The Effect of Online Information Search on Image Development:
Insights from a Mixed Method Study

Xiang (Robert) Li, Ph.D. - Assistant Professor, School of Hotel, Restaurant & Tourism
Management, University of South Carolina, Columbia, SC 29208 USA
Telephone: 803.777.2764 Fax: 803.777.1224 E-mail: robertli@mailbox.sc.edu

Bing Pan, Ph.D.- Assistant Professor, Department of Hospitality and Tourism Management,
College of Charleston, Charleston, SC 29424-001 USA Telephone: 843.953.2025, Fax:
834.953.5697 E-mail: panb@cofc.edu

Lixuan (Grace) Zhang, Ph.D.- Assistant Professor, Department of Marketing and Supply Chain
Management, College of Charleston, Charleston, SC 29424-001 USA Telephone: 843.953.2278,
Fax: 834.953.5697 E-mail: ZhlangL@cofc.edu

Wayne W. Smith, Ph.D.- Assistant Professor, Department of Hospitality and Tourism
Management, College of Charleston, Charleston, SC 29424-001 USA Telephone: 843.953.6663,
Fax: 834.953.5697 E-mail: smithww@cofc.edu

Submitted Exclusively for Publication Consideration to the
Journal of Travel Research

KEYWORDS: destination image, online information search, mixed method, China

March 2008
This study explores the potential effects of online information search on tourists’ destination image development. Specifically, the terms “baseline image” and “enhanced image” are proposed to distinguish the different stages of image development in tourists’ mind before and after active online information search. A mixed method study was designed, which asked college students to develop a one-week travel plan in China via online search. It was found that participants’ overall image and affective image about China experienced significant and positive changes after online search, while cognitive image remained the same. Nevertheless, when asked to describe their image changes, most participants reported changes on their cognitive beliefs about China. Further, the qualitative data evidenced the interaction between participants’ online information search process and image development.
The Effect of Online Information Search on Image Development:
Insights from a Mixed-Method Study

In the past several decades, destination brand and image has been extensively studied in the tourism literature. The concept of tourist destination image (TDI) was first brought to marketers’ attention as a tool helping product positioning and promotion. That is, destination marketing organizations (DMOs) found it important to understand destination image to better differentiate their products from those of competitors (Li and Vogelsong 2006). More recently, marketers have agreed that the understanding of destination image plays a key role in balancing destination supply and demand (Tasci and Gartner 2007). As Trojan (2005, p. 54) put it, “Knowing what visitors and potential visitors think about the destination is essential when developing tourism products and marketing campaigns.”

Traditional wisdom holds that tourists’ destination image may be enriched or changed after their trip (Baloglu and Mc Cleary 1999; Chon 1991; Fakeye and Crompton 1991; Li and Vogelsong 2006; Martín and Bosque In press; Pearce 1982). In essence, such changes will reflect the quality of tourists’ travel experiences, and hence destination performances. In contrast, the studies on the image formation before their trip mainly focused on traditional information sources, such as personal experience, word-of-mouth, magazines and television, (Hirschman 1981; Lindquist 1974-1975; Mazursky and Jacoby 1986; Beerli and Martin, 2004; Stern and Krakover, 1993; Phelps, 1986; Baloglu and Mc Leary, 1999; Mercille, 2005; ). This is certainly understandable, considering the marketing implications and research feasibility of measuring post-trip images. Nevertheless, the development of pre-trip image seems to be more relevant to tourists’ destination choice, and hence more critical to destination marketers’ decision making. All in all, one might argue that TDI research still owes the industry a sophisticated explanation
of how tourists’ destination image is formed before travel. The present authors believe that the
starting point of explaining this formation process is to describe it in detail (i.e., the “how”
question).

As a new marketing communication channel, the Internet has changed the landscape of
the hospitality and tourism marketing. Tourism is now ranked the number one industry in terms
of online transaction volume (Werthner and Ricci 2005). In 2005, there were approximately 79
million American online travelers using the Internet to search for travel information (TIA 2005).
A more recent survey estimates that at least 61 percent of the U.S. adult Internet users research
travel online (Ramsey 2007). For both academics and practitioners, the increasing importance
and prevalence of the Internet has challenged numerous well-established theoretical and business
models. It has been argued that the uniqueness of the Internet calls for a re-evaluation of the
traditional theories of consumer behavior, including information search (Biswas, 2004). It is
hence intellectually intriguing and practically crucial to examine the impact of the Internet on
consumer behaviors and the overall marketing environment.

Combined, this paper attempts to provide an initial exploration of the effect of online
information search on tourists’ pre-trip destination image development. Of particular interest is
how one’s online information search impacts his/her destination image. To facilitate this
understanding, a mixed method study was conducted, with 30 participants who had only limited
knowledge about China being asked to develop an itinerary for a one-week vacation to China. A
combination of quantitative (i.e., pre- and post-exercise surveys) and qualitative (i.e., think-aloud
protocol, a process tracing method, and log analysis) approaches was used.

