Aligning Destination Image, Sport Event Image and Image Fit: An Exploration of the Interrelationship between Cognitive and Affective Images among Spectators of Dutch Running Events

Master's Thesis

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Abstract: *Existing literature suggests that there is a relationship between the image of a destination and its sport events and that their common image associations lead to an image fit. This study aims to empirically explore the destination image, sport event image and the image fit, dividing them in cognitive and affective components, among spectators of sport events. Also, the interrelationships between these images are studied to fully grasp the dynamic relationship between event image and destination image. For this purpose, a survey was conducted among spectators (n=140) of three running events held in three different cities in the Netherlands. The findings indicate that there is a moderate strong interrelationship between the images of a destination and its sport event, which leads to a positive cognitive and affective image fit. Policymakers should, therefore, focus on organizing sport events that match the positive characteristics of the destination in order to create more positive sport event images, as destination images and sport event images are not formed separately from each other.*

Keywords: *destination image; sport event image; image fit; cognitive image; affective image*

Introduction

In recent years, academics from different social disciplines have become increasingly interested in studying the relationship between sport events and tourism destinations (Florek and Insch, 2011; Getz, 2008; Hallmann and Breuer, 2010; Kaplanidou and Vogt, 2007). Sport events are known to play an important role in broadening the tourist destination market, generating economic benefits and creating a large amount of media attention (Elliot et al., 2005; Richards and Wilson, 2004; Smith, 2005). Accordingly, researchers have turned their attention to investigating issues such as the economic, social, cultural and environmental impacts of hosting sport events (Bull and Lovell, 2007; Daniels et al., 2004; Gibson et al., 2011), the use of sport events in destination branding (Chalip and Costa, 2005; Gwinner et al., 2009) and the influence of sport events on the image of the hosting destinations (Florek et al., 2008; Hallmann and Breuer, 2010; Kaplanidou and Vogt, 2007).

Especially, the effect of sport events on the image of the hosting destination is of great interest among researchers, because what people think about the sport event may shape an image which contributes to the successful development of place as an attractive destination for people to visit (Baloglu and McCleary, 1999; Stepchenkova and Mills, 2010; Tasci et al., 2007). Countries, regions, cities or even small towns may be influenced positively by large or small scale sport events as these events draw a crowd of local, regional, national or even international spectators and participants (Kaplanidou and Vogt, 2007). In contrast, it is also argued that destinations can influence the image of sport events since these events necessarily take place within the host destinations and these places are thus the providers of the destination experiences related to the sport event (Kaplanidou and Vogt, 2007; Smith, 2006).

In researching both the images of destinations and sport events, researchers support the idea that an image is a multidimensional concept, whereby images are continuously formed and modified through the interpretation of information from different sources. This multidimensionality of images is expressed by dividing an image in a cognitive or factual component and an affective or emotional component. The formation of an image is a dynamic and interactive process in which every component could be both a cause and an effect of a change at any time. These components cannot be understood correctly in isolation (Baloglu and McCleary, 1999; Tasci et al., 2007), so it is necessary to study the cognitive and affective dimensions of the destination image and sport event image in an integrated manner.

Nevertheless, although researchers agree about the multidimensionality of images, most studies combining destination images and sport event images have not been treating both images as multidimensional concepts. Therefore, no research has been done so far looking at the differences or similarities between the cognitive and affective components of destination and sport event images and their interrelationships. This concept of the degree of common image associations between the destination and the sport event, also called the image fit, has only been researched so far by Hallmann and Breuer (2010). Although they conclude that there is an image fit and a relationship between the images of the researched marathon and triathlon events and their host destinations, the researchers do not separate the destination and sport event image in cognitive and affective components and consequently also not the image fit. This is despite the fact that the cognitive and affective components play an important role in affecting the choice of a visitor to go to a specific destination or event (Baloglu and McCleary, 1999).

Therefore, this study aims to empirically explore the destination image, sport event image and the image fit, dividing them in cognitive and affective components, among spectators of sport events. Also, the interrelationships between these images are studied to fully grasp the dynamic relationship between event image and destination image. For this purpose, an empirical study will be conducted among spectators visiting three different running events throughout the Netherlands. The focus will be on spectators of sport events and not the participants as sport event spectating can be seen as one of the most significant leisure behaviors in contemporary society (Jones, 2008).

The paper has been organized in the following way. The second section looks at the theory behind images and their cognitive and affective components and the relationship between destination image, sport event image and the image fit. The third section describes the methods used to quantitatively explore the images among spectators of the running events. The fourth section will elaborate on the results of the empirical research conducted for this paper. Finally, the fifth section addresses the conclusions of this study and discusses some recommendations for policy implications and future research in the academic field of sport events and destinations.

