The Long Tails of Destination Image

Bing Pan, Ph.D.
Department of Hospitality and Tourism Management
College of Charleston
Charleston, South Carolina USA

Xiang (Robert) Li, Ph.D.
School of Hotel, Restaurant & Tourism Management
University of South Carolina
Columbia, South Carolina USA

ABSTRACT

This study examined the long tail nature of destination image using China as an example. The results indicated that the keywords the travelers used to describe China’s image follow power-law distribution. The destination images, expressed by the keywords/terms the respondents typed in, dominated by a few keywords on the top, but contain large amount of small niches. Since those keywords are likely to be the queries the U.S. travelers type in search engines for finding information online, Destination Marketing Organizations should target more on the niche image in their online marketing effort rather than the common held image. This will also help DMO marketers to expand their potential market with more focus on one-to-one marketing, and also protect the most popular and crowded destinations and attractions. With the development of more refined Internet technology in which individual traveler’s data could be captured, analyzed, and distributed, this more refined approach to understand tourist destination image is becoming more crucial for online marketing in general and search engine marketing in specific.

INTRODUCTION

Tourism destination image (TDI) is a well-research area in the tourism literature (Hunt, 1971; Milman and Pizam, 1995; Baloglu and Mc Cleary 1999; Chon 1991; Fakeye and Crompton 1991; Pearce 1982; Tasci and Gartner 2007). Previous studies have demonstrated that one may form his or her destination image through magazine or television, word-of-mouth, and travel experiences (Phelps, 1986; Baloglu and Mc Leary, 1999). Researchers have suggested that tourists’ overall destination image may be composed of cognitive image and affective image: the former being the physical properties of a place, while the latter referring to the visitors’ feeling and evaluation of a destination (Li and Vogelsong, 2006). Most extant TDI studies used structured approaches (e.g., a structured multi-attribute list presented as semantic differential and / or Likert scale) to measure cognitive and affective image (Baloglu and Mangaloglu 2001). However, destination images are deemed as multiple, dynamic, and complex (Gallarza et al., 2002); depending on the locale and scale, destinations in the world at different levels (country, state/province, or city) may demonstrate completely different characteristics. Some researchers hence argue that unstructured approaches, such as Echtner and Ritchie’s (1993)’s three open-ended questions, might provide richer data and reduce inherent bias and irrelevance of the structured approach (Stepchenkova and Morrison 2008). When analyzing and reporting results of TDI measurements, researchers generally focus on
the statistical average of respondents’ rating (in the structured approach) or “most frequently used words” (in the unstructured approach), as they represent the “common” destination image held by tourists.

Traditionally, tourism researchers measure a destination’s image to: (1) better understand customer awareness and knowledge of a destination; (2) formulate product development and destination positioning strategies; and (3) evaluate the destination brand parity and the effectiveness of destination promotion efforts. With the increasing importance of online marketing, the present authors suggest that TDI studies, particularly through unstructured measurement of destination cognitive image, may also help understand image keywords that can be used by millions of travelers to search online for destinations and attractions (Pan & Fesenmaier, 2006). In the tourism field, search has become a dominant mode in the traveler’s use of the Internet for trip planning (TIA, 2008). Travelers search information and generate keywords in search engines based on their mental models, in other words, their understanding of the tourism information space and their images and knowledge about the specific destinations (Pan and Fesenmaier, 2006). Understanding travelers’ images about their destinations are crucial for Destination Marketing Organizations (DMOs) to target those keywords on their websites and promote their products.

This will facilitate the optimal matching of online tourism information supply and demand. Especially on the Internet, huge amount of information could be captured, customized, and distributed to visitors or potential visitors. The arena of marketing and communication is moving from marketing segmentation on a general scale, toward one to one marketing (Peppers, Rogers, and Dorf, 1999; Li and Petrick 2008).

