

Guojun Zeng *Editor*

Tourism and Hospitality Development Between China and EU

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Introduction

Guojun Zeng

China has achieved the most impressive development in the tourism industry in the past two decades. Travel and tourism has become a strategic industry in China's development toward a market economy. The Chinese outbound tourism market has become one of the acknowledged emerging markets all over the world. According to the United Nations World Tourism Organization (UNWTO), China now ranks fourth in terms of international tourist arrivals and fifth with respect to international tourism receipts in 2009. Most notably, the China outbound market is considered the most attractive and promising by many destination countries. As one of the largest generators of the outbound tourists, China generated 78.4 million outbound travelers in 2012, and the total expenditure on outbound tourism reached US\$80.0 billion, the highest in the world (China Tourism Academy 2012). Tourists of outbound tourism in China have grown by more than 15 % in recent years (China Tourism Academy 2012).

The booming Chinese outbound tourism has attracted worldwide attention (Li et al. 2011). Because of the steady rise in income level and the improvement on salaried vacation system, China has had the biggest domestic tourism market in the world. The tourism industry has diversified from the earlier culture and nature tourism to other fields such as leisure vacation, technology, and agricultural ecology tourism. These new tourism fields have formed an important impetus to the growth of tourism. However, ideological, psychological, social, and cultural barriers to accepting and embracing visitors from China are still seen among hosting communities (Cai 2007). China is one of the most difficult countries for westerners to understand and adapt to (Herbig and Martin 1998). They have no precise information about Chinese consumers, not to mention the change in their consumption preference.

At the same time, a number of multinational corporations have been focusing their efforts on key external market trends that can lead to future growth opportunities. These multinational companies have identified as a driver of change the fact that

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“power is moving east,” specifically toward the growing Chinese consumers. Based on these changes, tourism and hospitality research is facing an unprecedented number of issues, opportunities, and challenges, many of which have global implications. The international conference on tourism and hospitality between China and Spain 2012, was held on November 29–December 1 in 2012 in Zhuhai, Canton in China. This conference was held by the school of tourism management of Sun Yat-sen University, China Tourism Education Association, faculty of tourism in University of Balearic Islands, and hotel management school of the Balearic Islands.

The conference had two major parts, academic and industrial. The academic part was for researchers in tourism and hospitality-related fields in China, Spain, and other parts of the world to exchange their research results directly. The industrial part was for the tourism and hospitality sectors to have a cooperation platform with their Chinese counterparts to provide business opportunities and direct contact. With these two parts, the conference provided a unique global forum for academics, thought leaders, and key industry practitioners from diverse backgrounds and interests to discuss and debate critical issues that would affect the future direction of tourism and hospitality research and practice.

Based on the conference proceedings, we decided to publish this book for the benefit of business owners, managers, and researchers in tourism and hospitality to better understand the Chinese market. At the same time, we hope this proceeding would provide some opportunities for knowledge exchange between Chinese and Western researchers as well as practitioners. In this book, we aim to discuss the development of hospitality under globalization by dividing the topics into four parts: the management and sustainable development of hotels, marketing and development of destination, tourism resource and tourism impact, and safety and education research in tourism field.

Part I concentrates on the management and sustainable development of hotels. With the development of tourism, hotels expand unconsciously. Certainly, hospitality management is becoming a hot topic. Xu Hong from Nankai University of tourism and service finds out innovative products and service in budget hotels and high level hotels. She conducted research based on the views of customers, and with the method of participant observation, informal personal interview, Delphi. The paper shows the differences of service innovation in hotel industry and indicates the relationship between high level hotels and budget hotels. In order to be sustainable in market, the hotels should find their way considering innovative products and service.

Innovation is a good way to be competitive along with sustainability. Miguel Trias Vilar of the University of Balearic Islands, Palma de Mallorca, believes Corporate Social Responsibility is the key element to designing internal strategic marketing and changes. He takes luxury hotels in Balearic Islands as a case study, aimed to unveil some working methods to enable employees to live and perform coherently. If the hotels do not do well, some employees will move away. Yang Yun from Sun Yat-Sen University explains an interesting phenomenon. She conducted research on the effect of gender difference on turnover of hotels of employees in China. The study shows that hotels hire more females than males owing to

its service function which considers a number of positions traditionally perceived as male jobs. Married males and females usually choose to remain in service work, however, the unmarried are inclined to leave.

During the development of hotels, the government plays an important role. Wang Hong finds the optimization of government's role is necessary to turn to service market effectively. So, we need to change the indicators for the government's check which used to be "GDP", let the nongovernmental organizations play a role in orderly and pay attention to the procedure of the participation of industry delegates.

Part II is related to the sustainable development and management of tourism destinations. Coastal products consist of beach and sun, however, experience is the new demand which Júlio Mendes from University of Algarve shows us. In the study, not only nature and rural landscape, gastronomy, towns, and monuments are the main motivations, but also the age and education of tourist. The research suggests that there should be an integrated approach to sun and beach and nature and rural landscape products.

Sociological approach expands in tourism study. Mu Hong from Chongqing University of Technology applies symbiosis theory to research symbolic spatial structure of scenic spots. With the case study of Three Gorges, the development is based on the original authenticity construction. Perhaps, the situation is different in desert scenic spots. Shi Jinlian from Capital Normal University makes a research on the influence factors of dynamic recreation value of desert scenic spots. The research indicates recreation values of desert scenic spots, which are closely related with tourist reception and travel cost; recreation expense courts for high percentage in the per capita consumption; abundance of tourism products and natural endowment of recreation resources have great influence on recreation value of desert scenic spots.

There are different kinds of scenic spots, such as National Nature Reserve, National Park of China, National Forest Park, and National Geo-park. However, they are cross-entitled in China. Research done by Fu Guanghai from Chengdu University of Technology emphasizes the significance of the administrative system reform of exploitation-prohibited region, which is of great importance to implement the main functional region division.

The Dike-Pond agriculture is a traditional agriculture model developing in the Pearl River Delta of China. Guo Shenghui from Guangzhou Panyu Polytechnic suggests that museums, agriculture bases, and synthetic ecotourism areas should be built to develop this traditional agriculture culture. In order to achieve cultural diffusion, some cultural marketing strategies are necessary. In Wang Lin's research, she indicates some measures, which include demand-oriented cultural resources exploitation, competition-oriented brand culture positioning, and self-oriented marketing mix.

Microblog marketing is a new-developed approach in tourism. Peng Qin from Chengdu Sport University researches the feasibility of tourism enterprises to carry out the microblog marketing. This way is systematic, scientific, rational, and valid, promoting the development of China's tourism industry.