Literature Review

The Construct of TDI
TDI has drawn extensive research attention since Hunt (1971) first introduced the concept to tourism literature. Milman and Pizam (1995) defined the term as “the visual or mental impression of a place, a product, or an experience held by the general public” (p. 7). Increasingly, most researchers have agreed that destination image is the overall or total impression of one place (Ahmed 1996; Bigne, Sanchez and Sanchez 2001; Crompton 1979). However, when asked about the composition of the image, tourism scholars have given different answers (Gallarza, Saura and Garcia 2002; Li and Vogelsong 2006). Crompton (1979) first revealed the cognitive dimension of destination image. Several researchers (Baloglu and Brinberg 1997; Echtner and Ritchie 1991; Walmsley and Young 1998) then argued that destination image reflects not only “one’s ideas about the physical properties of a place” (cognitive image), “but also his or her feeling and evaluation on the destination” (affective image) (Li and Vogelsong 2006, p. 350). Together, cognitive image (beliefs) and affective image (feeling) form a “global impression about an object or destination,” namely, the overall image (Baloglu and McCleary 1999, p. 870). This two-dimensional conceptualization of destination image is widely employed in subsequent studies (Martín and Bosque In press). Nevertheless, another group of researchers (Dann 1996; Gartner 1996; Pike and Ryan 2004), following the tripartite model of attitude structure in psychology (Breckler 1984; Eagly and Chaiken 1993), contended that images possess cognitive, affective, and conative components. They argue that conative image reflects the behavioral aspect (e.g., visit intention) of one’s destination perception. The tripartite model of image seems to imply that TDI is an attitude, which remains debatable. Finally, another stream of TDI research approached the topic from the supply side (Echtner and Prasad 2003; Hunter and Suh 2007; MacKay 1997). That is, instead of deconstructing how (potential) tourists perceive a place, this group of researchers focuses more
on how destinations project their image. Of particular interest is the role and presentation of visual image in destination promotional materials (Tasci and Gartner 2007).

Despite its importance and attraction to a growing number of scholars, destination image studies are still considered as atheoretical and lacking in conceptual frameworks (Baloglu and McCleary 1999; Echtner and Ritchie 1991; Gallarza, et al. 2002; Gartner 1993; Tasci and Gartner 2007). In their discussion on the components of destination, Echtner and Ritchie (1991) proposed that TDI consists of three continua, i.e., the attribute-holistic continuum (i.e., TDI comprises both the perceptions of individual attributes of a destination and the holistic impression), the functional-psychological continuum (i.e., some TDI characteristics are directly observable, others are abstract and not tangible), and the common-unique continuum (i.e., TDI traits and features range from common to destination-specific). In the same vein, Gallarza and colleagues’ (2002) literature review suggests that TDI is complex, multiple, relativistic, and dynamic. Most recently, Tasci and Gartner (2007, p. 423) conceptualize TDI as “a composite of a wide spectrum of inputs that can be viewed as affecting either the demand or supply side of the image construct.” The ensuing image, formed through controllable (dynamic), semicontrollable (semidynamic), and uncontrollable (static) inputs, in turn, “has direct effects on pre-, during- and posttrip consumer behavior” (Tasci and Gartner 2007, p. 423).

TDI Formation Process

Gunn (1972), arguably the first to conceptualize the image formation process, described image formation through a seven-phase travel experience:

1. Accumulation of mental images about vacation experiences;
2. Modification of those images by further information;
3. Decision to take a vacation trip;
4. Travel to the destination;
5. Participation at the destination;
6. Return home; and,
Gunn (1972) suggested that potential tourists’ image of a destination could be categorized as “organic” and “induced” images. Organic image relies on noncommercial sources of information and represent “the totality of what a person already knows or perceives about that destination,” and it is “accumulated over time from newspapers, radio and TV news, documentaries, periodicals, dramas, novels, and non-fictional books and classes on geography and history” (Gunn 1997, p. 37). Induced image, on the other hand, is image derived from commercial tourism information. Its formation is a result of exposure to information from commercial sources such as travel agents, brochures, and advertising, all of which attempt to build on or modify customers’ organic image to a favorable evaluation in a purchase context (Gartner 1989). The key difference between organic and induced images is destination marketers’ level of control: the former is by definition not controllable, while the latter is. Gartner (1993) elaborated that there exist eight image formation agents with different degrees of level of market penetration, control and costs to destination marketers, and credibility to the information recipients (Tasci and Gartner 2007).

The organic-induced image typology has been widely cited in the tourism literature (Tasci and Gartner 2007). Fakeye and Crompton (1991) added that when a tourist visits a destination, s/he would develop a “complex” image resulting from actual contacts with the area. Selby and Morgan (1996) proposed a similar hierarchy of place image comprising of “organic” image, “projected” image (established from tourist organization’s deliberate marketing effort), and “re-evaluated” image (perception obtained after visiting the destination itself). They referred the first two (i.e., organic and projected image) as “naïve image.” To date, most studies have focused on the formation of complex or “re-evaluated” image and the role of actual visitation
(which reflects destination performance) in this process (Baloglu and McCleary 1999; Chon 1991; Fakeye and Crompton 1991; Li and Vogelsong 2006; Martín and Bosque In press; Pearce 1982). In contrast, “naïve image” is still relatively understudied.

Information Search and Image Development

In Gunn’s (1972) typology, information received by a consumer could further modify an existing destination image which was accumulated through actual visitation experience or media exposure. Baloglu and McCleary (1999) argued that an image could be formed by either stimulus factors or personal factors. Stimulus factors include external information and past experience; personal factors refer to the consumers’ personal characteristics. This section mainly discusses the effect of information search from a stimulus factors, with particular emphasis on online information search.

