves as the event setting and as a tourist attraction and the degree to which spectators are attached to the venue has a positive, direct impact on how they perceive and evaluate the host city and on their level of event satisfaction:

*H3: Venue attachment has a positive impact on host city evaluation.*

*H4: Venue attachment has a positive impact on event satisfaction*

*H5: Venue attachment has a positive impact on tourists visit intention.*

Tourists' evaluation of the host city has a positive, direct impact on level of event satisfaction and on revisit intentions:

*H6: Host city evaluation has a positive impact on event satisfaction.*

*H7: Host city evaluation has a positive impact on tourists' visit intention.*

The level of event satisfaction affects intention to revisit the host city. Satisfaction mediates the relationships between venue attachment and revisit intentions, between sport involvement and revisit intentions and between host city evaluation and revisit intentions, as suggested by the previously presented hypotheses:

*H8: Level of satisfaction has a positive impact on tourists' visit intention.*

### *Design and data collection*

A questionnaire was distributed by a team of research assistants at three venues which hosted events at the London Olympics. In a pre-Games training session, the research assistants were informed about the potential impact of environmental characteristics and venue design on the implementation of the survey. The need to eliminate bias by randomly selecting respondents and by adopting a consistent approach in interactions was explained. The venues were chosen due to their contrasting characteristics and spectator profiles. The Aquatics Centre, which staged the swimming events, was a spectacular arena, purposefully built as the gateway to the Olympic Park. The tennis competition was held at Wimbledon which is a famous, established venue and home of the All England Tennis Club. Greenwich Park is a prestigious public space that was converted for temporary use as the venue for equestrian events during the 2012 Games. The elevated site at Greenwich offered views to the city of London. This venue-driven sampling strategy made it possible to test the significance of venue attachment at settings which differed in terms of their size, design, heritage associations and relationship to the city of London. At the same time, it was expected that there would be variability in sport involvement due to differences in the profile of spectators at the three venues. The research assistants were assigned to a location at each venue where spectators congregated and had time to complete and return the questionnaire. Respondents were given a questionnaire on a clipboard and, as an incentive, were able to keep the Olympic souvenir pen that was provided to complete the questionnaire. The data were collected during the event; at the place and time of the consumptive experience. In total,



185 questionnaires were completed at the Aquatic Centre on July 29, 234 at Greenwich Park on July 30 and 31, and 184 at Wimbledon on August 3. A comparison of the demographic characteristics of the sample with data of ticket holders provided by LOCOG indicates that the sample was broadly representative of spectators attending the three events: twenty-three percent of respondents lived in a London Borough, 44% lived in the rest of England and 10% in the rest of the UK. Twenty-three percent were from overseas.

Responses from 603 spectators were used to test the proposed model. This is adequate to perform exploratory factor (EFA) and SEM analyses as usually a subject-to-item ratio ranging from 5:1 (Hatcher, 1994) to 10:1 (Nunnally, 1978) is needed to achieve sample size adequacy at the 5% significance level. With 31 indicators and 603 observations, our subject-to-item ratio is 19.4, which is significantly greater than the required thresholds. Moreover, as PLS-SEM rather than CB-SEM was used to analyze the data (as explained next in the data analysis section), no further checks on the normality of the data were needed (PLS-SEM does not make assumptions about the distribution properties of the dataset; see Oom Do Valle & Assaker, 2015). Finally, all variables were missing less than 10% of the values across the 603 observations (number of missing values ranged between 0 and 11). Thus, the nearest neighborhood approach (Olinsky, Chenb, & Harlow, 2003) was used to impute any missing value and arrive at the final dataset used in this study.

### *Measurement instrument*

In addition to providing details about themselves, their visit to London and attendance at previous Olympic Games, respondents were required to indicate their level of agreement with the

statements, on a 7-point scale (1 = strongly disagree; 7 = strongly agree), for the questions that measured the key constructs. Three questions, based on the work of Alexandris, Zahariadis, Tsorbatzoudis and Grouio (2004), were used to measure satisfaction and four questions were included to measure intentions to return to the Olympic venue and other attractions in London in the next twelve months. Three questions, with wording reflecting a holistic approach to the image of London and its role as a tourist destination, were used to evaluate perceptions of the host city. Three questions were used for each of the four venue attachment dimensions based on previous studies (Bricker & Kerstetter, 2000; Brown & Assaker, 2013; Hammitt et al., 2009; Kyle et al., 2003), and nine questions were adapted from Gross and Brown (2008) to capture the involvement construct, which, consistent with the work of McGee et al., (2003) and Funk et al., (2007), was hypothesized as a single factor in the present study.

### *Data Analysis*

Exploratory Factor Analysis (EFA) and reliability tests were used to examine the dimensionality and internal consistency for each of the first-order reflective constructs (Hurley, Scandura, Schriesheim, Brannich, Seers, & Vandenberg, 1997; Nunnally, 1978). We then analyzed the structural relationships (see Figure 1) between the factors using Partial Least Squares Structural Equation Modeling (PLS-SEM). Structural models are traditionally analysed using the covariance-based structural equation model (CB-SEM) technique (Hulland, 1999) but the present study used PLS-SEM because CB-SEM requires identifying the model before it can converge to admissible results (Kline, 2004). Identification is often difficult under CB-SEM when the model includes higher-order latent constructs, such as the venue attachment construct used in this study.

