The key antecedent and consequences of destination image in a mega sporting event

Background: One of the major challenges for marketing managers in the tourism industry faces is to improve destination image because of its huge impact on satisfaction and recommendation intentions. In this study, we identified event quality of mega sport events as a key antecedent that influences destination image.

Objective: This study was undertaken to investigate the structural relationships between event quality, destination image, tourist satisfaction and recommendation intention with emphasis on the mediating effect of tourist satisfaction on relations between destination image and recommendation intention in the context of mega-scale sporting events.

Method: Responses obtained from 342 international tourists visiting Pyeongchang, South Korea were collected and analysed. The validity and reliability of the involved measures were examined through conducting confirmatory factors, Cronbach’s alpha, and correlation analyses. A structural equation modelling analysis was conducted to investigate the relationships between the research variables.

Results: The results were: (1) Event quality is a critical factor in influencing destination image, (2) destination image acts as an antecedent of tourist satisfaction and recommendation intention, (3) tourist satisfaction leads to recommendation intention and (4) tourist satisfaction partially mediates the relationship between destination image and recommendation intention. The practical implications were: (1) Destination marketers should utilise the Olympic legacy, (2) destination marketers should actively use social media to improve the destination image, and (3) local authorities should improve accessibility of destination through the construction of transportation infrastructure.

Conclusion: It is meaningful to: (1) include event quality in tourism destination image-satisfaction-behavioural intentions models, (2) mega sporting events should be considered important aspects of marketing strategies aimed at improving destination image and its relevant variables and (3) we reveal empirical evidence that tourist satisfaction partially mediates the relation between destination image and recommendation intention. Accordingly, this article provides a step towards a richer and more inclusive understanding of destination marketing strategies.

Keywords: Event quality; destination image; tourist satisfaction; recommendation intention; mega sport events; Winter Olympic Games.

Introduction

Widespread broadband Internet access is now available worldwide, and as a result, recommendations and intentions are now intimately communicated by electronic word of mouth (WOM) and by subsequent ripple effects (Litvin, Goldsmith, & Pan, 2008). In the past, offline word of mouth communications involved interpersonal contact, and thus dissemination of information was slow. However, the Internet has allowed consumers to easily voice their opinions, experiences and knowledge of destinations through social media such as Facebook, YouTube and Instagram (Xiang & Gretzel, 2010). Murray (1991) argued that recommendations and intentions communicated by interpersonal contacts are useful sources that can reduce negative perceptions and perceived risks. Therefore, researchers in the tourism management field should consider word of mouth (WOM) intention important and understand the factors that underlie recommendation intention.

If tourists have a favourable image of a destination, they may recommend the destination to others (Chen & Tsai, 2007; Wang & Hsu, 2010). In fact, destination local authorities have made concerted efforts to improve destination images, and these have received much attention in
tourism literature over the past 30 years (Papadimitriou, Kaplanidou, & Apostolopoulou, 2018). Many researchers have mentioned that tourist destination choice processes are influenced by destination image (Chon, 1991; Tapachai & Waryszak, 2000). Generally, many tourists have a tendency to consider the image or brand of a destination to be important during travel decision-making (George, 2013), and destination image allows tourists to differentiate between destinations (Greaves & Skinner, 2010). From this perspective, the image of a destination plays an important role in attracting tourists and should be considered important in terms of place marketing.

Essex and Chalkley (1998:201) commented, ‘in the modern global economy in which many world cities compete for investment, the Olympic Games represent a unique publicity platform and opportunity for place marketing’. In other words, the Olympics can provide host cities with an opportunity to positively change their images because interesting, dynamic and lively images of the Olympics are generally associated with images of host cities. For example, Kaplanidou and Vogt (2007) investigated the interrelationships between sporting events, destination image and the behaviours of sport tourists and found that event image had a significant impact on destination image. Moreover, if a tourist destination has low worldwide recognition, hosting the Olympics provides a strategic promotional means of raising brand awareness (Gibson, Qi, & Zhang, 2008). In the case of the 2018 Winter Olympic Games held in Pyeongchang (South Korea), despite the opportunity to present many tourism resources such as ski resorts, snow sledging sites and ice fishing, there was little international recognition, but nevertheless, Pyeongchang achieved global awareness by hosting a successful Winter Olympics.

In recent years, tourism management researchers have explored the effects of destination image on tourist satisfaction and recommendation intention. However, previous studies have had three major limitations. Firstly, although destination image has been studied extensively, the antecedents of destination image have been overlooked in tourist behaviour models. More specifically, in the majority of previous studies, destination image was treated as an independent variable influencing consequences (Allameh, Khazaei, Jaberi, Salehzadeh, & Asadi, 2015). According to Jin, Lee, and Lee (2013), the impact of event quality on destination image has not been adequately studied. These authors stated that destination image can be formed by reactions, feelings and behaviours experienced by tourists at events. Other researchers have also concluded that event quality should be recognised as a key factor of event success because it directly affects evaluations and subsequent behaviours (Moon, Kim, Ko, Connaughton, & Lee, 2011). Accordingly, it would appear that exploration of the positive relationship between event quality and destination image is required to extend destination image research.