Information search related to consumer decision making has been a widely studied in marketing and tourism fields (Jun, Vogt, & MacKay, 2007; Vogt, & Fesenmaier, 1998; Woodside, & Lysonski, 1989). Consumers not only search information for decision making purpose, but also for fun, entertainment, and other hedonic reasons (Vogt & Fesenmaier, 1998). For making a purchase, consumers need to evaluate different alternatives on various attributes (Bettman 1979; Payne, Bettman and Johnson 1993). If internal search in consumers’ memory cannot provide enough information, external search, where consumers actively look for information to reduce risk and uncertainty in decision making, will occur (Engel, Blackwell and Miniard 1995; Petrick, Li and Park 2007). Travelers also search for information not for a pending decision, but for fun, entertainment, and social status, and symbonic reasons (Vogt & Fesenmaier, 1998). They may use a variety of information sources for conducting external search.
including different strategies using the combinations of information sources (Fodness & Murray, 1998). Many researchers have explored the connections between the use of information sources and image formation. Woodside and Lyonski (1989) asserted in their model that information sources will influence the cognitive evaluation of a destination but not its affective image. In the same vein, Um and Crompton (1990) proposed that cognitive attributes or beliefs of a destination will be affected by external source and thus move a destination from a consumer’s awareness set to evoked set. Gartner (1993) also pointed out that the types or amount of information sought will influence the cognitive image but not the affective part. Finally, Holbrook (1978) and Baloglu and McCleary (1999)’s studies actually demonstrated with empirical evidence that information sources will influence the cognitive component but not the affective part of a destination image. In general, most researchers will agree that affective components of an image are based on its cognitive part and the former is harder to change based on external information.

Recently, the Internet provides a new type of information source which follows a hypertext structure, is more dynamic, interactive and richer in content (Pan and Fesenmaier 2006). More travelers are going online for travel related information and the Internet has become one of the major sources of travel related information and purchase venue (Milligan 2006). A study on travel information search behavior among different age groups showed that from 1995 to 2000 there was a large increase in Internet usage for travel information search purpose across all age groups, and specifically the baby boomer generation surprisingly adopted the Internet more often as a trip planning tool (Beldona 2007). More importantly, the Internet is actually more than one information source; it is a communication, distribution, and transaction channel; it includes text, images, and multi-media content, which may come from both commercial and non-commercial sources, and customers themselves (Peterson, Balasubramanian and Bronnenberg...
The Internet might be able to provide a new type of experience which is different from any traditional ones. Biswas(2004) has argued that since online information acquisition is different from offline settings drastically, all the consumer theories need to be re-evaluated in online settings. However, several questions remain to be answered: How will the Internet influence TDI development process? How will affective image and cognitive images be affected by online search? This study will specifically address these questions.

Conceptual Development

Gunn’s (1972) organic-induced image typology indicates that information coming from noncommercial sources will lead to tourists’ organic image, while that from commercial sources and deliberate destination marketing efforts will lead to induced image. When today’s consumers look for travel information, they are most likely to search and evaluate both types of information. As a result, both types of information may contribute to a successful trip plan as well as travelers’ altered or augmented destination image. For consumers, it might be neither necessary nor possible to distinguish the two types of information.

Day and Montgomery (1999, p. 7) prioritized “the connected knowledge economy” as one of the five emerging themes that will shape the future direction of marketing. In the connected knowledge economy, information and knowledge flow in an unprecedentedly free (low cost) and frequent (low barrier) manner. Sophisticated destination marketers are conveying their message through noncommercial approaches, such as PR, events and festivals, and social media. For example, Dr. Pepper has been promoting their new diary-based soft drink to youth market using blogs (Kaikati and Kaikati, 2004); several companies have already sponsored consumer-based virtual communities (Flavian & Guinaliu, 2005). Besides, companies may anonymously post positive reviews on their own products and bad-mouth the products of the
competitors. They reward the consumers who review the products favorably, or try to identify influential online community members and persuade them to write favorable reviews by providing them perks such as free samples (Dellarocas, 2006). As a result, the distinction between organic and induced image, in its original sense, is getting increasingly blurred. Put differently, in today’s market and technology environment, there can hardly be any “organic” image constructed purely from noncommercial sources. As Tasci and Gartner (2007, p. 414) asserted, “mutual exclusivity of organic, induced, and autonomous agents are practically nonexistent.” Thus, Gunn’s (1972) seminal idea has become less practically relevant.

Further, as indicated, the key difference of organic and induced images is destination marketers’ level of control and deliberation, which clearly illustrates a supply-driven mentality. From tourists’ perspective, a more relevant typology of image should be based on their type and level of information search effort. This paper hence proposes to use the term “baseline image” to refer to (potential) tourists’ destination image stemming from passive or ongoing information gathering, whereas “enhanced image” as their image built from active and intentional information search. What makes difference here is if customers take the initiative to search for information (i.e., active information search) or they are merely exposed to information (i.e., passive information collection). By no means do the authors attempt to complicate the already confusing terminology in TDI literature. Rather, the new terms are suggested representing a more demand-driven, customer-focused perspective.

