

## **Is Perception of Destination Image Stable or Does it Fluctuate? A Measurement of Three Points in Time**

### **ABSTRACT**

This study aimed to identify variations of three types of perceived image including affective, cognitive, and overall image over three points in time and to test the efficacy of image in explaining satisfaction, knowledge, and attachment with a destination. Although previous studies used results collected through a cross-sectional survey, this study surveyed the same samples at three different times, that is before, during and after travel, to enrich our understanding of how image develops through the three key stages of a trip. The findings indicate there is significant variation in perceived image domains, extracted as a result of factor analysis, and overall image across time. To predict satisfaction, attachment, and knowledge, “vividness” of the affective image domains and “diverse tourism attraction” of the cognitive image domains showed significance on regression models. Interestingly, “developed tourism industry” was not reported being significant predictor in any model. The results suggest that future studies need to measure destination image over time in line with traveller’s movement.

Keywords: destination image, affective, cognitive, satisfaction, attachment, knowledge

## **1. INTRODUCTION**

Tourism destination marketers are very sensitive to destination image perceived by potential or actual tourists because perceived image is known to determine tourism demand (Pike, Gentle, Kelly, & Beatson, 2018), satisfaction with the trip and positive future intention (Chi & Qu, 2008; Elliot, Papadopoulos, & Kim, 2011) and to reinforce destination brand equity (Kim, Choe, & Petrick, 2018). Researchers nowadays widely agree that destination image is dynamic in nature (evolving over time and space) (Gallarza et al., 2002; Styliadis & Cherifi, 2018). A plethora of studies have empirically tested its fluidity by comparing destination image before and after tourists' visit (Andreu, Bigne, & Cooper, 2000; Iordanova & Styliadis, 2017; Smith, Li, Pan, Witte, & Doherty, 2015; Vogt & Andereck, 2003), ideal versus actual image (Botha, Crompton, & Kim, 1999; Ross, 1993), and image differences between first-time and repeat visitors (Chon, 1991; Fakeye & Crompton, 1991). Most of these studies concluded that changes in image take place over time, however, they have only examined variations in perceptions at two different points in time at best, that is, before and during/after actual visitation, or before and after watching a film, or attending an event.

Besides these exemptions, the vast majority of previous studies have used one-off and cross-sectional data studying image at a certain point in time; prior to arrival (Lin, Morais, Kerstetter, & Hou, 2008), at the destination (Kim & Morrison 2005; Papadimitriou, Apostolopoulou, & Kaplanidou, 2015; Styliadis, Belhassen, & Shani, 2017), or after visitation (Castro, Armario, & Ruiz, 2007). As a result, our understanding of how image develops through these three fundamental stages of a trip remains limited (Smith et al., 2015). Gunn (1972) explains the pitfalls of one-time surveys, arguing that tourists' experience process should encapsulate the various travel experience stages, not only the actual visitation itself. Gunn's (1972) trip stages span from the accumulation of mental images about the vacation experience before the trip (first stage); to actual participation and personal experience at the

destination (fifth stage); to further accumulation of images based on the whole trip experience (seventh stage). Throughout the various stages, organic, induced, and complex images perceived by tourists are constantly formed and reshaped due to the variety of factors influencing their expectations and experiences.

Given that previous studies have captured tourists' image at one or two points in time and perception is known to vary according to the stage of travel, which image perception is the one to be considered by destination marketers while planning their marketing campaigns? Additionally, how can previous results linking destination image to other variables such as overall satisfaction be generalized across the span of a trip? To address these questions, this study aims to explore how destination image evolves during the three key time frames of a trip (before, during, and after) and to investigate how this evolution affects its relationship with tourists' level of satisfaction, attachment with the destination, and knowledge of the destination according to three points in time. To achieve its aim the study will: a) explore for potential changes and variations in affective and cognitive image attributes across three measurement times; and b) examine the efficacy of the affective and cognitive image components in predicting overall satisfaction, place attachment, and knowledge of a destination throughout the trip experience on each of three points in time.

This study focuses on South Korean tourists visiting Vietnam, a country of which tourists have a complicated prior image as it borders enmity and friendship in a modern diplomatic relationship. The image of a nation is influenced by diverse factors, including geopolitical, diplomatic, economic, cultural, historical, and tourism relationships (Dinnie, 2008; Kim, Prideaux, & Timothy, 2016). The study extends current knowledge on destination image formation by assessing tourists' image through several key stages providing a better understanding of its dynamic nature along with the potential effects of temporal and spatial factors embedded in this process (Gartner & Hunt, 1987; Kim & Morrison, 2005; Pike, 2017;

Smith et al., 2015). This research also identifies the dynamic variations in image perceptions that exist between countries with mixed relationships like South Korea and Vietnam. Lastly, this study enriches the marketing scholarship by providing empirical evidence on the differences across the two image components over time.

## **2. LITERATURE REVIEW**

### **2.1. Components of destination image**

Destination image is commonly defined as the sum of beliefs, ideas, and impressions that people have of a destination (Botha et al., 1999). Lawson and Baud Bovy (1977, p.10) highlighted also the affective component of destination image describing it as “the expression of all objective knowledge, impressions, prejudice, imaginations and emotional thoughts an individual or group might have of a particular place.” Destination image is known to positively influence tourists’ destination choice, on-site experiences, satisfaction, and intention to revisit (e.g., Chi & Qu, 2008; Lee, 2009; Kozak & Baloglu, 2011; Lin et al., 2007; Styliadis, Belhassen & Shani, 2017).

Image is known to comprise a cognitive and an affective component (e.g., Baloglu & McCleary, 1999; Gartner, 1993; Lin, Morais, Kerstetter, & Hou, 2007; Pike & Ryan, 2004). The cognitive one is defined as peoples’ knowledge, beliefs, and evaluation of the perceived place attributes (Pike & Ryan, 2004). Such attributes typically include the weather, accommodation units, and several types of attractions (i.e., historical). The affective image component refers to peoples’ feelings and emotions towards a destination (Baloglu & McCleary, 1999; Beerli & Martin, 2004).

