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ABSTRACT

Tourist movement patterns are essential for tourism planners to make decisions on tourism product development, destination planning and marketing. The 2008 Beijing Olympic Games have a great impact on the tourism industry in Beijing, especially on tourism flows and movements. In order to understanding changes of tourist movement patterns during the Games, the paper used content analysis method to analyze 500 trip diaries gathered from 6 different websites from January 2001 to April 2009. The paper also utilized social network analysis software Ucinet 6 and NetDraw to map itineraries and analyze overseas tourist movement patterns in Beijing. As a result, the paper summarized the changes of main tourism attractions and main tourist movement patterns in Beijing during the Olympic periods.
Keyword: *tourist movement patterns, the 2008 Beijing Olympic Games, overseas tourist, content analysis, social network analysis.*

INTRODUCTION

The core of tourism involves the movement of people through time and space. Tourist movement patterns are the spatial changes of activity locations of tourists (Lau & McKercher, 2007). Tourist movement patterns contain various items of information that could be used for designing better tourist packages, providing more attractive combinations of attractions, as well as developing travel guidance policies and marketing services (Xia, Zeephongsekul & Arrowsmith, 2009; Asakura & Iryo, 2007). Understanding how tourists move through time and space has important implications for infrastructure and transport development, product development, destination planning, and the planning of new attractions, as well as management of the social, environmental, and cultural impacts of tourism (Lew & McKercher, 2006).

The Olympic Games are now one of the world's largest events, with substantial economic, social, political, and other benefits for the host nation, region, and city (Toohey, Kristine, & Veal,

2000), especially in tourism industry. Weed (2008) mentioned that the Olympic Games have an impact on tourism flows and movements during the Games, especially for those 'event-affected' people. Understanding these changes is helpful for destination managers to maximize the numbers, lengths of stays and spending of Olympic-related visitors and optimize Olympic-related tourism benefits. Therefore, the purposes of this study were to (1) identify the tourism attractions visited by overseas tourists and the changes in the pre-, during, and post-Beijing Olympic Games periods; and (2) identify the overseas tourist movement patterns in Beijing and the changes during these periods.

LITERATURE REVIEW

Tourist activities and spatial pattern is one of the major aspects of tourism geography, which focuses on explaining spatial patterns of tourist activities at different scales, such as global, national, regional and local (Pearce, 1995). A variety of studies have attempted to map the movements of tourists between destinations or between their home and destination areas (Gun, 1972; Mings & McHugh, 1992; Lue, Crompton, & Fesenmaier, 1993; Oppermann, 1995; Flognfeldt, 1999; Lew & McKercher, 2002). Based on previous studies, Lau and McKercher (2007) summarized the movement patterns into six categories: single point, base site, stopover, chaining loop, destination region loop, and complex neighborhood.

Compared to a large body of inter-destination movement studies, less prior research has been conducted examining tourist movements within a destination. Lew and McKercher (2006) modeled the intra-destination movement patterns into four types of territorial models and three types of linear path models. Lau and McKercher (2007) found different intra-destination movement patterns between first-time and repeat visitors in Hong Kong. McKercher, Wong, and Lau (2006) identified six different patterns of long-haul visitors to Hong Kong, which were the Wanderer, Tour-taker, Pre-Planner, Explorer, Uncommitted and Intimidated.

A variety of techniques have been applied to observe tourist movements by different studies. The traditional tracking techniques are based on observations and interviews (Dumont, Roovers, & Gulinck, 2004). Recently, new tracking techniques such as global positioning system (GPS) (Arrowsmith, Zanon, & Chhetri, 2005h), global information system (GIS) (Lau & McKercher, 2007), timing systems (O'Connor, Zerger, & Itami, 2005), camera-based systems (Haritaoglu, Harwood, & Davis, 1998), mobile communication tracking (Asakura & Hato, 2001, 2004) have been utilized to record movement information of tourists with resulting high resolution. Besides, data mining methods, such as expectation maximization (EM) clustering (Kuo, Wang, Hu & Chou, 2005), and statistical methods, such as logistic-regression and log-linear models (Xia, Evans, Spilsbury, Ciesielski, Arrowsmith, & Wright, 2009), cluster analysis (Asakura & Iryo, 2007), and Markov chains (Xia, Zeephongsekul, & Arrowsmith, 2009), are used to analyze the tourist track data and identify the spatio-temporal movement patterns.

