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A mediating role of destination image in the relationship between event quality, perceived value, and behavioral intention

Kae-Sung Moona, Yong Jae Kobb*, Daniel P. Connaughtonb and Jeoung-Hak Leea

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The purpose of this study was to examine the theoretical relationship between service quality in a sport event, perceived value (PV), destination image, and behavioral intention (BI). This study surveyed 451 spectators who attended the Tour de Korea, an international road bicycling stage race. A series of a structural equation model tests were performed to examine the relationships among the variables. The mediating effect of the destination image was also examined. The results suggest that service quality positively influenced PV, destination image, and BI; PV positively influenced the destination image, but negatively influenced BI; and the destination image plays an important mediating role in the relationship between service quality and BI and the relationship between PV and destination image. To date, only a few empirical studies have examined the theoretical relationship between destination image, service quality, and PV. Particularly, the potential mediating role of the destination image in this relationship has not been systematically examined. As such, these results will make both scientific and practical contributions.

Keywords: service quality; perceived value; destination image; Tour de Korea; bicycle race; mediating effect

1. Introduction

Cities and countries have recognized that hosting international mega sport events (e.g. Olympics, World Cup) can be a means of developing a local economy (Getz, 1998) and improving the image of the host city (Lee, Lee, & Lee, 2005). Hosting such sport events help to increase sport tourism opportunities through which one can enhance the destination image (Chalip, Green, & Hill, 2003). Although the positive effects of hosting such sport events have been well documented, at the same time, the event management literature has reported local residents’ negative perceptions toward hosting mega international sport events (Park, Kim, & Chang, 2008). For example, hosting mega sport events may require a significant financial investment (Moon, Kim, Ko, Connaughton, & Lee, 2011).

Recently, a number of local governments recognized the benefits of hosting smaller-scale international sport events (e.g. Professional Golfers’ Association Championship, marathon race, and cycling road race) because it may require low budget and add high impact regional effect to the community. Such events are often used as a means to improve the destination’s image. As a result, there is a high level of competition among cities or countries attempting to
host such sport events. Therefore, it is important for local residents to clearly understand the value of hosting these events. Without realizing the tangible benefits, residents may harbor negative feelings toward such events, and may be unlikely to support decisions to host such events (Arthur & Andrew, 1996; Mihalik & Simonetta, 1996; Park et al., 2008).

In the field of (sport) tourism and marketing, scholars have found that international sport events can result in a number of sociological and economic benefits (e.g. increased employment, community pride, and awareness and improved image of the country; Allen, O’Toole, McDonnell, & Harris, 2002; Hall & Hodges, 1996). Particularly, an international sport event can help to enhance a destination’s image by effectively promoting tourism opportunities (Chalip & Green, 2001; Chalip et al., 2003). Previous research has mainly focused on the role of the destination image in tourists’ decision-making processes (Baloglu & McCleary, 1999; Pearce, 1982; Woodside & Lysonsky, 1989). The enhanced destination image positively influences tourists’ evaluation of their experience and word-of-mouth (Ashworth & Goodall, 1988; Bigne, Sanchez, & Sanjez, 2001; Lee et al., 2005).

Several authors found that not only destination image, but also enhanced sport service quality positively influenced consumer’s (re)visit intention (Baloglu, 1999; Bigne et al., 2001; Petrick, Morais, & Norman, 2001). This is in line with main findings in marketing and consumer behavior literature, which posits that consumers’ perceived service quality positively influences their satisfaction (Baker & Crompton, 2000; Cronin, Brady, & Hult, 2000; Petrick, 2004). Prior studies also found that enhanced service quality perceptions positively influences consumers’ perceived value (PV) (Anderson & Sullivan, 1993; Patterson & Spreng, 1997; Roest & Pieters, 1997).

In the field of sport and tourism marketing, researchers reported that perceived event quality is positively related with the destination image (Moon et al., 2011), and the destination image is positively related with PV (Baloglu & McCleary, 1999; Um & Crompton, 1990). However, few empirical studies have examined the theoretical relationship between destination image, service quality, and PV. Particularly, the potential mediating effect of the destination image on this relationship has not been systematically examined. The limited theoretical understanding of the relationships becomes a major hindrance in clearly explaining and predicting consumer behavior in the sport tourism context. Accordingly, the purpose of this study was to examine the theoretical relationship between service quality, PV, destination image, and behavioral intention (BI). In particular, the mediating role of the destination image was explored. The results of this study may benefit the sport event industry and the fields of sport marketing and event management.

