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Authors	Hosany, Sameer;Prayag, Girish;Deesilatham, Siripan;Odeh, Khaled
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# Measuring Tourists' Emotional Experiences: Further Validation of the Destination Emotion Scale

Sameer Hosany  
School of Management  
Royal Holloway,  
University of London

Girish Prayag  
New Zealand Tourism Research Institute,  
Auckland University of Technology

Siripan Deesilatham  
School of Management  
Royal Holloway,  
University of London

and

Khaled Odeh  
Prince Sultan College for tourism and Business,  
Alfaisal University

## ABSTRACT

*This study is an extension of Hosany and Gilbert's (2010) original research on the development of a scale measuring the diversity and intensity of tourists' emotional experiences toward destinations: the destination emotion scale (DES). The DES consists of 15 items, representing three emotional dimensions: joy, love and positive surprise. Although the DES displays solid psychometric properties, further evidence is required of the scale's validity. Using data collected from international tourists visiting two distinct destinations, Petra (Jordan) and Thailand, this study further examines the scale's construct validity. Adopting state of the art procedures guiding scale validation, results confirm the unidimensionality, reliability, convergent, discriminant and nomological validity of the DES. In particular, discriminant validity tests show that emotions and place attachment are related but distinct constructs. The DES provides a useful tool for marketers and academics to measure tourists' emotional responses toward destinations.*

**Keywords:** *tourists' emotional experiences, destination emotion scale, place attachment, behavioral intentions, scale validation*

## INTRODUCTION

In recent years, the role of emotion in leisure and tourism research has received unprecedented recognition. Emotions influence decisions to purchase tourism and leisure services (e.g., Chuang, 2007; Goossens, 2000; Kworntnik and Ross, 2007). As such, tourism experiences often include satisfying and pleasurable emotions (Aho, 2001). Accordingly, tourist's emotional reactions are fundamental determinants of post-consumption behaviors (Gnoth, 1997). Previous studies show emotions affect tourists' satisfaction (e.g., de Rojas and Camarero, 2008; del Bosque and San Martin, 2008) and behavioural intentions (e.g. Bigne, Andreu and Gnoth, 2005). In addition, Bigne and Andreu (2004) demonstrate emotion's suitability as a segmentation variable for tourism and leisure services. Despite the relevance of emotion in tourism, empirical studies to determine emotional associations or meaning tourists attach to destinations remains limited (Yuksel, Yuksel and Bilim, 2010).

Recognising the paucity of research on emotional content of destination experiences, by means of two empirical studies, Hosany and Gilbert (2010) developed the Destination Emotion Scale (DES). The DES measures the diversity and intensity of tourists' emotional experiences toward destinations. Hosany and Gilbert (2010) followed a rigorous process in developing the destination emotion scale, consistent with conventional guidelines (e.g. Churchill, 1979). Data for the first study was collected face to face from 200 British. Respondents had to rate the intensity of their emotional experience toward the destination they have visited (e.g. "I felt a sense of pleasure"). An exploratory factor analysis with Varimax rotation initially identified a 3 dimensional 23-items measure and after establishing unidimensionality, the scale was reduced to 15 items. The three dimensions of the DES are: (1) Joy (cheerful, pleasure, joy, enthusiasm, and delight); (2) Love (tenderness, love, caring, affection, and warm-hearted); and (3) Positive Surprise (amazement, astonishment, fascinated, inspired, and surprise). Coefficient alpha and composite reliabilities exceed the recommended standards.