METHODOLOGY

Beijing was the hosting city of the 2008 Olympic Games which took place from August 8th to 24th. As the capital of China, Beijing is a famous tourism city and has diverse natural and cultural attractions. In 2008, Beijing received 3.36 million overseas tourists and was valued as the most preference tourism city in the world. Studying the impact of changes the Olympic Games on overseas tourist movement patterns is important for the Beijing tourism industry to learn from this significant event and make more effective marketing plan in the future.

The present study sought to understand movement patterns of overseas tourists in Beijing during the Beijing 2008 Olympic Games by mapping and analyzing their itineraries. The original data were 500 trip diaries gathered from 6 different websites from January 2001 to April 2009, including 350 English diaries posted by international tourists and 150 Chinese diaries posted by tourists from Hong Kong, Macau, and Taiwan. The 6 websites were: (1) www.travelpod.com and www.travelblog.org, which were famous international tourism blog websites; (2) www.yahoo.com.hk, which was the biggest portal website in Hong Kong and Macau; (3) discuss.com.hk, the most famous web forum in Hong Kong; (4) www.yahoo.com.tw, the biggest portal website in Taiwan; (5) www.yam.com, one of the biggest portal website in Taiwan.

Tourists who wrote diaries on these websites were mostly FIT travelers, so their movement patterns in Beijing were informed by their free choices.

Content analysis method was used to analyze the original data and construct tourists' itineraries. Content analysis method is "a careful, detailed, systematic examination of a particular body of material in order to identify patterns, themes, biases, and meanings." (Berg, 2001) The study chose content analysis because it is applicable to various types of unobtrusive data (Berg, 2001), including words from dairies as in this study. There is no other methods can be used to analyze words as good as content analysis. The content analysis can also be used to calculate the frequency of each code which helps the authors to identify patterns.

The original data were divided into three groups in terms of time period in order to discuss the changes of movement patterns in the pre-, during, and post-Beijing Olympic Games periods. The numbers of trip diaries collected before August 2007, from August 2007 to September 2009, from October 2008 to April 2009 were 160, 177, and 163, respectively. Social network analysis is a method to map and measure of relationships and flows between people, groups, organizations, and other connected information/knowledge entities. It provides both a visual and a mathematical analysis of human relationships. The study utilized social network analysis software Ucinet 6 and NetDraw to map itineraries and analyze movement patterns.

RESULTS

Tourism attractions

The results show that there were totally 197 attractions in Beijing visited by overseas tourists in the study period. The number of total person trip to all attractions in Beijing was 4,972 and average number of attractions visited per capita was 10. Tian'anmen Square was the most frequently visited attraction which had 513 person trips, while 71 attractions only had 1 person trip.

The main tourism attractions visited changed during the Olympic Games periods. In the pre-Beijing Olympic Games period, the number of attractions visited and total person trip were 125 and 1,437, respectively. Twenty three attractions had more than 14 visitors. During the Beijing Olympic Games period, the number of attractions visited and total person trip were 123 and 1,679, respectively. Twenty nine attractions had more than 14 visitors. In the post-Beijing Olympic Games period, the number of attractions visited and total person trip were 127 and 1,856, respectively. Thirty three attractions had more than 14 visitors.

From the above summary of results, there are important implications on the change of main tourism attractions visited during the Beijing Olympic Games period. First, the number of main tourism attractions visited by overseas tourists is increasing. Tourists are willing to visit not only traditional attractions in Beijing, but also new attractions developed during the Olympic period. Second, famous traditional attractions have the highest attractiveness to overseas tourists. Third, Olympic attractions arouse great interest of overseas tourists. Finally, new attractions are burgeoning.