Julie Wen from the University of Western Sydney does an analysis on business training visitors from China to Australia. We can understand the motivation factors and expectation of those visitors from the qualitative data in the research. Compared with private traveling, business travel seems to be on the decline; however, it is far-reaching as their impression and feedback on Australia would have rippling effects on private traveling and Sino-Australian relationship. Motivation, satisfactory, and behavioral intention are concerned about the choice of tourists. They go to Macau museum for different motivations showed in the study of Tang Juan from Macau University of Science and Technology.

Part III focuses on tourism resource and tourism impact around the world, especially in Mainland China. Tourism industry can support and sustain economic growth recording important increases in different parts of the world. It has effects on the economic and social development of local place. Tamer Ayad from Beijing Jiaotong University studies the relationship between tourism activities and the economic development taking Kharga Oasis in Egypt as an example. He collects 116 questionnaires to do a quantitative research and reveals that tourism development has an advantage of Kharga Oasis citizens. Besides, he suggests local culture consciousness should be created for the importance of concentrating on sustainability requirements in the future, maximizing the benefit of tourism development of Kharga Oasis.

Kharga Oasis citizens have a positive attitude toward tourism development, and what is the attitude of Chinese? Residents' participation and attitude are the main contents to tourism impacts. Liu Jiaxue from Nanjing Xiaozhuang University does a comparative study about residents' perception and participation toward tourism impact. She does SEM (Structural Equation Modeling) analysis to suggest there is a strong relationship between residents' involvement and attitude toward tourism impact, and different involvement mode under different dominant force and profit distribution are the main causes.

As the participation of residents, tourism activity in rural areas has remarkably increased. Shen Suyan from Nanjing Forestry University analyzes regional rural development with a cognitive mapping approach with the case study of Jiangsu province. Her study indicates that rural tourism in northern Jiangsu area is still in the initial stage, while it is in mature stage in southern Jiangsu area. It shows land use is the key element to limit accommodation development, which is good for improving rural tourism future. To develop rural tourism in northern Jiangsu area, market, land, and capitals are the key problems to solve.

Tourism can improve the life of local people; meanwhile, the festivals and exhibitions can develop tourism. Wang Xiaomin from South China University of Technology does a comparative research on industrial features between festivals and exhibitions in China. With content analysis method, the research shows that both differences and similarities exist between festivals and exhibitions. Both of them appears a feature of "two head is large, the intermediate part is small". Festivals were more concentrated than exhibitions in terms of industry distribution.

Ying-Chuan Wang from Macau University of Science and Technology researches the motivation of leisure travel from the view of college students. The

model of pull and push is employed in the study, and the results indicate three categories in push actors: a esthetics, learning, self-actualization; the ability to find hygienic and comfortable accommodation and delicious food is the pull factor. The study can give some suggestion to tourism in Macau.

Tourism is a topic concerning different kinds of aspects, such as tourism education, public tourism service, tourist incidents, tourism resource in Part IV. Li Hui from Changchun Normal University finds out the problems about the construction of tourism management professional teachers' team by the case study of her school. It is urgent to give some suggestion: building structure, reasonable specialized teachers' team, and training superb business professional leaders. It will probably be an effective way to have cooperation between enterprise and school. He Ying from Gansu Industry Polytechnic College introduces the cultivating pattern—"Cooperation between school and enterprise, combining learning with working, group developing". Gansu Industry Polytechnic College has adopted this pattern for several years, besides, the results are satisfying. In the process, both school and enterprise play an important role and can get some improvement.

Tourism resource is the basic of tourism. Liushuang from Shanghai Normal University shows the current study of resource evaluation: the evaluation factors' name is not enough standardization; It is lack of evaluation criteria and shows a stronger subjectivity; the use of analytic hierarchy process (AHP) method is to be improved. In the study, 35 evaluation factors have been identified and different indicators could be chosen to measure for a factor. The research indicates introducing strategy options layer and appropriating arrangement for the scoring process to improve the evaluation method.

Not only resource, tourists concern public tourism service as well. Xu Jufeng from Beijing Union University does a research on tourist demands and evaluation for public tourism service. The study shows tourism infrastructure, local soft environment, and tourism safety assurance are the important aspects of tourists concern. Safety must be assured, however, it seems difficult for "Lv You" tourism, which is a type of travel mode in China. Zheng Xiangmin from Huaqiao University adopts internet interview and information collection method to study the formation mechanism of "Lv You" tourism incidents. Individual factor, environmental factor, management factor, and institutional factor are the four factors, which account for the phenomena based on Grounded Theory analysis. Therefore, it is necessary to do some information research to keep safe. Zhang Jingjing from Griffith University provides insights for tourism marketers into traveler's perception. Age, gender, income, and travel-related factors of previous visits are greatly connected with the usage and trustworthiness of information sources.

We hope this preceding can achieve two goals. The first objective is to determine the structure, scale, and diversity of China's tourism sector and form a picture of tourism consumer study on China. The stunning rise of China makes clear to most foreign companies that to survive and thrive in the global market, one has to gain insight into the Chinese market. So, a "road map" is needed to meet this challenge. In the past decade, an increasing number of researches have been conducted about China and its vast market from different perspectives. Some chapters

of this book will offer an overview of the development of China's tourism industry with particular highlights on the following themes: domestic tourist markets, outbound tourist markets, tourism development, and the impact of tourism triggering the need for sustainable tourism development. The second objective of this present book is to identify the levels where key decisions are made, how the government control reinforced, and how the same influences the nature of tourism development in destinations. By these, some chapters focus on the governance of Chinese sustainable development. How can China's government contribute to the governance of sustainable development—at the economic, social, and ecological scales—in ways that offer Chinese destinations, in principle and practice, an opportunity to play a more positive role in advocating a knowledge-based sustainable development paradigm.

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Part I
Management and Sustainable
Development of Hotels

The Comparison of Service Innovation Between High Level Hotels and Budget Hotels in China

Hong Xu, Yuqing Liu, Lei Song and Ruihan Wang

Abstract Because of global competition, new products and services appear rapidly in hotel industry but customer-oriented research on hotel service innovation is rare. From customers' perspective, the authors find out innovative products and services in budget hotels and high level hotels by participant observation and informal personal interview. Then these items will be classified twice by Delphi Method. And based on the levels of products and services theory which has been widely used in researches on hotels and the types of service innovation, an in-depth analysis about the features and reasons has been given. The purposes of this research are firstly finding innovation emphasis and tendencies of different hotel ranks, and then supplying suggestions for forming advantages and diversification strategies in the fierce market competition according to the customers' cognition and preferences of service innovation.