The second limitation is that previous studies on tourist destination have focused on relationships between destination image, tourist satisfaction and behavioural intentions. For example, Wang and Hsu (2010) analysed a conceptual model depicting relationships between destination image, satisfaction and behavioural intentions. Likewise, Prayag (2009) empirically examined relationships between overall image, destination image, overall satisfaction and future behaviour. In the present study, we attempted to incorporate the concept of event quality in a tourist behaviour model in the belief that identifying relationships between event quality, destination image, tourist satisfaction and recommendation intention will aid in the achievement of future success.

Thirdly, although previous studies have delineated positive relationships between destination image, tourist satisfaction and recommendation intention, few have attempted to address the mediating effect of satisfaction in the context of sport tourism. In view of the importance of tourist satisfaction, perhaps, the first question that should be asked is whether tourist satisfaction mediates the association between destination image and recommendation intention. The present study offers destination marketers a comprehensive understanding of the psychology and behaviours of tourists to aid in the development of marketing strategies.

**Literature review**

**Recent trend of event sport tourism**

Over the past few decades, sport tourism has been an important means of developing an effective destination marketing strategy, as it makes an important contribution to local economy such as improving destination image, attracting tourists and receiving media coverage (Harrison-Hill & Chalip, 2005). In fact, most local governments in South Korea have focused their efforts mainly on attracting new and retaining loyal tourists through sporting events. According to Gibson (1998), sport tourism can be divided into three categories: event sport tourism: active sport tourism such as a marathon race, and nostalgia sport tourism such as sports halls of fame, sports museums and famous sporting venues. Considerable sport tourism literature is devoted to event sport tourism, especially large-scale sporting events such as the Olympic Games, the FIFA World Cup tournament and World Championships because they have been recognised to offer many tangible and intangible benefits to the host regions (Hall, 1992).

However, lately, some researchers have had a critical perspective on hosting mega sporting events. Kim (2012) reports that many events are still recording large financial deficits; therefore, hosting communities are forced to shoulder a heavy financial burden after hosting events. On the other hand, others insist that the aspects of the events’ intangible be considered important as well as aspects of tangible. Yu, Wang, and Shin (2010) argue that hosting events successfully bring lots of intangible benefits such as social unification, local patriotism, accumulation of events management expertise and especially contribution to peace and reconciliation. It has been widely said that the Olympic Games have postponed conflicts and ceased hostilities.
between countries in ancient times (Reid, 2006). Lately, because of the 2018 Pyeongchang Winter Olympics, South and North Korea were trying to have positive talks and seemed to have succeeded in drawing the two countries closer to each other (Lee & Kim, 2018). Furthermore, mega sporting events offer the opportunity to promote the national image, identities and cultures in the cluttered global market (Knott, Fyall, & Jones, 2017). Roche (2000) holds the view that mega events provide host nations with the opportunity to create transitory uniqueness, difference and localisation in time and space, which can help to create social change for a society. Therefore, it would be logical to assume that mega events will have positive impacts on the nation.

**Event or service quality**

Understanding the characteristics of sport tourists has received relatively little attention in the tourism management literature over past years (Jin et al., 2013). However, several recent reports have highlighted differences between general and sport tourists. According to some researchers, perceived quality can vary between these two tourist types for many reasons (Moon et al., 2011). Sport tourists travel to events to support national teams, cheer favourite star players, meet personal goals and for health benefits (Kwon, Min, & Park, 2014; Yang & Kang, 2011). Hence, to understand sport tourist psychology and behaviour, sport tourism researchers have focused on event quality rather than service quality. However, researchers have shed little light on the quality of mega sporting events (Jin et al., 2013). Thus, in the present study, we offer further evidence regarding important aspects of event quality of mega sporting events.

Service quality has gained considerable attention in the broad area of customer behaviour during the last several decades because it has been recognised as the most critical predictor of consequences. Service quality can be defined as the customer’s subjective judgment about a service’s overall excellence or superiority (Hennig-Thurau & Hansen, 2000; Hossain, Dwivedi, & Naseem, 2015), value (Zeithaml, 1988), conformance with specifications (Olsen, 2002) and its meeting or exceeding expectations (Kotler & Keller, 2012). Since the emergence of the concept of service quality, many researchers have explored various issues regarding service quality, and by connecting customer satisfaction and customers’ behavioural intentions, they have shown that a high level of service quality plays a pivotal role in gaining competitive advantage.

However, because of the inherent, complex characteristics of services, marketing researchers have experienced many challenges concerning the identification and measurement of service quality (Jain & Gupta, 2004). SERVQUAL and SERVPERF represent two major service quality measurement scales. In addition, many researchers have attempted to develop reliable and valid service quality measurement scales. In the context of sport and leisure, over the last few decades, researchers have used modified versions of SERVQUAL to measure service quality. For example, McDonald, Sutton, and Milne (1995) created the 39-item TEAMQUAL based on SERVQUAL for sport organisations. On the other hand, Theodorakis, Kambitsis, and Laios (2001) developed the SPORTSERV scale, which represented five dimensions of service quality, that is, tangibles (cleanliness of the facility), responsiveness (willingness of personnel to help), access (accessibility), security (personal security during games) and reliability (delivery of services as promised). Likewise, in the context of event management, researchers have tried to develop service quality scales that accurately reflect the inherent characteristics of events. Based on several focus group interviews and an extensive literature review, Ko, Zhang, Cattani, and Pastore (2011) developed a comprehensive model and measurement scale of event quality for sport spectators that consisted of five dimensions: performance quality, augmented services quality, interaction quality, outcome quality and physical environment quality.