### 2. Theoretical background and hypothesis development

#### 2.1 Service quality and BI

When hosting international sport events, local governments should develop effective strategies to satisfy key stakeholders (e.g. spectators, sponsors, and local residents) through a heightened level of service quality. As defined by Bitner and Hubbert (1994), service quality is ‘the customer’s overall impression of the relative inferiority/superiority of the organization and its services’ (p. 77). Service quality can be assessed by using both intangible and tangible elements (Bitner, 1992; Ekinci, Prokopaki, & Cobanoglu, 2003; Wakefield & Blodgett, 1999). Intangible services may include employees’ attitude and behavior including reliability, responsiveness, security, credibility, communication, and assurance (Berry, 1980; Lovelock, 1980; Parasuraman, Zeithaml, & Berry, 1985, 1988; Shostack, 1977); whereas, tangible service refers to design, equipment, sign/symbols, ambience, and parking (Baker, Grewal, & Parasuraman, 1994; Bitner, 1992; Brady & Cronin, 2001; Ko & Pastore, 2004, 2005; Ko, Zhang, Cattani, & Pastore, 2011; Wakefield & Blodgett, 1999). According to Parasuraman et al. (1985, 1988), the dimensions of intangible service quality are as follows:
Reliability: ability to perform the promised service dependably and accurately.

Responsiveness: willingness to help customers and provide prompt service.

Security: trustworthiness, believability, and honesty which involves having the customer’s best interests at heart.

Communication: keeping customers informed in language they can understand and listening to them.

Assurance: knowledge and courtesy of employees and their ability to inspire trust and confidence.

The prediction of actual consumption behavior is of primary interest in sport and tourism marketing. Numerous theoretical frameworks of consumer behavior conceptualized that intention is a proximate psychological construct for actual behavior (cf. Fishbein & Ajzen, 1975). Although self-reported BI does not always accurately predict actual behavior, it is generally accepted that there is a high correlation between the intention and actual behavior (Morwitz, Steckel, & Gupta, 2007). For example, as stated by Zeithaml, Berry, and Parasuraman (1996), BI is directly related to customer retention through a service provider’s ability when customers engage in positive word-of-mouth, remain loyal to the service, and pay price premiums. BI seems to be primarily influenced by the level of perceived service quality (Bigne et al., 2001; Petrick et al., 2001).

In the marketing literature, enhanced service quality was found to have a positive influence on a variety of customer behaviors including positive word-of-mouth (Zeithaml, Parasuraman, & Berry, 1990), BIs (Babakus & Boller, 1992; Fornell, 1992; Fornell, Johnson, Anderson, Cha, & Bryant, 1996; Hutchinson, Lai, & Wang, 2009), and higher tolerance to price changes (Fornell et al., 1996). In the field of tourism marketing, high quality service was found to be closely related to visitors’ positive word-of-mouth communication regarding the region, intention to return, and intention to recommend (Beeho & Prentice, 1997; Ross, 1993). Therefore, in the current study, the first hypothesis developed was

Hypothesis 1: Consumers’ service quality perception is positively related with their future behavioral intention.

2.2 Service quality and PV

Customer value is defined as ‘the customer’s overall assessment of the utility of a product on perceptions of what is received and what is given’ (Zeithaml, 1988, p. 14). Customer value is defined by the relationship between the benefits they receive versus the sacrifice of their intangible resources.

The consumers’ PV is closely related to the quality or the benefits they perceive from the product in exchange for price they pay (Monroe, 1990; Zeithaml, 1988). In this concept, benefits include economic, social, and psychological benefits developed through the customers’ subjective estimation of products or services (Anderson, Jain, & Chintagunta, 1993; Holbrook, 2006). Customer’s PV, determined by the relative price, has a positive relationship with the consumers’ perceived quality and their BI (Gale, 1994). Based on Holbrook’s (2006) classification, customer value was categorized into:

(a) economic value refers to the case in which a product or consumption experience serves as a means to a consumer’s own objectives; (b) social value occurs when one’s own consumption behavior serves as a means to shaping the responses of others; (c) hedonic value arises from my own pleasure in consumption experiences; and (d) altruistic values entails a concern for how my own consumption behavior affects others. (pp. 715–716)
Numerous studies suggest that service quality is positively related to PV (Andreassen & Lindestad, 1998; Baker, Parasuraman, Grewal, & Boss, 2002; Brady, Robertson, & Cronin, 2001; Cronin et al., 2000; Holbrook, 1994; Hutchinson et al., 2009; Oh, 1999; Parasuraman & Grewal, 2000; Petrick, 2002; Rust & Oliver, 1994; Sweeney, Soutar, & Johnson, 1999; Zeithaml, 1988). Accordingly, the second hypothesis developed was