Studies using bi-dimensional models have empirically confirmed the two image component structure (e.g., Chew & Jahari, 2014; Lin et al., 2007; Martin & del Bosque, 2008; Wang & Hsu, 2010), which more effectively capture the image people form of a destination

(Baloglu & Brinberg, 1997). Researchers also suggest that a place has an overall image, which refers to people's holistic impressions of a destination (Echtner & Ritchie, 1991). Some researchers (Beerli & Martin, 2004; Qu et al., 2011; Wang & Hsu, 2010) among others have identified strong relationships between the cognitive, the affective and the overall image, with the first two being recognized as antecedents to the latter.

## 2.2. Stability and variation in perception of destination image

Some studies (Gartner & Hunt, 1987; Pike, 2017) reported a change of image of a city or region as perceived by different groups of visitors over lengthy time periods (for example, 1971 versus 1983; and 2000 versus 2014 respectively), using different samples. However, only a few papers have underlined the need to split the image formation process into at least three different stages (before/a priori, during/in situ, and after/a posteriori), as image is a dynamic concept and people's perceptions can change over time (Gallarza et al., 2002; Gunn, 1972; Kim, Mckercher, & Lee, 2009; Smith et al., 2015). Extraneous factors or reasons can often influence a change of image perception such as watching advertising campaigns (Pan, Santos & Kim, 2017; Shani, Chen, Wang, & Hua, 2010) or TV series/films (Kim, Kim, Agrusa, & Lee, 2012; Shani, Wang, Hudson, & Gil, 2009; Terzidou, Styliadis, & Terzidis, 2018), engaging with social media (Kim, Choe, & Lee, 2018; Pike, Gentle, Kelly, & Beatson, 2018), and attending or watching internationally significant (Gartner & Shen, 1992) or mega events (Kim & Morrison, 2005).

A priori image refers to an individual's mental representation of the place with or without having physically experienced it. The in situ image is the result of tourists' visitation at the destination, and the a posteriori image is developed after departing from the destination. A number of researchers have explored how actual visitation and experience shape destination image by contrasting visitors' and non-visitors' images of a tourism destination, producing

mixed results (Baloglu & McCleary, 1999; Beerli & Martin, 2004; Fakeye & Crompton, 1991; Hu & Ritchie, 1993; Tasci & Gartner, 2007). One stream of researchers did not report any significant difference in the image held by visitors and non-visitors (Andreu, Bigne, & Cooper, 2000; Chen & Kerstetter, 1999), as people are often bound by the image they have developed in advance (Young, 1999).

Another stream of researchers though concluded that visitors' image was more positive than that of non-visitors as a result of their direct experience with the destination (Fakeye & Crompton, 1991; Konecnik & Ruzzier, 2006; Tasci, 2006). Researchers who investigated further the effect of actual visitation on the components of image found that visitation positively modifies both the cognitive and the affective component (Fakeye & Crompton, 1991; Hu & Ritchie, 1993; MacKay & Fesenmaier, 1997). For example, Baloglu (2001) reported that differences exist in the cognitive and affective image components of visitors and non-visitors to Turkey, with visitors establishing more positive perceptions than non-visitors. These studies, however, have examined image changes by comparing two different sample populations, namely, visitors and non-visitors of a tourism destination. This approach refrains from fully understanding the dynamic nature of image and how actual personal experience with a destination modifies the image people have of a place over time.

To overcome this limitation, a relatively small number of studies juxtaposed tourists' pre-trip and post-trip images using the same tourist sample (Kim & Morrision, 2005; Pearce, 1982; Smith et al., 2015; Tasci, 2006; Vogt & Andereck, 2003). Pearce (1982), for example, reported a change in tourists' pre-trip and post-trip destination image of Greece and Morocco. Kim and Morrision (2005) explored the potential image changes of South Korea as perceived by Japanese, mainland Chinese, and US tourists as a result of South Korea hosting the 2002 World Cup. Their results indicate that all three groups of tourists had more positive images of Korea after the World Cup than before. Some studies (Vogt & Andereck, 2003; Vogt & Stewart,

1998) compared tourists' pre-trip and in-situ image of Arizona and found that although the cognitive component improved during the course of a vacation, the affective component remained literally unchanged.

Finally, recently Smith et al. (2015) examined Canadian students' images of Peru during five different time frames and found that the cognitive post-trip image improved and surpassed the cognitive pre-trip image, whereas the affective image remained close to its pre-trip levels. Smith et al. (2015) study is among the very few ones that have explored image in more than two stages of a trip using the same tourist sample. Despite its noteworthy contribution, Smith et al.'s (2015) work used a very small sample of 17 students and did not explore the capacity of the two components of image to predict overall satisfaction, place attachment and knowledge of the destination across the time span of a trip, a research gap that this study aims to fill in.

In summary, previous studies have examined the effect of actual visitation on image and found that images examined over two points in time (commonly, a priori and in situ or a posteriori) can vary significantly, due to the effect of direct experience with the destination. Based on the preceding discussion and the relevant academic literature, the following three hypotheses have been formulated:

*H1: There is a variation in perception of affective image between three points in time.*

*H2: There is a variation in perception of cognitive image between three points in time.*

*H3: There is a variation in perception of overall image between three points in time.*

### 2.3. Relationship between destination image and overall satisfaction; destination knowledge; and place attachment

Overall satisfaction in tourism can be seen as peoples' assessment of the destination; an evaluation which is greater than satisfaction with individual destination attributes (Gnoth,

1994). Satisfaction with the holiday experience commonly derives from tourists' assessment of perceived quality (Bigne et al., 2005). Destination image is considered another critical factor in shaping tourists' overall satisfaction; that is, a more positive image is likely to result in greater levels of satisfaction (Chi & Qu, 2008; Prayag, 2009). Past findings, as such, indicate that destination image will positively affect overall satisfaction. Therefore, Hypothesis 4 was developed as follows:

*H4: Destination image positively affects overall satisfaction with the trip during and after travel*

The second concept linked to destination image in this study is that of place attachment. Place attachment originates from Interpersonal Attachment Theory (Bowlby, 1969), which refers to the psychological and emotional bonds formed between an individual and another person. Similarly, place attachment is generally defined as a psychological characteristic of the individual, reflecting his/her emotive bonds to a place (Cui & Ryan, 2011; Hidalgo & Hernandez, 2001). Studies in tourism often measure attachment as length of stay (Draper et al., 2011; Snaith & Haley, 1999), implying that the greater the amount of time one spends in a place, the stronger the levels of attachment he/she will develop. Studies in social and environmental psychology also suggest that the way people perceive the environment (i.e., destination image) greatly influence their level of attachment to it (Devine-Wright & Howes, 2010; Larson, De Freitas, & Hicks, 2013). Following some studies (Fleury-Bahi, Félonneau, & Marchand, 2008; Kim & Kaplan, 2004) the more positive the evaluation of a place, the stronger the levels of place attachment. Based on the preceding discussion, hypothesis five was proposed:

*H5: Destination image positively affects attachment with the destination at three points in time.*



Apart from satisfaction, destination image is also related to destination knowledge. The concept of knowledge in tourism commonly refers to what is known about a place or country (Wong & Yeh, 2009). Knowledge in this study is approached as “subjective knowledge,” that is, perceptions of what or how much people know about a destination (Wong & Yeh, 2009). A study of Murphy, Moscardo and Benckendorff (2007), among others, highlighted the critical role of such knowledge in influencing tourists’ decision making; it is commonly argued that greater levels of experience with a destination will lead to higher levels of knowledge about that place, with destination image, therefore, serving as an important determinant of knowledge. As a consequence, Hypothesis 6 was developed as follows.

*H6: Destination image positively affects destination knowledge at three points in time.*

The conceptual framework including the study variables and six hypotheses is illustrated in Figure 1.

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### **3. METHODS**

#### **3.1. Study context**

This study deals with South Korean tourists’ perceptions of Vietnam. Located in the eastern parts of the Indochinese peninsula in Southeast Asia, Vietnam has similar historical experiences to Korea, despite the countries’ geographic distance. First, both Korea and Vietnam have been colonies of other countries. Second, both countries have experienced separation and civil war between the southern and the northern parts of the country, after their liberations in 1945 (Yoon, 2015). Korea has participated in the Vietnam War, undertaking the first large-scale and long-term overseas deployment of troops in Korean history. A total of 312,853 Korean

soldiers participated in the war, from September 1964 to March 1973, supporting South Vietnam (Park, 2014).

However, in April 1975, South Vietnam was annexed by North Vietnam. The collapse of South Vietnam as a result of the communist North provided lessons regarding the need for, and the legitimacy of, anti-communist activities in South Korea (Yoon, 2015). While the Vietnam War brought economic benefits in the name of 'special procurement' to Korea, it led to casualties of some 5,000 Korean soldiers and left 12,000 soldiers suffering from defoliants (Park, 2014). This led Koreans to approach the Vietnam War with mixed feelings.

Following the surrender of South Vietnam in 1975, diplomatic ties with the Socialist Vietnam were officially terminated; however, South Korea and Vietnam relationship was normalized in 1992 with Vietnam's Doi Moi (open-door policy) initiative. After the reestablishment of diplomatic ties between the two countries, economic cooperation between Vietnam and Korea has been reengaged (Yoon, 2015). Vietnam has now become the third largest export partner to Korea, whereas Korea is Vietnam's second-largest import partner, only second to China (KITA, 2018). More than 4,000 Korean companies conduct business in Vietnam and their investments reached US\$ 49 billion in 2016 (KITA, 2018). Thus, the two countries are very important economic partners to each other.

The bilateral cooperation between the two countries also includes human cooperation, such as the industrial trainee policy or the employment permit policy. Vietnamese workers constitute the largest foreign worker group in Korea, comprising 24.5% of the total number of foreign workers in the country (KITA, 2018). Cultural exchange between the two nations has been facilitated in various fields including sports, events, online games, food, education, film, music, and tourism. Vietnam is also classified as a consumption market of the Korean Wave (the so-called *Hallyu*). More than 70% of foreign TV programs in Vietnam are Korean dramas (Jang, 2016). The number of Vietnamese visitors to Korea was 3.25 million in 2017 (Lee,

2018). The tourism demand of Korean tourists to Vietnam continues to increase, with 500,000 Korea tourists in 2011, 1.11 million in 2015, and 1.54 million in 2017 visiting Vietnam (KTO, 2018). The number of Korean tourists visiting Vietnam was second only to the volume of Chinese tourists. As such, the Korea-Vietnam relationship in modern history is undergoing radical changes, never seen before in history. The Korean perception of Vietnam is complex in nature, sometimes negatively perceiving Vietnam as hostile and related to war and poverty, and sometimes as an ally and an economic partner nation (Yoon, 2015).

### 3.2. Survey design

To develop the measurement items in this study, research papers including both cognitive and affective evaluations of the destination attributes were thoroughly reviewed. The affective items were derived from previous studies (Baloglu & McCleary, 1999; Chi & Qu, 2008; Kim & Richardson, 2003; Martin & del Bosque, 2008; Qu et al., 2011; Wang & Hsu, 2010). A number of key literature sources were also used for the development of the cognitive image construct (Baloglu & McCleary, 1999; Beerli & Martin, 2004; Chen & Tsai, 2007; Chi & Qu, 2008; Kim et al., 2009; Lee et al., 2005; Lin et al., 2007; Prayag & Ryan, 2012).