Based on the studies of Jin et al. (2013) and Ko et al. (2011), we utilised a four-dimensional approach, that is, based on event quality, interaction quality, outcome quality and physical environmental quality, to measure the tangible and intangible aspects of event quality. According to Ko et al. (2011), game quality refers to the quality of athletic performance, and ease of acquiring the latest information about events. Interaction quality concerns the attitudes and behaviours. Outcome quality represents post-consumption evaluation of overall outcome. Finally, physical environment quality concerns spectators’ evaluations of ambience, design and signage of facilities. The authors also demonstrated that event quality is regarded as one of the main precursors of destination image, which reinforce the importance of event quality for enhancing the destination image of host communities. Likewise, Moon, Ko, Connaughton, and Lee (2013) investigated the theoretical relationship between service quality perception, destination image and behavioural intention and suggested that enhanced service quality leads to a positive destination image. Therefore, on the basis of the empirical perspectives from the literature, the following hypothesis is postulated:

**H1:** Event quality positively influences destination image.

**Destination image**

Scholarly interest in image began with the early works of Boulding (1956) and Martineau (1958), who posited that human behaviour depends upon perceived image rather than an objective reality. Since then, image research has been conducted extensively in disciplines as varied as anthropology, sociology, geography and semiotics (Gallarza et al., 2002). In particular, marketing researchers have emphasised that customer attitudes, psychologies and behaviours are highly susceptible to perceived image. When a product or service is perceived favourably, customer purchase decision-making is simplified (Hallmann, Zehrer, & Müller, 2015). For this reason, empirical and theoretical research on destination image has been studied extensively as an effective marketing strategy. Hallmann et al. (2015) stated that destination image can be regarded as:

… tourists’ perceptions of the attributes or attractions available within a destination and concluded that destination image plays
Perceived image of a destination is dynamic, realistic and unique (Lee, Lee, & Lee, 2014), and is formed during specific stages (e.g. pre-visit, during a visit and post-visit) (Phelps, 1986; Prayag, Hosany, Muskat, & Del Chiappa, 2017). According to Lee et al. (2014), pre-visit image is formed by prior knowledge, past experience, electronic word of mouth, press reports, advertising and common beliefs and affects intention to visit and destination choice. While some tourism researchers have focused on the relationships between pre-visit image formed by electronic WOM information and visit intention (Doosti, Jalilvand, Asadi, Khazaei Pool, & Mehrani, 2016), the majority have concentrated on post-visit image perceptions and their consequences such as on tourist satisfaction and revisit and recommendation intentions because such relationships might be utilised to facilitate future success (Prayag et al., 2017).

Echtner and Ritchie (1991) supported the notion that destination image is multidimensional and asserted dimensions should be measured along a continuum. They suggested three continuums of destination image: attribute-holistic, functional-psychological and common-unique. The attribute-holistic continuum regards destination image as being composed of two main components that are attribute-based or holistic. The functional-psychological continuum presents that destination image contains functional characteristics that are directly observable or measurable and psychological characteristics that are more intangible and abstract. The common-unique continuum has largely been ignored in previous studies and consists of certain common functional characteristics such as infrastructure, climate and price level and unique psychological characteristics such as auras (Echtner & Ritchie, 1991). Based on the research performed by Echtner and Ritchie (1991), it is not unreasonable to postulate that destination image lies within cognitive-affective-overall image.

As was suggested above, destination image is a complex construct of not easily measured elements (Hernández-Lobato, Solis-Radilla, Moliner-Tena, & Sánchez-García, 2006). Therefore, issues regarding the components and the measurement of destination image have received considerable research attention. Earlier studies focused on the cognitive component of destination image (Zhang, Fu, Cai, & Lu, 2014), that is, on evaluations of functional characteristics or attributes of a destination (Baloglu & McClear, 1999). However, as affective image has recently been considered equally important in terms of the formation of destination image, many researchers have tried to measure destination image by combining image factors. For example, San Martín and Del Bosque (2008) adopted a five-factor approach using infrastructure, socio-economic, environment, atmosphere, natural or culture environment and affective image, whereas Byon and Zhang (2010) developed a new scale based on cognitive and affective images, infrastructure, attraction, value for money and enjoyment. In the present study, we adopted a six-dimensional approach involving infrastructure, socio-economics, venue environment, atmosphere, natural or culture environment, affective image of destination image and overall image.