In general, information search literature in marketing and tourism has been focusing on external travel information search, which intrinsically increases consumers’ product knowledge. However, the influence of information search on TDI might be different from that on customers’ product knowledge. It has been suggested that TDI is more holistic, subjective, and built in long-
term compared to one’s generic knowledge about a destination (Gunn 1997). Nevertheless, in today’s online world, with multimedia readily available to fulfill every aspect of tourists’ information needs, tourists’ pre-trip destination images may be more susceptible to changes. In the cases of images people hold toward unfamiliar long-haul destinations, the authors suspect that such changes may occur after as short as one online information search session.

Based on the foregoing discussion, a model was proposed (Figure 1). In this model, tourists’ destination image was conceptualized as a two dimensional construct, with the overall image comprising of cognitive and affective dimensions. It is postulated that active information search will change the baseline image into enhanced image.

This study was guided by the following two research questions:

RQ1: Does online information search influence subjects’ destination image? Put simply, will subjects’ “baseline image” and “enhanced image” be different as a result of subjects’ active information search?;

RQ2: How does online information search process influence subjects’ destination image?

Methodology

To answer these research questions, a mixed-method study was designed to investigate subjects’ destination image development process before, during, and after an online travel planning exercise. This study is part of a larger study on people’s online information search process. Considering the purpose and exploratory nature of this study, college students, a relatively homogeneous group, are deemed to be appropriate subjects. China was selected as the hypothetical destination for this study, with the assumption that most American participants will
share a similar level of familiarity (or lack of it) before the study [Foundation, 2006 #7196].

Plus, as one of the world’s largest international travel destinations, China provides a wide array of attraction options for travel planners to choose from and hence allows sufficient variation in the trips being made. A mixed methods approach used in similar previous studies (Backlund, Skaner, Monthgomery and Streder 2003; Pan and Fesenmaier 2006; Vining and Fishwick 1991) was adopted. This approach combined traditional pre- and post-exercise surveys, with think-aloud protocol and a process tracing method. Thinking aloud protocol was advocated by Ericsson and Simon (1993) and is widely used in usability testing of computer products in recent years (Rubin, 1994). When a subject is carrying out a task, s/he is asked to verbalize his or her thoughts, feelings, and opinions. It is argued that language mediates thoughts and therefore, we can understand the cognitive process during information search through the language of the subjects (Carley & Palmquist, 1992). Process-tracing methods have been used to capture the clickstreams of the subjects (Wang, Hawk & Tenopir, 2000). Those researchers used the processing-tracing method to capture information search behavior on the Internet. In the study they tracked both the information search behavior through clickstream and verbal reports through thinking-aloud protocol. A screen capturing software, Camtasia Studio, was used to capture their online activity into a movie file (TechSmith, 2006) and a parental control software, PC Tattletale (PC Tattletale, 2006), was used to capture the web pages the subjects have accessed. In the study, subjects were first informed about the goal of this study and ensured their confidentiality. The subjects then filled out an online survey (pre-exercise survey). Other than image questions (including Echtner and Ritchie (1993)’s three open-ended questions, and quantitative scales measuring cognitive, affective, and overall image, which will be discussed next), the subjects were also asked to report their individual characteristics, travel experience, and information
search styles. Next, the subjects were asked to familiarize themselves with the think-aloud method as prescribed by Ramey and Boren (2001). Afterwards, the students were told to plan a week-long (Dec. 15th to 22nd) trip to China for their winter break, focusing on cities, attractions, and restaurants they were interested in (rather than airline tickets, hotel rooms, or budget issues). A screen capturing software, Camtasia Studio, was used to capture their online activity into a movie file (TechSmith 2006) and a parental control software, PC Tattletale (Tattletale 2006), was used to capture the web pages the subjects have accessed.

Once the trip planning exercise was completed, participants filled out a post-exercise online survey, regarding their image [Ekinci, 2006 #6816] and satisfaction level with the travel information search and trip planning process [de Bruijn, 1999 #6921]. Further, participants were asked to rate their computer and internet skills (1-item, 7-point scale respectively). The total session lasted less than one hour, in which the travel planning exercise was limited to 50 minutes. During this process, the researcher sat besides the participant and took field notes.

After all the sessions were completed (each participant did the exercise in a separate session), a transcription of proceedings was developed which incorporated both the think-aloud protocol combined and process tracing method. Further, participants’ on screen actions and verbalization explaining those actions were coded. The data was then coded through the open-coding process as described by Strauss (1987). In this phase, specific words, phrases and actions were identified as being part of a category. Finally, core categorizations were developed and key themes were explored independently by three authors. The purpose of this phase was to examine the data in a manner that reduces the volume to a manageable set, while retaining the depth of qualitative inquiry. Finally, the coding as discovered was then put through a verification process
where the research team double-checked inter-rater issues, and further analyzed and resolved these issues (Huberman and Miles 1994).

