

Dimensions of destination image: Development of a scale

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Abstract 443**

Research on the reasons that cause and channel travel has been a focal point of recent tourism research. In the tourism literature, a wide range of variables have been identified as influencing factors. These include, but are not limited to, destination image (Baloglu & McCleary, 1999; Beerli & Martin, 2004; Chen & Hsu, 2000; Fakeye & Crompton, 1991), service quality (Lee, Lee, & Lee, 2005), and satisfaction (Yoon & Uysal, 2005). Of these, destination image has been repeatedly found to have significant influences on travel-related behaviors such as destination choice and future behavioral intentions (Baloglu & McCleary, 1999; Beerli & Martin, 2004; Lee et al., 2005). Destination image is defined as the sum of cognitive beliefs and affective impressions that an individual possesses of a particular destination (Fakeye & Crompton, 1991).

Although a substantial number of studies on destination image have been conducted in the field of sport tourism (Chalip, Green, & Hill, 2003; Lee, Lee, & Lee, 2005), only limited attentions have been paid to the development of conceptual framework of destination image (Baloglu & McCleary, 1999; Beerli & Martin, 2004; Chalip et al., 2003). Two main limitations have been identified in the existing scales that measure destination image: (a) most scales were developed using a convenience sampling, which may limit their generalizability (Chalip et al., 2003; Qi, 2005); and (b) exploratory factor analysis (EFA) has been used as the primary method of scale development (Baloglu & McCleary, 1999; Beerli & Martin, 2004). There is a need for further development of comprehensive conceptual framework and psychometrically sound measurement scale. The purpose of this study was to develop the Destination Image Scale (DIS) through appropriate measurement procedures, including a comprehensive review of literature, development of a conceptual framework, formulation of factors and items, test of content validity, and conduct of a confirmatory factor analysis (CFA).

Based on the review of literature, the researchers found that the following concepts need to be considered: (a) potential respondent must possess at least one of the three types of images (i.e., organic, induced, and complex) that he/she holds of a particular destination (Gunn, 1972; Fakeye & Crompton, 1991), (b) both functional (e.g., scenery, facilities, and accommodations) and psychological (e.g., friendly people, feeling, and atmosphere) domains should be considered in item generation (Echtner & Ritchie, 1991), and (c) destination image is characterized by subjective perceptions that consist of both cognitive and affective domains (Baloglu & Bringer, 1997; Beerli, Doza, & Perez, 2002).

Through a comprehensive literature review, an initial pool of items was developed that explain seven factors of destination image. Consistent with existing scales, the DIS in this study consisted of both cognitive and affective image. Under cognitive image, five factors were identified: Infrastructure, Social and Political Environment, Natural Environment, Attractions, and Value for Money (e.g., Baloglu & McCleary, 1999; Beerli & Martin, 2004; Chalip et al., 2003; Lee et al., 2005). Two factors were identified as affective aspects of destination image; Pleasant and Arousal (e.g., Russell, Ward, & Pratt, 1981). A total of 32 items were generated for the seven factors. A 7-point Likert type scale was adopted, ranging from 1 = Strongly Disagree to 7 = Strongly Agree. Content validity of DIS was tested by a panel of five experts and a pilot test involving 40 undergraduate students, minor wording changes were made.

Participants for this study were those who requested tourism information from the Alachua County Visitors and Convention Bureau about the city of Gainesville, Florida between December 2006 and April 2007. The inquiry list contained approximately 6,000 people from all states in the U.S. Of this sampling frame, 2,000 people were selected using a systematic random sampling technique in which every 3rd person on the mailing list was chosen from the mailing list.

Two mailing surveys were conducted. A total of 236 data were returned for a response rate of 11.8%. Previous research indicated that 10-20% of response rate from mail survey was typical ranges (Oppermann, 2000). Of those, 199 useable data were included for subsequent statistical analyses. Data were found to have adequate normality and missing data were imputed using mean substitution and regression imputation. SPSS 15.0 was utilized to calculate descriptive statistics for the socio-demographics and AMOS 7.0 (Arbuckle, 2006) was used to examine psychometric property of scale items through a CFA following the Maximum Likelihood (ML) estimation. Several goodness of fit measures were used, which included χ^2/df , RMSEA, SRMR, ECVI, and CFI (Hair, Anderson, Tatham, & Black, 1998).