**Tourist satisfaction**

As remarked earlier, satisfaction is a pivotal concept in marketing (Hussain, 2016). The definition of the term ‘satisfaction’ has received some attention from the interdisciplinary field. According to Oliver (1999, p. 34), ‘satisfaction is defined as pleasurable fulfilment. That is the consumer senses that consumption fulfils some need, desire, goal, or so forth and that this fulfilment is pleasurable’. Seen from this point of view, satisfaction reflects its cognitive nature (the perceived discrepancy between initial expectations and perceived performance after consumption) and its affective nature (related to feeling of pleasure) (Hernández-Lobato et al., 2006). In tourism research, the same point can be made with regard to perspective of satisfaction which is a comparison between expectations and performance. Hunt (1977) articulated that satisfaction is not the pleasurableness of the experience, it is the evaluation rendered that the experience was at least as good as it was supposed to be. Therefore, receiving more value than what they expect, tourist is satisfied. However, receiving less value than what they expect, tourist is dissatisfied.

Accordingly, tourist satisfaction depends on what kind of experience tourists have and how they evaluate the quality of destination performance. Considering the development process of satisfaction, satisfaction can be judged as a complex concept, and its essence is also diversified. Some researchers have had a view of this satisfaction measurement and warranted that tourists’ actual experience is evaluated through their overall satisfaction assessment to destinations (Hurley & Estelami, 1998). Overall satisfaction is a broad concept and holistic phenomenon and represents the accumulated actual experience and impression of tourists after consumption on destination (Andreassen, 1995). Kozak and Rimington (2000) gave persuasive evidence that overall performance or actual experience is used to measure customer satisfaction. Furthermore, according to Yoon and Uysal (2005)’s research, satisfaction measurement can be construed in multiple items or dimensions, including overall satisfaction item. That is, as suggested above, tourists’ satisfaction levels and standards can vary depending on what they expected. Based on previous research, Lee, Yoon, and Lee (2007) offered three travel satisfaction items: overall satisfaction, satisfaction when compared with expectation and satisfaction when considering invested time and effort. Therefore, in this article, these three items are evaluated to assess tourist satisfaction.

Many attempts have been made to cope with a positive relationship between destination image and satisfaction. A majority of studies have shown that a more favourable
destination image is likely to bring about a higher level of satisfaction (Pike, 2002). Assaker and Hallak (2013) tested the links between novelty seeking, satisfaction and destination image. Based on the results of their study, they affirmed that destination image is associated with satisfaction. Prayag et al. (2017) conducted an integrative model linking tourist’s emotional experiences, perceived overall image, satisfaction and intention to recommend. They discovered that favourable assessment of overall image has a direct impact on satisfaction. Prayag (2009) examined the relationship among destination image, satisfaction and future behavioural intentions. Their findings showed that destination image is aligned to satisfaction. Therefore, we had confidence that there are obvious echoes of the relationship between destination image and satisfaction:

H2: Destination image positively influences tourist satisfaction.

Recommendation intention

Gursoy and Rutherford (2004) pointed out that the success of the destination depends on broad support by many tourists. It is practically because tourists who are satisfied with the destination are more likely to recommend the destination to friends, family, relatives, colleagues and potential tourists with social media, which has strong ripple effects (De Vries, Gensler, & Leeflang, 2012; Joppe, Martin, & Waalen, 2001). Therefore, tourism studies have been dominated by a focus on behavioural intentions that include recommendation intentions. Oliver (1996), who had refreshing new insights into a behavioural perspective on the consumer, defined behavioural intentions as an affirmed likelihood of engaging in a certain behaviour. Based on this definition, recommendation intentions in this article may be portrayed as a stated likelihood to recommend destination to potential tourists.

A vast literature is dedicated to a positive relationship between destination image and recommendation intention. Bigne, Sanchez, and Sanchez (2001) manifested as a result of their study of the image in Valencia, Spain; and destination image has an effect on intention to recommend. Chen and Tsai (2007) explored the structural relationship between destination image, trip quality, perceived value, satisfaction and behavioural intentions (i.e. intentions to revisit and recommend). According to their research, destination image is directly linked to behavioural intentions. Qu, Kim, and Im (2011) analysed a positive relationship and mediator among destination image, brand associations (i.e. cognitive, affective and unique image components) and tourists’ future behaviours (i.e. intentions to revisit and recommend). Their findings suggested that destination image is coupled with intentions to recommend. The results of these previous studies elicit the idea of relationship between destination image and recommendation intention:

H3: Destination image positively influences recommendation intention.

The previous studies have expounded on a positive relationship between satisfaction and recommendation intention or WOM intentions. Many researchers have claimed that satisfaction is connected to WOM. Namely, satisfied tourists are more likely to engage in a positive WOM communication (Chen & Tsai, 2007). By contrast, there is a good chance that dissatisfied tourists will engage in negative WOM (Chen & Tsai, 2007). Lee, Lee, and Lee (2005) have bring about relevance between satisfaction and recommendation intention, and carried out the structural relationship between affect, service quality perception, satisfaction and willingness to recommend, which indicated that satisfaction is associated with willingness to recommend. Similarly, Wang and Hsu (2010) examined the relationships of destination image, satisfaction and behavioural intention, which demonstrated that satisfaction is linked with behavioural intention. Therefore, it does not seem too rash to suggest that tourist satisfaction affects recommendation intention:

H4: Tourist satisfaction positively influences recommendation intention.