Keywords Service innovation · High level hotels · Budget hotels · Levels of products and services · Types of service innovation

1 Introduction

Now a days, because of globalization, the competence of hospitality industry in China is increasingly becoming fierce. The market demand can be divided into high level and low level, and therefore two kinds of hotels prosper rapidly, which are high level hotels and budget hotels. There are many kinds of competition ways, but because every hotel hopes to achieve success as soon as possible, then the competition tactics are usually limited to price. Price war always leads to lose-lose results in service industry and even disturbs the market order. Consequently, some famous international hotel chains and local hotel chains choose service innovation

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as the crucial competitive strategy coincidentally. It is widely recognized that the high level hotels master much more powerful innovation ability than budget hotels, because of rich managerial experiences, abundant financial resources, and advanced skills. It is true that an individual budget hotel lacks of the ability to innovate products or services. But for a budget hotel chain, service innovation will not be inferior to high level hotels. The main reason for this is that the head office of budget hotel chain plays a vital role, and the innovation output pattern has been established. It is obvious that the target markets of high level and budget hotels are different, so that there will be distinction in service innovation of these two types hotels. Under the levels of products and services theory and the types of service innovation, for finding out their own features, this paper contrasts the differences between high level hotels and budget hotels based on participation investigation and in-depth analysis. At last, this paper summarizes the current situation and future trend of service innovation and gives some suggestion on the diversification strategies in hotel industry.

2 Service Innovation

At present, the economic environment has changed tremendously and the service industries contribute increasingly to the global economy. In order to cope with the more and more competitive environments, which are driven by the revolution in information and communication technologies and by the emergence of a knowledge-based economy (Camacho and Rodríguez 2005), the hotels have to develop their own core abilities in which innovation is a key element and will naturally help a hotel gain competitive advantage. Innovation is crucial in the contemporary economy, being far more important than land, capital, or labor (Drucker 1994). In the Oslo Manual, innovation is defined as a technological product: innovation is the implementation/commercialization of a product with improved performance characteristics such as to deliver objectively new or improved services to the consumer (OECD 1997). Rogers' diffusion of innovations theory defines an innovation as an "idea, practice, or object that is perceived as new by an individual or other unit of adoption" (Rogers 2003). Within the Consumer-Oriented Definition, Johns and Mattsson claim that in services the active participation of customers in the conception and realization of an innovation is a necessary condition for success (Johns and Mattsson 2003).

It is widely acknowledged that the value of any service to a customer is ultimately realized, created, and determined by the customer itself in the service use situation. Riepula and Kuusisto declare that this idea is often lacking in the current service innovation literature, and then they define service innovation as a change resulting in an increase in net customer value over time, such as a high-value adding innovation directly increasing the customer benefits or an innovation making it easier for the customer to adopt a new service (Riepula and Kuusisto 2011). In fact, most of the relevant literature and the empirical studies on innovation in

the service sector reveal that, except for certain sectors such as information and telecommunications, innovation comes into the operations of a service firm primarily through the acquisition of equipment, material, and components from suppliers in other sectors (Orifila-Sintes and Mattsson 2009), especially in some nonintensive knowledge businesses, such as accommodation sector.

The value of innovation has been clearly analyzed but researches on lodging sector are sparse, especially from consumer perspective. Typical studies are involved in the innovation process, innovation elements, innovation types, influence factors, and performance appraisal. Almost all these researches are oriented by the service provider perspective. M. Shahadat et al. review the existing New Service Development models and investigate if they explain the innovation process in hotels both in Canada and the US, then propose an activity-based innovation process model for hotels (Hossain et al. 2010). Tseng et al. gather data from the 863 hotels and attempt to state some facts about the importance of innovation in the hotel industry by classifying the configurations of innovation in Taiwanese hotels (Tseng et al. 2008). López-Fernández et al. analyze data from 443 Spanish hospitality firms and highlighted four factors that encourage innovation, which are large firm size, membership in a business group (that is, a franchise, management contract, or membership association), willingness to change, and a sufficiently strong bureaucratic framework to manage and institutionalize any innovations (López-Fernández et al. 2011). Fernández et al. make a continuous study on innovation activities in the hotel industry and fulfill the lack of analysis in the field of tourism, including the function of innovation (Orifila-Sintes et al. 2005), positive factors affecting internet innovation (Vadell and Orifila-Sintes 2007), innovation decisions, determinants, and performances (Orifila-Sintes and Mattsson 2009). Ottenbacher obtained data on 185 hospitality innovations and identified three performance dimensions: market performance, financial performance, employee and customer relationship enhancement (Ottenbacher 2007). These findings are usually obtained by deep investigation in hotels, such as interviews and questionnaires, which are conducted among managers and employees but not guests in hotels. Victorino et al. survey approximately 1,000 travelers in the United States to find the relationship between service innovation and customers' choices, and then provide an excellent tool for managers deciding on which innovations to implement (Victorino et al. 1991). It is very important to know how to develop new services that are responsive to customer need. It has been accepted that firms should be customer-oriented because these firms are more likely to deliver better service quality and enhance customer satisfaction (Hartline et al. 2000). But lack of empirical studies extends this notion to service innovation in hospitality sector.

In China, a large amount of studies describe the service innovation in hotels without empirical research. The topics concentrate on the importance and principles of service innovation and discuss the strategies and tactics for hotel management, which are also based on the service provider perspective. The quantitative studies are more concerned with the influence factors and performance of innovation in hotels. Based on survey of 149 employees in Fujian star hotel,

Yanning shows that the knowledge sharing, team culture, and service innovation have significant correlation, and team culture has a very significant role of regulation (Yan 2011). Also based on the survey of hotel employees, Xuchunxiao and Zoujian indicate that knowledge-sharing behavior has significantly positive impact on the improvement of innovative environment, employees' awareness for innovation, and their innovation performance (Xu and Zou 2010). Then Yangying drew the same conclusion from the survey of employees in hotels in Nanjing (Yang 2011). Lvyihua and Xuyangqian use the Multi-level Fuzzy Comprehensive Evaluation method to evaluate the service product innovation in hotels (Lv and Xu 2008).

Service is often relational in a more direct sense than production (GrÖnroos 2000) and personal interaction between the customer and the service provider is at the heart of many services (Czepiel et al. 1985); therefore, research on innovation from customer perspective has been stated as important, yet difficult. This research investigates service innovations in high level hotels and budget hotels based on customer observation. This is a very important action because service innovation in hotels should be perceived by their customer to gain successes. In order to gain insights into the innovation differences between high level hotels and budget hotels, a comparison is made after the observation.