**Image Change Measurement**

Consistent with most extant TDI studies, the present authors conceptualized that image comprises of both cognitive and affective dimensions (Baloglu and McCleary 1999; Martin and Bosque In press), which lead to the overall image of a destination (Baloglu and McCleary 1999). Specifically, China’s destination image in this study was measured following Ekinci and Hosany’s (2006) approach, with cognitive image measured by six sets of seven-point bipolar adjectives adopted from Ong and Horbunluekit (1997), and affective image measured by Russel’s (1980) four bipolar affective items. Finally, the respondents were asked to rate their overall impression of China as a tourism destination, by selecting on a semantic differential scale from one (highly unfavorable) to ten (highly favorable). The cognitive and affective image items were all mixed together and randomly ordered. Moreover, the orders of these items were completely different in pre- and post-exercise surveys.

Following Li and Vogelsong (2006), subjects’ image changes were determined via two series of questions: Method One compared same participant’s image rating in pre- and post-exercise surveys. That is, in both pre- and post-exercise surveys, subjects were asked to rate their image of China using the aforementioned cognitive and affective image scales. It was postulated that differences between pre- and post-exercise image, if any, would be largely attributable to the treatment, i.e., subjects’ information search.

Alternately, Method Two had the subjects directly report their image change, if any. Specifically, in the post-exercise survey, subjects were first asked “Did your image about China
change after your online trip planning?,” and then “If your image about China changed after trip planning, please describe how.”

Results

A total of 34 undergraduate students from a southeastern public university in the United States were recruited. Two subjects have been to China before. Their data were excluded from this analysis, as their image and information search behavior were presumably different from the rest. The rest (32 subjects) are mostly sophomore, junior, and senior level students in business-related majors. Due to computer glitches, one participant did not fill out the pre-experiment survey and another one did not fill out the post-experiment survey. For comparison purpose, the following analysis is based on 30 subjects who have completed pre- and post- experiment survey results.

Among the 30 subjects, there are 13 males and 17 females. The subjects took an average of 5.1 pleasure trips last year, and in a typical year, each of them takes 5.3 trips. On a scale of 1 to 7 (from “1” “not at all” to “7” “definitely”), they consider themselves as rather experienced travelers (an average score of 5.1). Regarding their computer and Internet experience, on average the subjects have 12.2 years of experience using a computer; they have used the Web for approximately 9.5 years and emails for 8.9 years. During an average week, the subjects accessed their emails and the Web more than six days. Finally, all of the subjects were relatively experienced in searching for travel information online (e.g., 29 out of the 30 subjects used the Internet to check out destination information before, 27 booked airline tickets online, and 25 reserved hotel rooms through internet).

When asked to list the distinctive or unique tourist attraction they could think of in China, 24 subjects mentioned “Great Wall of China,” including 11 who could only name great wall as
the attraction they knew of in China. Three subjects mentioned “temples” (including one who
used the word “castles”); two subjects mentioned the “dragon parade”; other attractions
mentioned include “Chinese food”, “Hong Kong”, “Shanghai”, “Tiananmen Square”, “Beijing”,
“Yangtze River” and “Huang He River”; and four participants could not recollect any attraction
in China. These results indicate that, as expected, the overall knowledge of China in the sample
was limited. These subjects spent an average of 21.5 minutes planning their trips to China. In
total, 1,857 web pages were visited by 30 subjects, or an average of 61.9 pages per participant.

Research questions analysis

RQ1 focuses on whether the online information search process may lead to any changes
in subjects’ destination image. As indicated, this was determined via two approaches (Li and
Vogelsong 2006). Method One compared the same participant’s destination image before and
after the information search exercise. To test the relationship between pre- and post-exercise
image attributes, a pair-wise \( t \)-test was performed on the 10 image attributes. Table 1 presents the
results of this analysis.

As can be seen, subjects’ destination image seemed to have somewhat changed before
and after the information search exercise. This may be illustrated from three perspectives: overall
image, affective image, and cognitive image. First, subjects’ post-exercise overall images were
significantly more positive than their pre-exercise overall images \((p<0.001)\). In the same vein,
statistically significant changes \((p<0.05)\) took place in all four affective image attributes.
Moreover, although the directions of positive or negative adjectives in the four pairs of bi-polar
semantic differential scales are random, all the changes occurred were toward the positive
direction (i.e., subjects felt China was a more exciting, pleasant, arousing, and relaxing
destination after the exercise). In contrast, no statistically significant differences occurred on the
six cognitive image attributes, although three of them observed marginally significant differences
($p<0.1$).

Alternately, Method Two directly asked the subjects if their image about China changed
after the online trip planning process. Twenty subjects or 66.7 percent of the subjects reported
that their image did change after the information search exercise.

RQ2: How does online information search process influence subjects’ destination image?

The authors deem it more appropriate to address this “how” question using a qualitative
approach. First of all, respondents were asked, “If your image about China changed after trip
planning, please describe how.” Consistent with the cognitive/affective typology, subjects’ self-
reported image changes may also be categorized as cognitive image changes and affective image
changes.