In the second study, Hosany and Gilbert (2010) examined the dimensionality and validity of the DES. Using Dillman's (2007) recommended guidelines, data were collected via a mail survey in a town located in the South East of England, UK. Sample size for the second study was 520 respondents. Confirmatory factor analysis (CFA) was used to establish the construct validity of the destination emotion scale. In addition, multiple regression analyses performed on the data with emotion dimensions as independent variables, satisfaction and intention to recommend as dependent variables, confirm the scale's predictive validity. Although CFA shows that the 15-item measure displays solid psychometric properties, further evidence is required of the scale's validity. Validity is the degree to which a construct achieves empirical and theoretical meaning (Bagozzi 1980; Peter 1981). Establishing validity is the cornerstone of scientific research and theory development (Bagozzi 1980; Garver and Mentzer 1999; Steenkamp and van Trijp 1991) in social sciences. The literature identifies six criteria to achieve construct validity: i) content validity, ii) unidimensionality, iii) reliability, iv) convergent validity, v) discriminant validity and vi) nomological validity (e.g., Bagozzi 1980; Churchill 1979; Garver and Mentzer 1999; Gerbing and Anderson 1988; O'Leary-Kelly and Vokurka 1998; Ping 2004; Steenkamp and Van Trijp 1991).

Furthermore, in Hosany and Gilbert's (2010) study, the sample was limited to one culture (British nationals). To advance knowledge, Steenkamp and Burgess (2002) emphasise the need for researchers to test new scales in different countries/settings, thus establishing external validity. Accordingly, this study is an extension of Hosany and Gilbert's (2010) original research on the destination emotion scale. To examine construct validity of the DES, data were collected from tourists visiting two countries: Thailand and Jordan. Discriminant validity of the scale was further assessed using place attachment, a theoretically related but distinct construct (Scannell and Gifford, 2010). Place attachment is conceptualized as the emotional bond between an individual and a particular spatial setting (Williams, Patterson, Roggenbuck and Watson 1992). People relationships with a place can represent an array of positive emotions from love to contentment (Manzo 2005). Two distinct dimensions represent the place attachment construct: place dependence (functional attachment) and place identity (emotional attachment).

The study further tests the DES nomological validity by examining the relationship between each dimensions and behavioral intentions. The contribution of this research is two-fold. First, the study expands the literature on tourist experiences by providing further validation of the destination emotion scale. Second, the study adopts a systematic process in scale validation based on psychological, sociological, marketing and tourism literatures. The paper advances the literature by offering state of the art standards for future scale validation in tourism studies.

## LITERATURE REVIEW

### The Destination Emotion Scale Dimensions

The dimensions of the DES are theoretically consistent with past and more recent conceptualizations of emotion in consumer research. The joy dimension consists of emotion items such as cheerfulness and pleasure. Joy is often associated with positive outcomes such as when a person believes that one is making reasonable progress toward the realization of one's goals (Izard 1977; Lazarus 1991). Past research (e.g. Currie 1997; Goossens 2000) has shown that the pursuit of pleasurable experiences is a key motivational factor in tourism. Carr (2002) notes that tourists have a higher propensity for pleasure seeking experiences while on holidays.

The love dimension includes items such as tenderness, caring and affection. Prior research establishes that consumers experience the feelings of love towards products and brands (e.g., Ahuvia 2005; Batra, Ahuvia and Bagozzi 2012). Consumers' love for a brand is linked to higher levels of brand loyalty and positive word-of-mouth (Carroll and Ahuvia 2006). Similarly, Destination Marketing Organizations (DMOs) around the world have emphasized the emotion of love in their marketing and branding strategies. Some examples include the "I Love New York" seminal campaign, Taiwan "Touch your Heart" slogan and Cyprus "In Your Heart" media campaigns.

The positive surprise sub-scale includes items such as amazement, inspiring and astonishment. Consumer research has been mostly interested in positive surprise and its relationship with outcome variables such as satisfaction, loyalty and word-of-mouth. For example, Westbrook and Oliver (1991) note that positively surprised customers are usually more satisfied and exhibit higher levels of loyalty. Likewise, destination marketers, as part of their branding initiatives, emphasise the "surprise" element as evidenced in the "Amazing Thailand, Amazing Value" campaign. Other examples include: Scotland "Surprise Yourself!", Germany "Simply Inspiring"; and "Fascinating" Malaysia.