PLS-SEM can be used as a complementary approach to CB-SEM to generate similar results (Diamantopoulos & Winklhofer, 2001; Jöreskog & Wold, 1982) and it was applied by (1) validating the outer model and (2) fitting the inner model. This is the exact equivalent of validating the measurement and structural models in CB-SEM (see Oom do Valle & Assaker, 2015). Validating the outer model was accomplished by determining the convergent and discriminant validity and reliability for the first-order reflective constructs as well as the second-order reflective construct (Wetzels, Odekerken-Schroder & Van Oppen, 2009). Fitting the inner model was accomplished primarily through path analysis with latent variables.

## **Results**

### *Exploratory Block Factor and Reliability Analysis*

A Principal Component Analysis (PCA) was conducted on the unstandardized data to test the dimensionality of each construct which were grouped into eight reflective blocks of variables (Table 1). The results showed that all first-order constructs were unidimensional, with each represented by one factor with an eigenvalue greater than 1. All loadings performed well inside each block (loadings > 0.5), further supporting their unidimensionality. Notably, factor loadings of 0.50 are considered significant given the large sample size ( $N > 200$ ) (see e.g. Hair et al., 2010). The loadings inside each block fell within a relatively small range. For involvement with sport, host city evaluation, satisfaction, and visit intention, the loadings ranged from 0.69 to 0.90, 0.68 to 0.84, 0.84 to 0.92, and 0.77 to 0.89, respectively. For place dependence, place symbolism, place affect, and place identity, the factors had loadings of 0.82 to 0.86, 0.74 to 0.81, 0.88 to 0.94, and 0.87 to 0.92, respectively. Finally, the second-order construct of venue attachment had loadings between 0.70 and 0.87. Cronbach's alpha and Dillon-Goldstein's rho for

the first-order reflective and the second-order venue attachment constructs were robust and above the lower limit of 0.6. This finding is considered satisfactory for confirmatory or exploratory studies (Nunnally & Bernstein, 1994). This indicates high scale reliability and further supports the unidimensionality and reflective scheme of these factors. Based on this analysis, all hypothesized indicators were found to belong together in identifying their underlying constructs (Raykov & Marcoulides, 2006).

**[INSERT TABLE 1 ABOUT HERE]**

#### *Partial Least Square Analysis*

PLS-SEM using XLSTAT software (Addinsoft, 2011) was run on the full dataset of the unstandardized data, using mode A (reflective scheme) for the first-order constructs. Mode A was also used to relate the second-order latent construct (i.e., venue attachment) to the blocks of first-order latent variables. This suggests that the second-order construct, venue attachment, is related to the first-order latent constructs of place dependence, place symbolism, place affect, and place identity as reflective dimensions. Finally, the centroid scheme was used to estimate inner weights.

#### *Outer model analysis*

PLS-SEM makes no distributional assumptions; thus, only non-parametric tests can be used to evaluate the explanatory power of the model being examined (Chin, 1998). We assessed the quality of the reflective measurement models using convergent and discriminant validity, as well as the reliability of the latent variables. The convergent validity of the constructs was supported

because factor loadings were around or above the 0.7 threshold (Table 2). As such, more than 50% of the variance in the observed variable could be explained by the underlying construct (Hulland, 1999). The only exceptions were item Q4 (“I really enjoy swimming/horse riding/tennis”) of the involvement construct, and item Q26 (“The games are special because they are in London”) of the host city evaluation construct. Both items had a loading slightly below the 0.7 threshold (0.68 and 0.69; see Table 2). However, the bootstrap test showed that all loadings were significant at the bootstrap-based empirical 95% confidence interval (see Table 2) suggesting that all indicators significantly reflect their underlying constructs. In addition, the average variance extracted (AVE) achieved values of 0.715, 0.599, 0.832, and 0.802 for the first-order venue attachment dimensions (place dependence, place symbolism, place affect, and place identity, respectively), with 0.679 for involvement and 0.596, 0.761, and 0.692, respectively, for host city evaluation, satisfaction, and visit intention. Because AVE exceeded the required 0.5 threshold, the constructs captured more than 50% of the indicators’ variance. With respect to discriminant validity, the root of AVE should surpass the correlation coefficient of the construct with every other construct in the model and this was the case in our model (Table 3). Finally, Cronbach’s alpha and Dillon-Goldstein’s rho for all of the first-order reflective constructs were robust and well above the lower limit of 0.6 (Nunnally & Bernstein, 1994). This indicates high-scale reliability and further supports the unidimensionality and reflective scheme of these factors (Table 2).

With respect to the second-order venue attachment construct, Table 2 shows that the Cronbach’s alpha, Dillon-Goldstein’s rho, and AVE of the measures were greater than 0.6 and 0.5, respectively. This shows evidence of reliability and convergent validity; that is, taken together,

the four first-order constructs represent the second-order factor well and are thus good measures. Furthermore, the loadings of the first-order latent constructs on the second-order factor exceeded 0.7 in standard value, with results indicating that all loadings are significant at the bootstrap-based empirical 95% confidence interval (Table 3). This further supports the fact that the four first-order factors, taken simultaneously, load well on or represent the second-order venue attachment factor well.

**[INSERT TABLE 2 ABOUT HERE]**

**[INSERT TABLE 3 ABOUT HERE]**

#### *Inner model analysis*

In a second step of the analysis, the inner model was examined. The  $R^2$  values associated with the endogenous constructs in the model demonstrated that the model explains a substantial amount of the variance of the endogenous latent constructs. The  $R^2$  results of the tested model demonstrated that the cross-sectional regressions (for host city evaluation, satisfaction, visitation intention, and the four first-order venue attachment dimensions [place dependence, symbolism, place affect, and place identity] at 0.185, 0.186, 0.248, 0.416, 0.649, 0.828 and 0.766, respectively) provided an explained variance of at least 15%. This is in accordance with the threshold proposed by Chin (1998); as such, the nomological validity of the model is satisfactory.