A series of informal interviews were conducted with 20 Vietnamese graduate students studying in Korea and five experienced Korean tour guides specializing in tours to Vietnam to identify which of the items used in the literature are suitable in capturing Vietnam's image. In these interviews with the two groups the interviewees were invited to lunch or dinner and freely revealed their opinions about the image of Vietnam, their experience, and tourism resources in Vietnam. As a result of the pre-test, items like 'filled with socialist motifs', 'aggravated relationship between people due to previous war', and 'social unrest due to previous war' were also added to better elucidate a more holistic cognitive image of Vietnam.

Next, a pilot test was conducted with a sample of 30 Korean tourists visiting Vietnam. They proposed the addition of affective image items, such as ‘delicious’, ‘stable’, and ‘out of order’, because tourists expressed an interest in Vietnamese food, in civil stability, and perceive a chaotic social situation due to the Vietnam War. Another item termed ‘night market’ was also added in the measurement of the cognitive image because tourists who participated in the pilot test demonstrated a strong interest in nighttime activities. Overall, a total of 20 affective image items and 24 cognitive image items were included in the first section of the survey questionnaire.

To measure overall satisfaction two items (“I am satisfied with this tour” and “I like the overall experience in Vietnam”) were used following previous studies (Baloglu & McCleary, 1999; Beerli & Martin, 2004; Bigne et al., 2005; Qu et al., 2011). Similarly, the two items used to operationalize place attachment (“I feel attached to Vietnam” and “I feel close to Vietnam”) were extracted from previous studies (Kim, Choe, & Petrick, 2018; Stylidis, 2017), while the measurement of destination knowledge (“I understand Vietnam overall” and “I understand Vietnam culture and tradition”) was developed based on previous studies (Kim & Morrision, 2005; Iordanova & Stylidis, 2017). All items were measured using a 7-point Likert scale, ranging from ‘strongly disagree’ (1), to ‘neutral’ (4), to ‘strongly agree’ (7). The last questions of the survey focused on the socio-demographic characteristics of the respondents.

### 3.3. Data collection

The study’s success depended upon receiving responses to questionnaires across three points in time (before travel, during travel, and after travel) from the same respondents. The sample of this study consisted of Korean tourists visiting Vietnam. The data collection process was organized by one of the researchers and led by tour guides from three large travel agencies in Korea specializing in tours to Vietnam. To overcome the huge challenges involved in the

data collection process, an incentive (US\$5) was provided to the tour guides who were getting along with their customers for a few days. In package tours, tour guides are very close to tourists, making them the most appropriate means for data collection from the same respondents over three times.

The survey focusing on the before travel stage (a priori) was conducted in the cabin of an airplane during a six-hour flight from Incheon to Ho Chi Minh City. The second survey (in situ) was conducted a night prior to leaving Vietnam and the third survey (a posteriori) was conducted during the flight back to Korea. The survey process was smooth as travelers formed good relationships with their tour guides and have had enough spare time during the long-haul flights. Respondents were asked to write their names on all three questionnaires. This helped to compile the three versions of the survey from each respondent. The questionnaires were distributed to 230 respondents but 30 respondents refused participation in this study. Excluding further 21 questionnaires as respondents did not join all three survey rounds and 18 questionnaires having incomplete answers, a total of 161 questionnaires per survey were used for further data analysis.

#### 3.4. Data analysis methods

Frequency tests were initially run to identify descriptive statistics such as means, normality, and percentiles. Next, an exploratory factor analysis was conducted to investigate the underlying domains of the factor structure of the cognitive and the affective image components. A reliability alpha was also calculated to check the internal consistency within each extracted domain. As mentioned before, the constructs overall satisfaction, place attachment and knowledge of Vietnam consisted of two items. Thus mean scores were computed for each of the three constructs. For the multiple regression analysis these three served as the dependent variables.

To identify the variation in image perception of tourists across the three moments in time, a General Linear Model (GLM) ANOVA test with repeated measures was used. This method permits input from the same respondent measuring one variable twice or more (Hair, Black, Babin, Anderson, & Tatham, 2014). In this study, each respondent was asked to reply to the same survey questions at three different points in time. In tracking the changes in the respondents' image across time, significant mean differences at the .001 and .005 level were reported and analyzed. In addition to this, a series of regression analysis were conducted to explore the potential impact of the affective and cognitive domains on satisfaction level, place attachment, and knowledge of Vietnam. Variance inflation factors (VIF) were assessed for all of the regression equations to test for multicollinearity, which can occur when there is a high level of correlation between independent variables. The next section presents the results of the study.

## **4. RESULTS**

### **4.1. Respondents' profile**

There were more female participants (53.4%) than male (46.6%) in the sample. About 77% of respondents reported that this was their first visit to Vietnam, whereas 19% of them were second-time visitors. However, all respondents were first time visitors to Ho Chi Minh City. Concerning the duration of their stay, most people reported staying four to five days (76.1%), followed by six to seven days (21.8%). With regards to age, the highest percentage was those in their 50s (28%), followed by those in their 60s or older (24.3%), and those in their 30s (19.3%). Most of the respondents were college graduates (43.6%) or had an education equating to high school or less (40.4%). In response to the question about their prior knowledge of Vietnam, the highest frequency was noticed in regard to 'some' knowledge (44.4%), followed by no knowledge (44.4%).

#### 4.2. Factor analysis

Exploratory factor analysis were conducted to identify the underlying dimensionality of the: a) 19 affective image items, and b) 24 cognitive image items. Principal axis factoring and promax rotation were applied to generate the underlying factors and items for the final factor solution. The factor analysis of the 19 affective image items generated a three-factor solution in which each factor had an eigenvalue over 1.0. An examination of a scree plot supported this factor solution. The three affective image factors (relaxation and stability; vividness; disorder and triviality) explained 29.58%, 24.94%, and 14.42% of the variance respectively. The sample's KMO measure was 0.94, suggesting that the set of items was appropriate for factor analysis. All factor loadings were between 0.51 and 0.84, exceeding the 0.45 threshold proposed by Comrey and Lee (1992). In terms of internal consistency, the reliability alphas for the three domains were .89, .88, and .68, exceeding the threshold (0.60) recommended by Allen and Yen (1979).