### Place Attachment

Social theorists hypothesize places are sources of identification and affiliation that provide meaning and purpose to life (e.g. Gustafson 2001; Williams and Vaske 2003). Research in environmental psychology establishes that people develop relationships with places (e.g. Hidalgo and Hernandez 2001). Prior studies explore the nature and nuances of people's relationship with places, also known as place attachment (Kaltenborn 1998). Place attachment is the bond between individuals and places (Guiliani and Feldman 1993). Theorized as a multidimensional construct, place attachment "involves an interplay of affect and emotions, knowledge and beliefs, and behaviors and actions in reference to a place" (Altman and Low 1992, p.5).

Two primary conceptualizations of place attachment dominate both the environmental psychology (e.g., Hidalgo and Hernandez 2001; Manzo 2003; Williams and Vaske 2003) and tourism literatures (e.g., Gross and Brown, 2008; Lee, Kyle and Scott 2012; Yuksel et al., 2010): place identity (emotional attachment) and place dependence (functional attachment). Place identity refers to the symbolic importance of a place as a repository for emotions that give meaning and purpose of life (Guiliani and Feldman, 1993). Place dependence reflects the functional or goal-directed connections to a setting; it reflects the degree to which the physical

settings provide conditions and features supporting an individual's specific goals or desired activities (Williams et al., 1992).

## **METHODS**

### **Emotion Measure**

Respondents had to rate the intensity of their emotional experience toward the destinations (e.g., "I felt a sense of pleasure") on a 7-point scale ranging from [1]=not at all and [7]=very much. The emotion items were adapted from Hosany and Gilbert's (2010) destination emotion scale (DES). The DES consists of three dimensions (joy, love, and positive surprise) representing tourists' emotional experiences. Joy was measured using five items (cheerful, delight, enthusiasm, joy, and pleasure); love was also captured with five items (affection, caring, love, tenderness, and warm-hearted); and finally, positive surprise was measured using five items (amazement, astonishment, fascinated, inspired, and surprise).

### **Place Attachment Measure**

Place attachment was operationalized using items adapted from Williams and Vaske's (2003) scale. Place identity was measured using four statements: "Thailand/Petra is a very special destination to me"; "I identify strongly with this destination"; "Holidaying in Thailand/Petra means a lot to me"; and "I am very attached to this holiday destination". Place dependence was also captured using four statements: "Holidaying in Thailand/Petra is more important to me than holidaying in other places"; "Thailand/Petra is the best place for what I like to do on holidays"; "I will not substitute this destination with any other for the experience I had here"; and "I get more satisfaction out of holidaying here than from visiting any other similar destinations". Respondents had to rate their level of agreement or disagreement with the place identity and place dependence items on a 7-point scale (1=strongly disagree and 7=strongly agree).

### **Data Collection and Sample**

For sample 1, data were collected from international tourists at the end of their stay in Thailand. Respondents were approached randomly to participate in the study. A total of 300 questionnaires were distributed and 251 completed the survey. The sample was equally split between males and females. The age groups of respondent were as follows: 16 to 24 years old (23%); 25-34 years old (37%); 35-44 years old (18%); 45-54 years old (10%); and over 54 years old (11%). Respondents were well educated with 63% college graduates or above and 19% holding a professional qualification. In terms of nationalities, 2 main groups were identified: European (63%), and Americans (15%). The other category (20%) consists of Australians and New Zealanders. The sample had a high proportion of repeat visitors (66%) and respondents either travel accompanied with friends (29%), partner (24%) or alone (23%).