Literature review

In recent years, an increasing amount of literature has been published on destination image (Govers et al., 2007; Hosany et al., 2006; Kim and Yoon, 2003) as the concept becomes a critical development factor in a destination's tourism success (Deng et al., 2013; Kim and Richardson, 2003; Smit, 2006). Most researchers agree on the fact that a destination image can be seen as a concept consisting of beliefs, ideas and impressions that an individual holds of attributes and/or activities available at a destination (Kim and Yoon, 2003; Lin et al., 2007; Wang and Hsu, 2010). This sum of beliefs, ideas and impressions comes together in an overall mental picture of that destination (Echtner and Ritchie, 1991).

The beliefs, ideas and impressions that a person holds of a destination, or thus the destination image, is seen as a multidimensional concept (Baloglu and McCleary, 1999; Hosany et al., 2006; Stepchenkova and Mills, 2010; Wang and Hsu, 2010). This multidimensional image is expressed by cognitive and affective dimensions. The cognitive component refers to factual knowledge and beliefs

about a destination and encompasses what we know about a place. It is a mental response that includes thinking about, understanding, interpreting and evaluating attributes of a destination (Baloglu and McCleary, 1999; Lin et al., 2007; Tasci and Gartner, 2007; Wang and Hsu, 2010). On the other hand, the affective component refers to emotions and feelings of an individual towards a place. Affect involves positive, neutral or negative feelings towards a destination with a varying intensity, like pleasure, relaxation and frustration (Baloglu and McCleary, 1999; Beerli and Martin, 2004). Together, the cognitive and affective components form a unique destination image, which can be seen as a holistic image perception (Lin et al., 2007; Wang and Hsu, 2010).

The cognitive and affective dimensions together are seen as distinct but interrelated components of a destination image. Researchers agree that the influence of the cognitive image on the affective image is of greater influence than the other way around (Baloglu and McCleary, 1999; Beerli and Martin, 2004; Kim and Yoon, 2003; Lin et al., 2007). For example, Baloglu and McCleary (1999) demonstrated that the cognitive image of potential tourists for four different countries positively influenced the affective evaluations of the countries, and Lin and colleagues (2007) showed that the cognitive images of different theme-park destinations are positively related to the affective images of these destinations. Therefore, it is assumed that there is a relationship between the cognitive component and the affective component of an image.

Looking at the image of a sport event, previous research concludes that, similar to destination research, there is a lack of definition of the sport event image (Hallmann and Breuer, 2010; Kaplanidou and Vogt, 2007; Deng et al., 2013). Hence, researchers like Deng and colleagues (2013) and Hallmann and Breuer (2010) suggest that the principles applied to destination image, consisting of a cognitive and affective component, can also be used for determining the concept of a sport event image. It is no coincidence that event images in general, like the brand of a music festival for example, can be evaluated in a rational and an emotional way (Getz, 2008).

Nevertheless, no acknowledged measurement scales or frameworks for event image have been developed yet (Deng et al., 2013; Hallmann and Breuer, 2010; Kaplanidou and Vogt, 2007). Only a few researchers have tried so far to indicate the most important aspects of sport event image. Gwinner (1997), for example, showed that the characteristics of different events, such as sport, music or festival events play a role in determining the event image. Previous research, moreover, showed that the sport event image might include qualitative measured aspects, such as emotional, organization, social and physical attributes (Echtner and Ritchie, 1991; Kaplanidou and Vogt, 2007). In addition, also natural characteristics, cultural aspects and infrastructure features are mentioned as quantitative measured factors in sport event image research (Echtner and Ritchie, 1991; Koo et al., 2006). It is, therefore, argued in this study that the destination image framework can serve as a reference for conceptualizing sport event images. Accordingly, the cognitive and affective components that are the fundament for the destination image formation could also be used in measuring the sport event image.

Overall, looking at the components that form the destination image and sport event image, one could imagine that these images are subjective concepts, existing of opinions and judgments that differ per person. Perception thus can vary among individuals, but what are the determinants influencing the components of destination image and sport event image? In previous research on destination image, some major determinants are mentioned affecting destination image. Different studies have examined the role of individual characteristics on affecting the destination image and/or sport event image (Baloglu and McCleary, 1999; Beerli and Martin, 2004; Getz, 2008; Gwinner, 1997; Taks et al., 2009). Different socio-demographic factors have been explored, such as age, gender, education and income. However, research outcomes are not consistent with each other (Hallmann and Breuer, 2010). Beerli and Martin (2004), for example, showed that women tend to be more positive about the image of a destination than men. In contrast with this study, Gibson and colleagues (2003) concluded that gender does not affect image. Nevertheless, despite these

contradicting outcomes, it is assumed in this research that socio-demographic factors affect destination image and sport event image.

Furthermore, several studies showed that perceptions of people are dependent on their experiences with the destination or the sport event and their knowledge about and their feelings towards the place or the sport event (Baloglu and McCleary; 1999; Kaplanidou and Vogt, 2007; Taks et al., 2009). Baloglu and McCleary (1999) and Kaplanidou and Vogt (2007), for example, noted that past visits to a destination positively influence the destination image. The same could be true for the influence of past visits of sport events on the sport event image. Therefore, it is stated in this research that the past involvement with the destination and the sport event positively influences the destination image and sport event image.