The factor analysis of the 24 cognitive image items resulted in a five-factor solution in which each factor had an eigenvalue greater than 1.0. The scree plot also supported the factor model. The five cognitive image factors (diverse tourism attractions; war and social instability; tourism facilities and services; developed tourism industry; national development) explained 16.53%, 16.28%, 14.74%, 11.64% and 7.04% respectively of the total variance. The sample's KMO measure of 0.87 confirmed that the factor solution was appropriate. The factor loadings, which ranged between 0.44 and 0.84, were very close or above the 0.45 threshold proposed by Comrey and Lee (1992). The reliability alphas for all five domains were greater than 0.60, ranging from 0.66 to 0.86. The results of the EFA on the 19 affective and the 24 cognitive items are reported in Table 1.

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Table 1

#### 4.3. Changes in affective, cognitive and overall image at three points in time

To test Hypotheses 1 and 2 for potential changes in the cognitive and the affective image domains as a result of direct experience with the destination, a GLM ANOVA test with repeated measures was performed. From Table 2, which shows the results of the test, statistically significant differences were observed in all three affective image domains at the .01 level, and in all the five cognitive image domains at the .001, .01, or .05 significance level. Regarding the ‘relaxation and stability’ and ‘vividness’ dimensions of the affective image, respondents perceived the destination more positively as time went by in their trip. However, in terms of the ‘disorder and triviality’ aspect, tourists’ agreement levels during the trip and after the trip were similar, and greater than what they have expressed before the trip. That is, emotional favorability related to order deteriorated, even though responses regarding relaxation and stability became more favorable. As for the five cognitive image dimensions, respondents’ level of agreement increased across the three points in time with regards to ‘diverse tourism attraction’ and ‘tourism facilities and services’. Tourists also expressed greater agreement after the trip with the dimensions ‘war and social instability’, ‘developed tourism industry’, and ‘national development’ as compared to their pre-trip levels. Lastly, significant differences were observed on overall image before (M=4.29), during (M=4.62) and after the trip (M=4.86), with respondents’ perceptions becoming more favorable across time. Overall, these results support H1, H2 and H3.

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Table 2

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#### 4. Regression analysis explaining the impact of destination image on overall satisfaction



To test hypothesis 4 that was designed to investigate the impact of the affective and cognitive image on satisfaction level during and after travel, a series of regression analysis were conducted (Table 3). Before running multiple regression analysis, multicollinearity was checked to identify the relationship between the independent variables. In all datasets the tolerance and VIF values in the regression models were lower than 10, mitigating the concern of multicollinearity (Field, 2010).

Firstly, regression equations using the three affective image domains as independent variables showed adjusted  $R^2$  values of .46 (during travel), and .52 (after travel). These results suggest that 46 percent or 52 percent of the variance of overall satisfaction can be explained by the three affective image domains during travel and after travel, respectively. All three affective image domains were significant in predicting overall satisfaction during travel, while after travel ‘relaxation and stability’ and ‘vividness’ were major predictors of accounting for overall satisfaction.

In the regression equation to predict overall satisfaction using the five cognitive image domains, adjusted  $R^2$  values of .37 (during travel), and .31 (after travel) were obtained. ‘Diverse tourism attraction’, ‘war and social instability’, and ‘tourism facilities and services’ were significant contributors to explaining overall satisfaction during travel; whereas only ‘war and social instability’ was contributory to explaining overall satisfaction after travel. The results are reported in Table 3.

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Table 3  
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#### 4.6. Regression analysis explaining the impact of destination image on place attachment

A series of regression models were run to test hypothesis 5 that indicates a relationship between the affective and cognitive image domains and place attachment (Table 4). Regression models using the three affective image domains as independent variables indicated adjusted  $R^2$

values of .23 (before travel), .38 (during travel), and .37 (after travel) (Table 4). In all three points in time, ‘vividness’ was a strong contributor to explaining place attachment, whereas during travel ‘relaxation and stability’ was also a significant predictor.

When using the five cognitive image domains as independent variables, the indicated adjusted  $R^2$  values were .16 (before travel), .36 (during travel), and .22 (after travel) (Table 4). ‘Diverse tourism attraction’ was a significant predictor of place attachment before travel, while ‘war and social instability’ and ‘tourism facilities and services’ significantly explained place attachment during travel. Lastly, only ‘national development’ explained place attachment after travel.

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Table 4  
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#### 4.7. Regression analysis explaining the impact of destination image on destination knowledge

A series of regression models were carried out to examine hypothesis 6 that specifies the relationship between affective and cognitive image domains and destination knowledge (Table 5). Regression models using the three affective image domains as independent variables indicated adjusted  $R^2$  values of .20 (before travel), .30 (during travel), and .39 (after travel). In all three points in time, ‘vividness’ was a strong contributor to explaining place attachment. After travel ‘disorder and triviality’ was also a determinant in predicting knowledge of the destination.

In multiple regression equations to identify the effects of the five cognitive image domains on destination knowledge, ‘diverse tourism attraction’ was a significant predictor of knowledge before and during travel. During travel ‘national development’ was also a key predictor of tourists’ knowledge of Vietnam. However, all five cognitive image domains failed to explain destination knowledge after travel. Results are depicted in Table 5. A summary of the results related to hypotheses 4, 5, and 6 is presented in Table 6.

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Tables 5 & 6  
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## **5. DISCUSSION AND IMPLICATIONS**

This study aimed to understand how destination image evolves during three critical time frames of a trip (before, during, and after) and how this evolution affects its relationship with tourists' level of satisfaction, attachment with the destination, and knowledge of the destination. Overall, there were notable variations in peoples' perceptions of image, with two trends being identified: on the one hand there were some affective and cognitive image dimensions that continuously improved throughout the trip such as the 'relaxation and stability', 'vividness' and the provision of 'diverse tourism attractions' and 'tourism facilities and services'. On the other hand, there were image dimensions that although improved while at the destination, they remained rather stable thereafter including 'disorder and triviality', 'developed tourism industry' and 'national development'.