**Hypothesis 2**: Consumers’ service quality perception is positively related with their perceived value.

### 2.3 Service quality and destination image

The destination image is defined as the expression of all objective knowledge, impressions, prejudices, and imagination of a particular place (Lawson & Baud-Bovy, 1977) and an individual’s overall perception of a place (Fakeye & Crompton, 1991; Hunt, 1975; Phelps, 1986). Prior studies of the destination image focused on organic and induced images. Organic images deal with tourists’ impression of a destination without physically visiting the place (e.g. as a result of media reports), and induced images refer to an image influenced by tourists organization’s directed information (e.g. advertisement; Gunn, 1972). More recently, the destination image is believed to be composed of cognitive, affective, and conative images: (a) cognitive image (CGI) refers to the assessment of a region’s characteristics for tourism site selection; (b) affective image (AFI) is defined as the feeling toward the destination; and (c) conative image refers to the final choice of a place (Baloglu & McCleary, 1999; Gartner, 1996).

In the context of event management, improving event services reinforces the tourist attraction image (Getz, 1991; Ritchie, 1996). In the tourism and marketing literature, scholars suggested that enhanced service quality at a sport event is positively related to the destination image (Bieger, Laesser, Scherer, Johnson, & Bischof, 2003; Kaplanidou & Vogt, 2007; McCartney, 2005; Moon et al., 2011; Ritchie, 1984; Ritchie & Smith, 1991; Ritchie & Yangzhou, 1987). Moon et al. (2011) examined the theoretical relationship between service quality perception and destination image for tangible quality factors (e.g. equipment, ambience, and design). Therefore, the third hypothesis developed was

**Hypothesis 3**: Consumers’ service quality perception positively influences their perceived destination image.

### 2.4 PV and BI

A number of researchers found that customers’ PV is positively related with word-of-mouth, recommendation behavior, and revisit intention (Anderson & Sullivan, 1993; Bolton & Drew, 1991; Chen & Chen, 2010; Cronin & Taylor, 1992; Oliver, 1997; Rust & Oliver, 1994). For example, Chen and Chen (2010) found that the higher the value tourists perceive, the more positive BIs they show. Accordingly, the fourth hypothesis developed was

**Hypothesis 4**: Consumers’ perceived value positively influences their behavioral intention.

### 2.5 PV and destination image

According to Baloglu and McCleary (1999) and Um and Crompton (1990), PV is positively related to the destination image. Furthermore, similar to previous studies (Ashworth & Voogd, 1990;
Bramwell & Rawding, 1996; Gartner, 1993), perceived destination image is likely to be formed through the image projected by an individual’s own needs. Little research has been done related to the relationship between PV and destination image. The fifth hypothesis developed was

_Hypothesis 5:_ Consumers’ perceived value positively influences positive destination image.

### 2.6 Destination image and BI

The destination image is a very significant factor in the decision-making process among actual and potential tourists (Baloglu, 2001; Echtner & Ritchie, 2003; Fakye & Crompton, 1991; Fridgen, 1984; Gartner, 1996; Goodrich, 1978; Moutinho, 1984; Woodside & Lysonski, 1989). For example, a positive destination image is more likely to be chosen in the travel decision process (Woodside & Lysonski, 1989).

The destination image is closely related to BI (Assaker, Vinzi, & O’Connor, 2011; Baloglu, 1999; Bigne et al., 2001; Castro, Armario, & Ruiz, 2007; Chen & Tsai, 2007). For instance, Assaker et al. (2011) found that a more favorable destination image results in a higher intention to revisit in the future. Therefore, the sixth hypothesis developed was

_Hypothesis 6:_ Consumers’ destination image is positively related with their behavioral intention.

### 2.7 Mediating effects of destination image on the relationship between service/event quality and BI, and PV and BI

The destination image is considered an important aspect of BI among actual and potential tourists. Although customers’ value perception through enhanced service quality increases, negative destination image (e.g. pollution and crimes) and perception about local community image can turn many potential tourists away. The enhanced destination image of host cities can positively influence the decision-making process among tourists (Murray & Vogel, 1997). As addressed in the previous section, the destination image can be influenced by the quality of service in the event (Gartner, 1993; Goodall, 1990; Woodside & Lysonski, 1989) and PV (Baloglu & McCleary, 1999). Thus, the destination image among target markets can be improved through enhanced service quality and PV (Fridgen, 1984; Gartner, 1993), which ultimately not only helps to promote host cities’ image, but also to maximize the aforementioned tangible and intangible benefits. In addition, a number of studies found that improved service quality at sport events has an indirect influence on BI through PV and satisfaction (Anderson & Sullivan, 1993; Patterson & Spreng, 1997; Roest & Pieters, 1997).

Although perceived service quality is an important antecedent of visit intention, it is believed that the destination image plays an important mediating role in this relationship. For example, a high quality international sport event held in a country that is politically unstable or not safe to travel to may not be able to attract tourists to the destination. Although the event offers high economic and social value, potential visitors may consider not visiting the destination if they do not develop a positive image of the destination.