Main tourism movement patterns

In this study, tourism itineraries taken by more than 4 tourists are considered as main tourism movement patterns. The results indicate an increasing trend of the number of main tourism movement patterns in Beijing. In the pre-, during and post-Beijing Olympic Games periods, the numbers of main tourism movement patterns were 22, 28 and 43, respectively.

The results also show that main tourism movement patterns in Beijing changed because of the impact of the Olympic Games. In the pre-Beijing Olympic Games period, main tourism movement patterns were almost traditional itineraries, involving Tiantan Park, Tian'anmen Square, Forbidden City, Wangfujin Street, Summer Palace, Tsinghua and Peking University, Ming Tombs, and Great Wall. During the Beijing Olympic Games period, Some new main tourism itineraries emerged, such as around Olympic Park area, from Shichahai Lake to Bell and Drum Towers, and from Tiantan Park to Pearl Market. Meanwhile, the relationship between Summer Palace and Tsinghua and Peking University decreased while the relationship between Summer Palace and Olympic Park strengthened. In the post-Beijing Olympic Games period, the

relationship around Olympic Park area got further strengthened and the relationship from Shichahai Lake to Bell and Drum Towers extended to Nanluoguxiang and Yandaixiejie Hutong. The relationship around southern Tian'anmen to Forbidden City area strengthened, while that around northern area weakened.

The results also illustrate some trends of main tourism areas visited by overseas tourists in Beijing. The main visited areas were center city area which consists of Dongcheng, Xicheng, Xuanwu, and Chongwen Districts, some suburban areas such as Haidian and Chaoyang Districts, and some rural areas where the Great Wall is located. The center city area always attracted 70% tourists but the number of tourists visiting this area dropped a little over time. Chaoyang District as the main area where Olympic attractions are located received an increasing number of tourists. In rural areas, the region where the Ming Tombs and Great Wall are located became warmer while the other areas had recessions.

CONCLUSION

The study analyzed most visited tourism attractions and main tourism movement patterns in Beijing during the Olympic periods based on data collected from 500 trip diaries of overseas visitors. The study found that famous traditional attractions are still most sought-after attractions, whereas Olympic attractions also become the must-go places for overseas tourists. Other new developing attractions which are targeted at overseas tourists are booming. The center city area in Beijing as the core tourism area does not seem to change over time whereas the most visited attractions here become more diverse. However, with the impact of the Olympic attractions and other new developing attractions, the core tourism area extends along the City Axis of Beijing.

Significance to industry

The Olympic Games bring not only ample tourism opportunities but also tremendous challenges in tourism marketing and management to the hosting cities. In order to leverage Olympic tourism impact and maximize tourism economy, it is important for destination marketers and managers to understand the tourist movement patterns and their changes during the Olympics. The study demonstrates that more overseas tourists are attracted to Beijing due to the Olympic Games. The study also shows that developing appropriate new attractions besides Olympic attractions based on the needs of overseas tourists will prolong their length-of-stay and facilitate them to visit more attractions. The study suggests that hosting cities emphasize on both remaining famous traditional attractions and developing potential new attractions aimed at target markets in order to take full advantage of its Olympic tourism opportunity. The detailed discussion on implications will be included in the full paper.

Limitation

This study has several limitations. First is the generalizability. Because this study is based on the data of 500 trip diaries collected from 6 websites. People who wrote diaries on those websites may not be representative to the whole overseas tourist population, so the tourist movement patterns and tourist attractions found in the study may not accurately reflect the true patterns and attractions. Also, this study is conducted in Beijing, which is the capital of China and a famous tourism destination city before the Olympics. The unique city characteristics may have impact on the overseas tourist population. So the result of the study may not be simply replicated in other cities. Second is the impact of tour agency to the tourist movement patterns. In the study we could not identify FIT travelers from package tourists when selecting trip diaries. If some or many of the diaries we selected were written by package tourists, then the movement patterns found in the study may be influenced by tour operators' arrangement.

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