Despite the plethora of satisfaction in tourism research, there has been minimal research regarding the mediating effects of satisfaction between destination image and recommendation intention in sport tourism literature. While there appears to be no evidence about mediating effect of satisfaction, we can infer the mediating effect through each positive relationship between destination image, satisfaction and recommendation intention. As we have seen, destination image can be coupled with recommendation intention (Chen & Tsai, 2007; Qu et al., 2011), destination image can be associated with satisfaction (Assaker & Hallak, 2013; Prayag, 2009; Prayag et al., 2017), and satisfaction can be linked with recommendation intention (Chen & Tsai, 2007; Lee et al., 2005). Analogously, Wang and Hsu (2010) stated that satisfaction is in charge of the important role between destination image and recommendation intention. This presents empirical evidence to support the mediating effect of tourist satisfaction:

H5: Tourist satisfaction mediates the relationship between destination image and recommendation intention.

Based on previous studies, the present study proposes the following conceptual model (Figure 1).

Methods

Participants

Data were collected from visitors who attended the 2018 Pyeongchang Winter Olympics. To collect a more representative sample of Olympics visitors, authors and two trained research assistants conducted a face-to-face questionnaire survey outside the arena from 19 to 22 February 2018. In other words, visitors (N = 500) were approached to participate in the survey that utilised a systematic random sampling procedure. Finally, 382 questionnaires were finished face-to-face. Then, after a thorough examination, 40 questionnaires were eliminated from the analysis because some important questions were left blank or checked irregularly. Therefore, a total of 342 surveys were analysed for this study.

As shown in Table 1, most of the participants were men (64.9%, n = 222), 30–39 years of age (31.6%, n = 108), Europe
(46.5%, \( n = 159 \)), single (45.3%, \( n = 168 \)), white people (49.1%, \( n = 168 \)), $20 000–$39 999 (21.6%, \( n = 74 \)), college graduate (40.9%, \( n = 140 \)), technical and professional (each 32.2%, \( n = 110 \)) and 1–3 participation (62%, \( n = 212 \)).

### Measures

The survey instrument was developed based on the study objective and literature review. A seven-point Likert scale, anchored on strongly disagree (1) and strongly agree (5), was used in the survey instrument in accordance with each observed variable measuring constructs. Event quality was operationalised using 12 items (three items addressed game quality, three interaction quality, three outcome quality and three physical environment quality); these items were adapted from those used by Jin et al. (2013). Destination image was operationalised by 16 items (three items of infrastructures and socio-economic environment, three items of atmosphere, three items of natural environment, three items of affective image, three items of cultural environment and one item of overall image), which were adopted from Chen and Tsai (2007), San Martin and Del Bosque (2008) and Wang and Hsu (2010). Tourist satisfaction was operationalised by three items, which were derived from Lee et al. (2007) and Yoon and Uysal (2005). Recommendation intention was operationalised by three items, which were drawn from Grappi and Montanari (2011) and Prayag et al. (2017). The questionnaire was available in English. Then, these items were screened by tourism scholars and experts in sport events who were asked to clarify these items. Moreover, to investigate the applicability of the written questionnaire, a preliminary survey was conducted with 77 visitors. They answered that they did not have any difficulty with the questionnaire items, so we composed the final questionnaire and conducted the survey.

### Data analysis

This study analysed the structural relationship between destination image, tourist satisfaction and recommendation intention. To identify this purpose, SPSS (Statistical Package for the Social Sciences) and Analysis of Moment Structures (AMOS) programme was used to analyse the data. Data analysis consisted of two processes: preliminary analysis and hypotheses testing. Firstly, the SPSS was used to conduct preliminary analysis such as frequency, correlation analysis and reliability. Secondly, hypotheses tested were performed using structural equation modelling (SEM) and path analysis through AMOS.

### Validity and reliability

If all the items in the structural equation model are used as observed variables, the complexity of the model increases, which may cause problems such as the size of the sample, the model fit and the significance of the parameter estimation. When there are too many items, the number of items should be adjusted through item parcelling (Bandolos & Finney, 2001). Item parcelling is a method using averages when analysis is difficult in the structural equation model because of the large number of observable variables (Bandolos, 2002). To utilise item parcelling, convergent validities regarding four observable variables of game quality, interaction quality, outcome quality and physical environment quality of event quality; and five observable variables of infrastructures and socio-economic environment, atmosphere, natural environment and affective image as well as cultural environment of destination image should be satisfactory. To evaluate convergent validities, we...
calculated factor loadings that all exceeded the recommended value of 0.6. As the convergent validities of all observable variables were satisfactory, these variables were parcelled on average. In other words, each sub-factor of event quality and destination image was converted into four and five observable variables, respectively.

The four-factor (event quality, destination image, tourist satisfaction and recommendation intention) Confirmatory Factor Analysis (CFA) model used had a total of 277 degrees of freedom. Model fit results disclosed acceptable fit to data \(\chi^2/df = 2.519\), Normed Fit Index (NFI) = 0.902, Tucker-Lewis Index (TLI) = 0.934, Comparative Fit Index (CFI) = 0.901 and Root Mean Square Error of Approximation (RMSEA) = 0.064 (see Table 2). All model fit indices were considered acceptable based on the criteria recommended by Hair, Black, Babin, and Anderson (2010).