Accordingly, the seventh and eighth hypotheses developed were

_Hypothesis 7:_ Destination image will mediate the relationship between service quality and behavioral intention.

_Hypothesis 8:_ Destination image will mediate the relationship between perceived value and behavioral intention.
3. **Method**

3.1 **Participants**

Data were collected from spectators who attended the *Tour de Korea* in 2009. The *Tour de Korea* is a 15-day international road bicycling stage race, which crosses 10 counties (i.e. Seoul, Gongju, Jungup, Kangin, Yeosu, Geochang, Gumi, Danyang, Yangyang, and Chunchoen) in South Korea. Over 300 racers (from more than 20 professional teams and 20 amateur teams) participated in the race. Since the inaugural event of the *Tour de Korea* in 2007, host cities have been annually chosen by means of a competitive selection process. A total of 451 research participants of three counties (i.e. Kangin-kun, Danyang-kun, and Yangyang-kun) completed a survey via self-administration.

Of the respondents, 54.1% were male, and 32.6% were 40–49 years old, while 27.7% were 30–39 years old. Most respondents (76.5%) were married, 55.5% had a college degree, 30.8% were employees in a managerial position, and 24.2% were high school students. Additionally, 48% were aware of the *Tour de Korea* for 1–2 years, while 23.7% were aware of this event for 3–4 years before participating in the survey.

3.2 **Instrumentation and procedures**

This study addressed the theoretical relationship between service quality, PV, destination image, and BI. For the purpose of this study, a survey instrument was modified and adapted using scales of previous studies. The original scale items were translated into Korean and later back into English by two bi-lingual sport management professors. Socio-demographic information was obtained including sex, age, marriage, education level, occupation, and awareness period of the *Tour de Korea*. The survey was limited to visitors or spectators who attended at the *Tour de Korea* in three regions (i.e. Kangin-kun, Danyang-kun, and Yangyang-kun), which hosted the previous events for three consecutive years (2007–2009).

Following Ekinci et al. (2003), we measured service quality by using both intangible and tangible aspects. Intangible service quality factors of a sport event were measured by Parasuraman et al.’s (1985, 1988) scale including six items (i.e. Communication, Assurance, Credibility, Responsiveness, Reliability, and Security) and Wakefield and Blodgett’s (1999) scale with three items for tangible factors (TF) (i.e. Equipment, Ambience, and Design). In this study, PV was measured with four items (i.e. Economic, Social, Hedonic, and Altruistic value) using Holbrook’s (2006) scale.

To measure the destination image, we included both cognitive and AFIs by modifying Echtner and Ritchie’s (1993) scale of CGI, and Hosany, Ekinci, and Uysal’s (2007), Russell, Ward, and Pratt’s (1981), and Walmsley and Young’s (1998) scales of AFI. CGI included items on opportunity for adventure, ease of communication, hospitality/friendliness/receptiveness, tourist sites/activities, and nightlife/entertainment. AFI included relaxing/distressing, friendly/unfriendly, arousing/sleepy, interesting/boring, pleasant/unpleasant, and exciting/gloomy.

BI was measured by modifying scales developed by Silva and Alwi (2006) and Sudhahar, Israel, Britto, and Selvam (2006). Items included were ‘Intention to share the positive things of the region’, ‘Intention to receive and recommend new services’, and ‘Search the strength of the region’. The format for the 27-item survey instrument was a five-point Likert ranging from strongly disagree (1) to strongly agree (5). Table 1 provides an overview of all 27 items.

3.3 **Data analyses**

Frequency analyses, reliability analyses, and correlation analyses were calculated by SPSS 17.0. Using AMOS 17.0, we conducted a confirmatory factor analysis (CFA) to examine the validity of...
the scale items and a structural equation model (SEM) test to determine the hypothesized relationships among the research variables.

We tested reliability and validity which included internal consistency measures (i.e. Cronbach’s alpha and average variance extracted (AVE)), convergent validity (i.e. indicator loadings and critical ratios), and discriminant validity (i.e. inter-factor correlations). Cronbach’s alpha values greater than .70 are deemed to be adequate (Nunnally & Bernstein, 1994). AVE values greater than .50 are deemed to be adequate (Fornell & Larcker, 1981; Hair, Black, Babin, Anderson, & Tatham, 2006). When the indicator loading is greater than or equal to .707, the convergent validity is indicated as adequate (Anderson & Gerbing, 1988). Inter-factor correlations below .85 can be established for discriminant validity (Kline, 2005). In addition, a squared correlation between two constructs should be lower than the AVE for each construct (Fornell & Larcker, 1981).