Destination image therefore appears to change during and after visitation, similar to the findings of Vogt and Andereck (2003). This supports researchers' proposition that visitors tend to have more realistic and differentiated images than non-visitors (Gartner, 1989; Pearce, 1982). Additionally, the results support the notion that destination image formation is a dynamic process (Gallarza et al., 2002; Kim & Morrison, 2005). As tourists directly experience the destination, they become aware of, and are exposed to places and activities they did not know about (Vogt & Andereck, 2003) further developing their knowledge and feelings about the place. For instance, the results provided empirical evidence that Vietnam's past related to war is no longer a burden to its image once tourists arrive at the destination since the negative cognitive image "war and social instability" appeared to fade away as time went by in the trip. In particular, tourists who expected to find poor residents, social unrest and aggravated relationships due to the previous war in Vietnam gradually started changing their image of

Vietnam during and after their visit. This has important implications as tourism is one of the diverse factors facilitating the relationships of two countries, with tourism demand mechanism being affected by upper level factors such as diplomatic, political, military, economic, and cultural dimensions. This finding thus supports the idea that tourism is a messenger of peace and the tourism industry can play a critical role in reducing tensions between countries experiencing some form of dispute (Chung, Chen, & Lin, 2016; Guo, Kim, Timothy, & Wang, 2006), even overriding enmity due to different ideology, religion, colony history, war-involved history, or territory dispute (Prideaux & Kim, 2018).

However, this was not always the case; one affective image dimension that was rather unfavorable ('disorder and triviality') was further established as such and not only it didn't improve as time progressed, but it actually deteriorated. Some strong feelings, as opposed to cognition, may continue for longer as they are more stable and less prone to change (Hidalgo & Hernandez, 2001). The concept of schema, can be used to explain the persistent nature of some dimensions of image (Kim & Chen, 2016). A schema is a mental structure people use to organize and simplify people's knowledge of the world (Kelley, 1972). Schemas are quite often shaped by stereotypes. As Anholt (2009, p. 6) argues, "we all seem to need these comforting stereotypes that enable us to put countries and cities in convenient pigeon-holes, and will only abandon them if they really have no other choice". Even in cases where the reality experienced during visitation is different, in line with the confirmation bias theory, people often actively seek things which confirm their initial decision/opinion (Klayman & Ha, 1987).

What makes this study distinct, however, from previous research is that destination image was examined here at three different points in time (before, during, after) in contrast to the majority of past studies that examined image at a single point in time or compared peoples' before versus during/after destination image. Even studies that compared image at two different points in time they have often asked tourists to assess their a-priori image retrospectively rather

than capture image perceptions as their progressed. Memory decay is likely to pose a problem with inaccurate answering and tourism experience is known to vary according to passage of time (Li, Cheng, Kim, & Petrick, 2008).

How many times should we then measure destination image? It is evident from the results that the measurement process should be an on-going one aiming to identify the favourable and unfavourable image that the tourists have with respect to a holiday destination and, in turn, develop appropriate marketing strategies to sustain their favourable one and/or minimize unfavourable image. This will also help to identify potential image discrepancies and minimize the gap between tourists' previous expectations and reality experienced at the destination, a common issue raised in the tourism marketing literature (Andreu et al., 2000; Mak, 2017).

Hypotheses 4 to 7 that tested the ability of the image dimensions to predict overall satisfaction, place attachment and knowledge of Vietnam revealed that – with the exemption of 'vividness' – the various image factors have different roles in shaping the three dependent variables. The 'vividness' dimension of affective image was a significant predictor of overall satisfaction, place attachment and knowledge of the destination across all three points in time. 'Relaxation and stability' was influential in predicting overall satisfaction and place attachment during travel, whereas this domain also significantly predicted overall satisfaction after travel. 'Disorder and triviality' helped explaining overall satisfaction during travel and knowledge of the destination after travel. As for the effects of the five cognitive image domains on the three dependent variables, 'diverse tourism attraction' was significant in predicting overall satisfaction during travel, place attachment before travel, and knowledge of Vietnam before and during travel. 'War and social instability' was conducive to explaining satisfaction during and after travel. 'National development' was found to predict place attachment after travel and knowledge of the destination during travel. Therefore, the three hypotheses (H4-H7) were

partially supported because all regression models were significant ( $p < .001$ ) and one or more variables in all regression equations were significant at least at the .05 level.

These findings empirically demonstrate the complexity and dynamic character of the relationships of destination image with satisfaction, place attachment and destination knowledge. In sum, image dimensions appear more influential at the two first stages of the trip, but their impact on the dependent variables is diminished at the last stage (see for example ‘diverse tourism attractions’, ‘tourism facilities and services’, ‘national development’, ‘relaxation and stability’). The results as such challenge previous study findings questioning the stability of destination image’s relationships. A continuous measurement of the impacts of destination image seems necessary in feeding a strategy that is long term and aims to maintain the positive effect of image across different points in time.

Based on the findings of this study destination marketers should recognize the temporality of destination to maintain favourable image, create new image and alleviate any negative perceptions of the destination. Tourism managers and destination marketers worldwide need to better understand and further capitalize on tourists’ positive on-site experiences which determine to a large extent their in-situ and a-posteriori image. Research implications to destination marketers in Vietnam include the careful monitoring and enhancement of the organic image projected through social media and travel-blogs as these are likely to better reflect visitors’ image of Vietnam, which is distant from war and social instability, a common misconception identified at the pre-travel stage. Familiarization trips provided to key social media influencers and tour operators can also help in that direction.