For sample 2, data were collected from international tourists at the end of their visit to Petra, Jordan. Petra is a historical and archaeological city located to the south of Amman (capital of Jordan) and is Jordan's most visited tourist attraction. Owing to its unique cultural properties and heritage, Petra is recognized as a UNESCO World Heritage Site. The questionnaire was administered face-to-face with tourists at Petra visitor center. Respondents were approached randomly to participate in the study. A total of 350 questionnaires were distributed and 297 completed the survey. The sample was split between 44% males and 56% females. Respondents' age groups were as follows: 18 to 24 years old (17%); 25-34 years old (31%); 35-44 years old (20%); 45-54 years old (13%); and over 54 years old (19%). Respondents were well educated with 42% college graduates or above and 41% holding a professional qualification. In terms of nationalities, 3 main groups were identified: European (43%), Americans (32%), and Asians (10%). The sample had a high proportion of first-time visitors (74%) and respondents mainly travel accompanied with friends (35%), partner (23%) and family (10%).

## RESULTS

### Unidimensionality and Reliability Assessment

Unidimensionality refers to the existence of a single trait or construct underlying a set of items (Gerbing and Anderson 1988). Measures must satisfy two explicit conditions to be considered unidimensional. First, an indicator should be significantly associated with the underlying latent variable and, second, the indicator must represent a single factor (Anderson and Gerbing 1982; Phillips and Bagozzi 1986). Confirmatory factor analysis (CFA) was used to test for unidimensionality (Pedhazur and Schmelkin 1991). A 15-item, 3-dimensional (joy, love, positive surprise) CFA model was estimated using AMOS. The overall fit of the CFA models (Table 1) was examined using common parameters namely: chi-square statistics, GFI, NFI, CFI, RMSEA; and RMR. Recommended cut-off value for GFI, CFI, NFI and TLI is  $\geq 0.90$  whereas the acceptable threshold level for RMR and RMSEA is  $\leq 0.08$  (Hu and Bentler 1998).

**Table 1**  
**Goodness-of-Fit Indices for the Destination Emotion Scale**

	Sample 1: Thailand (N=251)	Sample 2: Petra, Jordan (N=297)
$\chi^2$	180.73	219.87
<i>df</i>	76	75
<i>p</i> value	0.00	0.00
GFI	0.91	0.91
CFI	0.96	0.94
NFI	0.93	0.92
TLI	0.94	0.92
RMR	0.07	0.08
RMSEA	0.06	0.07

Overall, results for both samples indicate a satisfactory measurement model fit - Sample 1: GFI=0.91; CFI=0.96; NFI=0.93; TLI=0.94; RMR=0.07; RMSEA=0.06; and Sample 2: GFI=0.91; CFI=0.91; NFI=0.92; TLI=0.92; RMR=0.08; and RMSEA=0.07). For both samples, the chi-square value (Sample 1:  $\chi^2(76)=180.73$ ; Sample 2:  $\chi^2(75)=219.87$ ) did not exceed three times its degrees of freedom indicating that the confirmatory factor model is acceptable (Bollen 1989). The next step is to assess the scale's reliability (Gerbing and Anderson 1988). Reliability refers to the internal consistency of a scale measure of the latent construct (Churchill and Peter 1984; Peter 1979). From Table 2, construct reliability estimates for Sample 1 ranged from 0.84 to 0.86, and for Sample 2, from 0.84 to 0.87. Overall, results provide evidence of strong internal consistency for each dimension of the destination emotion scale.

### Convergent Validity

Convergent validity is the extent to which scale items, designed to measure a latent variable, correlate. Anderson and Gerbing (1988) suggest that evidence of convergent validity exists if the observable indicators factor loadings in the measurement model are statistically significant. In Table 2, for both samples, all confirmatory factor loadings are significant ( $p < .01$ ), with *t* values greater than 2.57, providing evidence of convergent validity: Sample 1 - from 7.15 to 15.57; Sample 2- from 11.27 to 16.30. Furthermore, in establishing convergent validity, individual factor loadings should also be assessed for their magnitude (Hair et al., 2010; Netemeyer et al. 2003). From Table 2, loading estimates for Sample 1 range from 0.51 to 0.89

and, for Sample 2 from 0.62 to 0.84. In addition to examining the magnitude and significance of factor loadings, average variance extracted (AVE) were used to assess convergent validity. Across the two samples, AVEs for all dimensions exceed 0.50 (Fornell and Larcker 1981) and provide further evidence of convergent validity of the destination emotion scale.