3 Research Framework

3.1 Levels of Products and Services

An axiom of new product development efforts is that to be successful a product must satisfy customers' needs (Voss and Voss 2000). Services are a form of product that consists of activities, benefits, or satisfactions offered for sale that are essentially intangible and that are usually considered as including four levels (Kotler et al. 2010). The levels of products and services theory, which are indicated by Philip Kotler, include the core product, the facilitating product, the supporting product, and the augmented product (Kotler et al. 2010). The core product is what the customer really need and which is present by the facilitating products for the guest to use. Supporting products are extra products offered to add value to the core product and help to differentiate it from the competition (Kotler et al. 2010). The augmented product refers to the delivery of the service, such as interaction between customers and producer.

For service innovation, these four levels of products and services should be involved because customers' needs diversify in different levels even for the same thing. For example, a guest room in a budget hotel is a service product, which is needed by customer on the market. In terms of guest room innovation, some person may need a more comfortable bed, which belongs to the facilitating product, while others may want free WiFi in guest room, which belongs to the supporting product. The augmented product plays a crucial role in new service development

since sourcing ideas for service innovation could be done through service encounters (Sundbo 2011).

The levels of products and services theory analyzes customers' need based on the process of use and emphasizes the determining effects of customer. This article tries to classify service innovations in both high level and budget hotels based on this theory after innovative item identification by Delphi Method. The purpose is to find the existing difference of service innovation in lodging sector and the trend of development.

3.2 Types of Service Innovation

Service innovation in lodging sector may be classified into different and relevant types. The most common distinction within the innovation literature is between product innovations, which create or improve on products, and process innovations, which address how an organization does its business, including external processes and service enhancements (Vila et al. 2012). Based on this, Vila et al. adopt Novelli, Schmitz, and Spencer's framework, which includes four types of tourism innovation as follows: product innovations, processes innovations, knowledge of the market and management innovations (Vila et al. 2012). Moreover, from the four clusters of concern mentioned in Ottenbacher and Gnoth (2005) and from the literature on hospitality innovation, Orfila-Sintes classifies service innovation into four types, which are management innovation, innovation in external communications, service scope innovation, and back-office innovation (Orfila-Sintes and Mattsson 2009). But from consumer perspective, there are some innovative actions that cannot be observed or discovered by buyers, such as management innovation. With reference to the customers, they only can find innovations, tangible or intangible, relative to the products or services they used or encountered. Taken in this sense, four types of innovation are adjusted as follows:

- Product innovation: new products and services developed by hotels themselves, especially fulfilling diversified customers' needs,
- Technical innovation: new products and services developed through the acquisition of new technologies from suppliers or other sectors,
- Process innovation: new services developed through the service encounter, the interaction between customers and servant or between customers and equipments,
- Institutional innovation: new institution or adjusted institution that should be followed in the transaction between an individual hotel and its customers.

In our exploratory study, types of innovation are used in the comparison of innovation between the budget hotel and high level hotel. Innovative items will be classified by types via Delphi Method and the emphasis of service innovation would be identified.

4 Methodology

This study reviewed theoretical discussions regarding the service innovation and in order to identify practical innovative items in hotels, the method of participant observation lasting 24 h has been used, where the researches were accompanied by other researches. During participant observation, the researchers were posing as guests following the whole process of living in a hotel in order to find tangible and intangible innovations as much as possible.

Sample selection is based on the market performance and the rank defined by the Tourism Administration. Eight famous budget hotel groups in China have been chose and thirteen brands have been investigated including: Yitel, Home Inn Express and Motel 168 of Homeinns Group, Hanting Season Hotel, Hanting Express and Hanting Hi Inn of Hanting Inns & Hotels Group, Orange Crystal Hotel and Orange Hotel of Orange Hotel (China) Co., Ltd (wholly foreign-owned enterprises), 7-Days Inn, Jinjiang Inn, Green Tree Inn, Super 8 Hotel of Wyndham Hotel Group and Pod Inn.¹ These 13 brands in the article not only include traditional budget hotels, but also contain some new types because of brand extension. Therefore, the research object in this study is limited service hotel, which is a broader concept than express hotel. One famous high level hotel group, which is Starwood Hotels & Resorts Worldwide and an independent hotel has been chose and the ST. Regis Tianjin, the Sheraton Tianjin Hotel, and the Tianjin Yilan International Hotel have been investigated. Another two hotels of different groups and one independent hotel have been observed without the check-in and check-out act, which include Renaissance Tianjin Downtown Hotel of Marriott International, Holiday Inn Tianjin Riverside of InterContinental Hotels Group, and Tianjin Wealthy Hotel.

As with all methods there are some limitations as well. In the investigation, only one hotel has been selected for each brand, which may lead to incomplete study. A great deal of second hand information relevant to service innovation in hotels has been collected to supplement. An at least 2 h discussion is made by investigators after each observation to form short kinds names to describe innovative products and services.

After the initial period of participant observation, the comparison between high level hotels and budget hotels has been made. Since the comparison between individual items is meaningless, all the identified service innovations firstly are classified by the levels of products and services, and then the types of service innovation via Delphi Method. The reason for using Delphi Method is to acquire the experts' initial contributions to the classification as no related studies has been done from customer perspective. Eight facilitators including researchers and managers in hotel industry who hold knowledge on hotel service innovation are invited to make their own judgments. They distinguish all the kinds of service innovation with the detailed information (description paragraphs and pictures of innovative things or activities) supplied by the research team. After four rounds, the final results are obtained and based on them, some analysis and discussions are given.

¹ The hotel group name is not showed if it is the same to the brand name.

5 Results

5.1 Service Innovation Identification

After the observation, forty kinds of service innovation have been discovered in budget hotels, while forty-three kinds have been found in high level hotels, and the specific name of these innovations is showed in Tables 1 and 2. But this does not mean the true amount of innovative things and activities in hotel industry because usually several or a number of innovations are represented by the same name. For example, the category of guest room facilities of budget hotels represents existing innovative items of television, sound, door bell, closet, sofa, partition walls, windows, and curtains. In another example, the category of multifunctional facilities of high level hotels may include many different types of equipment, which are developed to finish diverse tasks, such as a safe deposit box also can be used to charge the laptop.

There are some same names of innovation category in both two kinds of hotels, and it is very important that the same name may describe totally different degree of innovation. For instance, the term accessibility facilities usually refer to facilities convenient for heavy luggage or wheel chair in budget hotels, but in high hotels, it actually means facilities for all kinds of disabled persons, such as packaging and printing material with Braille alphabet for the blind.