Additionally, we examined mediating effects following Baron and Kenny (1986). Baron and Kenny suggest that mediating effects in SEM should be thought to exist when (a) the purported predictor is related to the mediator, (b) the predictor is related to the criterion variable in the absence of the mediator, (c) the mediator is a very important variable that effects the criterion,

### Table 1. Indicator loadings, critical ratios, Cronbach’s alpha (α), and AVE values.

<table>
<thead>
<tr>
<th>Factor and items</th>
<th>Indicator loadings</th>
<th>Critical ratios</th>
<th>α</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ITFs (6 items)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>.827</td>
<td></td>
<td>.941</td>
<td>.765</td>
</tr>
<tr>
<td>Assurance</td>
<td>.864</td>
<td>22.973</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credibility</td>
<td>.880</td>
<td>23.607</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responsiveness</td>
<td>.863</td>
<td>22.946</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reliability</td>
<td>.855</td>
<td>22.644</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security</td>
<td>.832</td>
<td>21.588</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TFs (3 items)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment</td>
<td>.880</td>
<td></td>
<td>.916</td>
<td>.787</td>
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<tr>
<td>Ambience</td>
<td>.931</td>
<td>28.511</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td>.855</td>
<td>24.546</td>
<td></td>
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<tr>
<td><strong>PV (4 items)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Hedonic value</td>
<td>.827</td>
<td></td>
<td>.910</td>
<td>.736</td>
</tr>
<tr>
<td>Economic value</td>
<td>.878</td>
<td>22.831</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social value</td>
<td>.883</td>
<td>23.000</td>
<td></td>
<td></td>
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<tr>
<td>Altruistic value</td>
<td>.795</td>
<td>19.685</td>
<td></td>
<td></td>
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<tr>
<td><strong>CGI (5 items)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunity for adventure</td>
<td>.825</td>
<td></td>
<td>.914</td>
<td>.706</td>
</tr>
<tr>
<td>Ease of communication</td>
<td>.869</td>
<td>22.353</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospitality/friendliness/receptiveness</td>
<td>.797</td>
<td>19.659</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tourist sites/activities</td>
<td>.881</td>
<td>22.795</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Night time and entertainment</td>
<td>.769</td>
<td>18.678</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>AFI (6 items)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relaxing/distressing</td>
<td>.820</td>
<td></td>
<td>.906</td>
<td>.630</td>
</tr>
<tr>
<td>Friendly/unfriendly</td>
<td>.723</td>
<td>17.133</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arousing/sleepy</td>
<td>.797</td>
<td>19.555</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interesting/boring</td>
<td>.728</td>
<td>17.204</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pleasant/unpleasant</td>
<td>.844</td>
<td>21.264</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exciting/gloomy</td>
<td>.823</td>
<td>20.477</td>
<td></td>
<td></td>
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<tr>
<td><strong>BI (3 items)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intention to share the positive things of the region</td>
<td>.890</td>
<td></td>
<td>.883</td>
<td>.748</td>
</tr>
<tr>
<td>Intention to receive and recommend new services</td>
<td>.879</td>
<td>25.418</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Search the strength of the region</td>
<td>.784</td>
<td>20.848</td>
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</tbody>
</table>
and (d) the effect of the predictor on the criterion is reduced upon the addition of the mediator to the model.

We tested the following three step models utilized by previous studies (Baron & Kenny, 1986; Holmbeck, 1997): (1) a direct-effect model is tested by the effect of the predictor (i.e. service quality and PV) on the criterion variable (i.e. BI) in the absence of the mediator (i.e. destination image), (2) a fully mediated structural model links the predictor (i.e. service quality and PV) to the mediator (i.e. destination image) and the mediator (i.e. destination image) to the criterion variable (i.e. BI), and (3) a partially mediated structural model is tested after adding a direct path from the predictor (i.e. service quality and PV) to the criterion variable (i.e. BI). In addition, the researchers conducted a Sobel test to calculate the critical ratio as a test of whether the indirect effect of the Independent Variables (i.e. event quality and PV) on the Dependent Variables (i.e. BI) via the mediator is significantly different from zero (Sobel, 1982).

4. Results

4.1 Reliability and validity of the survey instrument

The reliability and convergent validity estimates were investigated using Cronbach’s alpha, AVE, indicator loadings, and critical ratios for each factor (Table 1). Cronbach’s alpha coefficients of all factors were greater than .70, ranging from .88 (BI) to .94 (intangible factors (ITFs)), and all AVE values were greater than the .50 standard, ranging from .63 (AFI) to .79 (tangible factors (TFs)). In addition, all of the indicator loadings were greater than the suggested .707 threshold, ranging from .72 (friendly/unfriendly) to .93 (ambience). Critical ratio values of all items were statistically significant ranging from 17.13 (friendly/unfriendly) to 28.51 (ambience).