**Table 2**  
**Item Descriptions and Measurement Model Results for the Destination Emotion Scale**

Scale Items Descriptions <sup>a</sup>	Sample 1	t-values	Sample 2	t-values	Sample 1 & 2	
	(S1):Thailand		(S2): Petra, Jordan		Construct Reliability <sup>b</sup>	AVE <sup>b</sup>
<b>Joy</b>					0.86, 0.87	0.57, 0.57
I feel Cheerful	0.77	N/A	0.80	N/A		
I feel a sense of Delight	0.74	15.78**	0.70	12.88**		
I feel a sense of Enthusiasm	0.51	7.78**	0.63	11.55**		
I feel a sense of Joy	0.84	13.80**	0.84	16.30**		
I feel a sense of Pleasure	0.85	14.16**	0.79	15.17**		
<b>Love</b>					0.86, 0.86	0.56, 0.55
I feel a sense of Affection	0.78	N/A	0.73	N/A		
I feel a sense of Caring	0.82	14.13**	0.79	13.30**		
I feel a sense of Love	0.89	15.57**	0.79	13.42**		
I feel a sense of Tenderness	0.65	10.62**	0.68	11.64**		
I feel Warm-hearted	0.56	8.93**	0.72	12.39**		
<b>Positive Surprise</b>					0.84, 0.84	0.52, 0.52
I feel a sense of Astonishment	0.72	N/A	0.80	N/A		
I feel a sense of Amazement	0.85	11.68**	0.78	13.26**		
I feel Fascinated	0.65	9.36**	0.63	11.74**		
I feel a sense of Inspiration	0.81	9.28**	0.75	12.49**		
I feel a sense of Surprise	0.51	7.15**	0.62	11.27**		

Note: \*\*  $p < 0.01$ ; <sup>a</sup> Items measured on a 7-point scale, 1=strongly disagree and 7=strongly agree; <sup>b</sup> construct reliability and AVE for S1 (Thailand) appears first in each cell; S2 (Petra, Jordan) second.

## Discriminant Validity

Discriminant validity is the extent to which the items representing a latent variable discriminate that construct from items representing other theoretical variables (Fornell and Larcker 1981). To establish discriminant validity of the destination emotion scale, we examined correlations between the three subscales and the two dimensions of place attachment: place identity and place dependence. We followed a procedure recommended by Bagozzi, Yi and Phillips (1991). Constructs were assessed in sets of two. For example, the ‘joy’ dimension was tested against ‘place identity’. A series on one-and two-factor CFA models were conducted for every possible pairs of constructs. In the one-factor model, correlation between two constructs was set at 1.00. For the two-factor model, the correlation parameter was freely calculated (Anderson and Gerbing 1988). A chi-square difference test was performed between the congeneric (one-factor) and discriminant (two-factor) measurement models. Discriminant validity is achieved if there is a significant difference in the chi-square statistic between the two-and one-factor models. In Table 3, all chi-square differences were significant ( $p < .001$ ) and therefore establish the discriminant validity of the DES.