Another assessment of the structural model involved the model's ability to predict the endogenous latent variable indicators, referred to in the PLS-SEM literature as cross-validated

redundancy measures (Wold, 1982). To this end, the Stone-Geisser Q2 values (Stone, 1974; Geisser, 1975) were studied. These represent the predominant measures of predictive relevance when using blindfolding procedures (Tenenhaus et al., 2005). Q2 values for the host city evaluation, satisfaction, and visitation intention variables were larger than zero, suggesting predictive relevance in explaining the endogenous latent variables. Furthermore, Q2 values for the first-order venue attachment indicators were all above 0.35, indicating substantial predictive relevance for the model to explain the first-order venue attachment variables (Henseler, Ringle, & Sinkovics, 2009).

#### *Path Estimates and Hypotheses Testing.*

To estimate the path coefficients, we ran a bootstrapping with 1,000 iterations of resampling (Davison & Hinkley, 1997). The results indicate that seven of the eight hypotheses were supported empirically, whereas one hypothesis was not supported because the path coefficient showed no significance (Figure 2). The visitation intention construct was positively influenced by the level of venue attachment, and host city evaluation (regression coefficient = .325 and .277, respectively), supporting Hypotheses 5 and 7. Moreover, the satisfaction construct was positively influenced by the respondents' level of involvement with sport, level of venue attachment, and host city evaluation (regression coefficients = .174, .123, and .211, respectively), supporting Hypotheses 2, 4, and 6. Moreover, host city evaluation was positively influenced by the respondents' level of venue attachment (regression coefficient = .430), supporting Hypothesis 3. Finally, venue attachment was positively influenced by the respondents' level of involvement with sport (regression coefficient = .259), supporting Hypothesis 1. Thus, only

Hypothesis 8 remained unsupported, demonstrating the nonsignificant direct influence of satisfaction on visitation intention.

**[INSERT FIGURE 2 ABOUT HERE]**

*Direct, indirect, and total effects.*

The direct, indirect, and total effects among various constructs are shown in Table 4. The venue attachment construct had the largest positive effect on visitation intention (0.435), followed by host city evaluation (0.277) and involvement with sport (0.106). Furthermore, the positive effect of venue attachment on visitation intention was demonstrated to be more direct (0.325) than indirect (0.110) through satisfaction, whereas the effect of host city evaluation on visitation intention was found to be completely direct (0.277). Lastly, the effect of involvement with sport was demonstrated to be completely indirect (0.106) through venue attachment and satisfaction. Finally, involvement with sport, host city evaluation, and venue attachment had equal positive effects on the level of satisfaction, with the effect of venue on satisfaction shared almost equally between direct (0.123) and indirect (0.091) through host city evaluation.

**[INSERT TABLE 4 ABOUT HERE]**

Based on these results, we can conclude that the initially hypothesized model, despite the non-significance of the path coefficient between satisfaction and visitation intention, has a good fit with the data. Indeed, these results provide sound predictive ability for the estimated endogenous latent variables and their underlying indicators. They also support the suitability of the method



used in the study as an alternative to SEM to validate structural relationships between the constructs.

## **Discussion and Conclusion**

The multi-disciplinary nature of this study required a review of literature from services marketing, environmental psychology, tourism, sport management and sport tourism, the development of a hypothetical model and the use of measures which have been applied in other studies but not in the combination required to meet the objectives of this study. Thus, this study assists in the development of “a theoretically and methodologically robust body of sport tourism knowledge” (Weed, 2009, p. 624). In his extensive review of event tourism, Getz (2008) noted that the Olympics have attracted a great deal of attention from researchers and claimed that the related literature “is huge” (p. 412). However, the results of very few spectator surveys have been published. This may be partly due to the restricted access for academic researchers to Olympic venues and this study would not have been possible without the support of the International Olympic Committee (IOC) and the London Organising Committee for the Olympic Games (LOCOG). Consequently, our study helps better understand the experiences of Olympic spectators. It was found that event satisfaction is greater for people who have a higher level of involvement with the sport they watch at the Olympic Games. Significantly, psychological bonds with the venue enhanced the event experience and spectators who were involved in the sport reacted more strongly to the venue. The broader environmental context was also significant as favourable perceptions of the host city had a positive effect on event satisfaction.

Sport involvement is associated with behavioural consistency whereas venue attachment reflects the potential for situational variables to affect spectator evaluations. Both can be accommodated by an interpretation drawing on social ecological theory which would treat event experience as a 'target' for visitation intentions. According to this theory, decisions about future behaviour are based on dynamic interactions between the individual's personal attributes and his/her social and physical environment systems (Stokols, 1992). Targets are factors that are assumed to play a causal role in explaining and modifying behaviour (Derom et al., 2015). Kaplanidou (2007) examined the role of involvement with the Olympics Games and with the host city, but no study has measured the influence of the level of sport involvement of spectators at the Games. This is a significant omission as it would be expected that the event provides an opportunity to witness the highest level of competition in many sports and would appeal to people who are highly involved in these sports. The design of our study made it possible to demonstrate that sport involvement has a significant effect on event satisfaction. There was also a positive relationship between sport involvement and venue attachment which suggests that people reacted positively to the environmental setting while watching the sport with which they are involved.