Another significant difference is the communication of service innovation. In the budget hotels, nearly all the innovations will be displayed in each individual hotel by pictures or texts on the wall and bulletins in the lobby, especially the Hanting Inns & Hotels Group. In high level hotels, these communications can never be found in the operating area, and then it is necessary for us to make some informal interviews with employees in each hotel. For individual guests,

Table 1 Service innovation of budget hotels

Name	Name	Name
Accessibility facilities	Environment protection measures	Payment methods
Breakfast service	Exhibition system	Quality evaluation system
Business service	Feedback service	Reservation channel
Check in process	Front office design	Reservation process
Check in time	Front office service	Service facilities
Check out process	Guest room air quality	Service level
Corporate identity	Guest room design	Sleeping system
Cultural atmosphere	Guest room facilities	Sound insulation design
Cultural environment	Guest room network	Space design
Decoration and display	Guest room service	Space guide system
Dinner service	Information service	Special service
Elevator and staircase	Interaction activities	Washing facilities
Entrance guard system	Location environment	
Environment protection facilities	Membership privilege	

Table 2 Service innovation of high hotels

Name	Name	Name
Accessibility facilities	Guest room recreation	Products replacement regulation
Building design	Gymnasium service	Recreation facilities
Charity activities	Healthy food	Reservation process
Children privilege	Hotel atmosphere	Safety and security service
Concierge service	Individuation promotion	Secrecy design
Corporate identity	Information reminding	Service type augment
Customer preference extension	Interaction activities	Sleeping system
Customize service	Limited edition products	Smart navigation
Entertainment performance	Lobby design	Space design
Entrance guard system	Local design	Special local food supply
Exclusive service	Membership privilege	Theme activities
Food and beverage performance	Multifunctional facilities	Washing room design
Food and beverage service	Package service	Washing room facilities
Free service	Perfume	
Guest room facilities	Personal guidance	

innovations would be a surprise for them and used by high level hotels to exceed the expectation of a guest to achieve customers’ satisfaction.

5.2 Service Innovation Classification

With Delphi Method, all kinds of service innovation are classified. Tables 3 and 4 show the quantity of innovative kinds in the levels of products and services and the types of service innovation. Tables 5 and 6 show the cross-over condition of

Table 3 Quantity difference in levels of products and services

	High level hotel	Budget hotel
Core product	1	2
Facilitating product	9	15
Supporting product	21	16
Augmented product	12	7

Table 4 Quantity difference in levels of service innovation

	High level hotel	Budget hotel
Product innovation	18	17
Technical innovation	4	7
Process innovation	10	8
Institutional innovation	11	8

Table 5 Budget hotel innovation

	Product innovation	Technical innovation	Process innovation	Institutional innovation
Core product	2	0	0	0
Facilitating product	5	4	3	3
Supporting product	9	3	2	2
Augmented product	1	0	3	3

Table 6 High level hotel innovation

	Product innovation	Technical innovation	Process innovation	Institutional innovation
Core product	1	0	0	0
Facilitating product	4	2	3	0
Supporting product	12	1	2	6
Augmented product	0	1	6	5

service innovation in high level hotels and budget hotels. Then relevant analysis is given to reveal the differences and to explore the reasons.

5.2.1 Quantity Difference in Levels of Products and Service

From Table 3, there is rare service innovation that has been found in the core product level. This may because all the hotels that are observed only concentrate on the traditional hospitality service, which is accommodation, and even never try to investigate whether the existing core products would fulfill the variable needs or not. At other levels, this is not the case at all. The budget hotels pay much attention on the facilitating product innovation since these should be present for the guest to gain the core product. The high level hotels usually devote on the supporting product innovation to pursue customer satisfaction and to help draw and retain customers, and some budget hotels begin to notice this. Service innovation requires an understanding of the target markets and both budget hotels and high level hotels are able to accomplish. With reference to the augmented product, both kinds of hotels do not concern about service delivery innovation as much as the two levels mentioned above. In fact, how the customers receive the service affects the customers' perception and satisfaction. Some high level hotels make an effort on this, but with the restriction of fund and human resource, the budget hotels seldom develop new things at this level.

5.2.2 Quantity Difference in Types of Service Innovation

For both kinds of hotels, it is showed in Table 4 that product innovation is considered as the key element of service innovation, which means that every brand pays close attention to the changes of customers needs. The disadvantage is that product innovation is the easiest one to be imitated, especially in lodging industry. And because there is no regulation to protect the innovator, such as patent system, the imitator can pirate whatever product innovations as soon as possible without any punishment. On the contrary, the process innovation and the institutional innovation are relatively difficult to follow and are key elements to form the core competence. And these innovations are difficult to develop for much more resources, such as human, are needed. Therefore, the high level hotels take these more seriously than the budget hotels, but less important than the product innovation.

Although some researchers emphasize the acquisition of technology in other sectors for innovation in lodging industry, this phenomenon is not common in China. The budget hotels show a greater interest on the technical innovation than the high level hotels. Due to the traditional service concept in China, the high level hotels excessively concern the personnel service, which would give their customers luxurious feeling.

5.2.3 Cross-Over Analysis of Service Innovation

At the core product level, nontechnical process or institutional innovation has been found in both two kinds of hotels, which can be found in Tables 5 and 6. The core product is what the customer really wants, but neither the high level hotels nor the budget hotels realize the significance of innovation in this level, and it can be innovate by different ways. At other levels, the budget hotels emphasize the perceptible innovation, whereas the high level hotels put a higher value on participating innovation. The technical and product innovation are easier to perceive than the process and institutional innovation, especially at the facilitating and supporting product level, which are adopted frequently by the budget hotels. Obviously, the high level hotels try to involve customer participation in the new service development particularly at the augmented product level. It is a very good attempt in service innovation since process innovation is often based on the service encounter and is unique. As a result, innovation through service interaction can become a kind of inimitable resource to build sustainable competitiveness for an individual brand.

6 Discussion

Nowadays, the budget hotels try to differentiate their products by service innovation in the market competition. Usually, they concentrate on the innovative items, which can be easily noticed by customer, especially guest supplies. The question

is that these kinds of service innovation are quickly copied by rivals and then the budget hotels often go back into price war again. Some budget hotel groups realize this problem and begin to use diversification strategies, such as the Home Inns Group and the HanTing Inns & Hotels Group. It is very interesting that these groups introduce some products and service, which are already supplied in high level hotels as service innovation when they develop some new brands for high-grade market segments rather than the regular ones, such as the Yitel and HanTing Season Hotel. Moreover, this situation, which means an effortless way to conduct service innovation, can be found widely in budget hotels. The imitation produces a desired short-term result, but in the long run this cannot be sustainable. Only very few budget hotel brands, which include the HanTing Hi Inn and the Orange Hotel, investigate niche market needs and develop new services from customer perspective. This action help the two brands dominate market promptly and will be the trend of service innovation, which can give rise to continuable competitive advantages.