**Table 3**  
**Results of Discriminant Validity Tests**

	Congenic Model (one-factor)		Discriminant Model (two-factor)		$\Delta\chi^2$	$\Delta$ d.f.	Sig.
	$\chi^2$	d.f	$\chi^2$	d.f			
	<b>Sample 1: Thailand</b>						
1-4	231.81	27	134.63	26	97	1	.0001
2-4	179.32	27	72.99	26	106	1	.0001
3-4	215.08	27	115.80	26	99	1	.0001
1-5	284.98	27	117.39	26	167	1	.0001
2-5	303.24	27	73.21	26	230	1	.0001
3-5	247.96	27	101.21	26	146	1	.0001
<b>Sample 2: Petra, Jordan</b>							
1-4	441.38	27	221.06	26	220	1	.0001
2-4	310.96	27	169.11	26	141	1	.0001
3-4	497.47	27	320.31	26	177	1	.0001
1-5	324.05	27	98.56	26	225	1	.0001
2-5	275.40	27	77.20	26	198	1	.0001
3-5	410.84	27	148.01	26	262	1	.0001

*Note:* 1= Joy; 2= Love; 3= Positive Surprise; 4= Place identity; 5= Place dependence

Discriminant validity of the destination emotion scale was further assessed using Fornell and Larcker’s (1981) procedure. The squared correlation between a pair of constructs (shared variance) is compared against the average variance extracted (AVE) for each of the two constructs. If for each pair of constructs, the shared variance is smaller than both the AVEs, this indicates the constructs exhibit discriminant validity. Across the two datasets, all AVEs are greater than the corresponding inter-construct squared correlation estimates, and therefore further support the discriminant validity of the destination emotion scale.

## Nomological Validity

Nomological validity refers to the degree a scale is related to other constructs consistent with underlying theories or prior research (Hair et al. 2010). We tested the nomological validity of the DES by examining the relationship between each dimension and the theoretically related

outcome variable, behavioral intentions. Previous studies operationalize loyalty in terms of three behavioral variables: intention to return, willingness to recommend and word-of-mouth communication (e.g. Soscia, 2007; Zeithaml, Berry and Parasuraman, 1996). Research confirms the relationship between positive emotions and intention to return (Bloemer and de Ruyter 1999); willingness to recommend (Jang and Namkung 2009; Lee et al. 2008); and word-of-mouth (Ladhari 2007).

Consistent with existing guidelines (e.g., Hair et al. 2010) and prior research (e.g., Wong and Wan 2013) in establishing nomological validity, correlation analysis was performed between the scale sub-dimensions and a theoretically related variable. Behavioral intentions (Thailand Sample:  $\alpha=0.85$ ; Petra Sample:  $\alpha=0.73$ ) was operationalized using 4 statements. The measures were adapted from previous studies (e.g. Žabkar, Brenic and Dmitrovic 2010; Zeithaml, Berry and Parasuraman 1996). Respondents had to rate each statement on a 7-point Likert scale ranging from 1=strongly disagree and 7=strongly agree.

**Table 4**  
**Correlations between the Destination Emotion Scale Dimensions and Behavioral Intentions**

	Joy	Love	Positive Surprise
I will recommend this destination to other people	0.64; 0.42	0.54; 0.37	0.50; 0.41
I will say positive things about this destination to other people	0.67; 0.38	0.59; 0.34	0.49; 0.34
I will encourage friends and relatives to visit this destination	0.66; 0.44	0.59; 0.44	0.51; 0.44
I will revisit this destination in the next 3 years	0.41; 0.35	0.39; 0.43	0.35; 0.26

*Note:* Correlations are all significant at 0.01 level; S1 (Thailand) estimates appear first in each cell; S2 (Petra, Jordan) estimates second

From Table 4, across the two datasets, results are consistent with theoretical expectations. An examination of the correlation coefficients reveals a positive linkage between the destination emotion scale sub-dimensions and the outcome variable behavioral intentions. All the zero-order correlation coefficients are positive and significant ( $p < .01$ ), ranging from 0.35 to 0.67 for Sample 1 (Thailand) and from 0.26 to 0.44 for Sample 2 (Petra, Jordan). Results therefore support the destination emotion scale's nomological validity.

