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Xu Chen

Department of Parks, Recreation, and Tourism Management Clemson University

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Assessing the Relations between Perceptual and Affective Components of a Destination Image: A Case of China as a Destination

Xu Chen

Department of Parks, Recreation, and Tourism Management

Clemson University

Clemson, South Carolina USA

ABSTRACT

Baloglu and McCleary's (1999) destination image formation model suggests that a destination image has two hierarchically related components - perceptual and affective images, on which a holistic image is based. Although many studies adopt this image structure and agree on the hierarchical relationship between the two components, few of them have examined this relation and the way it is formed. The purpose of the study is twofold: first it is to identify the current perceptual and affective images of a destination, using China as a case; then to determine the inner relationship between the two image components. Survey data from an existing study on college students' (N=421) destination image of China research are used to investigate the research questions. Results from the factor analysis reveal positively strong functional and moderate psychological factors within the perceptual image. Analysis of affective components shows a strong and positive reaction on activeness, and a slightly positive reaction on pleasantness. Results of multiple regression analyses indicate that functional factor are more effective in predicting activeness dimension while psychological factor are more significant in influencing pleasantness dimension. The findings provide useful implications for creating a positive destination image.

INTRODUCTION

Destination image research has received much attention in tourist behavior studies and destination marketing. Gartner (1993) emphasizes the marketing role of destination image and suggests its effectiveness as an advertising and promotional tool. Baloglu & McCleary (1999), Gallarza, Gil, & Calderson, (2000) suggest that tourist destination image formation and motivation arousal process are the most important phases in the tourist destination selection process. Guthrie and Gale (1991) state that images are more important than the tangible resources and reality because that the perceived images are the real motivators that drive an individual to act or not to act. Along with recognizing the marketing implications of destination image, tourism research has seen an increasing interest in destination image formation process.

Some of the destination image studies focus on identifying destination attributes and using them as a representation of the destination image (such as Chen & Hsu, 2000), while a few researchers suggest that a destination image shall also include evaluative elements, which are generally accepted as affective components (such as Baloglue& Brinberg, 1997; Baloglu & McCleary, 1999; Echtner & Ritchie, 1993; Kim & Yoon, 2003). Most of the studies on developing perceptual and affective image construct also state that there is a hierarchical relationship between the two image components. However, very little research has studied the relations although the image structure has become prevalent in destination image analysis. As Kim and Yoon (2003, p. 4) point out, "the previous image studies have greatly contributed to developing destination image models as well as testing the models relevant components and attributes, more research on how the affective and the cognitive components contribute to

destination image are needed". Understanding the relation between the two image components will not only add to the knowledge body of destination image formation, but also provide implications for destination image creation and market development. It is therefore the purpose of the study to examine the relationship between perceptual and affective components of a destination image, using China as a case. To reach this goal, the study first identifies the perceptual and affective components of China's image, and then examines the relations that build the correspondence between perceptual and affective components.

DESTINATION IMAGE FORMATION

The perceptual and affective destination image construct is developed and advanced by Baloglu and his colleagues. Baloglu and McCleary (1999) suggest that a destination image is caused by external stimuli and personal characteristics. External stimuli include information sources, previous experiences and information distribution channels; the personal factor includes psychological and social reasons such as value and age, and the two factors create an image in a person's mind. The image concept has generally been considered to be an attitudinal construct. Image has three mental representatives: knowledge about an object or destination (beliefs), feelings towards the object or destination, and overall (global) impression of the object or destination. The former two are generally accepted as perceptual and affective evaluations for destination image measurement as well as its two components.

Perceptual components are people's beliefs and knowledge about an object or destination. They are the perception about the acceptance of something as true/real or false, good or bad, whereas affective components are consisted of people's positive or negative, active or deactivate attitudes towards the destination (Baloglu & McCleary, 1999). Knowledge and beliefs about the destination are first developed in the cognitive stage, and then the affective is formed on the cognitive beliefs' base. Perceptual and affective components are hierarchically related. Baloglu and McCleary (1999, p.893) suggest that "affective evaluation depends on the cognitive assessment and the affective responses are formed as a function of the cognitive ones".

Echtner & Ritchie (1991) emphasize that ultimately a complete image should contain both functional and psychological characteristics (Echtner & Ritchie, 1991). Functional characteristics refer to the perceptions of individual product attributes or holistic attributes, psychological characteristics reflect the trait or quality of the individual or holistic attributes. Functional images are physical perceptions, while psychological images describe feelings of the impression (Echtner & Ritchie, 1991). Similarly, Gallarza et al (2002) point out that the measurements of cognitive components in most image studies mainly concentrate on destination attribute perception measurement. They categorize these perceived attributes into two categories: functional and psychological. Table 1 presents these attributes organized from the previous empirical studies.