A significant difference was found between those who are highly involved in sport and those who have lower levels of sport involvement in terms of behavioural intentions. It is noteworthy that people who are less involved were more likely to return to London to visit tourist attractions. An ability to target this group after the Games may be an effective strategy to increase tourism demand for the host city. However, venue attachment was found to have the strongest effect on intention to revisit London. The benefits of investing in venues with which spectators gain a psychological connection may extend beyond the event experience to the city as

a tourist destination. The term hallmark event is widely employed in the events literature to describe an event that is intrinsically linked the city where it is held. It may also be useful to consider the idea of hallmark venues. The findings suggest that a mutually beneficial relationship may exist between destinations and venues where events are held.

Place affect and place identity were found to be the most important dimensions of venue attachment and the management implications of these findings warrant careful consideration. An ability to influence emotional responses to the physical setting and the activities supported by a venue must be seen as an important consideration in venue design. Although identity formation may be influenced by a wide range of factors, it may be valuable if tangible links with sport heritage are displayed as part of the physical fabric at event venues. This is the first time place attachment has been operationalized as a measure of responses to event venues and the analysis and findings demonstrate the utility of the venue attachment scale. It has particular value as it includes dimensions related to functionality, enjoyment, identity and symbolic associations and there is considerable scope for it to be used, and further refined, in research at other types of venues.

This study found that beliefs about the host city influenced intentions to revisit London and this has important implications for destination management. It shows that people who attended the Olympics and felt positively about the host city were likely to return to the destination. The strongest relationship between favorable attitudes towards the host city and event satisfaction was found among spectators at Greenwich Park. This site had been selected by event organizers partly because it offered scenic views of iconic buildings, thereby creating cognitive connections between the Games and London.

A key objective of the study was to examine the relationship between event satisfaction and intention to revisit the host destination. This relationship was not found among people attending the London Olympics. Although further analysis is needed to determine the significance of factors such as the place of residence of spectators, this finding is consistent with other studies which have examined the relationship between event satisfaction and revisit intentions (Kaplanidou & Vogt, 2007; Lee et al., 2010; Osti et al., 2012). It can be explained by the fact that many people who attend an event are interested solely in the event (Osti, et al., 2012) and due to the belief that a city offers a “new face” when hosting the Olympic Games (Kaplanidou, 2007, p. 169). This may suggest that people consider information gained about the destination while attending the event to be of little relevance for decisions about future visits and it may be one of the reasons why little evidence has been found of an increase in tourist numbers in the years following major sport events (Fourie & Santana-Gallego, 2011). This study found that spectators were satisfied with their experience when attending Olympic events. Their level of satisfaction was influenced by sport involvement, venue attachment and attitudes toward the host city but the event was considered to be a discrete experience without implications for future behavior towards the destination. The event experience was not transformative (Benckendorf and Pearce, 2012) in terms of intentions to visit attractions in the host city.

The relationship between the 2012 Olympic Games and tourism can be interpreted from a number of perspectives. Some major tourist attractions in London hosted 60% fewer visitors during the two weeks of the Games compared to the same weeks the previous year (Smithers, 2012). An inability, on the part of traditional tourist attractions, to compete with the Games has been found at previous Olympics (Brown, 2011). However, the Chief Executive of the

Association of Leading Visitor Attractions in London stated that the organization was working with tourist boards “to turn the millions of Olympic TV viewers who loved how Britain looked into visitors who will come here in the next months and years” (Donoghue, cited in Smithers, 2012). Weed (2014) considers tourism marketing campaigns, linked to the Games, to have been one of the main legacies of the London Olympics although he questioned the size of tourism flows that would be generated. It is therefore interesting to note that, since the Games, there has been growth in the number of inbound visitors to London; an increase of 1.4 million in 2013 and 0.6 million in 2014 (Visit Britain, 2015). However, this growth is due to a complex number of factors and in one of the world’s most visited cities it is impossible to attribute changes in tourism figures to one event. Furthermore, the recent growth experienced by London is only half the increase experienced during this period by the UK’s second most visited city, Edinburgh.

#### *Limitations and Future Research*

The size and many of the characteristics of the Olympic Games mean they are quite distinctive and caution should be exercised when making generalisations to other events from the findings of this study. A particular problem for research about satisfaction at the Olympic Games concerns the expectations which may be brought to the event by spectators. The disconfirmation approach was not adopted in this study but future research could examine issues such as whether expectations may vary according to levels of sport involvement or prior attendance at major sport competitions.

This study has other limitations. First, data were collected from three types of sport venues (swimming, equestrian, and tennis) and were pooled to analyse and validate the present study's hypothesized model. Second, the respondents from whom the data was collected have different sociodemographic and trip characteristics, including age, gender, education, occupation, and with whom they travelled. As such, future research could examine the influence of venue type and respondent heterogeneity on the relationships between the variables hypothesized. Finally, the present study used a cross-sectional data set in which the intention to visit was used as a proxy for the actual visit behaviour. Meta-analyses of research using the theory of planned behavior (Ajzen, 1991) have reported favourable intention-behaviour correlations (Sheeran, 2002) however, in future studies, longitudinal data could be collected. By following up on surveyed respondents/travelers over time to ask whether major discrepancies emerged between the categories of those who claim they were likely to return to the host city and the categories of those who actually did return. This would help to understand visitors' actual behavior, rather than merely their intentions

## References

- Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
- Alexandris, K., Zahariadis, P., Tsorbatzoudis, C., & Grouios, G. (2004). An empirical investigation of the relationships among service quality, customer satisfaction and psychological commitment in a health club context. *European Sport Management Quarterly*, 4, 36-52.
- Beaton, A. A., Funk, D. C., Rindinger, L., & Jordan, J. (2011). Sport involvement: a conceptual and empirical analysis. *Sport Management Review*, 14, 126-140.
- Benckendorf, P., & Pearce, P L. (2012). The psychology of events. In S. J. Page & Connell, J. (Eds.), *The Routledge Handbook of Events*. (pp. 165-185). Abingdon, Oxon: Routledge.