Among the 20 subjects who claimed to have experienced an image change, the majority
of (17) subjects reported changes regarding their cognitive beliefs. Most reported that their image
change came from knowing more about China. Specifically, subjects found that the information
search revealed many things that they did not know about China. Many of them were amazed by
the variety of attractions and activities China can provide. A typical response was given by
Participant 6, who wrote “I did not realize there were so many things to do there and so many
different places to visit that sounded like fun and there were many different activities to do.”
Participant 34 indicated, “I had no clue there was such nice beaches and great skiing.” The
information search even helped remove some “foreignness” of a distant destination like China in
subjects’ mind. For instance, Participant 9 reported, “I found some western-world activities...things that you could find in America. Such as the cooking class…”

Six subjects’ self-reported changes were regarding their affective image, or contained an affective component. For instance, Participant 4 put that, “It [referring to the information search exercise] gave me more of a visual idea of China in the images that I saw through planning my trip and made me more and more excited about the destination [emphasis added].” Some subjects obtained a different affective impression, owing to a changed cognitive image. That is, their post-exercise cognitive images about China contradicted their prior impression. As such, they obtained a more positive affective image as the information search “corrected” some negative stereotype they held before. For example, Participant 12 stated, “I thought it was an overpopulated place with no trees and just a lot of buildings but it seems beautiful and in a way peaceful.” Participant 15 concluded, “it now looks more interesting to me and instead of being busy and crowded there are nice and cultural places to visit.”

After reviewing participants’ answers on how their image changed, the authors further delve into the videos, weblog data, and transcripts of their information search exercise. Several themes emerged from the data.

The online information search has helped participants acquire information about China in accordance with their cognitive framework. This information can serve as a basis for changing their impression of destinations. However, the information on the Internet may not be objective. For example, participant # (Henry) commented a web page of summer palace: “This looks like it would be some place I could not miss. This is absolutely beautiful. Looks like a perfect getaway place from the city. That is exactly what it says.” The participant believed in the information provided in the web page and built a favorable impression towards summer palace. Participant #
(Sharon) read about the new railway from Beijing to Tibet: “The highest railway in the world. It looks really pretty. Looks like the most beautiful railroad ever .... Oh, the tickets are sold months in advance. Wow, that makes me want to take the railway.”

Some subjects brought their baseline image into the information search (and destination decision) process. Their information search process was hence more about confirming established images, rather than exploring new information. For instance, Participant 12, as most other subjects, started her search from google.com. While checking out the “sponsored links” Google provided, she first stated, “I want to see the panda bear when I am there,” and then “I want to see the panda bear, great wall, go shopping and general sightseeing for a day.” She also said, “Hong Kong seems too crowded. I do not want to go there— from what I heard about it.”

Looking at a picture of the Great Wall, she acclaimed, “That's something you have to see if you go.” Thus, even before searching the specifics for her itinerary, she had already made many to-go versus not-to-go decisions based on previous knowledge. Participant 3 was even more straightforward, and said when he started the search, “When you think about China, you think of karate and stuff like that.” He hence googled “Beijing Karate Show,” but was disappointed to find nothing he was looking for (partly because Karate is a Japanese martial art). In another example, prior to making up his mind where to go in China, Participant 25 concluded that, “Terra cotta is interesting because it is an archeological site. Forbidden City reminds me of a lot of movies I have seen [emphasis added]. That's why that interested me.”

The impact of image on information search was also reflected when subjects encountered something not fitting their image of China. Again, in Participant 12’s case, when she was planning her “shopping and general sightseeing” tour in Beijing, she was a bit surprised to find American restaurants there, and said, “Ha, Starbucks! That’s ridiculous. And KFC!” Obviously
such western presence was not what she was looking for in China, and later when she noted the American brands in Beijing’s Hongqiao Market, she went on saying, “Calvin Klein underwear? Goretex rain jacket? Oh my gosh, sneakers? Hah, not that exciting [emphasis added].” In another example, Participant 14 decided not to visit a Hong Kong shopping place, simply because the name (Stanley Market) “does not sound very Chinese.”

However, for subjects who have fairly limited prior knowledge about China, or when they need to decide on details about their itinerary which was not easily identifiable online, they tended to rely heavily on external sources that they deemed as credible sources (e.g., friends, websites they trust). In such cases, subjects’ image tended to be more susceptible to change. A typical answer was given by Participant 31, when explaining why she decided to follow Frommer.com’s recommendation, “I do not really know any other tourist's website. I do not know where else to look for, except that I want to see the Great Wall of China.” Participant 5 said, “You know what, I have a friend whom I think visited China. So I am going to Facebook to look at pictures. That always helps. If I have time, I will ask him myself. But I do not have time.” Participant 12 said, “I guess when I get there, I can figure out how to get tickets, whatever I need how to get there. I do not know. I guess I will rely a lot on concierge of the hotel [emphasis added] to tell me if I am making good choices or no.” When these happened, many participants concluded their information search by saying something like “There is so much to do in…” or “I didn’t know you can do… in China.”

Discussion and Conclusion

The Internet has profoundly changed customer behavior and marketing practices [Varadarajan, 2002 #5818]. Since customers’ information search behavior is drastically different in online settings, researchers have found it necessary to revisit and modify some traditional
theories to make them better suit the web environment [Biswas, 2004 #7191]. This study revisited the traditional organic-induced image typology, and argued that there might not be a truly “organic” image in today’s environment. Instead, the authors propose to use the term “baseline image” (i.e., image stemming from passive or ongoing information gathering) and “enhanced image” (i.e., image developed from active and intentional information search) to distinguish the different stages of image development in tourists’ mind. Based on this, a model was proposed and examined using a mixed-method study.