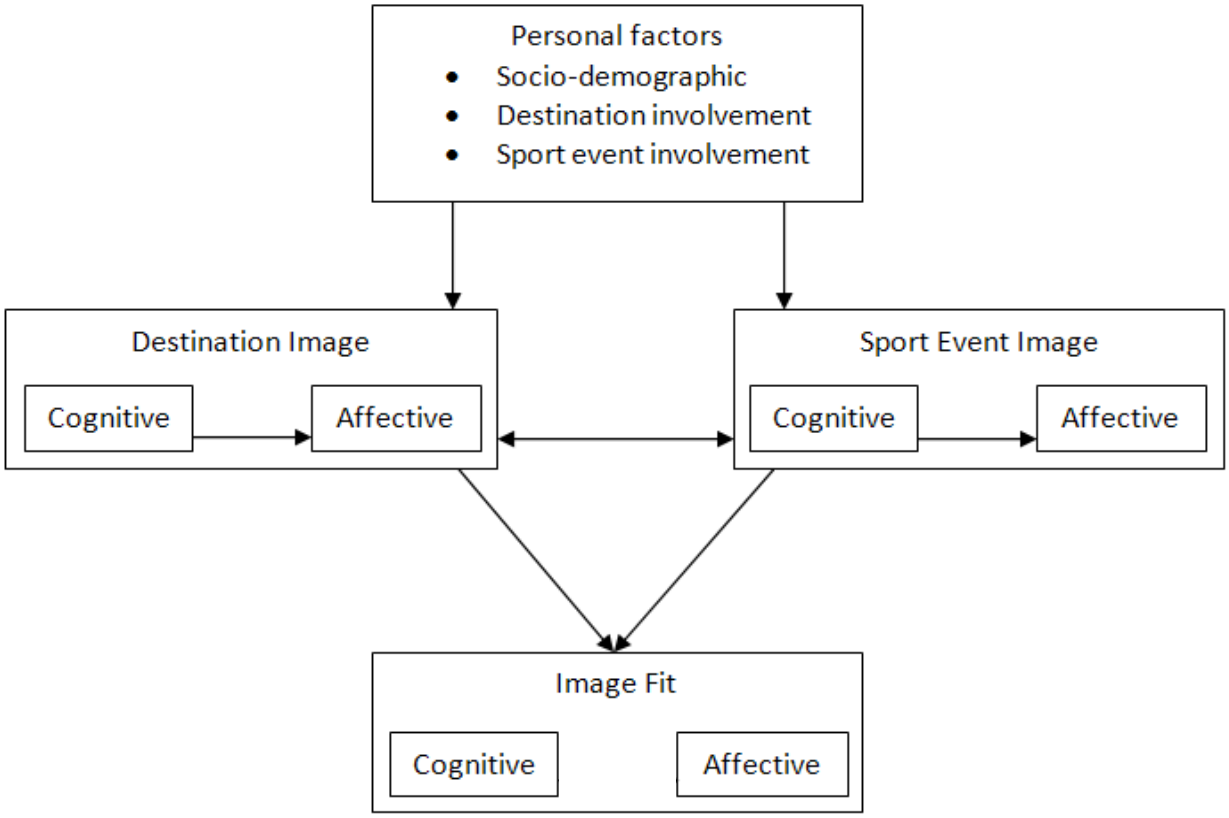
In addition to the cognitive and affective components that form an image and the personal factors that influence an image, some studies also suggest that destination and sport event images could have common image associations that will lead to an image fit (Hallmann and Breuer, 2010; Kaplanidou and Vogt, 2007). The concept of image fit originates from the sport sponsoring literature, where, for instance, the fit or degree of congruence between a specific sport and a brand or a sport sponsor and an event were researched (Gwinner et al., 2009; Koo et al., 2006; Lee and Cho, 2009). In the context of destination and sport event image research, the image fit can be defined as the subjective evaluation of the relationship between a destination image and a sport event image (Hallmann and Breuer, 2010).

The concept of image fit represents a part of the so called image transfer process, where images of an object can transfer to another object, which can lead to favorable, strong and unique associations (Deng et al., 2013; Keller, 1993). Looking at destination image and sport event image, this underlying transfer process can be explained as follows. When a destination makes preparations for hosting a sport event, some of the characteristics of that event will become associated, directly or indirectly, with aspects of the destination in the mind of the visitor (Deng and Lee, 2013). In that case, image aspects of the sport event are transferred to the image of the destination. This point is illustrated by Koo and colleagues (2006), showing that the founded sponsorship fit between the brand Panasonic and the Dew Action Sports Tour event positively influences how the brand is perceived by the visitors of that sport event.

On the one hand, the most literature on image fit is theory-driven. Xing and Chalip (2006), for example, did some theoretical research on co-branding and bundling approaches of a destination with an event. They claim that the image of a sport event can influence the image of a destination when the sport event holds images that are considered to be fitting with the images of the destination. Hence, the impact of the sport event image on the destination image could be significant.