- Berridge, G. (2012). Designing event experiences. In S. J. Page & Connell, J. (Eds.), *The Routledge Handbook of Events*. (pp. 273-288). Abingdon, Oxon: Routledge
- Bitner, M. J. (1992). Servicescapes: the impact of physical surroundings on customers and employees. *Journal of Marketing* 56(2), 57-71.
- Brady, M. K., Vorhees, J.J., Cronin, J., Jr., & Bourdeau, B.L. (2006). The good guys don't always win: the effect of valence on service perceptions and consequences. *Journal of Services Marketing*, 20, 83-91.
- Bricker, K. S. & Kerstetter, D. L. (2000). Level of specialisation and place attachment: an exploratory study of whitewater recreationists. *Leisure Sciences*, 22, 233-257.
- Brown, G. (2001). The games of the XXVII Olympiad in Sydney (2000). In. M. Weed, *Olympic Tourism*. (pp. 137-152). Oxford: Butterworth-Heinemann.
- Brown, G. (2007). Sponsor hospitality at the Olympic Games: an analysis of the implications for tourism. *International Journal of Tourism Research*, 9, 315-327.
- Brown, G. & Assaker, G. (2013). Exploring place attachment: an empirical analysis of sports events spectators. *Proceedings of the CAUTHE Annual Conference*, University of Lincoln, New Zealand, 11-14, February, 2013.
- Buttimer, A. (1980). Home, reach and the sense of place. In A. Buttimer, & D. Seamon (Eds.), *The human experience of space and place* (pp.166-187). New York: St. Martin's Press.
- Byrne, B. M. (2001). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. Mahwah, N.J.: Lawrence Erlbaum Associates.
- Byrne, B. M. (2004). Testing for multigroup invariance using AMOS graphics: A road less travelled. *Structural Equation Modeling*, 11(2), 272-300.
- Chalip, L. (1992). The construction and use of polysemic structures: Olympic lessons for sport marketing. *Journal of Sport Management*, 6, 87-98.
- Chalip, L., & Costa, C. A. (2005). Sport event tourism and the destination brand" towards a general theory. *Sport in Society*, 8(2), 218-237.
- Chen, N., & Funk, D. C. (2010). Exploring destination image, experience and revisit intention: a comparison of sport and non-sport tourist perceptions. *Journal of Sport & Tourism*, 15 (3), 239-259.
- Chi, C., & Qu, H. (2008). Examining the structural relationships of destination image, tourist satisfaction and destination loyalty: an integrated approach. *Tourism Management*, 29 (4), 624-636.

- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. In G. A. Marcoulides (Ed.), *Modern methods for business research* (pp. 295-336). Mahwah: Lawrence Erlbaum Associates.
- Cole, S. T., & Illum, S. F. (2006). Examining the mediating role of festival visitors' satisfaction in the relationship between service quality and behavioral intentions. *Journal of Vacation Marketing, 12* (2), 160-173.
- Crompton J. L. (1979). An assessment of the image of Mexico as a vacation destination and influence of geographical location upon that image. *Journal of Travel Research, 17*(4), 18-23.
- Cunningham, G. B., & Kwon, H. (2003). The theory of planned behavior and intentions to attend a sport event. *Sport Management Review, 6*, 127-145.
- Davison, A. C., & Hinkley, D. V. (1997). *Bootstrap Methods and their Applications*. Cambridge: Cambridge University Press.
- Day, R. L. (1984). Modeling choices among alternative responses to dissatisfaction. *Advances in Consumer Research, 22*, 469-499.
- De Groote, P. (2005). Economic and tourism aspects of the Olympic Games. *Tourism Review, 60*(3), 20-28.
- Diamantopoulos, A., & Winklhofer, H. M. (2001). Index construction with formative indicators: an alternative to scale development. *Journal of Marketing Research, 38* (2), 269-277.
- Diller, S., Shedroff, N., and Rhea, D. (2008). *Making Meaning: How Successful Businesses Deliver Meaningful Customer Experiences*. New Jersey: New Riders Press.
- Dimanche, F., Havitz, M. E., & Howard, D. R. (1991). Testing the involvement profile (ip) scale in the context of selected recreational and touristic activities. *Journal of Leisure Research, 23*(1), 51-66.
- Echtner, C. M., & Ritchie, J. R. B. (2003). The meaning and measurement of destination image. *The Journal of Tourism Studies, 14*(1), 37-48.
- Faulkner, W., Chalip, L., Brown, G., Jago, L., March, R., & Woodside, A. (2000). Monitoring the impact of the Sydney Olympics. *Journal of Event Management, 6*(4), 231-246.
- Fourie, J., & Santana-Gallego, M. (2011). The impact of mega-sport events on tourist arrivals. *Tourism Management, 32*, 1364-1370.
- Funk, D. C., & James, J. (2001). The psychological continuum model: a conceptual framework for understanding an individual's psychological connection to sport. *Sport Management Review, 4*, 119-150.