Thirty college students were asked to develop a one-week travel plan in China via online search. Data collected from the pre- and post-exercise surveys showed that participants’ overall destination images about China experienced significant and positive changes after information search. A closer look at the two image dimensions revealed that, with no exception, significant and positive changes occurred on all affective image measures, but not on any of the cognitive image items. Nevertheless, when asked to describe their image changes, most subjects reported changes on their cognitive beliefs about China, as a result of knowing more about the destination’s product offerings. Further, the qualitative data generated during subjects’ information search process evidenced that, their destination image could be confirmed, enhanced, and to less extent, corrected by information search. Moreover, subjects’ information search process was also influenced by their baseline destination image.

From a theoretical perspective, although the present study proposes a different typology, it is consistent with Gunn’s (1972) seven-step image modification process (specifically the first two steps). Thus, the empirical findings of the study contribute to the theory by substantiating Gunn’s image modification model through testing on the effects of online information sources. It
also complements many extant studies on image formation, which essentially focused more on
Steps 3-7 of Gunn’s model.

The results on the dimensional changes of image change were somewhat perplexing. As
indicated, the quantitative analysis showed that subjects’ cognitive image did not change, while
affective and overall image changed. This result contradicts previous studies [Woodside, 1989
#2504][Um, 1992 #2596][Gartner, 1993 #5485][Holbrook, 1978 #7003][Baloglu, 1999 #4326],
which suggested information search would generally influence the cognitive aspect of
destination image. The fact that all affective image items observed significant changes, while this
did not happen on any of the cognitive image items showed that the result was not a statistical
fluke. However, subjects’ self-reported image changes were mostly related to the cognitive
aspect.

One possible explanation is that most prior studies examined the effect of offline
information, while the present one deals with online information search. The dynamic and
interactive nature of the Internet [Pan, 2006 #6946] allows tourism websites to deliver affective-
related information more effectively than traditional offline information sources (Kim and
Fesenmaier, 2008). Put differently, offline information sources, such as brochures and print
advertisements, are comparatively limited in their ability to present emotion-related message.
Online information sources, particularly online social media, may be more effective in terms of
eliciting affective responses [Peter, 2002 #7182]. Further, subjects of this study (i.e., college
students) represent the new generation of customers [Beldona, 2007 #6915], whose behavior
(image development included) could be quite different from older generations [Peters, 1996
#7184]. For example, a study has shown that Generation Y (born after 1977) adult females
shoppers are more fun-driven and recreational quality seekers (Bakewell, & Mitchell, 2003).
Another explanation is the Weber-Fechner Law (Dehaene 2003; Shen 2003), which states that the amount of change needed to make difference noticeable is relative to the amount of initial stimulus. In the present case, that means the amount of stimuli needed to make significant changes on cognitive image might be much more than that needed for changes on affective image. Generally, the destination information subjects are exposed to is cognition related. Thus, they have accumulated much more cognitive information than affective one in their mind. The participants may have formed much cognitive understanding about China already from previous years of education and media exposure, but not affective ones. One might speculate that, during the information search exercises, subjects absorbed more information regarding cognitive image, and their description of image change was hence mainly on the cognitive aspect. However, the authors suspect that the amount of new cognitive information, proportional to the previous knowledge, might not be sufficient to reach a significant change. Changes in affective image, in contrast, might occur relatively easily owing to a relatively low threshold. Thus, it is the ratio of new versus old knowledge, rather than the absolute amount of information, that determines the image change. Moreover, changes in affective image overpowered the unchanged cognitive image, and resulted in changes in overall image.

One further possible reason is the sensitivity of scales employed to measure cognitive image. This study, following Ekinci and Hosany’s (2006) paper, measured cognitive image with a series of bi-polar semantic differential scales developed by Ong and Horbunluckit’s (1997). The present results might suggest that this scale lacks the sensitivity to detect changes, or is at least not particularly applicable to culturally distant countries like China. In comparison, the affective image scale used, which has been tested extensively before, might be a more sensitive instrument. Future research using different measures may provide interesting insights on this.
For instance, many TDI studies measure cognitive image by presenting a list of destination attributes (e.g., natural attractions, accessible transportations) in Likert-type scales (e.g., from “offers very little” to “offers very much”) to respondents. The authors deemed that approach not applicable to current respondents, who were not knowledgeable about the destination at all. However, if both Ong and Horbunluekit’s (1997) scale and the traditional approach have such limitations in current scenario, the question could become, is measuring respondents’ pre-trip image quantitatively appropriate? This seems to highlight the strength of the mixed-method approach used in this study, where qualitative aspect of the research may present complementary, even more accurate information to researchers.

Indeed, the mixed-method approach of this study helped the authors gain a better understanding of the process beyond self-reported survey data. The qualitative data of this study presented a more complete picture of how destination image development and information search interacted. Results showed that image development and information searches are not two separate processes. It seemed subjects’ baseline destination image might influence how and what information they searched, and the information search results in turn, helped generate an enhanced image. The finding makes intuitive sense. It is consistent with Lehto and her colleagues’ (2006) finding that knowledge with a destination (and prior experience) may influence the content of search (e.g., types of information sought) and degree of search (e.g., time spent online). The reciprocal effect of image on information search deserves further research.