The affective components refer to peoples' feeling about an object or destination which is the evaluation of the affective quality of environments (Hanyu, 1993). Recent psychological research on current affective attitude studies has introduced the bipolar attitude scales, which has been tested as an effective measurement about attitude (Feldman & Russell 1998; Baloglu & Brinberg 1997; Baloglu & McCleary 1999; Hanyu 1993; Yik, Russell, & Feldman, 1999). Russell and Pratt (1980) present a four-bipolar model to measure the affective quality of places or environments. In this bipolar structure, affective attitudes are composed in two dimensions. One is *pleasantness* which ranges from unpleasant to pleasant, and the other is *activeness* which

ranges from sleepy to arousing. These two dimensions can be enhanced by defining four vectors: *exciting—gloomy* and *relaxing—distressing*. Exciting is a combination of pleasant and arousing, relaxing is a combination of pleasant and sleepy. Thus the total affective evaluation can be enhanced with the four vectors.

Table 1. Two Major Dimensions of Perceived Destination Attributes

Functional Attributes	Psychological Attributes
Various activities	Price, value, cost
Landscape, surroundings	Climate
Nature	Relaxation
Cultural attractions	Accessibility
Nightlife and entertainment	Safety
Shopping facilities	Social interaction
Information available	Resident's receptiveness
Sport facilities	Originality
Transport	Service quality
Accommodation	
Gastronomy	

Source. Gallarza et al 2002, p. 63.

Russell and Pratt (1980) further tested this four-bipolar scale by extracting the principal components from 105 adjectives that describe the affective quality of various man-made environments. The two dimensions of activeness and pleasantness together accounted for 82.4% of the total variance, while the other four vectors only account for a small portion of the variance. These two dimensions are theoretically adequate to represent the affective evaluation of the environment. Therefore, this study will not take the four vectors into consideration as they are not the focus of affective dimension measurement.

There is a common agreement among various image studies that affective and perceptual images are distinct but also hierarchically related (Baloglu & McCleary, 1999; Russell & Pratt, 1980; Yik et al, 1999). As Baloglu and McCleary (1999, p.873) state “affective evaluation depends on the cognitive assessment of objects and the affective responses are formed as a function of the cognitive ones”, these two components complete the function of a destination image. This statement in fact indicates perceptual components are antecedents to affective image. Accordingly, this study aims to identify the hierarchical relationship between perceptual and affective image components. The research questions are as follows: 1) What are the current perceptual and affective destination images of China? 2) How do perceptual components correspond to different dimensions of affective images?

RESEARCH METHODS

This study uses China as a case to examine the relationship between the two image components. Data for this study were obtained from a previous research done by the author. In that study, a self-administered questionnaire was created to measurement people's destination image of China.

The first section of the questionnaire collects demographic information such as gender, age, and previous experience of traveling in China. The second part consists of 20 questions which

are adopted from the previous destination image studies. These questions are designed to measure China's perceptual image on a seven-point Likert scale from 1 = *strongly disagree* to 7 = *strongly agree*.

For affective components, the questions adopt Russell and Pratt's (1980) four bipolar affective scales: *Pleasant—unpleasant, arousing—sleepy, relaxing—distressing, and exciting—gloomy*. However, this study only focuses on the two primary dimensions, therefore only data for pleasantness and activeness are included in the following study. On the activeness dimension measurement, Baloglu uses the original descriptors "arousing" and "sleepy" in his three affective destination image studies (1997, 1998, & 1999). However, these two words are difficult to understand when they are used to describe an individual's attitudes towards a certain destination. In Russell and Pratt's (1980) study, the descriptors were derived from a summary of 105 commonly used adjectives describing people's feelings and emotions. Thus after a cautious review of these 105 adjectives, "stimulating" and "dull" were selected from the category of activeness to replace "*arousing*" and "*sleepy*" respectively. There are two statements under each bipolar, and each item has two statements that describe contradicting feelings towards China as an overseas destination. A seven-point Likert scale is between each statement, the value of the scale increases from the negative attitude statement to the positive statements. Respondents were asked to simply check the corresponding number that best describes his or her attitude.

After a pilot study to test the reliability and validity of the questionnaire, the survey was conducted at a Canadian university. The survey distributed 450 copies of the questionnaire and received 429 returns, of which 421 were valid and usable for the study. The response rate is 93.5%. The average age of the participants is 22.81. Most of them have never visited China.