On the other hand, also a few empirical studies have been done so far exploring the relationship between destinations, sport events and their fit. Kaplanidou and Vogt (2007), for example, researched the reciprocal relation between destination image and sport event image among participants of a small scale cycling sport event. Kaplanidou and Vogt (2007), found some common image associations between the sport event and the destination, however they did not quantify this image fit. In that respect, Hallmann and Breuer (2010) were the first to quantify the image fit between destination image and sport event image using a formula to index the different variables measuring the cognitive and affective images. They conclude that there are common image associations, and thus an image fit, between the destination images and the sport event images of four different running and cycling sport events in Germany. It is stated in this research that these findings can be transferred to the cognitive and affective components of the sport event image and destination image. In doing so, it is possible to indicate a cognitive image fit and an affective image fit and an interrelationship between these fits and the cognitive and affective destination images and sport event images. Summarizing, Figure 1 presents the stated relationships within this study.

Figure 1: Theoretical model of the relationship between destination image, sport event image and image fit from a cognitive-affective point of view



Research Design

In this research, the destination images and sport event images among spectators visiting three running events in the Netherlands in the winter of 2012-2013 were studied. The events included in this study were: the Bruggenloop in Rotterdam (2012), the Midwinter Marathon in Apeldoorn (2013) and the CPC Loop in The Hague (2013). These running events were selected because of the possibility to measure a steady image, being recognized running events on the national level, already long-established events within the destination and attracting large flows of spectators.

Out of every ten spectators at the start/finish, one person was randomly selected and asked to leave his or her email address in order to complete an online questionnaire. One of the benefits of this technique is that it enhances the representativeness of the sample as every present spectator had an equal chance to qualify for the survey (Boeije et al., 2009). To fill in the questionnaire, the respondents had to be 18 years or older. This criterion was employed to ensure an appropriate degree of understanding the questions about the destination and the sport event.

A structured survey was used, because it allows for the exploration of patterns and trends (Bryman, 2008) and is also used in previous research related to destination image and sport event image (Hallmann and Breuer, 2010; Kaplanidou and Vogt, 2007; Wang and Hsu, 2010). An online questionnaire was preferred over filling in the questionnaires on the spot due to possible rainy weather conditions and the fact that people in general are more willing to fill in a survey online instead of on site. However, spectators with no internet access were still offered to fill in a paper survey in order to not exclude these people. Furthermore, the questionnaire consisted of a mixture of 27 open-ended and close-ended questions, which were subdivided into questions related to

personal characteristics of the respondents, experiences with the destination and the sport event and questions related to measure the affective and cognitive destination image and sport event image.

Eventually, 140 respondents fully completed the questionnaire, 40 respondents from the Bruggenloop in Rotterdam, 61 respondents from the Midwinter Marathon in Apeldoorn and 39 respondents from the CPC Loop in The Hague. This sample is considered as appropriate looking at the exploratory nature of this study. Table 1 shows the basic characteristics of the respondents. In general, the respondents can be considered as young till middle aged, highly educated and with either a low or a high income. In addition, most spectators were visitors, had some past experience with the host destination and the running event and in general enjoy watching running events. Looking at the destinations themselves, The Hague slightly deviates from the other places, having especially younger, more destination experienced and less sport event experienced respondents. In addition, Rotterdam had less local visitors and the most respondents who enjoyed watching running events, only one person did not like this (Table 1).

Table 1: Basic characteristics of the respondents

		Rotterdam (n=40)		Apeldoorn (n=61)		The Hague (n=39)		Total (n=140)	
		n	%	n	%	n	%	n	%
Gender	Male	20	50.0	34	55.7	17	43.6	71	50.7
	Female	20	50.0	27	44.3	22	56.4	69	49.3
Age	18-25	16	40.0	19	31.1	24	61.5	59	42.1
	36-50	11	27.5	13	21.3	10	25.6	34	24.3
	> 51	13	32.5	29	47.6	5	12.8	47	33.6
Education	Low	10	25.0	9	11.4	5	12.8	24	17.1
	Middle	13	32.5	19	31.1	6	15.4	38	27.1
	High	17	42.5	33	54.1	28	71.8	78	55.8
Income	Low	11	27.5	20	32.8	14	35.9	45	32.1
	Middle	7	17.5	8	13.1	8	20.5	23	16.4
	High	15	37.5	18	29.5	8	20.5	41	29.3
	Not mentioned	7	17.5	15	24.6	9	23.1	31	22.2
Type of spectator	Local	14	35.0	33	54.1	16	41.0	63	45.0
	Visitor	26	65.0	28	45.9	23	59.0	77	55.0
Past visits destination	Yes	24	60.0	45	73.8	35	89.7	104	74.3
	No	16	40.0	16	26.2	4	10.3	36	25.7
Enjoying watching running events	Disagree	1	2.5	15	24.6	10	25.6	26	18.6
	Neutral	10	25.0	14	23.0	7	17.9	31	22.1
	Agree	29	72.5	32	52.5	22	56.4	83	59.3
Past visits sport event	Yes	30	75.0	38	62.3	12	30.8	80	57.1
	No	10	25.0	23	37.7	27	69.2	60	42.9