Table 2 gives the inter-factor correlation analysis, which ranged from .34 (TF–CGI) to .74 (ITF–BI), and were below .85. All squared correlations were less than the AVE values of the individual factors.

4.2 Result of CFA

The results of the CFA on the six factors with 27 items revealed that the proposed model was a good fit to the data. The chi-square statistic was significant ($p < .001$), and the normed chi-square ($\chi^2/df = 896.38/309 = 2.901$; Bollen, 1989; Hu & Bentler, 1999), standardized root means square residual (SRMR; .043), the root mean square error of approximation (RMSEA; .065), goodness of fit index (GFI; .870), normed fit index (NFI; .918), Turker–Lewis index (TLI; .937), and comparative fit index (CFI; .944) were all within the acceptable ranges (Bollen, 1989; Hair et al., 2006).

<table>
<thead>
<tr>
<th>Component</th>
<th>$M$</th>
<th>SD</th>
<th>ITF</th>
<th>TF</th>
<th>PV</th>
<th>CGI</th>
<th>AFI</th>
<th>BI</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITF</td>
<td>3.685</td>
<td>0.803</td>
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<td>.336**</td>
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<td>.551**</td>
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<td>.585**</td>
<td>.640**</td>
<td>.530**</td>
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**$p < .01$**
4.3 Result of SEM test and hypothesis testing

Figure 1 shows the GFIIs for the overall structural model. Model fit of the SEM analysis was good, $\chi^2 = 923.067$, df = 314, normed $\chi^2 = 2.94$, SRMR = .047, RMSEA = .066, GFI = .867, NFI = .915, TLI = .935, and CFI = .942.

First, Hypothesis 1 was supported. The positive influence of service quality on BI was significant ($\beta = .54$, $p < .001$). Hypothesis 2 was supported with $\beta = .83$ ($p < .001$) which suggested that service quality had a positive influence on PV. Hypothesis 3 was supported with $\beta = .60$ ($p < .001$). It suggests that service quality had a positive influence on destination image. Hypothesis 4 was not supported ($\beta = -.17$, $p < .05$) which suggested that PV had a negative influence on BI. This unexpected result led to a follow-up examination of mediating effects which is described in next section. Hypothesis 5 was supported. This finding suggests that PV had a positive influence on the destination image ($\beta = .30$, $p < .01$). Finally, Hypothesis 6 was supported. It suggests that the positive influence of the destination image on BI was significant ($\beta = .53$, $p < .000$; Table 3).

4.4 Mediating effects destination image on the relationship between service quality and BI

The results of the mediating effect test are presented in Figures 2–4. First, the direct-effect model tested the role of service quality on BI in the absence of the mediator (i.e. destination image): service quality demonstrated a positive relationship with BI. The result of data analysis indicated that the model adequately fit to the data ($\chi^2 = 148.426$, df = 51, normed $\chi^2 = 2.91$, SRMR = .031, RMSEA = .065, GFI = .947, NFI = .967, TLI = .974, and CFI = .980), and a path coefficient was significant ($\beta = .96$, $p < .001$; Figure 2).

Second, a fully mediated structural model (i.e. service quality to destination image and destination image to BI) was tested: service quality was positively associated with destination image ($\beta = .90$, $p < .001$), and destination image also had a positive relationship with BI ($\beta = .91$, $p < .001$). The model fit was good ($\chi^2 = 724.192$, df = 224, normed $\chi^2 = 3.233$, SRMR = .05, RMSEA = .07, GFI = .877, NFI = .92, TLI = .936, and CFI = .943; Figure 3). Therefore, Hypothesis 7 was supported.

Figure 1. Structural model.

* $p < .05$.
** $p < .01$.
*** $p < .001$. 
Table 3. Path model results.

<table>
<thead>
<tr>
<th>Paths</th>
<th>Estimate</th>
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<th>p</th>
<th>Assessment</th>
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<td>15.029</td>
<td>.000</td>
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</tr>
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<td>Destination image ← service quality</td>
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<td>.083</td>
<td>5.763</td>
<td>.000</td>
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<td>.147</td>
<td>4.512</td>
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<tr>
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<td>.064</td>
<td>3.287</td>
<td>.001</td>
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<td>−2.037</td>
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<tr>
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<td>Direct-effect model</td>
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<tr>
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</table>

SE = Standard Error.

Figure 2. Direct-effect model.