On the Internet, the ease of data storage and data communication between users around the world created new business models. Long Tail Theory highlighted such models which take advantage of the media with virtually unlimited storage space and minimal communication cost. The sale volumes of some online businesses’ products follow a power-law distribution: the popular items/products were sold at a large quantity while most unique items were sold at a minimum quantity; put simply, a small percentage of popular items may account for a large percentage of sales volume. However, since some online businesses could benefit from selling to world-wide audience with a large number of niche market (the long tail) (Anderson, 2006), some businesses and companies (such as Amazon and Netflix) are able to sell a large amount of unique products, even more than the sum of their most popular items.

The Long Tail Theory may bring an interesting perspective to the dominant destination marketing mentality that destinations should mainly understand, improve, and project “common” or “popular” destination characteristics, as to take advantage of the “mainstream” markets (Anderson 2006). In essence, the long tail of image will be valuable in targeting more and more niche groups of visitors. Though individually the numbers of niche searches might be small, but when combined they may contribute to a large volume of information queries, which may lead to greater sales volume.

Therefore, the purpose of this study is twofold: (1) to examine if the distribution of TDI contains any “Long Tail” characteristics; and (2) more broadly, to explore the connection of TDI studies and search engine marketing. Using an empirical study on American travelers’ image of China, this study demonstrated that destination images are rich and complex; and image items generated through three open-ended questions follow power-law distribution. The following sections detail the methods, results, and implications for the study.
METHODS

The study is a part of a large scale marketing research project on American tourists’ perceptions of Mainland China as a vacation destination. The project was conducted during May and June, 2008. The research employed an online panel survey on 3,263 American adults, age 18 or older, who have taken at least one leisure vacation in the past 12 months. The survey invitations were sent to a national, demographically representative group. The survey was demographically balanced to represent the American travel population as reported by the Travel Industry Association (TIA) (TIA, 2007).

Echtner and Ritchie’s (1993) three open-ended questions were used to measure respondents’ perception of China. Specifically, the three questions are:

1. What three images or characteristics first come to mind when you think of mainland China as a leisure travel destination? Please list the 3 things that come to your mind first.
2. How would you describe the atmosphere or mood (such as happy, boring) that you would expect to experience while visiting mainland China? Please list the 3 words that come to your mind first.
3. Please list three distinctive tourist attractions, cities, or provinces you can think of in mainland China.

The first question is representing the overall image; the second question is more aligned with the affective image; and the third one is targeting at the cognitive or perception dimension of China as a destination. Each respondent was allowed to fill in up to three items for each question and they were allowed to skip any or all items on one of all the three questions. The frequencies of different keywords the respondents used to answer the three questions represent their linguistic descriptions of their images about China.

The results first went through the data cleaning process, in which clear typos were corrected and keywords with exact meaning (such as “the Great Wall” and “Great Wall”) were merged. The researchers then used text analysis to investigate the linguistic structure of those responses. The text analysis software used is CATPACII (Woelfel and Stoyanoff, 1993).

Findings

The authors first used CATPACII to analyze most used keywords; then regression was used to model the frequencies of keywords on the power-law distribution, which is the basis of long tail theory. The analysis indicates that results of the three image questions fit the power-law distribution nicely (Table 1). In Table 1, the \( x \) is the rank of the keywords (the most popular keyword is valued 1, the second is 2, and etc.) and the \( y \) is its frequency. The destination images, expressed by the keywords/terms the respondents typed in, dominated by a few keywords on the top, but contain large amount of small niches. For example, for overall image, “the Great Wall” (737 times), “Food” (524 times), “Crowded” (406 times), and “people” (370 times) are the top ones, followed by “Culture” (227), “Communism” (163), and “lots” (159); however, there are 889 keywords which only appeared once, and 275 keywords appeared twice; in total, there are 1,567 unique keywords which described the overall images of China. For attractions in China, “The Great Wall” and “Beijing” appeared
more than 1,000 times, followed by “Hong Kong” and “Shanghai” which appeared more than 300 times; in total, there are 558 total unique keywords which described attractions in China. For affective image descriptions, there were 1,138 total unique keywords. To be noted, in the attractions question, some niche image keywords are erroneous or unrelated, such as “HooHingMing City” or “Nintendo”; but most are interesting niche concepts/keywords, such as “Gansu”, “subway”, “dance”, “drinking” and “monasteries”. These keywords are very possibly to be those keywords the American visitors type in when searching for China as tourist destination.