To measure the involvement with the destination, respondents were asked if they live in the host destination or not and whether they visited the host destination the past year. Also, involvement with the sport event was measured by asking respondents if they visited the same sport event in the past five years. In addition, respondents were asked about their passion for watching running events by rating the statement "I enjoy watching running events" on a five-point measurement scale from (1) strongly disagree till (5) strongly agree, which was brought back till three categories to create a sufficient filling of the cells.

To measure destination image and sport event image from a cognitive and affective point of view, several variables were used. The used variables, as shown in Table 2, were chosen after a comprehensive review of findings from major destination image studies and some sport event image studies (Baloglu and McCleary, 1999; Beerli and Martin, 2004; Deng et al., 2013; Echtner and Ritchie, 1991; Kaplanidou and Vogt, 2007; Lee et al., 2005; Ryan and Cave, 2005; San Martín and Rodríguez del Bosque, 2008; Tasci et al., 2007; Wang and Hsu, 2010). The respondents were asked to rate each of the thirteen cognitive variables, which were positively or negatively formulated, on a five-point Likert rating scale, ranging from (1) strongly disagree till strongly agree (5). In addition, the four affective variables were included in the image scale and measured by using a five-point semantic differential (Table 2). An additive index for the destination image and sport event image was adopted from the research of Hallmann and Breuer (2010) and used to transform the variable scores measuring destination and sport event image into index numbers in order to know how positively or negatively the images of the respondents of the destination and the sport event are. To create these index numbers, the following formulas were used:

Cognitive image: ((catering facilities + entertainment facilities + information facilities + infrastructure + crowdedness + commercial + safe + sustainable + traditional + regional + friendly people + atmosphere + reputation) – 13) / 52 * 100

Affective image: ((pleasant + cheerful + exciting + stimulating) – 4) / 16 * 100

Accordingly, the image index can be shown on a scale from zero (negative image) to 100 (positive image) (Hallmann and Breuer, 2010). After calculating these indices, the reliability analysis showed that the Cronbach's Alpha scores were sufficient enough the combine the variables measuring the cognitive and affective images together to create cognitive and affective destination and sport event images (Table 2).

Last, the image fit was measured indirectly by using the scores of the sport event images and the destination images. These scores were quantified by using the Euclidean distance between the results of the sport event images and the destination images. The following equation was used to calculate the image fit index: $1 - \sqrt{\sum^{n}_{i=1} (x_i - y_i)^2}$, with x_i representing the cognitive/affective sport event image indicator score and y_i representing the cognitive/affective destination image indicator score. The scores of the variables that measured the destination and sport event images were transformed for every respondent to show only values from zero (bad fit) to one (perfect fit) by dividing the result obtained from the Euclidian distance by the highest possible squared distance (Hallmann and Breuer, 2010). Hence, in combination with the different image index scores it was determined whether the image fit was a negative or positive one.

Table 2: Variables measuring destination image and sport event image and their index values

	Destination image index		Sport event image index	
	Mean	Standard deviation	Mean	Standard deviation
Cognitive variables				
Enough catering facilities	73.39	17.79	56.07	25.07
Enough entertainment	68.21	19.63	44.29	20.63
facilities	64.82	16.94	55.18	21.93
Enough information facilities	71.25	28.36	73.39	25.31
Good infrastructure	50.54	26.01	51.61	23.87
Not too crowded	53.39	19.87	59.29	17.02
Not too commercial	57.14	19.96	75.00	13.07
Safe	50.36	14.69	60.00	17.94
Sustainable	54.64	27.09	52.32	21.18
Traditional	53.93	28.49	58.04	24.60
Regional	58.93	21.22	75.89	16.26
Friendly people	65.54	20.22	76.96	18.98
Good atmosphere	61.07	19.27	75.00	17.49
Good reputation				
Affective variables				
Unpleasant - Pleasant	75.00	20.78	77.68	19.82
Gloomy - Cheerful	69.29	22.71	74.82	19.78
Dull - Exciting	52.86	22.86	61.96	20.88
Limiting - Stimulating	58.21	21.09	66.96	21.26
Cronbach's Alpha				
Cognitive variables		0.742		0.649
Affective variables		0.754		0.822

Variable scores range from 0 = negative to 100 = positive

Results

The data were first analyzed to present some descriptive information about how the destination images, sport event images and image fits looked like among spectators from the different sporting events at Rotterdam, Apeldoorn and The Hague. The second part of the analysis of the data statistically tested the influence of the personal characteristics of the respondents on the destination image, sport event image and the eventual image fit and the interrelationship between these images from a cognitive and affective point of view.