As the one which has been imitated by the budget hotels in the market, the high level hotels perform superior service innovation, which involves guest participation. This method helps to personalize services in hotels and is hardly copied by rivals. It has been found that service innovation in high level hotels is usually followed to enhance customer satisfaction, but not to expand brand distinguishing, for it seldom makes comparison during market communication. Less communication, not enough initiative, or even intentionally hiding of service innovation by some untrained employees, especially process ones, all make only a portion of customers experience them. The key point of brand diversification strategy is to help their customers discover and enjoy service innovation of each brand timely, which would contribute to brand identification, forming brand preference among consumers, and encouraging repeated purchase.

7 Conclusion

This paper analyzes the differences of service innovation in hotel industry and indicate the relationship of new service development between high level hotels and budget hotels. Based on the current situation research, some problems of service innovation have been discovered and investigated, and then the authors give some suggestion with reference to the hotel industry development. Customer-oriented approach is adopted in this paper, but results are limited to the observation of several researches. In order to gain sustainable competitiveness in the market, a broader survey should be conducted among real customers of hotel industry to find out their perception and expectation of service innovation. Moreover, some relationships, such as the correlativity between service innovation and customer satisfaction or repurchase rate, would be confirmed by empirical researches. These questions will be the topic of further investigation in later studies.

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The Effect of Gender Difference on Turnover of Hotel's Employees in China

Yun Yang and Jiannan Li

Abstract Gender equality is a national policy to promote social development in China in 1995, but gender discrimination still exists in vocational context. This paper studies the gender difference in hotels in mainland China. A survey was carried out with a structured questionnaire to gather career information from a sample of 1,436 employees working in four hotels. The data were then analyzed using a range of descriptive and evaluative techniques. Results show that hotel hires much more females than males owing to its service functions; a number of positions are traditionally perceived as male job and accordingly excluded from female consideration, including engineering department and security department. Married females and males usually choose to remain in service work, but unmarried staffs are inclined to leave. These findings have implications on employment for individuals and organizations.

Keywords Gender difference · Actual turnover · Star hotels

1 Introduction

Since the middle of the twentieth century, the process of gender equality has made significant progress. In 1964, the United States formulated the Fair Bill of Right, followed by Anti-Discrimination Act and other related legislations formulated by other developed countries. These legislations have aimed to protect rights and

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development opportunities of women and other disadvantaged groups (Guo 2011). In 1995, China put the Equality of Men and Women as a basic state policy to promote social development, demonstrating that the importance of female human resources in economical and social development has been increasingly prominent. Especially, with the rapid development of the service industry nowadays, a large number of women enter into service and other tertiary industry by virtue of gender advantages, which further increase the female overall employment rate. However, the gender inequality of labor market in employment and wage aspects begins to appear (Huang and Fan 2011). Therefore, the effect of gender discrimination in Chinese professional context on employee behavior deserves further study.

The hotel belongs to labor-intensive industries, thus human resource is one of the core competitiveness. It is beneficial for hotels to retain skilled employees who can provide for customers satisfied quality and service. However, the turnover rate of hotel employees is generally higher at present, which is the important problem troubling the hotel managers. Globally, the turnover rate in the hotel is estimated to range from 60 to 300 % annually, which is far higher than the 34.7 % annual turnover rate reported in the manufacturing industry (Walker and Miller 2010; Jersey et al. 2007). At the organizational level, there is strong evidence that both business and subliminal effects of high turnover include replacement and recruitment costs and regular guests expect to recognize people and are likely to follow favorite staff to another organization (Deery and Iverson 1996; Manley 1996). Therefore, this paper will select hotels, which are characterized with abundant female human resources, as the research object to study the influence of employees' gender difference on turnover.

2 Literature Review

2.1 *Gender Difference in the Hotel*

In the late 1970s and early 1980s, gender difference becomes an important research field in management science, attracting wide attention of scholars. As to gender discrimination, the current scholars mainly discuss about whether gender inequality exists or not in the workplace and what is reason for existence; the influence of females and gender proportion on the enterprise performance (Hellerstein et al. 2002; Hinkin and Tracey 2000); gender difference of leadership style; the comparison of the male and female entrepreneurs; career development of female employees (Yang 2011; Morrisson and Jutting 2005), etc. On the basis of gender discrimination, economic model put forward by the economic community, foreign scholars find that gender discrimination still exists in the workplace through a large number of empirical researches from the perspectives of employment opportunity, recruitment process, promotion opportunity, salary reward, career development prospect, the perception of working environment, etc. In a study on gender discrimination of the Turkey and the British bank industry, Özbilgin and Woodward (2004) found that corporation values, human resources policies, and corporation

culture determine the staff evaluation and there are obvious gender difference for top management in salary, benefit, and opportunities of hot positions. Besides, they argued that the social institution had significant effect on gender inequality. In a study on retail corporations in British, Lane (2005) found out that with the customer relationship management became more and more popular, strategic management of retail corporations had changed from the traditional control executed by the sales managers on the basis of income to closer control built between sales, corporations, and managers on the basis of behaviors. In the transformation process, performance of female sales managers was significantly better than that of males.

In mainland China, scholars have found that female workers are more engaged in lower technology, responsibility, status, and income occupations, such as health care, cultural entertainment, retail, and catering industry; the proportion of women workers is relatively lower in higher technology, responsibility, status, and income occupations, and even it is decreasing in relative to males (Hu 2006; Li 2005; Yang 2008).

2.2 Turnover in the Hotel

Turnover in the hospitality sector has been the focus of many researches (Wasmuth and Davis 1983; Hogan 1992; Hinkin and Tracey 2000; Simons and Hinkin 2001). Because the employee turnover is strongly associated with decreased profits (Simons and Hinkin 2001), many researches have sought to uncover causes and provide solutions to hospitality employee turnover (Wood and Macaulay 1989; Hogan 1992; Poulston 2005). Empirical evidences show that individual variables, which highlight the qualities of an individual itself during his work life tenure in an organization, are related to the turnover rate of an organization (Kazi et al. 2011), but these researches center on turnover intentions instead of actual turnover. Although studies on turnover have shown that turnover intention is the best immediate predictor of voluntary turnover (Griffeth et al. 2000; Lambert et al. 2001; Price 2001), turnover intentions do not lead to actual turnover. So this paper wants to study the influence of gender difference on actual turnover in mainland China.

3 Hypothesis and Design

3.1 Hypothesis About Gender Difference in the Hotel

The gender inequality of employment is against principles of justice, openness and fairness in market economy, which gives rise to foreign researchers' concerns. Employers' discrimination theory and human capital theory are main theories to explain gender discrimination in vocational situation.

Employers' discrimination theory holds that the gender inequality in labor market includes professional discrimination and wage discrimination. Professional discrimination means under the same conditions, females cannot find the same

level occupations and more likely to be hired in the positions requiring lower individual actual ability. Wage discrimination means males and females engaged in the same job cannot enjoy the same wage, welfare, and promotion treatment.