## **6. CONCLUSION AND SUGGESTIONS FOR FUTURE STUDY**

This study has confirmed the complexity and dynamic nature of destination image highlighting the need to study image across various points in time as this impacts differently

on peoples' level of satisfaction, attachment and knowledge. Previous studies that have captured image at a certain point in time provide a rather 'still' photo of a very diverse and continuously flowing process (Pike, 2017; Smith et al., 2015). The study extends the work of previous studies (Kim et al., 2009; Smith et al., 2015; Vogt & Andereck, 2003) by measuring destination images across pre-, during, and post-trip stages. As the dimension mean scores indicate, respondents evaluated the affective component of image more positively as time went by in their trip. Some components of their cognitive image also improved (i.e., diverse tourism attractions) while others enhanced while at the destination but not thereafter (i.e., developed tourism industry). The overall image also improved across the time span of the trip.

Some weaknesses of this study should be addressed in future research. First, the study was conducted on Korean tourist who were visiting Vietnam through particular travel agencies. Additional research should be conducted on independent travellers. Second, this research was completed during a particular time of the year. It may be advantageous to collect data during the peak and off-peak seasons, as people may respond differently during various time frames (peak and off-peak). Third, the sample size was satisfactory but not large due to the challenges embedded in the data collection process such as receiving questionnaires from the same respondents during three survey rounds. Future research should be undertaken to extend the sample size. Fourth, the survey assessing image after a trip was conducted during the flight back in the airline cabin. Inevitably there was a short period of time between the second survey and the third survey. Studies in the future need to collect data after participants arrive in their home country, however, before memory decay occurs and other factors affect their tour experience. Lastly, as several factors might shape the way image is formed, future studies should study destination image in different countries, including countries with very favourable mutual relationship along with others that are characterised by animosity and hostility due to historical, religious or ideological reasons.

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Table 1. Factor analysis of affective image and cognitive image

Affective image			
Domains	Items	Factor loading	Mean
Relaxation and stability (5.52 <sup>a</sup> ; 29.58 <sup>b</sup> ; $\alpha$ =.89)	convenient	.79	3.61
	high quality	.78	3.69
	Stable	.77	3.79
	Safe	.77	3.90
	Delicious	.68	4.09
	Kind	.67	4.25
	Clean	.65	3.44
	Relaxing	.61	3.98
Vividness (4.19; 24.94; $\alpha$ =.88)	Active	.81	4.33
	New	.80	4.49
	comfortable	.67	3.92
	satisfying or content	.66	4.20
	passionate	.65	4.09
	attractive	.63	4.37
	Diverse	.55	4.15
	exciting	.51	4.40
Disorder and triviality (2.08; 14.42; $\alpha$ =.68)	crowding	.84	4.01
	out of order	.83	3.63
	Trivial	.75	3.30
Cognitive image			
Domains	Items	Factor loading	Mean
Diverse tourism attraction (3.97 <sup>a</sup> ; 16.53 <sup>b</sup> ; $\alpha$ =.86)	Have authentic culture	.83	4.57
	Have plentiful historical tourism resources	.80	4.45
	Have diverse local food	.75	4.47
	Have diverse tourism attractions	.70	4.39
	Have natural beauty	.69	4.70
War and social instability (3.91; 16.28; $\alpha$ =.66)	Filled with socialism motifs	.84	3.79
	Aggravated relationship of people due to previous war	.82	3.53
	Poor residents	.69	4.05
	Social unrest due to previous war	.53	3.60
	Expensive consumer price	.68	3.60
	Fastidious immigration procedures	.66	4.09
Tourism facilities and services (3.54; 14.74; $\alpha$ =.85)	Clean city and tourism place	.77	3.92
	Large and clean hotel	.74	4.15
	Clean and hygiene tourism facilities	.72	3.81
	Unpolluted natural environment	.65	4.71
	Preservation of traditions	.64	4.25
	Kindness of local residents	.46	4.35
	Diverse festivals and events	.44	3.82
Developed tourism industry (2.81; 11.64; $\alpha$ =.69)	Developed transportation	.68	3.47
	Developed tourism businesses	.66	3.95
	Developed night culture	.57	3.80
National development (1.69; 7.04; $\alpha$ =.66)	Rapidly reshaping country	.70	4.64
	Safe and secure country	.56	4.06
	Modern country	.54	3.85

Note: <sup>a</sup>: eigen value; <sup>b</sup>=variance explained.

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Table 2. GLM ANOVA test with repeated measures to identify change of affective, cognitive and overall image domains in three points in time

Domains	Before trip	During trip	After trip	Within subject ANOVA F-value	p-value
Affective image					
Relaxation and stability	4.00a	4.26b	4.44c	22.27***	.000
Vividness	4.18a	4.48b	4.59c	22.25***	.000
Disorder and triviality	3.57a	3.76b	3.76b	4.98**	.009
Cognitive image					
Diverse tourism attraction	4.49a	4.68b	4.75c	6.35**	.002
War and social instability	3.79b	3.71b	3.61a	4.47*	.012
Tourism facilities and services	4.06a	4.27b	4.34c	14.83***	.000
Developed tourism industry	3.78a	4.07b	4.03b	10.80***	.000
National development	4.19a	4.57b	4.58b	17.67***	.000
Overall image					
I like the overall image of Vietnam.	4.29a	4.62b	4.86c	19.43***	.000

Note: \*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ .

a, b, c indicate different sources of significance ( $a < b < c$ ).

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Table 3. Regression analyses to explain overall satisfaction using image domains

Dependent variable: Overall satisfaction level (during travel)				
Affective image domains	$\beta$	<i>t</i> -value	<i>p</i> -value	Adj. R <sup>2</sup>
Relaxation and stability	.27	2.48*	.014	.46
Vividness	.43	3.87***	.000	
Disorder and triviality	-.18	-2.69**	.008	
Cognitive image domains	$\beta$	<i>t</i> -value	<i>p</i> -value	Adj. R <sup>2</sup>
Diverse tourism attraction	.27	2.42*	.017	.37
War and social instability	-.21	-3.30**	.001	
Tourism facilities and services	.41	4.02***	.000	
Developed tourism industry	-.06	-.53	.598	
National development	.02	.18	.860	
Dependent variable: Overall satisfaction level (after travel)				
Affective image domains	$\beta$	<i>t</i> -value	<i>p</i> -value	Adj. R <sup>2</sup>
Relaxation and stability	.39	3.37**	.001	.52
Vividness	.35	3.01**	.003	
Disorder and triviality	-.06	-.99	.326	
Cognitive image domains	$\beta$	<i>t</i> -value	<i>p</i> -value	Adj. R <sup>2</sup>
Diverse tourism attraction	.14	1.07	.285	.31
War and social instability	-.19	-2.75*	.007	
Tourism facilities and services	.24	1.90	.060	
Developed tourism industry	.11	.99	.323	
National development	.11	.86	.394	

Note: \*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ .



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Table 4. Regression analyses to explain place attachment using image domains

Dependent variable: Place attachment (before travel)				
Affective image domains	$\beta$	<i>t</i> -value	<i>p</i> -value	Adj. R <sup>2</sup>
Relaxation and stability	.03	.32	.749	.23
Vividness	.47	4.46***	.000	
Disorder and triviality	-.04	-.49	.625	
Cognitive image domains	$\beta$	<i>t</i> -value	<i>p</i> -value	Adj. R <sup>2</sup>
Diverse tourism attraction	.28	2.58*	.011	.16
War and social instability	-.01	-.11	.914	
Tourism facilities and services	.16	1.56	.120	
Developed tourism industry	-.02	-.18	.860	
National development	.08	.88	.380	
Dependent variable: Place attachment (during travel)				
Affective image domains	$\beta$	<i>t</i> -value	<i>p</i> -value	Adj. R <sup>2</sup>
Relaxation and stability	.32	2.71**	.007	.38
Vividness	.32	2.72**	.007	
Disorder and triviality	-.11	-1.79	.075	
Cognitive image domains	$\beta$	<i>t</i> -value	<i>p</i> -value	Adj. R <sup>2</sup>
Diverse tourism attraction	.21	1.87	.064	.36
War and social instability	-.20	-3.07**	.003	
Tourism facilities and services	.42	4.11***	.000	
Developed tourism industry	-.14	-1.32	.188	
National development	.14	1.45	.149	
Dependent variable: Place attachment (after travel)				
Affective image domains	$\beta$	<i>t</i> -value	<i>p</i> -value	Adj. R <sup>2</sup>
Relaxation and stability	.15	1.09	.277	.37
Vividness	.47	3.57***	.000	
Disorder and triviality	-.09	-1.46	.147	
Cognitive image domains	$\beta$	<i>t</i> -value	<i>p</i> -value	Adj. R <sup>2</sup>
Diverse tourism attraction	.13	.88	.381	.22
War and social instability	-.08	-1.14	.258	
Tourism facilities and services	.07	.53	.600	
Developed tourism industry	.09	.75	.456	
National development	.25	2.81**	.007	

Note: \*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ .

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Table 5. Regression analyses to explain knowledge with the destination using image domains

Dependent variable: Knowledge of Vietnam (before travel)				
Affective image domains	$\beta$	<i>t</i> -value	<i>p</i> -value	Adj. R <sup>2</sup>
Relaxation and stability	.04	.39	.697	.20
Vividness	.44	4.33***	.000	
Disorder and triviality	-.06	-.76	.449	
Cognitive image domains	$\beta$	<i>t</i> -value	<i>p</i> -value	Adj. R <sup>2</sup>
Diverse tourism attraction	.33	3.07**	.003	.19
War and social instability	.07	.88	.380	
Tourism facilities and services	.12	1.13	.260	
Developed tourism industry	-.07	-.59	.558	
National development	.14	1.49	.137	
Dependent variable: Knowledge of Vietnam (during travel)				
Affective image domains	$\beta$	<i>t</i> -value	<i>p</i> -value	Adj. R <sup>2</sup>
Relaxation and stability	.14	1.10	.275	.30
Vividness	.44	3.48**	.001	
Disorder and triviality	-.11	-1.64	.103	
Cognitive image domains	$\beta$	<i>t</i> -value	<i>p</i> -value	Adj. R <sup>2</sup>
Diverse tourism attraction	.45	3.89***	.000	.30
War and social instability	-.01	-.13	.901	
Tourism facilities and services	.06	.59	.556	
Developed tourism industry	-.17	-1.56	.120	
National development	.24	2.41*	.017	
Dependent variable: Knowledge of Vietnam (after travel)				
Affective image domains	$\beta$	<i>t</i> -value	<i>p</i> -value	Adj. R <sup>2</sup>
Relaxation and stability	.12	.90	.367	.39
Vividness	.50	3.86***	.000	
Disorder and triviality	-.13	-1.98*	.049	
Cognitive image domains	$\beta$	<i>t</i> -value	<i>p</i> -value	Adj. R <sup>2</sup>
Diverse tourism attraction	.18	1.23	.221	.21
War and social instability	-.09	-1.21	.228	
Tourism facilities and services	.10	.73	.464	
Developed tourism industry	.02	.14	.890	
National development	.21	1.55	.124	

Note: \*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ .

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Table 6. Summary of the findings (H4-H6)

	Satisfaction			Attachment			Knowledge		
	B	D	A	B	D	A	B	D	A
<b>Affective image domains</b>									
Relaxation and stability	N/A	.27	.39	-	.32	-	-	-	-
Vividness	N/A	.43	.35	.47	.32	.47	.44	.44	.50
Disorder and triviality	N/A	-.18	-	-	-	-	-	-	-.13
<b>Cognitive image domains</b>									
Diverse tourism attraction	N/A	.27	-	.28	-	-	.33	.45	-
War and social instability	N/A	-.21	-.19	-	-.20	-	-	-	-
Tourism facilities and services	N/A	.41	-	-	.42	-	-	-	-
Developed tourism industry	N/A	-	-	-	-	-	-	-	-
National development	N/A	-	-	-	-	.25	-	.24	-

Note: B: Before trip, D: During trip, A: After trip

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Figure 1. Conceptual framework