Figure 3. Fully mediated model.
Third, a partially mediated structural model was tested in which a direct path from the predictor (i.e. service quality) to the criterion variable (i.e. BI) was added. That is, a path coefficient value was significant: service quality to destination image ($\beta = .85$, $p < .001$), destination image to BI ($\beta = .55$, $p < .001$), and service quality to BI ($\beta = .37$, $p < .01$). The model fit was also good ($\chi^2 = 718.257$, df = 223, normed $\chi^2 = 3.221$, SRMR = .049, RMSEA = .070, GFI = .878, NFI = .921, TLI = .936, and CFI = .944; Figure 4).

Finally, a $\chi^2$ difference test was significant ($\Delta \chi^2 = 5.935$, df = 1, $p < .001$) between the $\chi^2$ value of the fully mediated model ($\chi^2 = 724.192$, df = 224, normed $\chi^2 = 3.233$; Figure 3) and the $\chi^2$ value of the partially mediated model ($\chi^2 = 718.257$, df = 223, normed $\chi^2 = 3.221$; Figure 4). The partially mediated model ($\chi^2 = 718.257$, df = 223, normed $\chi^2 = 3.221$, RMSEA = .07, SRMR = .049, CFI = .944; Figure 4) performed slightly better than the fully mediated model ($\chi^2 = 724.192$, df = 224, normed $\chi^2 = 3.233$, RMSEA = .07; SRMR = .05; CFI = .943; Figure 3). In addition, the results of a Sobel test suggested that the destination image mediated the relationship between service quality and BI.

### 4.5 Mediating effects of destination image on the relationship between PV and BI

Figures 5–7 show the results of the mediating effect of the destination image on the relationship between PV and BI. First, the direct-effect model links PV to BI. The model fit is as follows: $\chi^2 = 88.877$, df = 13, normed $\chi^2 = 6.837$, SRMR = .033, RMSEA = .114, GFI = .943, NFI = .961, TLI = .946, and CFI = .967, and the path coefficient was significant ($\beta = .69$, $p < .001$; Figure 5).

Second, a fully mediated structural model was tested. The model fit was good, $\chi^2 = 523.571$, df = 131, normed $\chi^2 = 3.997$, RMSEA = .082, NFI = .919, TLI = .927, and CFI = .937. In addition, the path coefficient of PV to destination image ($\beta = .80$, $p < .001$) and PV to BI ($\beta = .86$, $p < .001$) was significant (Figure 6). Therefore, Hypothesis 8 was supported.

Third, a partially mediated structural model was tested. PV had a positive relationship with the destination image ($\beta = .78$, $t = 10.956$, $p < .001$), and PV was also positively related to BI ($\beta = .76$, $p < .001$). However, the path coefficient of the relationship between PV and BI was not significant ($\beta = .10$, $p < .05$; Figure 7).
Next, a $\chi^2$ difference test was tested between the $\chi^2$ value of the fully mediated model ($\chi^2 = 523.571$, df = 131, normed $\chi^2 = 3.997$; Figure 6) and the $\chi^2$ value of the partially mediated model ($\chi^2 = 522.487$, df = 130, normed $\chi^2 = 4.019$; Figure 7). The $\chi^2$ test was not significant ($\Delta \chi^2 = 1.084$, df = 1, $p < .001$). In addition, the result of the Sobel test ($t = 4.38$, $p < .001$) provided empirical evidence that the destination image fully mediated the relationship between PV and BI.

5. Discussion
To maximize benefits of hosting an international sport event, managers need to develop a positive service quality perception. It was hypothesized that these efforts increase the destination image. This study was designed to examine theoretical relationships between service quality, PV, destination image, and BI. The results of this study found several important theoretical implications.

First, the results of the data analyses suggest that service quality had a positive influence on PV. This is consistent with findings from previous studies (Andreassen & Lindestad, 1998; Brady et al., 2001; Cronin et al., 2000; Holbrook, 1994; Hutchinson et al., 2009; Oh, 1999; Sweeney et al., 1999; Yi, 1990). The results also suggest that service quality had a positive influence on BI. This supports the previous work of Parasuraman et al. (1988, 1991) and Zeithaml et al. (1996), who found that sport service quality is closely related to BI. Moreover, the results also support existing literature that sport event quality positively influences BI through customers’ PV (indirect effect; Anderson & Sullivan, 1993; Patterson & Spreng, 1997; Roest & Pieters, 1997). In summary, this finding demonstrates that it is very important to enhance service quality perception to predict tourist’s future word-of-mouth and information search behavior.
Second, the results also suggest that consumers’ service quality perception is positively related with the destination image. This is consistent with prior studies that identified the significant role of service quality in developing a positive destination image (Getz, 1991; Kaplanidou & Vogt, 2007; McCartney, 2005; Ritchie, 1996; Ritchie & Smith, 1991; Ritchie & Yangzhou, 1987). The results also suggest that enhanced PV can help to develop a positive destination image. This result is also consistent with prior studies (Baloglu & McCleary, 1999; Um & Crompton, 1990). In the context of sport event tourism, offering a high quality event and improving tourists’ PV becomes important issues in improving the destination image for event organizers.