From the practitioners’ perspective, an interesting finding of this study is although the cognitive aspect of destination image is easier to manipulate, it is not easily changeable in tourists’ mind. One may hence infer that, while the supply side may change and improve product
offerings relatively easily (comparing to the affective aspect), such changes are not always readily accepted by the demand side. In comparison, tourists’ affective image seems to be more open to change during information search. Thus, DMO website designers are suggested to pay more attention to components that may elicit positive affective responses. This is consistent with results of advertising research [Holbrook, 1983][Peck, 2006] and current trend of experience-based marketing (Prentice 2004).

Moreover, destination marketers have to be more aware of the role of “online word-of-mouth” in image building. Online WOM, or social media has become an increasingly important source for tourists’ information search and decision making (Ramsey 2007). Their impact was clearly illustrated in this study, when subjects resorted to travel websites’ recommendations and other tourists’ ratings to decide where to visit. Since online WOM is generally beyond DMO’s control, destination marketers have found it challenging to use them. Ironically, this is precisely the reason customers nowadays tend to trust them more than any advertisements.

Like any other controlled experiments in a lab, this study is subject to the artificiality of the settings. The subjects were given limited time to plan a one-week vacation, and they did not have access to other information sources, such as travel agencies, families and friends, telephones, and published travel books, during the planning process, which are rarely the case in real life. While the research design has been found to deliver valid results in previous studies (Backlund, et al. 2003; Pan and Fesenmaier 2006; Vining and Fishwick 1991), the results must be interpreted cautiously. Future studies may consider comparing the effect of online versus offline information to better imitate the real world scenario.

Further, subjects of this study are college students. Future studies using large non-student samples may provide new insights. Further, although Human-Computer Interaction research has
showed that usually as few as five users can uncover the majority of the usability problems (Nielsen 2000), future studies on similar topic are expected to recruit more subjects.

Conclusion

The present study examines the potential effects of online information search on tourists’ destination image development. This paper contributes to the literature by proposing a new model of tourists’ pre-trip destination image development, and empirically validating it. It was found that active online information search may change subjects’ destination image, particularly its affective aspects. One strength of this study is its mixed method research design, which combined both quantitative and qualitative methods. This echoes Echtner and Ritchie [, 1991 #6297; Echtner, 1993 #2610] who advocated that TDI studies should take advantage of the synergy of quantitative and qualitative research. It is hoped that this study, though only a small step, contributes to our understanding of how tourists’ destination image is formed before travel.
References


Nielsen, J. "Why You Only Need to Test with 5 Users." 2000.


Additional Refs:


Reference added by Grace


Figure 1. The Conceptual Model
Table 1. Comparing Subjects’ Destination Image Before and After the Information Search Exercise

<table>
<thead>
<tr>
<th>Image Items</th>
<th>N</th>
<th>Pre-Exercise</th>
<th>Post-Exercise</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>Std. Dev.</td>
<td>Mean</td>
</tr>
<tr>
<td><strong>Affective Image</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AffIm1: From Extremely Exciting to Extremely Gloomy</td>
<td>30</td>
<td>2.60</td>
<td>0.89</td>
<td>1.97</td>
</tr>
<tr>
<td>AffIm2: From Extremely Unpleasant to Extremely Pleasant</td>
<td>30</td>
<td>4.77</td>
<td>1.14</td>
<td>5.37</td>
</tr>
<tr>
<td>AffIm3: From Extremely Arousing to Extremely Sleepy</td>
<td>30</td>
<td>2.63</td>
<td>1.22</td>
<td>2.17</td>
</tr>
<tr>
<td>AffIm4: From Extremely Distressing to Extremely Relaxing</td>
<td>30</td>
<td>4.03</td>
<td>1.19</td>
<td>4.50</td>
</tr>
<tr>
<td><strong>Cognitive Image</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CogIm1: From Extremely Friendly to Extremely Unfriendly</td>
<td>29</td>
<td>3.14</td>
<td>1.19</td>
<td>2.72</td>
</tr>
<tr>
<td>CogIm2: From Extremely Accessible to Extremely Isolated</td>
<td>29</td>
<td>3.72</td>
<td>1.28</td>
<td>3.28</td>
</tr>
<tr>
<td>CogIm3: From Extremely Lively to Extremely Stagnant</td>
<td>30</td>
<td>2.37</td>
<td>1.07</td>
<td>2.37</td>
</tr>
<tr>
<td>CogIm4: From Extremely Interesting to Extremely Boring</td>
<td>30</td>
<td>1.83</td>
<td>0.95</td>
<td>1.73</td>
</tr>
<tr>
<td>CogIm5: From Extremely Quiet to Extremely Noisy</td>
<td>30</td>
<td>4.97</td>
<td>1.27</td>
<td>4.60</td>
</tr>
<tr>
<td>CogIm6: From Extremely Overcrowded to Extremely Sparse</td>
<td>30</td>
<td>2.80</td>
<td>1.47</td>
<td>2.93</td>
</tr>
<tr>
<td><strong>Overall Image</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OverIm: On a scale of one to ten, how would you rate your overall impression of China as a tourism destination</td>
<td>30</td>
<td>7.07</td>
<td>1.36</td>
<td>8.13</td>
</tr>
</tbody>
</table>

* p < 0.05
** p < 0.01