First of all, the spectators from the tested sport events are moderately positive about the destination where the sport event took place and the sport event itself. Table 3 shows the results concerning to what extent spectators of the different sport events have a positive or negative image of the destination and the sport event. What is notable is that the cognitive destination image of Rotterdam, valued as not negative nor positive with an index score of 50.91, was quite lower than the cognitive scores for the other places and events. In addition, spectators from the Midwinter Marathon in Apeldoorn also had a somewhat reserved affective image of the destination with an index score of 57.89 (Table 3).

Looking at how the cognitive and affective components of the images per destination and sport event relate to each other, it can be stated that the affective image was more positive than the cognitive image for both the destinations Rotterdam and The Hague as well as for their running events. The same is true for the affective image of the Apeldoorn's running event, being higher than its cognitive sport event image. However, on the other hand the affective destination image of Apeldoorn as a destination is the only affective destination image that is lower than its cognitive destination image (Table 3). Indeed, as the Anova analysis shows, there is a significant difference between Apeldoorn and its running event and the other two cities and sport events in respect to the affective destination image ($F = 7.6161$, $p < 0.01$). Maybe, this could be explained by the fact that Rotterdam and The Hague are one of the biggest cities in the Netherlands and therefore people, consciously or unconsciously, have more outspoken emotions or feelings towards these cities than a smaller city like Apeldoorn, because they have heard more about these bigger cities or know more about them. So, even if a place like Apeldoorn is quite lively or stimulating, because it is a smaller, less known place the feelings towards that place could be less strong. This possible explanation can be supported by the work of Yang and colleagues (2009), who show that the more familiar a destination is to a tourist, the more attractive the place becomes. The same could be true for the degree of affective feelings a person has towards the destination.

Furthermore, the images of almost all the sport events tend to be more positive, both cognitive and affective, than the images of the destinations. An exception to the higher sport event image is The Hague, where the cognitive destination image is just slightly higher than the cognitive sport event image (Table 3). However, taken the scores of the destinations and sport events together, the variables that made up the affective images all scored higher separately for the sport event than the destination as can be seen in Table 2.

In addition, it can also be stated from Table 2 that especially for the cognitive destination image the more measurable variables, like the catering facilities, entrainment facilities and information facilities were rated more positive by the spectators than the more abstract variables, like the safety, friendly people or reputation, which were, in turn, rated more positively for the sport events. So, it seems like the visible features of a place play an important role in determining the image of the destination, whereas the atmosphere related characteristics of a sport event seem to be more decisive in determining the image of the sport event.

Table 3: Index scores and standard deviations (SD) of the destination images and sport event images

	Rotterdam (n=41)		**Apeldoorn (n=60)**		**The Hague (n=39)**		**Total (n=140)**	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Cognitive destination image	50.91	10.94	65.38	8.72	61.79	7.13	60.25	10.85
Affective destination image	68.28	17.47	57.89	15.64	68.59	14.37	63.84	16.59
Cognitive sport event image	58.56	9.46	66.65	8.22	60.21	7.03	62.54	9.02
Affective sport event image	69.53	17.11	70.39	16.57	71.15	16.13	70.36	16.50

Mean index scores range from 0 = negative to 100 = positive

After calculating the image fit, it can be stated that there are quite high fits between the destination images and the sport event images (Table 4). Only the cognitive image fit for Rotterdam and the Bruggenloop was somewhat lower, with a cognitive image fit of 0.66, than the rest, but the other image fits can be considered as demonstrating a moderate to high fit with indices around 0.75. These high image fit indices show that for all the destinations and sport events the respondents had some

common image associations between destination and sport event, both cognitive as affective. This result shows that it is possible to divide the image fit into a cognitive and an affective component.

Next, in line with the affective images of destinations and sport events being higher than those of the cognitive images, this trend was also showed for the image fits, as the affective image fits are higher than the cognitive image fits (Table 4). This means that the spectators have more common emotions or feelings between the destination and the sport event than common cognitive image associations between the destination and the event. Of course, as feelings are less bounded by borders than the cognitive variables, it seems logical that there is a higher affective image fit than a cognitive image fit.

Furthermore, the high affective image fit of Apeldoorn seems somewhat contradicting as the place had a quite low average affective destination image index score, but a high average score for the affective sport event image (Table 3). A high image fit is, nevertheless, still possible. This could be explained by the fact that the spectators of the Midwinter Marathon in Apeldoorn together scored the affective image of the destination lower than the event, but in general the absolute or Euclidean distance between these two scores per individual is low and the lower this difference, the higher the image fit according to the formula stated in the research design. So, even though Apeldoorn had a moderate affective destination image index score and a high affective sport event image score, the image fit can still be high as it is made up by the means of the individual image fits per respondent. Yet, the image index scores stay important as they give direction to the degree of positivity of the image fit.