The CFA revealed that the seven-factor model did not fit the data well (i.e., $\chi^2 = 1077.32$, $p < .001$, $\chi^2/df = 2.43$, RMSEA

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= .085, 90% CI = .079 - .092, SRMR = .07, ECVI = 6.62, and CFI = .85). The model fit test suggested a need for respecification. Based on theoretical and statistical considerations, the original model was respecified and tested. As a result, a four-factor model with 18 items was generated: Infrastructure, Attractions, Value for Money, and Enjoyment. Each factor contained at least three items as suggested by previous researchers (Bollen, 1989; Kline, 2005). Overall, goodness of fit of the four-factor model fit the data fairly well ($\chi^2 = 266.51$, $p < .001$, $\chi^2/df = 2.07$, RMSEA = .073, 90% CI = .061 - .086, SRMR = .05, ECVI = 1.95, and CFI = .93). Construct Reliability (CR) for the four factors ranged between .82 and .90. AVE values ranged from .47 to .69, indicating the scale had a good reliability. In terms of construct validity, factor loadings ranged from .64 to .90, showing the scale had adequate convergent validity. Examinations of Interfactor correlations and comparing AVE values with squared correlation showed that the DIS had good discriminant validity.

There are several implications for researchers and practitioners in sport tourism. First, the DIS is a reliable and valid measurement tool to assess destination image. The scale consists of reasonable numbers of items (i.e., 18 items), which can be easily administered. More importantly, the scale was developed based on a well-developed theoretical framework derived from previous studies and tested via rigorous measurement procedures. With those manageable items, the scale can capture the necessary elements related to destination image. Researchers, marketers, and practitioners may adopt the scale to examine tourism marketing issues, factors causing changes in destination image, and impact of destination image on tourist's behaviors.

References:

- Arbuckle, J. L. (2006). *AMOS 7.0 user's guide*. Chicago, IL: SmallWalters Corporation.
- Baloglu, S., & Brinberg, D. (1997). Affective images of tourism destinations. *Journal of Travel Research*, 35(Spring), 11-15.
- Baloglu, S., & McCleary, K. W. (1999). A model of destination image formation. *Annals of Tourism Research*, 35(4), 868-897.
- Beerli, A., Diza, G., & Perez, P. J. (2002). The configuration of the university image and its relationship with the satisfaction of students. *Journal of Educational Administration*, 40(5), 486-504.
- Beerli, A., & Martin, J. D. (2004). Factors influencing destination image. *Annals of Tourism Research*, 31(3), 657-681.
- Bollen, K. A. (1989). *Structural equations with latent variables*. New York: John Wiley & Sons.
- Chalip, L., Green, B. C., & Hill, B. (2003). Effects of sport event media on destination image and intention to visit. *Journal of Sport Management*, 17, 214-34.
- Chen, J. S., & Hsu, C. H. C. (2000). Measurement of Korean tourist' perceived images of overseas destinations. *Journal of Travel Research*, 38(2), 411-416.
- Chon, K. (1990). The role of destination image in tourism: A review and discussion. *The Tourist Review*, 45(2), 2-9.
- Echtner, C. M., & Ritchie, J. R. B. (1991). The meaning and measurement of destination image. *The Journal of Tourism Studies*, 2(2), 2-12.
- Fakeye, P. C., & Crompton, J. L. (1991). Image differences between prospective, first time, and repeat visitors to the Lower Rio Grande Valley. *Journal of Travel Research*, 30(3), 10-16.
- Gunn (1972). *Vacationscapes: Designing tourists regions*. Austin: University of Texas.
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate Data Analysis*(5th ed.). Upper Saddle River, NJ: Prentice Hall.
- Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd Ed). New York: Guilford Press.
- Lee, C. K., Lee, Y. K., & Lee, B. K. (2005). Korea-Ýs destination image formed by the 2002 World Cup. *Annals of Tourism Research*, 32(4), 839-858.
- Oppermann, M. (2000). Tourism Destination Loyalty. *Journal of Travel Research*, 39, (August), 78-84.
- Pike (2002). Destination image analysis: A review of 142 papers from 1973 to 2000. *Tourism Management*, 23, 541-549.
- Qi, X. (2005). Relationship among image, perceived risk, and intention to visit to China and 2008 Beijing Olympic Games among U.S. college students. Unpublished Master thesis, University of Florida
- Reilly, M. D. (1990). Free elicitation of descriptive adjectives for tourism image assessment. *Journal of Travel Research*, 21, 21-26.
- Russell, J. A., Ward, L. M., & Pratt, G. (1981). Affective quality attributed environment: A factor analytic study. *Environment and Behavior*, 13, 259-288.
- Yoon, Y., & Uysal, M. (2005). An examination of the effects of motivation and satisfaction on destination loyalty: A structural model. *Tourism Management*, 26(1), 45-56.