Third, the results suggest that the enhanced destination image leads to consumers’ positive BI. This supports the results of prior studies that found a significant role of the destination image in predicting tourist behaviors (Assaker et al., 2011; Baloglu, 2001; Bigne et al., 2001; Castro et al., 2007; Chen & Tsai, 2007; Fakeye & Crompton, 1991). This study found how important it is for event organizers and managers to better understand the role of the destination image.

Fourth, PV was found to be negatively related to BI. Thus, Hypothesis 4 was not confirmed. This result is inconsistent with many prior studies suggesting that consumer’s PV is one of the most important predictors of BI (Anderson & Sullivan, 1993; Bolton & Drew, 1991; Chen & Chen, 2010; Cronin & Taylor, 1992; Oliver, 1997; Rust & Oliver, 1994). Therefore, the researchers examined the mediating effect of the destination image and found a significant mediating role of the destination image in the relationship between PV and BI.

It is interesting to find that tourists’ enhanced destination image through perceived quality of the event can be used as a means to predict BI. Thus, efforts to improve event quality perception and destination image is necessary to positively influence tourists’ decision-making process. This study extends the literature by offering a unique conceptual framework to the sport tourism industry. In particular, further empirical investigation in the context of smaller-scale international sport events (e.g. Professional Golfers' Association Championship, marathon race, and cycling road race) is necessary to fully understanding the role of destination image.

Finally, in terms of the role of the destination image, comparison of several alternative models and examination of mediating effects suggest that the destination image is partially mediating the relationships between service quality and BI, and PV and BI. This result may support a previous study which found that the destination image is an important mediator between service quality and tourist satisfaction (Castro et al., 2007).

Although tourists’ perceived service quality is an important antecedent of their BI, the results of this study suggest that the destination image plays an important mediating role in this relationship. Therefore, pre-existing destination image is equally important as service in tourists’ decision-making process. That is, a high quality international sport event held in a country and/or a city with a positive image can maximize positive event outcomes including increased tourism-related activities (e.g. intention to receive and recommend new services). However, although an event may offer high economic and social value, potential visitors might not consider visiting the destination if they hold negative destination image (e.g. politically unstable or not safe for travel).

5.1 Practical implications

The results of this study support the proposed research model and most of the hypothesized relationships between service quality, PV, destination image, and BI. The study found that efforts to enhance sport event quality are of the utmost importance in an effort to improve the destination image in the field of event management. In particular, the destination image plays an important mediating role in the relationships among variables (i.e. service quality and BI, and PV and BI).
To enhance the overall event quality, event managers should develop customized and value-added programs along with the core sport event(s). In the context of international sporting events, for example, event managers may blend sport events and traditional festivals in a creative manner. In addition, when targeting new or experienced tourist segments, event organizers should highlight the enhanced destination image through service quality. For example, well-trained volunteers and event staff and a state-of-art physical environment geared toward the convenience (e.g. facilities, transportation, parking, and signs) would positively influence tourists’ decision-making (Ko et al., 2011).

Consequently, this study may help to improve the basic understanding of the importance of enhancing service quality and developing and implementing effective strategies to enhance the destination image for the future success of international sport events. Weed (2003) suggested that sport-tourism policy is based on six influences (i.e. ideology, definitions, regional contexts, governmental policy, organizational culture and structure, and individuals). Event organizers and managers should collaborate with tourism bureaus to increase the effectiveness and efficiency in operating international events, which ultimately leads to an increased positive destination image. The authors believe that this study provides empirical evidence and practical implications that contribute to the field of sport tourism management by developing a better understanding of service quality in improving the destination image.

5.2 Conclusion and future research

The results of this study suggest that there are relationships between service quality, PV, destination image, and BI in the context of an international sport event. In addition, destination image positively mediates the relationship between service quality and BI, and PV and BI. That is, we conclude that the enhancement of the destination image through improved service quality or PV is key for influencing sport tourists. Consequently, understanding the role of the destination image in tourist’s decision-making process provides guidance for developing sport marketing strategies for event managers.

Some limitations of this study should be noted. The results of this study were limited to only the Tour de Korea, an international road bicycling stage race. In future studies, there is a need to examine other annual international sport events. Future studies can also be extended to examine the differences of tourists/spectators’ perception between various other sport settings/events (e.g. golf, tennis, and marathon race). To fully understand tourist behavior in the context of sport events, the destination image needs to be further examined by using other key variables (e.g. level of events, image of the country, and tourists’ ethnic background) that influence consumer decision processes.

References