To evaluate convergent validity, we calculated construct reliability (CR) and average variance extracted (AVE). Construct reliability values all exceeded the recommended value of 0.7 (range 0.856–0.907). Average variance extracted values all exceeded the minimum requirement of 0.5 (range 0.619–0.745) (see Table 2). Therefore, convergent validity was satisfactory. For discriminant validity, we verified that AVE of the latent variable was greater than the square of the correlation between latent variables (Fornell & Larcker, 1981). As it was difficult to verify all variables, the pair with the highest correlation was selected and verified. The highest correlation obtained was 0.753 (event quality – destination image) (see Table 3) and the square of 0.753 is 0.577. Average variance extracted of event quality was 0.640 and of destination image was also 0.619. As AVE values were all greater than the square of the highest correlation, discriminant validity was satisfactory.

The reliability estimates (Cronbach’s alpha) of event quality, destination image, tourist satisfaction and recommendation intention revealed that Cronbach’s alpha coefficients of event quality, destination image, tourist satisfaction and recommendation intention scales were 730, 771, 805 and 718, respectively (see Table 2). The reliability test showed that the scales had acceptable internal consistency, which are considered to be reliable when a Cronbach’s alpha coefficient is more than 0.70 (Nunnally & Bernstein, 1994).

### Ethical consideration

This article followed all ethical standards for a research without direct contact with human or animal subjects.

### Results

The fitting indices of the structural path model results were as follows: \(\chi^2/df = 2.659\), NFI = 0.906, CFI = 0.909 and RMSEA = 0.063, which indicated that model fit was satisfactory based on the results of previous studies (NFI and CFI of >0.9 by Hair et al. (2010) and an RMSEA of <0.8 by Browne & Cudeck [1993]).

As shown in Table 4, estimates of structural coefficients (paths) provided the basis for testing the proposed hypotheses. Firstly, event quality had a significant effect on destination image (0.908, \(p < 0.001\)), which supported Hypothesis 1. Secondly, destination image had a significant

### Table 2: Confirmatory factor analysis and convergent validity.

<table>
<thead>
<tr>
<th>Items</th>
<th>(\beta)</th>
<th>SE</th>
<th>CR</th>
<th>AVE</th>
<th>Cronbach’s (\alpha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event quality</td>
<td>-</td>
<td>-</td>
<td>0.876</td>
<td>0.640</td>
<td>0.730</td>
</tr>
<tr>
<td>Game quality</td>
<td>0.721</td>
<td>0.190</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Interaction quality</td>
<td>0.709</td>
<td>0.219</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Outcome quality</td>
<td>0.605</td>
<td>0.281</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Physical environment quality</td>
<td>0.698</td>
<td>0.364</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Destination image</td>
<td>-</td>
<td>-</td>
<td>0.907</td>
<td>0.619</td>
<td>0.771</td>
</tr>
<tr>
<td>Infrastructures and socio-economic environment</td>
<td>0.688</td>
<td>0.266</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Atmosphere</td>
<td>0.746</td>
<td>0.267</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Natural environment</td>
<td>0.692</td>
<td>0.210</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Affective image</td>
<td>0.701</td>
<td>0.343</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cultural environment</td>
<td>0.657</td>
<td>0.313</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Overall image</td>
<td>0.624</td>
<td>0.341</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tourist satisfaction</td>
<td>-</td>
<td>-</td>
<td>0.897</td>
<td>0.745</td>
<td>0.805</td>
</tr>
<tr>
<td>Overall satisfaction</td>
<td>0.717</td>
<td>0.171</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>When compared with my expectation</td>
<td>0.861</td>
<td>0.238</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>When I consider my invested time and effort</td>
<td>0.834</td>
<td>0.258</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Recommendation intention</td>
<td>-</td>
<td>-</td>
<td>0.856</td>
<td>0.668</td>
<td>0.718</td>
</tr>
<tr>
<td>I will recommend Pyeongchang to other people</td>
<td>0.783</td>
<td>0.162</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Say positive things about Pyeongchang to other people</td>
<td>0.853</td>
<td>0.328</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Encourage friends and relatives to visit Pyeongchang</td>
<td>0.657</td>
<td>0.391</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: \(\chi^2/df = 2.519\), NFI = 0.902; TLI = 0.934; CFI = 0.901 and RMSEA = 0.064. \(\beta\), beta; SE, standard errors; CR, construct reliability; AVE, average variance extracted; NFI, Normed Fit Index; TLI, Tucker-Lewis Index; CFI, Comparative Fit Index; RMSEA, Root Mean Square Error of Approximation.