## DISCUSIONS, IMPLICATIONS AND CONCLUSION

Despite the significance of emotion in tourism, studies investigating emotional associations with tourist destinations remain scarce (Yuksel et al., 2010). Hosany and Gilbert's (2010) destination emotion scale is an exception. The DES captures the three emotions of joy, love and positive surprise using multi-items. Hosany and Gilbert (2010), in their original study, rigorously establish the reliability and validity of the scale. However, the sample consisted of British nationals only, recalling and evaluating their most recent idiosyncratic tourist destination visited for pleasure purposes. In contrast to Hosany and Gilbert (2010), in this study, tourists at the end of their visit, evaluated common destinations using the DES. Results provide an overwhelming support for the validity of the destination emotion scale in other contexts by establishing unidimensionality, reliability, convergent, discriminant and nomological validity.

The study also examines the relationship between tourists' emotional experiences and the construct of place attachment. The three sub-scales joy, love and positive surprise achieved discriminant validity with the two dimensions of place attachment: place dependence and place identity. Hence, findings suggest that in tourism, positive emotions and place attachment are related but distinct constructs, consistent with environmental psychology literature.

### **Methodological Implications**

Proper measurement of constructs is of utmost significance (Day and Montgomery 1999) and represents an important field of enquiry (Lee and Hooley 2005). Scale development studies in tourism research (e.g. Kim, Ritchie, and McCormick 2012; Wong and Wan 2013) are largely influenced by Churchill's (1979) influential paradigm. Broadly, the scale development process involves three phases: scale generation and initial purification, scale refinement, and scale validation. However, similar to research in marketing (e.g. Ping, 2004), less attention has been given to *scale validation* in tourism. Construct validation is essential for the development of quality measures (Schmitt and Klimoski 1991). Following well-established guidelines in psychological, sociological and marketing literatures, this study presents a systematic process to construct validation in tourism studies. The rigorous steps to validate the DES offer tourism researchers a valuable process for future scale extension and replication studies.

### **Managerial Implications**

The DES ability to capture emotions associated with both a country (Thailand) and a heritage site (Petra), attests to its suitability as a comprehensive and standardized measure of tourists' emotional experiences with destinations of various geographical sizes. Destination marketers are offered a simple, reliable and easy to administer tool to measure tourists' emotional experiences at the city, region or country levels. The scale can also provide a means to benchmark destinations on the type and intensity of positive emotions associated with the tourist experience. High intensity of positive emotions indicates that the destination is fulfilling tourists' expectations. Low intensity of positive emotions highlights that the destination experience is falling short of expectations (del Bosque and Martin 2008). Hence, the DES can serve as a diagnostic tool to evaluate and monitor tourists' emotional experiences. In addition, the ability to engender joy, love and positive surprise at the destination level is an invaluable source of competitive advantage. Results show that tourists' emotional experiences have a positive influence on behavioral intentions. Destinations capable of offering tourist experiences that elicit strong positive emotions will be able to foster loyalty.

### **Limitations and Directions for Further Research**

The DES was originally developed and in this study further validated in the context of hedonic holiday destinations. However, some destinations around the world are judged risky, elicit negative emotions such as fear, and tourists worry about visiting them (Larsen, Brun, and Øgaard 2009). Further research should attempt to further refine the DES by adding negative emotions items. Similar to Hosany and Gilbert's (2010) study, emotions were measured using post-visit surveys. Relying on retrospective evaluations can be problematic in capturing tourists' emotional responses (Cutler, Larsen and Bruce 1996). Retrospective reports are vulnerable to memory reconstruction (Kahneman 1999). Future studies should attempt to capture in-situ (on-site) tourists' emotional responses and compare the consistency with post-visit global evaluations. Furthermore, in testing for nomological validity, we focus on the relationship between emotional experiences and behavioral intentions. Future research might study the impact tourists' emotional responses on other outcome variables such as satisfaction. Finally, although the DES perform well in two different contexts, further validation using multiple destinations and tourists from various cultures are still necessary. For example, studies can compare destinations using their scores on the destination emotion scale.

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