Table 1. Model the Power-Law Distribution of Image Keywords

<table>
<thead>
<tr>
<th>Model</th>
<th>Estimated Model</th>
<th>F Value</th>
<th>R Square</th>
<th>Model Sig.</th>
<th>Accumulative Percentage of Top 20% Keywords</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Perception</td>
<td>$y = 6123.504 \times x^{-1.210}$</td>
<td>33842.4</td>
<td>.971</td>
<td>0</td>
<td>83.1%</td>
</tr>
<tr>
<td>Affective Perception</td>
<td>$y = 4512.924 \times x^{-1.227}$</td>
<td>36591.0</td>
<td>.973</td>
<td>0</td>
<td>83.0%</td>
</tr>
<tr>
<td>Attractions in China</td>
<td>$y = 3199.793 \times x^{-1.801}$</td>
<td>101899.0</td>
<td>.995</td>
<td>0</td>
<td>91.3%</td>
</tr>
</tbody>
</table>

Interestingly, for overall image descriptions and affective image descriptions, the top 20% of keywords contains a little more than 80% of total keywords volume; for the keywords in attractions in China, the top 20% of keywords was more than 90% of volume. In other words, in this aspect of image, the “head” is a lot fatter and the “tail” is a lot slender. This indicates a large concentration on the popular attractions, such as “the Great Wall” and “Beijing”. This has several explanations: it may due to the unfamiliarity of Americans to attractions in China, or the lack of richness in the marketing and promotion programs of China’s tourism administrations, which has not taken advantage of the Internet as a cheap marketing channel.

APPLICATIONS OF RESULTS

The results indicated that destination image items American travelers held about China did follow power-law distribution: certain attributes or attractions are known to many of the respondents but thousands of niche keywords contribute to a large volume. The list of destination image items generated through TDI studies might also be a list of keywords that travelers may use to describe and search for a destination. Thus, future TDI studies may contribute to search engine marketing strategies and conceptualization. For today’s DMOs, it is becoming necessary and feasible to capture not only the “common” or “popular” destination image possessed by most visitors or potential visitors, but to a large degree the “niche” image held by only a few visitors. The authors speculate that, when marketing China to the U.S. travelers, focusing on the long tails of keywords could be as valuable as the popular ones, especially under this very competitive online market. Popular destinations or attractions such as “the Great Wall” and “Beijing” always have high levels of competition and make them more expensive to target on, either for organic listing or paid listing (Pan, Litvin, and O'Donnell, 2008). Targeting those thousands of niche keywords could help expand the market. In addition, providing more niche attractions and unique characteristics can also help alleviate the congestions in popular attractions and implicitly direct the visitors to less “hot” areas.
CONCLUSIONS

The results indicated that the keywords the travelers used to describe China’s image follow power-law distribution. Destination marketers should understand and mine those images in thousands of niches. This will also help DMO marketers to expand their potential market, take on one-to-one marketing efforts, and also protect the most popular and crowded destinations and attractions. With the development of more refined Internet technology in which individual data could be captured, analyzed, and distributed, this more refined approach to understand TDI is becoming more and more crucial for online marketing in general and search engine marketing in specific.

REFERENCES


**Contact information:**

Dr. Bing Pan, Assistant Professor  
Department of Hospitality and Tourism Management  
College of Charleston  
66 George Street  
Charleston, SC 29424  
(843) 953-2025 voice  
(843) 653-5697 fax  
bingsue@gmail.com