- Funk, D. C., Ridinger, L. L., & Moorman, A. M. (2004). Exploring the origins of involvement: understanding the relationship between consumer motives and involvement with professional sport. *Leisure Sciences*, 26, 35-61.
- Funk, D. C., Toohey, K., & Bruun, T. (2007). International sport event participation: prior sport involvement; destination image; and travel motives. *European Sport Management Quarterly*, 7(3), 227-248.
- Geisser, S. (1975). The predictive sample reuse method with applications. *Journal of the American Statistical Association*, 70, 320-328.
- Getz, D. (2008). Event tourism: definition, evolution and research. *Tourism Management*, 29, 403-428.
- Gold, J. R., & Gold, M. M. (2007). *Olympic Cities: City Agendas, Planning and the World's Games, 1896-2012*. London: Routledge.
- Greenwell, T. C., Fink, J. S., & Pastore, D. L. (2002). Assessing the influence of the physical sports facility on customer satisfaction within the context of the service experience. *Sport Management Review*, 5, 129-148.
- Gross, M. J. & Brown, G. (2008). An empirical structural model of tourists and places: progressing involvement and place attachment into tourism. *Tourism Management*, 29, 1141-1151.
- Gwinner, K., & Swanson, S. (2003). A model of fan identification: antecedents and sponsorship outcomes. *Journal of Services Marketing*, 17(3), 275-294.
- Hair, J. F., Black, B., Babin, B., Anderson, R. E., & Tatham, R. L. (2010). *Multivariate Data Analysis* (6th edition ed.): Prentice Hall.
- Hall, C. M. (1992). *Hallmark Tourist Events: Impacts, Management and Planning*. London: Bellhaven Press.
- Hatcher, L. (1994). *A Step-by-Step Approach to Using the SAS® System for Factor Analysis and Structural Equation Modeling*. Cary, N.C.: SAS Institute, Inc.
- Havitz, M. E., and Dimanche, F. (1997). Leisure involvement revisited: conceptual conundrums and measurement advances. *Journal of Leisure Research*, 29, 245-278.
- Hammit, W. E., Backlund, E. A., & Bixler, R. D. (2006). Place bonding for recreation places: conceptual and empirical development. *Leisure Studies*, 25, 17-41.

- Hammitt, W. E., Kyle, G. T., & Oh, C-O. (2009). Comparison of place bonding models in recreation resource management. *Journal of Leisure Research*, 41 (1), 57-72.
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modelling in international marketing. *New Challenges to International Marketing: Advances in International Marketing*, 20, 277- 319.
- Hill, B., & Green, B. C. (2000). Repeat attendance as a function of involvement, loyalty and the sportscape across three football contexts. *Sport Management Review*, 3, 145-162.
- Higham, J., & Hinch, T. (2009). *Sport and tourism. Globalization, mobility and identity*. Oxford: Butterworth-Heinemann.
- Hinch, T., & Higham, J. (2004). *Sport tourism development*. Clevedon, UK: Channel View.
- Hinds, J., & Sparks, P. (2008). Engaging with the natural environment: the role of affective connection and identity. *Journal of Environmental Psychology*, 28, 109-120.
- Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: a review of four recent studies. *Strategic Management Journal*, 20, 195-204.
- Hurley, A. E., Scandura, T. A., Schriesheim, C. A., Brannick, M. T., Seers, A., & Vandenberg, R. J. (1997). Exploratory and confirmatory factor analysis: guidelines, issues, and alternatives. *Journal of Organizational Behavior*, 18, 667-683.
- Hwang, S., Lee, C., & Chen, H. (2005). The relationship among tourists' involvement, place attachment and interpretation satisfaction in Taiwan's National Park. *Tourism Management*, 26(2), 143-156.
- Jago, L., Chalip, L., Brown, G., Mules, T., Sahmeemm, A. (2003). Building events into destination branding: insights from experts. *Event Management*, 8(1), 3-14.
- Jöreskog, K. G. & Wold, H. (1982). The ML and PLS techniques for modeling with latent variables: Historical and comparative aspects. In K. G. Jöreskog, & Wold, H. (Eds.), *Systems under indirect observation: Part I* (pp. 263–270). Amsterdam: North-Holland.
- Kaplanidou, K. (2007). Affective event and destination image: their influence on Olympic travelers' behavioral intentions. *Event Management*, 10, 159-173.
- Kaplanidou, K., & Havitz, M. E. (2010). Exploring SI and EI of Olympic sports tourists: does trip purpose matter? *International Journal of Sports Marketing & Sponsorship*, (July), 344-359.
- Kaplanidou, K., Jordan, J. S., Funk, D., & Rindinger, L. L. (2012). Recurring sport events and destination image perceptions: impact on active sport tourist behavioral intentions and place attachment. *Journal of Sport Management*, 26, 237-248.

- Kaplannidou, K., & Vogt, C. (2007). The interrelationship between sport event and destination image and sport tourists' behaviours. *Journal of Sport & Tourism*, 12(3/4), 183-206.
- Kerstetter, D., & Kovich, G. (1997). An involvement profile of of Division 1 women's basketball spectators. *Journal of Sport Management*, 11, 234-249.
- Kim, S., Scott, D., & Crompton, J. L. (1997). An exploration of the relationships among social psychological involvement, behavioral involvement, commitment and future intentions in the context of birdwatching. *Journal of Leisure Research*, 29 (3), 320-341.
- Kline, R. B. (2004). *Principles and Practice of Structural Equation Modeling* (2nd ed.). New York: The Guilford Press.
- Krohn, B. D. & Backman, S. J. (2011). Event attributes and the structure of satisfaction: a case study of golf spectators. *Event Management*, 15, 267-277.
- Kyle, G. T., & Chick, G. (2002). The social nature of leisure involvement. *Journal of Leisure Research*, 34(4), 426-448.
- Kyle, G. T., Graefe, A., Manning, R., & Bacon, J. (2003). An examination of the relationship between leisure activity involvement and place attachment among hikers along the Appalachian Trail. *Journal of Leisure Research*, 35, 249-273.
- Laurent, G., and Kapferer, J. N. (1985). Measuring consumer involvement profiles. *Journal of Marketing*, 22, 44-58.
- Lee, J. & Beeler, C. (2009). An investigation of predictors of satisfaction and future intention: links to motivation, involvement, and service quality in a local festival. *Event Management*, 13, 17-29.
- Lee, J., Kyle, G., & Scott, D. (2012). The mediating effect of place attachment on the relationship between festival satisfaction and loyalty to the festival hosting destination. *Journal of Travel Research*, 51(6), 754-767.
- Lewicka, M. (2011). Place attachment: how far have we come in the last 40 years? *Journal of Environmental Psychology*, 31, 207-230.
- Low, S. M. (1992). Symbolic ties that bind. In I. Altman & S. M. Low (Eds.), *Place Attachment* (pp. 165-185). New York: Plenum Press.
- Low, S. M., & Altman, I. (1992) Place attachment: a conceptual enquiry. In I. Altman & S.M. Low (Eds.), *Place Attachment* (pp. 1-12). New York: Plenum Press.
- McCartney, G. J. (2005). Hosting a recurring mega event: visitor raison d'etre. *Journal of Sport Tourism*, 10(2), 113-128.