Overall, the moderate high image fits in combination with the moderate high destination and sport event image index scores demonstrate that the spectators to a certain degree thus valued the image variables for destinations and sport events equally positive. This shows that that there is quite a strong relationship between the images the spectators have of the destination and the sport event. Overall, Hallmann and Breuer (2010) also found considerable high image fits around 0.75 among their destinations and sport events, which suggest that using the same variables for measuring both the destination as the sport event image and from there determining the image fit is a useable method.

Table 4: Image fit indices

	Rotterdam (n=41)	Apeldoorn (n=60)	The Hague (n=39)	Total (n=140)
Cognitive image fit	0.66	0.75	0.74	0.72
Affective image fit	0.77	0.77	0.79	0.78

Image fit scores range from 0 = bad fit to 1 = perfect fit

Next, the literature was divided about the influence of personal factors on the images and the fits and also in this research only a few significant relationships were found. Past visits to the destination influenced the cognitive ($t = 1.452$, $p < 0.05$) and affective ($t = 2.022$, $p < 0.05$) sport event image, meaning that spectators who had visit the destination of the event in the past year had a more positive image, both cognitive as affective, of the sport event than spectators who did not visit the host destination last year. Furthermore, people who enjoy watching running events had a higher affective sport event image than people who do not like watching running events ($r_s = 0.332$, $p < 0.01$) and spectators with a higher education had a less positive image than spectators with a lower education level ($r_s = -0.168$, $p < 0.05$). However, no significant relationships at all were found for the influence of gender, age, income, type of spectator and past visits to the sport event on the cognitive and affective images of the destination and sport event and image fits. Apparently, the personal factors explored in this research do not unambiguously matter in forming a positive image of the sport event and its hosting destination.

Looking at the interrelationship between the cognitive and affective destination and sport event images, Table 5 shows that there are some significant weak till moderately strong correlations between the different images. The highest correlation was found between the cognitive destination image and the cognitive sport event image (r_s = 0.441, p < 0.01). This means that the more positive the cognitive destination image is, the more positive the cognitive sport event image is and vice versa. In addition, this moderately strong relationship was also found between the affective destination image and the affective sport event image (r_s = 0.334), p < 0.01). These correlations statistically confirm that there is a moderately strong relationship between the images of the destinations and the sport events.

Moreover, looking at Table 5, coherence can also be found between the cognitive destination image and the affective destination image and correlation could also be found between the cognitive sport event image and the affective sport event image. Hence, as spectators evaluated the cognitive attributes of the destination or the sport event quite positive, they would also evaluated the affective attributes of the destination or the sport event positive. These results concerning the correlation between the cognitive and affective components of an image are in line with previous research about destination images, stating that these components mutually influence each other (Baloglu and McCleary, 1999; Beerli and Martin, 2004; Elliot et al., 2011; Lin et al., 2007; Tasci et al., 2007; Wang and Hsu, 2010). That is to say, features of and feelings towards both the destination as the sport event cannot be seen separately from each other in the image formation.

Table 5: Pearson's correlation between destination image and sport event image

	Cognitive destination image	Affective destination image	Cognitive sport event image	Affective sport event image
Cognitive destination image	x			
Affective destination image	0.203*	x		
Cognitive sport event image	0.441**	0.060	x	
Affective sport event image	0.084	0.334**	0.375**	x

*p < 0.05 and ** p < 0.01

Last, it can be stated from the multiple regression analysis that the cognitive destination image has the most influence in explaining the cognitive image fit (β = 0.320, p < 0.01), whereas the cognitive sport event images are not significant in explaining the cognitive image fit (Table 6). In addition, the multiple regression analysis for the affective image fit also showed that the affective destination image significantly influence the affective image fit (β = 0.265, p < 0.01) and no affective sport event images have a significant role here (Table 7). Accordingly, destination attributes seem to be decisive in determining the image fit. Therefore, it could be argued that spectators first value the destination characteristics in their image formation and after that process these destination values in their judgment about the sport event characteristics. In doing so, common perceptions of destination images and sport event images are created. Going back to the transferring process of images, a positive image of a destination could thus greatly influence how positive a spectator the image of a sport event sees.

Table 6: Influence of the destination images and sport event images on the cognitive image fit

Model	B	SE	β	T	P
Constant	0.567	0.058	-	9.692	0.000
Cognitive destination image	0.003	0.001	0.320	3.533	0.001
Cognitive sport event image	0.000	0.001	-0.019	-0.210	0.834
$R = 0.312$, $R^2 = 0.097$, $F = 7.368$, $p = 0.001$					

Table 7: Influence of the destination images and sport event images on the affective image fit

Model	B	SE	β	T	p
Constant	0.639	0.059	-	10.789	0.000
Affective destination image	0.002	0.001	0.265	3.032	0.003
Affective sport event image	0.000	0.001	-0.012	-0.133	0.895
$R = 0.262$, $R^2 = 0.068$, $F = 5.032$, $p = 0.008$					

Conclusions and discussion

This study aims to empirically explore the destination image, sport event image and the image fit, dividing them in cognitive and affective components, among spectators of sport events. Also, the interrelationships between these images are studied to fully grasp the dynamic relationship between event image and destination image. The results from this study show that the spectators of the sport events have quite positive images, both cognitive as affective, of both the destination and the sport event and these positive images lead to quite high cognitive and affective image fits. However, the strengths and directions of these links differ and will be discussed in this section.