Human capital theory argues that the difference of labor income depends on the investment of human capital. Owing to historical and social gender discrimination behaviors exist, females receive less education opportunities than males, leading to their involvement of cultural knowledge and skills is less than males, and thus their competitiveness is absolutely weaker than males in the labor market. As we know that work experience and professional transformation is one of the main ways of human capital increment, female human capital increment, which suffers difficulty, is exactly result of less opportunities of professional mobility and transformation. Besides, female human capital increment is influenced by childbearing, caring for children, balancing work and family, etc. Therefore, females are mostly located in positions acquiring lower skills. Tharenou et al. (1994) argued that females had less human capital reservation in education and work experience which displayed lower wages level and the limited promotion space encountered by females in reality.

In accordance with the employer discrimination theory and human capital theory, this paper put forward the following hypothesis.

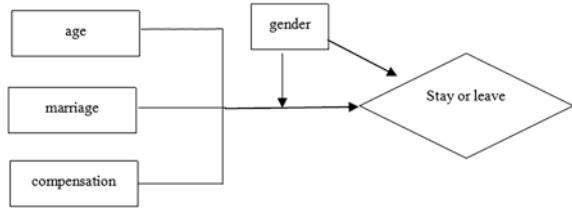
Hypothesis 1: Females account for high proportion in low-income jobs, compared with high-income positions;

Hypothesis 2: Engaged in the same jobs, females have lower salary than males.

3.2 Hypothesis About Relationship of Gender Difference and Actual Turnover in the Hotel

Discrete choice models, including the initiated choice (turnover choice) models and the passive choice (under objective pressure) models, are suitable to predict the voluntary turnover (Hong et al. 2007). Discrete choice models, which are not only based on the characteristics of choosers (individual performance) but also the attributes of each alternative, are used to predict choices of alternatives between turnover and retention. Kim and Arbel (1998) applied the logit model to predict merger target selection for a hospitality company, and claimed that the logit model can be used as a supplementary decision-supporting tool. Turnover is usually influenced by work and non-work factors, but researches about turnover have primarily concentrated on work-related variables, such as job performance, organizational commitment (Mobley 1982; Hong et al. 2007). Compensation refers to all forms of tangible and intangible benefits that a hotel provides to his employees for rendering their service. Compensation can be used to express job performance. Numerous studies have addressed the impact of employee compensation, rewards and recognition on turnover, and retention in hospitality firms (Cho et al. 2006; Milman 2003; Milman and Ricci 2004; Walsh and Taylor 2007). The variables which are composed of non-work influences on turnover are age, number of dependent children, and race/ethnicity (Levinson 1978; Sparrow 2000). In mainland China, the traditional family division of labor pattern, “men’s work centers around outside,

Fig. 1 Research structure of voluntary turnover



women’s work centers around the home,” needs females to shoulder the family life and keep work stability.

In accordance with the studies of former researchers, this paper put forward the following hypothesis:

- Hypothesis 3: Employee salary has a significant negative influence on employee actual turnover;
- Hypothesis 4: The turnover rate of males is significantly different from that of females;
- Hypothesis 5: The turnover rate of married females is significantly lower than that of unmarried females;
- Hypothesis 6: The turnover rate of married males is nonsignificantly different from that of unmarried males;

The following Fig. 1 is research structure of voluntary turnover, which displays that age, marriage, compensation, and gender have direct effect on turnover or retention, furthermore, gender is a moderator between age, marriage, compensation, and turnover or retention.

3.3 Study Design

The hotel industry in Guangdong Province is prosperous, with 954 star hotels ranking the first in China and the management level and economic benefit of hotels being also located in the national front row. Data were collected from employees in four five-star hotels in Guangdong Province. Employees were asked to fill in a questionnaire composed of four parts as follows, (1) Questions on demographic characteristics of employees, including the gender, age, education background, marital status, birthplace, etc.; (2) Questions on job characteristics of employees, including department, position level, work tenure, current position tenure, etc.; (3) Questions on salary and welfare of employees, including base pay, accumulation funds, pension, etc.; (4) Questions on actual turnover of employees (whether leave the hotel or stay in late December 2011).

A total of 2,200 questionnaires were distributed from June 2011 to November 2011. Among the 2,003 returned questionnaires, incomplete questionnaires and questionnaires filled by interns were excluded. There were 1,436 valid questionnaires which accounted for 61.2 % of 2,003 returned questionnaires.

Department characteristics of samples are shown in Table 1.

Table 1 Department characteristics of samples

Department	Sample size	Proportion	Male		Female		On-the-job employees number	Male proportion of department (%)
			Sample size	Proportion of department (%)	Sample size	Proportion of department (%)		
Security	117	8.1	115	98.3	2	1.7	50	98
Finance	68	4.7	18	26.5	50	73.5	44	22.7
Purchase	15	1.1	11	73.3	4	26.7	9	55.6
Food and beverage	628	43.7	353	56.2	275	43.8	249	48.2
Assistant manager	6	0.4	3	50.0	3	50.0	4	50.0
Development	18	1.3	10	55.6	8	44.4	5	60.0
Rooms division	197	13.7	33	16.8	164	83.2	108	15.7
Engineering	101	7.0	96	95	5	5	55	90.9
Front office	162	11.3	66	40.7	96	59.3	57	42.1
Human resources	40	2.8	14	35	26	65	21	14.3
Sales	36	2.5	12	33.3	24	66.7	25	24
Laundry	25	1.7	8	32	17	68	22	31.8
Executive office	20	1.4	11	55.0	9	45	16	56.3
Null	3	0.2	2	66.7	1	33.3	2	50.0
Total	1,436	100.0	752	52.4	684	47.6	667	45.9

4 Result

4.1 Females Dominant in the Hotel, Male Turnover Rate Higher Than Females'

The hotel industry provides intangible service primarily. Female employees pay more attention to others' feelings, have strong communication skill, and are good listeners, thus more easily communicating with other staffs and customers (Yang 2008). Consequently, the proportion of females engaged in hotel work is higher. It is showed on Table 1 that in this research, there were 752 males and 684 females among 1,436 hotel employees investigated, however, by the end of December 2011, there were 306 males and 361 females among 667 on-the-job hotel employees, namely, during half a year, turnover rate of male employees was 59.3 , while that of female employees was 47.2 %, indicating that male employment rate is higher in Chinese hotel industry. Although managers in Chinese hotel industry generally realized that reducing turnover rate employees could save labor costs and keep the same quality of service, staff turnover rate is still very high and male turnover rate is higher than females'.