- McGehee, N. G., Yoon, Y., & Cardenas, D. (2003). Involvement and travel for recreational runners in North Carolina. *Journal of Sport Management, 17*, 305-324.
- McIntyre, N. (1989). The personal meaning of participation: enduring involvement. *Journal of Leisure Research, 21*, 167-179.
- Michels, N., & Bowen, J. (2005). The relevance of retail loyalty strategy and practice for leisure/tourism. *Journal of Vacation Marketing, 11*(1), 5-19.
- Moore, R. L., & Graefe, A. R. (1994). Attachments to recreation settings. *Leisure Sciences, 16*, 17-31.
- Mullin, B. J., Hardy, S., & Sutton, W. A. (1993). *Sport Marketing*. Champaign, IL: Human Kinetics.
- Nauright, J. (1996). "A besieged tribe"? Nostalgia, white cultural identity and the role of rugby in changing South Africa. *International Review for the Sociology of Sport, 31*(1), 69-85.
- Nelson, K. B. (2009). Enhancing the attendee's experience through creative design of the event environment: applying Goffman's dramaturgical perspective. *Journal of Convention and Event Tourism, 10*, 120-133.
- Nunnally, J. (1978). *Psychometric theory* (1st ed.). New York: McGraw-Hill.
- Nunnally, J. C., & Bernstein, I.H. (1994). *Psychometric Theory*. New York: McGraw-Hill.
- O'Dell, T. (2005). Experiencescapes: blurring borders and testing connections. In T. O'Dell and P. Billing (Eds), *Experiencescapes – Tourism, Culture and Economy*. Copenhagen: Copenhagen Business School Press.
- Olinsky, A., Chenb, S., and Harlow, S. (2003). The comparative efficacy of imputation methods for missing data in structural equation modelling. *European Journal of Operational Research, 15*(1), 53-79.
- Oliver, R. L. (1993). Cognitive, affective and attribute bases of the satisfaction response. *Journal of Consumer Research, 20*, 418-430.
- Oom do Valle, P & Assaker, G. (2015). Using Partial Least Squares Structural Equation Modeling in Tourism Research: A Review of Past Research and Recommendations for Future Applications. *Journal of Travel Research*, doi:10.1177/0047287515569779
- Osti, L., Disegna, M & Brida, J. G. (2012). Repeat visits and intentions to revisit a sporting event and its nearby destinations. *Journal of Vacation Marketing, 18*(1), 31-42.
- Prayag, G. & Ryan, C. (2012). Antecedents of tourists' loyalty to Mauritius: the role and influence of destination image, place attachment, personal involvement, and satisfaction. *Journal of Travel Research, 51*(3), 342-356.

- Proshansky, H. M., Fabian, A. K., & Kaminoff, R. (1983). Place identity: the physical world and socialization of the self. *Journal of Environmental Psychology*, 3, 57-83.
- Ramkissoon, H., & Mavondo, F. (2014). Proenvironmental behaviour: the link between place attachment and place satisfaction. *Tourism Analysis*, 19(6), 673-688.
- Ramkissoon, H., Smith, L. D. G., & Weiler, B. (2013). Testing the dimensionality of place attachment and its relationships with place satisfaction and pro-environmental behaviours: a structural equation modelling approach. *Tourism Management*, 36, 552-566.
- Ramshaw, G. & Hinch, T. (2006). Place identity and sport tourism: the case of the heritage classic ice hockey event. *Current Issues in Tourism*, 9(4&5), 399-418.
- Raykov, T., & Marcoulides, G. A. (2006). *A First Course in Structural Equation Modeling* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.
- Ren, X. (2008). Architecture and nation building in the age of globalization: consumption at the national stadium of Beijing for the 2008 Olympics. *Journal of Urban Affairs*, 30(2), 175-190.
- Roche, M. (2000). *Mega-Events and Modernity: Olympics and Expos in the Growth of Global Culture*. London: Routledge.
- Rothschild, M. L. (1984). Perspectives on involvement: current problems and future directions. *Advances in Consumer Research*, 11, 216-217.
- Sheeran, P. (2002). Intention-behavior relations: a conceptual and empirical review. *European Review of Social Psychology*, 12(1) 1-36.
- Sherif, M., and Hovland, C. I. (1961). *Social judgement: assimilation and contrast effects in communication and attitude change*. New Haven, CT: Yale University Press.
- Shipway, R., & Kirkup, N. (2011). Understanding sport tourism experiences: exploring the participant-spectator nexus. In R. Sharpley and P. Stone (Eds.). *Tourist Experiences: Contemporary Perspectives*. Abingdon: Routledge, 127-139.
- Shonk, D. J., & Chelladural, P. (2008). Service quality, satisfaction, and intent to return in event sport tourism. *Journal of Sport Management*, 22, 587-602.
- Short, J. (2008). Globalization, cities and the Summer Olympics. *City*, 12(3), 322-340.
- Silk, M. (2011). Towards a sociological analysis of London 2012. *Sociology*, 45(5), 733-748.
- Smith, A. (2005a). Reimagining the city: the value of sport initiatives. *Annals of Tourism Research*, 32(1), 217-236.