FINDINGS

An exploratory factor analysis with varimax rotation was conducted to extract factors in perceptual destination image components. Principal components were regarded as factors that have eigenvalue greater than or equal to 1.0 and the factor loading at a "fair" level of equal or greater than .45. KMO value was set at equal or greater than 0.7. Bartlett factor scores were saved for the following multiple regression analyses to examine the impact of the perceptual image components on two affective image components. Four factors were drawn from the 20 items on perceived images, and 19 of them met the extraction criteria. The four factors support Gallarza's et al (2002) destination attributes' classification. Table 2 presents the results of the factors analysis. Factor 1 concentrates on functional attributes, such as China's natural and historic heritage and explains 30.3% of the variance in the perceptual image scales. Factor 2 accounts for 9.8% of the total variance and allocates the psychological attributes, such as travel safety, language barriers and the value of the trip, although the item "convenient transportation" can be argued either a functional attribute or a psychological attribute under accessibility. It is worth of mentioning that the participants may not have a clear image on this factor, as the mean values of most items in Factor 2 are around 4.0, which is the mean of the seven-point Likert scale. It possibly indicates that the participants' knowledge of the psychological destination attributes in China may be quite blurry. Reich (1999) states that a consumer's cognitive process involves three stages: unaware, aware, and belief/knowledge. The consumer must first be aware of the existence of the phenomena and second, have beliefs about it. At the unaware stage, no customers are aware of certain destination attributes. It may be because of lack of knowledge, such as the negative image of lacking available tourist information, which has resulted in this

fuzzy image. On the other hand, the fuzzy image may offer a comparison to functional attributes. As Reich (1999) also points out that intensity held by people is the index to measure beliefs, the greater the intensity, the greater the chances that the belief will result in affective change. Therefore the fuzzy image of psychological attributes may help to differentiate itself from functional attributes on their influence on affective components.

Table 2. Factor Analysis of Perceptual Components of China's Destination Image (N = 421)

Destination Image Attributes	Mean	SD	Factor Loading			
			Factor1	Factor 2	Factor 3	Factor 4
Factor 1: Functional						
Historical attractions	5.57	1.42	.858			
Interesting cultural attractions	5.56	1.34	.862			
Abundant natural scenery	5.43	1.40	.774			
Unique historical architecture	5.88	1.29	.761			
Appealing local food	4.78	1.64	.588			
Factor 2: Psychological						
Value for holiday money	4.25	1.42		.746		
English can be understood	4.12	1.51		.700		
Friendly people	4.69	1.42		.674		
Convenient transportation	4.15	1.27		.603		
Safe destination for tourists	4.20	1.42		.558		
Quality tourist infrastructure	4.21	1.14		.504		
Factor 3: Additional functional						
Good product quality	4.51	1.40			.617	
Western standards of hygiene	4.54	1.36			.555	
Various nightlife & entertainment	4.70	1.64			.502	
Factor 4: Negative image						
Many interesting events festivals	3.02	1.85				-.658
Tourist information availability	3.43	2.50				.468
Environmental pollution	4.35	1.36				.585
Eigenvalue			6.061	1.961	1.524	1.082
Variance explained %			30.30	9.80	7.62	5.41
Cronbach's alpha			.864	.796	.600	.300

Factor 3 collects additional attributes to factor 1, such as the western styled hotel services and versatile nightlife. Yet these functional attributes are not as significant as the items in Factor 1. They only explain 7.6% of variance in the date. Similar to Factor 2, mean values of the variables in Factor 3 are generally around 4.5. It indicates the attributes listed under Factor 3 may not be quite known to the participants. Factor 4 contains the negative images of China, such as pollution

and a lack of tourism information. However, it was excluded from further analyses due to its Cronbach's alpha less than .50 in reliability tests. The remaining three-factor structure explained 47.72% of total variance.

For affective destination image, means of the two affective dimensions were calculated to measure participants' attitudes towards China. For the dimension of pleasantness, participants feel that China may be a pleasant destination ($M = 4.91$, $SD = 1.46$), while the *activeness* ($m = 5.20$, $SD = 1.58$) is significantly greater than *pleasantness*, $\chi^2(36, N = 421) = 341.00$, $p < .001$.