### Table 3: Correlations between variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Destination image</td>
<td>0.753*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tourist satisfaction</td>
<td>0.334*</td>
<td>0.373*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recommendation intention</td>
<td>0.378*</td>
<td>0.438*</td>
<td>0.408*</td>
<td>1</td>
</tr>
</tbody>
</table>

*, \(p < 0.01\).
effect on tourist satisfaction (0.503, \( p < 0.001 \)), which supported Hypothesis 2. Thirdly, destination image had a significant effect on recommendation intention (0.487, \( p < 0.001 \)), which supported Hypothesis 3. Fourthly, tourist satisfaction had a significant effect on recommendation intention (0.392, \( p < 0.001 \)), which supported Hypothesis 4.

To evaluate the mediating effect of tourist satisfaction on the relationship between destination image and recommendation intention, we used the bootstrap test developed by Efron and Tibshirani (1993), which is a data-based, resampling statistical method (Dwivedi, Mallawaarachchi, & Alvarado, 2017). There are two ways of conducting a resampling procedure, that is, by parametric or nonparametric bootstrap testing. The present study was conducted using nonparametric bootstrapping, which ‘makes no assumptions other than that distributions in samples reflect those in the general population’ (Kline, 2015, p. 60). Fifthly, the mediating effect of tourist satisfaction on the relationship between destination image and recommendation intention was found to be statistically significant (see Table 5). In other words, tourist satisfaction showed a partial mediating effect, which supported Hypothesis 5.

**Discussion**

The purpose of this article was to examine the relationships between event quality, destination image, tourist satisfaction and recommendation intention. The proposed model allows the identification of relationships between: (1) event quality and destination image, (2) destination image and tourist satisfaction, (3) destination image and recommendation intention and (4) tourist satisfaction and recommendation intention. Moreover, tourist satisfaction partially mediates the relationship between destination image and recommendation intention. Empirical research in tourism management is exploring the direct and indirect relationships between event quality, destination image and tourist satisfaction and recommendation intention remains scant. Africa and Asia Pacific are fiercely competing to obtain advantage in the tourism industry, and the brand level of a destination is of great significance in terms of survival of the fittest. Our findings contribute to the future success of destinations and organisations.

**Theoretical implications**

The findings of this study have several important theoretical implications for tourism management. Firstly, they emphasise the importance of event quality with regards to the understanding of tourist psychology and behaviour. This study delineates four sub-factors of event quality, that is, game quality, interaction quality, outcome quality and physical environment quality. Existing research on sport tourism has utilised service quality, but in the present study we considered event quality to reflect more accurately the characteristics of sporting events. Hence, we recommend event quality be considered a key consideration while modelling tourist behaviour.

Secondly, the study examines the theoretical relationship between event quality and destination image, as was recommended by Moon et al. (2011) and (2013). More specifically, these authors proposed that service or event quality is central to the understanding of destination image and recommended the relationship be further investigated. In fact, previous tourism management research has generally overlooked this important relationship. In other words, while destination image has been studied as an antecedent that influences outcome variables (Papadimitriou et al., 2018; Song, Su, & Li, 2013; Styliadis, Belhassen, & Shani, 2017), we used destination image as a determinant of event quality because of the inseparable relationship between sporting events and host cities.

Regarding the effects of destination image and tourist satisfaction on recommendation intention, some researchers have suggested that destination image and tourist satisfaction are independent of behavioural intentions or destination loyalty. For example, Jin et al. (2013) devised a conceptual model depicting relationships between event quality, perceived value, destination image and behavioural intentions, and showed that destination image does not lead to behavioural intentions because tourists are inclined to seek new experiences at new destinations despite positive destination images and satisfactions of previously attended venues (McDowall, 2010). Nevertheless, the current study shows that destination image and tourist satisfaction importantly predict recommendation intention.

Thirdly, in the context of sport tourism, this study reveals that tourist satisfaction partially mediates the relation between destination image and recommendation intention. There is indirectly much discussion about the mediating effect of satisfaction lately. Prayag et al. (2017) verified an integrative model linking tourists’ emotional experiences, overall image, satisfaction and intention to recommend. They confirmed the fact that overall image had an influence on tourist satisfaction and intention to recommend, and satisfaction had an influence on intention to recommend. Their findings provided some useful evidence on the mediating effect of satisfaction. Wang and Hsu (2010)

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### Table 4: Results of structural equation modelling analysis and hypothesis testing.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path</th>
<th>Estimate</th>
<th>CR</th>
<th>( p )</th>
<th>Test results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Event quality → Destination image</td>
<td>0.908</td>
<td>6.528</td>
<td>0.001</td>
<td>Accepted</td>
</tr>
<tr>
<td>2</td>
<td>Destination image → Tourist satisfaction</td>
<td>0.503</td>
<td>4.738</td>
<td>0.001</td>
<td>Accepted</td>
</tr>
<tr>
<td>3</td>
<td>Destination image → Recommendation intention</td>
<td>0.487</td>
<td>4.205</td>
<td>0.001</td>
<td>Accepted</td>
</tr>
<tr>
<td>4</td>
<td>Tourist satisfaction → Recommendation intention</td>
<td>0.392</td>
<td>4.770</td>
<td>0.001</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

CR, construct reliability.