- Smith, A. (2005b). Conceptualizing city image change: the 're-imaging' of Barcelona. *Tourism Geographies*, 7(4), 398-423.
- Smith, A. (2012). *Events and Urban Regeneration*. Abingdon: Routledge.
- Smithers, R. (2012). UK tourist attractions suffer plunge in visitor numbers. *The Guardian*. <http://www.guardian.co.uk/business/2012/oct/09/uk-tourist-attractions-plunge-visitor-numbers>. Viewed October 9, 2012.
- Solberg, H. A. & Preuss, H. (2007). Major sport events and long-term tourism impacts. *Journal of Sport Management*, 21, 213-234.
- Son, S. M. & Lee, K. (2011). Assessing the influences of festival quality and satisfaction on visitor behavioral intentions. *Event Management*, 15, 293-303.
- Stokols, D., & Schumacker, S. A. (1981). People in places : a transactional view of settings. In J. Harvey (Ed.), *Cognition, social, behavior and the environment* (pp. 441-448). Hillsdale, NJ : Erlbaum.
- Stone, M. (1974). Cross-validators choice and assessment of statistical predictions. *Journal of the Royal Statistical Society*, 36(2), 111-133.
- Tasci, A. D. A., Gartner, W. C., & Cavusgil, S. T. (2007). Conceptualization and operationalization of destination image. *Journal of Hospitality and Tourism Research*, 31(2), 194-223.
- Theodorakis, N. D., Alexandris, K., Tsigilis, N., & Karvounis, S. (2013). Predicting spectators' behavioural intentions in professional football: the role of satisfaction and service quality. *Sport Management Review*, 16, 85-96.
- Tsuji, Y., Bennett, G., & Zhang, J. (2007). Consumer satisfaction with an action sports event. *Sport Marketing Quarterly*, 16, 199-208.
- Twigger-Ross, C. L., & Uzzell, D. L. (1996). Place and identity processes. *Journal of Environmental Psychology*, 16(3), 205-220.
- Wakefield, K. L., Blodgett, J. G., & Sloan, H. J. (1996). Measurement and management of the sportscape. *Journal of Sport Management*, 10, 15-31.
- Weed, M. (2009). Progress in sports tourism research? A meta-review and exploration of futures. *Tourism Management*, 30, 615-628.
- Weed, M. (2014). Is tourism a legitimate legacy from the Olympic and Paralympic Games? An analysis of London 2012 legacy strategy using programme theory. *Journal of Sport & Tourism*, 19(2), 101-126.

- Westbrook, R. A., & Reilly, M. D. (1983). Value-perception disparity: an alternative to disconfirmations of expectations theory of consumer satisfaction. In R. P. Bagozzi & A. M. Tybout (Eds.), *Advances in consumer research* (pp. 256-261). Ann Arbor, MI: Association for Consumer Research.
- Wetzels, M., Odekerken-Schroder, G., & Van Oppen, C. (2009). Using PLS path modeling for assessing hierarchical construct models: guidelines and empirical illustration. *MIS Quarterly*, 33(1), 177-195.
- Williams, D. R., Patterson, M., Roggenbuck, J. Q., & Watson, A. E. (1992). Beyond the commodity metaphore: examining emotional and symbolic attachment to place. *Leisure Sciences*, 14(1), 29-46..
- Williams, D. R., & Roggenbuck, J. Q. (1989). Measuring place attachment: some preliminary results. In *Proceedings of the National Recreation and Parks Association Symposium on Leisure Research, 1989*. San Antonio, Tx (October, 1989).
- Wold, H. (1982). Soft modeling: The basic design and some extensions. In K. G. Jöreskog, & Wold, H. (Eds.), *Systems under indirect observations: Part II* (pp. 1–54). Amsterdam: North-Holland.
- Xing, X., & Chalip, L. (2006). Effects of hosting a sport event on destination brand: a test of co-branding and match-up models. *Sport Management Review*, 9, 49-78.
- XLSTAT (2011): XLSTAT-PLSPM module, XLSTAT software, Addinsoft, Paris.
- Yoon, Y., & Uysal, M. (2005). An examination of the effects of motivation and satisfaction on destination loyalty: a structural model. *Tourism Management*, 26(1), 45-56.
- Yoshida, M., & James, J. D. (2010). Customer satisfaction with game and service experiences: antecedents and consequences. *Journal of Sport Management*, 24, 338-361.
- Yuksel, A., Yuksel, F., & Bilim, Y. (2010). Destination attachment: effects on customer satisfaction and cognitive, affective and conative loyalty. *Tourism Management*, 31, 274-284.
- Zhang, J. J., Smith, D. W., Pease, D. G., & Maher, m. T. (1996). Spectator knowledge of hockey as a significant predictor of game attendance. *Sport Marketing Quarterly*, 3, 41-48.
- Zhang, L., & Zhao, S. X. (2009). City branding and the Olympic effect: a case study of Beijing. *Cities*, 26, 245-254.