First, the cognitive and affective components of the destination image, sport event image and image fit were studied. The results show that treating an image as a multidimensional concept is useable for not only determining the destination image, which is in line with earlier research (Baloglu and McCleary, 1999; Beerli and Martin, 2004; Kaplanidou and Vogt, 2007), but also usable for the less researched sport event image (Hallmann and Breuer, 2010). In this case, spectators do not only see the tangible or cognitive features of a sport event, but an insight is given into the affective or emotional feelings towards the event.

In addition, the affective images were in general rated more positive by the spectators for both the destinations and sport events than the cognitive images of the destinations and events. In addition, almost all the sport event images were rated more positive, both cognitive as affective, than the destination images. Looking at this general pattern of rating the sport event more positive than the destination is in line with the findings of Hallmann and Breuer (2010). A possible reason for this result could be that, as the features of the sport event are more directly seen and felt by the spectators, the personal involvement of the spectators is higher towards the running event than towards the destination. It could be possible that friends or family are participating in the event or that the final of the event is very exciting, which can lead to a positive sport event image, but leaving the destination image more or less as an afterthought.

Regarding the influence of the personal features of the spectators on the images, only a few relationships were found between these characteristics and the destination image, sport event image and image fit. In line with previous image research (Baloglu and McCleary, 1999; Beerli and Martin, 2004; Getz, 2008; Gwinner, 1997; Taks et al., 2009), it seems hard to discover general patterns of personal factors that influence the formation of destination and sport event images. Hence, as every destination and sport event has unique characteristics and different sports attract different types of spectators and athletes, it could be possible that the aspects of a place and the sport event itself are more important in influencing the image formation than personal factors of the spectators.

Furthermore, looking at the image fit, this research showed relatively high cognitive fit indices for all the destinations and events. However, since the image fit has not been researched from a cognitive and affective image construct so far, no further comparisons with previous research can be made. Yet, the high cognitive and affective image fits are important results as they show that spectators do not see the destination and the sport event as two totally different entities. Instead, spectators make use of both the cognitive and affective characteristics from the destination into forming their image of the sport event and vice versa. These high image fits, as a result of the positive destination and sport event images, could contribute to determining the long term success of an event and destination as it is already known that cognitive and affective images play an important role in affecting a visitor's choice to visit a certain destination or event and return visits (Baloglu and McCleary, 1999; Hallmann and Breuer, 2010).

Last, the interrelationship between the destination image, sport event image and the image fit from a cognitive and affective point of view was researched. This study provides evidence for the fact that this interrelationship exists. The moderately strong correlation between the cognitive and affective components of respectively the destination image and the sport event image supports the conclusions of some previous research regarding the general positive relationship between cognitive and affective images (Baloglu and McCleary, 1999; Beerli and Martin, 2004). Moreover, with respect to the image fit, is that the destination image, both cognitive as affective, was of greater impact in explaining the image fit, also both cognitive and affective, than the sport event image. How destination characteristics are valued by spectators is thus important, as these judgments influence how spectators perceive the sport event features. Policymakers and event managers should, therefore, focus on organizing sport events that match the already existing positive cognitive and affective characteristics of the destination in order to create even more positive sport event images, and accordingly more important cognitive and affective image associations between destination and sport event.

Even though the above findings shed an interesting light on the relationship between destination image, sport event image and image fit, some limitations to the present findings need to be acknowledged. Since images are very dynamic, the destination images and event images do not remain the same in the minds of people over time (Deng et al., 2013), but will vary before, during or after the visit of a destination and sport event (Echtner and Ritchie, 1991). Also, destination and sport events may differ from each other in size, prestige, and atmosphere and so on. Due to these differences, results of this study should therefore be carefully interpreted and generalizations should be interpreted with caution. Accordingly, it would be valuable to analyze the relationship between the destination image, sport event image and the image fit before and after the event has taken place ,and also different sizes of destinations and sport events in order to contribute to the results found in this study.

In addition, only the images of spectators were measured in this research. It could be argued that the images of participants of the sport events or people watching the sport event at home in front of their televisions have quite different images of the destination and the event as they experience the contests in different environments. To get a more comprehensive insight on how cognitive and affective images form between destinations and sport events, different environments of experiencing a contest can also be researched.

To conclude, the present findings add new knowledge to understanding the relationship between destination images, sport event images and image fits from a cognitive and affective image point of view. It was the first time that the interrelationship between these three images from the cognitive and affective image construct was researched. In this regard, sport event characteristics can be viewed as part of the destination features and vice versa, as the spectators do not see the destination and event characteristics separately from each other, but make common cognitive and affective destination and sport event perceptions.

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