The three orthogonal factors were tested in two multiple regression analyses to examine their impact on the two affective components. The regression model for measuring the relationship between the dimensions of perceptual and affective image component is:

$$Y_a = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_0$$

Where:

- Y_a is each of the two dimensions of affective image component;
- X_1, X_2, X_3 are the three factors in perceptual image component;
- $\beta_1, \beta_2, \beta_3$ are the regression coefficients of factor 1 to factor 3; and
- β_0 is the constant

Table 3 illustrates the results of the two regression analyses. The regression model is significant in using the three perceptual components to predict pleasantness ($F [3,421] = 84.171$, $p = .000$). The three factors are all significant predictors and explain 39.5% total variance ($R = .629$) in the pleasantness dimension. The regression coefficients illustrate the relative importance of the three perceptual components in the model. All coefficients are positive, suggesting that perceptual images are positive related to pleasantness affective dimension. Among these three predictors, Factor 2 (psychological attributes) is the most significant predictor of pleasantness score ($\beta = .438$ $p = .000$), followed by Factor 1 (functional attributes, $\beta = .417$ $p = .000$) and Factor 3 (additional functional attributes, $\beta = .186$ $p = .000$).

Table 3. Regression Analysis of Perceptual Image Components' Effect on Affective Image Dimensions (N = 421)

Variables	B	Std Error	Beta	t	Sig.
Dependent variable: Pleasantness					
Functional Attributes (Factor 1)	.621	.059	.417	10.534	.000
Psychological attributes (Factor 2)	.649	.059	.438	11.055	.000
Additional function attributes (Factor 3)	.274	.058	.186	4.699	.000
Constant	4.906	.058		84.162	.000
Dependent variable: Activeness					
Functional Attributes (Factor 1)	.545	.072	.343	7.58	.000
Psychological attributes (Factor 2)	.421	.072	.266	5.878	.000
Additional function attributes (Factor 3)	.246	.071	.157	3.470	.001
Constant	5.206	.071		73.24	.000

The three perceptual components are also significant in explaining the activeness affective dimension ($F [3,421] = 34.34$, $p = .000$). They explain 21.1% of the variance in activeness (R

= .459). In this regression model, all three predictors are positively related to activeness while Factor 1 (functional attributes) contributes the most to activeness dimension ($\beta = .343$ $p = .000$), followed by Factor 2, the psychological attributes, ($\beta = .266$ $p = .000$) and Factor 3, the additional functional attributes, ($\beta = .157$ $p = .001$).

The results reveal unique relations between perceptual and affective components. Functional attributes of a destination image, which are concerned with destination attractions, are more important in influencing the activeness dimension. This is understandable, as these functional attributes largely represent China's unique destination images that differentiate it from other destination countries, so that these attributes are more likely to catch potential tourists' interest. Yet whether a trip is pleasant or not, it requires not only attractions, but much depends on a tourist perceived psychological attributes of a destination image, such as safety issues, local hospitality, travel convenience, and value for trip expenses. Therefore the second research question is answered that functional attributes help to arise people's awareness and interests, while a positive image of psychological attributes facilitates to create a pleasant attitude towards the destination.

DISCUSSION AND IMPLICATION

The study found the different dimensions of China's destination image and also identified the antecedent relations between perceptual and affective image components. The functional attributes is the major component in China's image, while psychological attributes, which are highly related to the *pleasantness* affective component, remain either moderate or unclear to the respondents. Currently in the participants' minds, *pleasantness* is lower than *activeness*. Therefore more effort should be geared toward the psychological attributes in promoting China's destination image, such as service quality and value for money spent on the trip so that the *pleasantness* affective image can be enhanced. Also a comparison between Factor 1 and Factor 3 explains which functional attributes are more effective in creating a positive destination image of China, or helps to find the functional attributes that are not known but facilitates to create positive images in potential markets.

The contributions of the study are multiple. Firstly, it identifies the current China's current destination image in general westerners' minds. Secondly it provides support to Gallarza's et al (2002) suggestion that a destination image includes functional and psychological attributes. Thirdly, the study contributes to the literature by illustrating the path that what perceptual attributes correspond to a given affective reaction. These findings provide destination marketing and positioning with practical implications.

The limitation of the study rests in its convenient sampling and lack of real visitor participants. This study used China as a case, which is relatively far distance and may remain unfamiliar to most young western tourists. Thus a few of destination attributes, especially psychological attributes (Factor 2) and additional functional attributes (Factor 3) may not be clearly known to the participants. Further studies can be applied to actual western visitors and potential target markets. Future studies may replicate this study on a destination that has high familiarity to western tourists and investigate whether similar relationships still exist between the perceptual and affective image components. Also an investigation of the different image dimensions' function in affecting different stages of vacation decision making process will be of great interest and may have strong practical implications for destination promotion and marketing.

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Contact Information:

Xu Chen
Department of Parks, Recreation and Tourism Management
263 Lehotsky Hall, Clemson University
Clemson SC, 29634 USA
(864) 656-3536
xuc@clemson.edu