### Table 5: Mediating effects of tourist satisfaction.

<table>
<thead>
<tr>
<th>Path</th>
<th>Effect</th>
<th>Estimate</th>
<th>SE</th>
<th>95% CI (Bias-corrected)</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Destination image → Recommendation intention</td>
<td>Indirect</td>
<td>0.106</td>
<td>0.027</td>
<td>0.059–0.165</td>
<td>0.003</td>
</tr>
<tr>
<td>Recommendation intention</td>
<td>Direct</td>
<td>0.332</td>
<td>0.047</td>
<td>0.235–0.427</td>
<td>0.004</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>0.438</td>
<td>0.046</td>
<td>0.339–0.514</td>
<td>0.007</td>
</tr>
</tbody>
</table>

SE, standard error; CI, confidence interval.
unveiled a conceptual model depicting the relationship between designation image, components, satisfaction and behavioural intentions. They substantiated a subsequent effect on ‘destination image → satisfaction → behavioural intentions’. From this, it might be deduced that positive satisfaction has a relationship with destination image and recommend intention.

**Practical implications**

Based on the results of the research so far, the author would like to suggest a practical plan to maximise the effect of destination image, satisfaction, recommendation intention and involvement. Firstly, destination marketers should utilise the Olympic legacy. Olympic legacy can be largely divided into intangible legacy and tangible legacy. Intangible legacy, as has been noted earlier, consists of image improvement, enhancement of national status, enhancement in national pride and local patriotism, social unification and so on. On the other hand, tangible legacy comprises a representative example of stadiums and facilities. These stadiums and facilities can be used as important tourism resources for the destination benefit, but not utilising properly, stadiums and facilities will be a financial burden on the host city. Therefore, destination marketers should establish a various measure to increase the sustainable footprint of stadiums and facilities.

The best way to do this is to build stadiums for multipurpose use. The stadiums and facilities of the 2010 Vancouver Winter Olympics were being transformed into multipurpose stadiums and facilities and generating major profit (Karadakis & Kaplanidou, 2012). Above all, a host city continues to increase its tourism income by providing a variety of winter sports opportunities for tourists through its facilities. Likewise, it is also important that destination marketers actively engage in external collaboration. In other words, marketers should hold close cooperation and regular seminars with existing host cities, universities and research institutes to integrate ideas on Olympic legacy into their destinations. Accordingly, utilising the Olympic legacy well, the host city can have not only a positive economic effect, but also a positive destination image.

Secondly, destination marketers should actively use social media to improve the destination image. Xiang and Gretzel (2010, p. 180) mentioned that social media such as blogs, YouTube and Facebook can be understood as ‘Internet-based applications that carry consumer-generated content’, which creates and shares information, experiences, ideas and opinions of and by consumers. Many of these social media help consumers get specific information about destination. The Travel Industry Association of America reported that approximately two-thirds of online tourists utilise social media through search engines for travel planning (TIA, 2005). Today, consumers tend to trust more information about social media without relying on traditional media such as television, newspapers and magazines (Habibi, Laroche, & Richard, 2014). Accordingly, destination marketers should implement social media as promotional tool for tourists.

Thirdly, local authorities should improve accessibility of destination through the construction of transportation infrastructure. No matter how well destination marketers utilise the Olympic legacy and promote destination, if the public transportation of destination is inconvenient, tourists will experience discomfort throughout the trip, which can result in low satisfaction and negative oral intention. In the case of Pyeongchang, it had low accessibility before the Winter Olympic Games. However, the Korean government constructed the Korea Train Express between Seoul and Pyeongchang with the Olympic bid; therefore, tourists could reach Pyeongchang in a short time from Incheon International Airport and Seoul Station. Consequently, we believe that these series of efforts bring about the success of the destination.

**Conclusion**

Having come to the end of our discussion of marketing strategies of destination image for mega sport events, it is time to recall the conclusions. Proceeding from what has been said above, it should be concluded that: (1) event quality has influence on destination image, (2) destination image has influence on tourist satisfaction, (3) destination image has influence on recommendation intention, (4) tourist satisfaction has influence on recommendation intention and (5) the relationship between destination image and recommendation intention is mediated by tourist satisfaction. Therefore, these findings sketch out the importance of event quality, destination image and tourist satisfaction. Destination marketers and organisers of international sporting events should pay attention to these factors and fulfil practical efforts such as utilising the Olympic legacy, using social media and improving accessibility of destination. We expect that this article is able to provide an impetus for succeeding the destination marketing.

In this article, the authors attempted to explore the relationships between event quality, destination image, tourist satisfaction and recommendation intention. However, there are several limitations on the present study. Firstly, destination image and satisfaction were studied as antecedents to recommendation intention. There might be additional factors influencing and interacting with recommendation intention. Future researchers are advised to investigate additional antecedents. Secondly, satisfaction was analysed as a mediating variable between destination image and recommendation intention. There might be another mediating variable (e.g. place attachment) in the proposed model. Investigating an additional mediating variable can lead to an extension in the tourism management. Thirdly, to improve the proposed model’s accuracy, future study should examine potential moderating variables such as personality traits and situational factors, which can offer a new interpretation of tourism research.

**Acknowledgements**

**Competing interests**

The authors declare that they have no significant competing financial, professional or personal interests that might have influenced the performance or presentation of the work described in this article.