4.2 Internal Positions of the Hotel Divided into Male Positions and Female Positions

With gender discrimination in professional context being influenced by the social gender culture, management positions of hotels in China are divided into male positions and female positions. Females are usually not engaged in male positions or some positions where they are required to manage many more male employees, such as security department, kitchen and engineering department. No matter general managers, female managers or male managers, all of them think security department and engineering department are male positions, not suitable for females (Yang 2011), therefore, few females are engaged in such positions. In this research, females engaged in such positions are mostly responsible for organizing internal materials and passing on messages. However, room division, marketing department, human resources department, front office department, finance department, and food and beverage department are considered to be more suitable for females and be best career paths for females. So, more female employees are engaged in such departments.

4.3 Female Salary Generally Lowers than Males' and Females Accounting for Higher Proportion in Low-Income Job Positions

Job position level of the hotel has been usually set for grassroots employees, technicians, the first-line managers, middle managers, and top managers from lower level to higher level, and salary also sequentially increases in accordance



Fig. 2 The number of male and female hotel workers in different position level

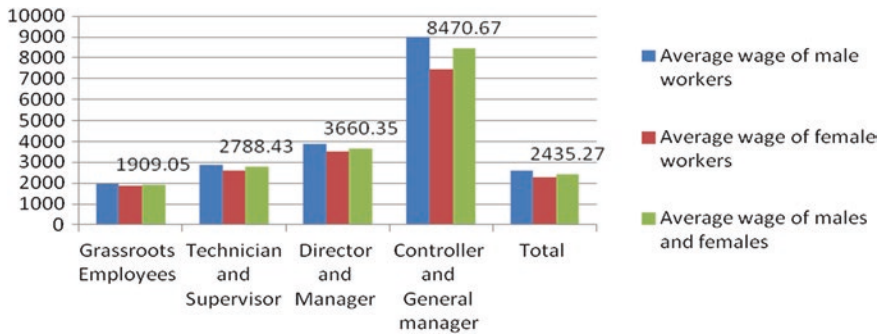


Fig. 3 Average monthly wage of male and female hotel workers

with job position level. Figure 2 reflects that almost 70 % of female employees are engaged in all kinds of grassroots waiter work, far higher than proportion of male employees. Additionally, salary earned from all kinds of grassroots waiter work is obviously lower than other positions. Therefore, females account for higher proportion in low-income job positions, that is, hypothesis 1 is established. Figure 3 reflects that average monthly wage of males is obviously higher than that of females, which are 2,592.9 and 2,299.29 yuan respectively, and male average monthly wage is higher than females’ in every position level. Besides, ANOVA indicates that gender shows significant difference in monthly wage ($F = 6.663$, $\text{Sig.} < 0.010$). As a result, female salary is generally lower than males’.

4.4 Male and Female Salary not Showing Significant Difference in the Same Job Position

Basically, there does not exist wage discrimination in Chinese hotel industry, with male and female salary not showing significant difference in the same job position. Table 2 reflects that staff salary of different departments is significantly different, but that of the same department does not, that is, hypothesis 2 is not established.

Table 2 Average wage of male and female workers in different departments (Unit: Yuan)

Department	Security	Finance	Purchase	Food and beverage	Front office	Development	Room division
Average wage of on-the-job males	2,188.22	2,702.00	2,618.80	2,678.63	2,130.00	8,556.00	1,903.24
Average wage of on-the-job females	2,200.00	2,397.81	2,081.00	2,120.98	2,512.25	11,400	2,136.84
Male average wage including leaving ones	1,794.24	2,328.33	3,057.82	1,946.00	1,590.33	3,993.80	1,724.84
Female average wage including leaving ones	1,775.00	2,047.87	2,081.00	1,783.95	1,940.32	4,505.50	1,738.22
Department		Engineering	Human resource	Executive office	Assistant manager	Marketing	Laundry
Average wage of on-the-job males		2,732.96	3,784.33	2,471.11	2,655.00	2,991.20	2,685.67
Average wage of on-the-job females		3,174.00	2,274.44	3,166.86	2,983.00	2,753.21	1,736.00
Male average wage including leaving ones		2,205.48	2,439.26	2,460.91	2,733.33	2,696.45	2,556.29
Female average wage including leaving ones		3,174.00	2,047.44	2,663.11	2,455.33	2,648.79	1,661.18

Through the interview to human resource managers, it is found that the salary difference between male employees and female employees in same department mainly depends on seniority, education degree, skills, and job performance. In addition, comparing average wage of on-the-job employees with that of leaving employees, Table 2 finds that leaving employees are significantly influenced by salary factors, with average wage of most departments rising significantly after part of employees having left. Through the interview to employees, it is found that many employees consider wage level as a scale measuring their own value—the higher the hotel pays for their salary, the more their contribution to the hotel is recognized.

4.5 Marital Status Influencing Significantly Employee Turnover

This study assumes that the state S_i , for each employee observation, appears absolute certainty in the turnover prediction models. Thus, let $S_i = 1$, when an employee has left the hotel, in contrast, let $S_i = 0$, when an employee remains in the hotel. The logit is $P = -2.109 + 0.001 \text{ wage} + (-0.668) \text{ gender} (1) + (-0.646) \text{ married} (1)$. In addition to salary, gender and marital status have significant effect on employees actual turnover (Table 3). Given that job-hopping will cause unstable family income, and lead to build interpersonal relationship more difficultly, married employees are more willing to be stable and even if not very satisfied with their work, they will not easily choose job-hopping. Unmarried employees are inclined to freedom, do not want to be engaged in dull service job with big workload, and have lower turnover costs, which cause the higher turnover rate. Therefore, hypothesis 3, hypothesis 4, and hypothesis 5 are established, however, hypothesis 6 is not. Hosmer and Lemeshow Test (Table 4) indicates that the fitting degree of the model are not so

Table 3 Variables in the equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95 % C.I. for EXP(B)	
		–	–	–	–	–	–	Lower	Upper
Step 1a	Wage	0.001	0.000	140.900	1	0.000	1.001	1.001	1.001
	Marry	–	–	10.968	2	0.004	–	–	–
	Married	–0.646	0.722	0.801	1	0.371	0.524	0.127	2.158
	Divorce	–0.028	0.705	0.002	1	0.969	0.973	0.244	3.876
	Age	0.015	0.009	2.654	1	0.103	1.015	0.997	1.034
	Gender	–0.668	0.125	28.631	1	0.000	0.513	0.402	0.655
	Constant	–2.109	0.811	6.763	1	0.009	0.121	–	–

Table 4 Hosmer and Lemeshow test

Step	Chi-square	df	Sig.
1	104.003	8	0.000

ideal. Except for wage, gender, marriage and age, the influences of other factors such as job characteristics, job satisfaction and organization commitment degree should also be considered.

5 Conclusion and Discussion

Along with formulation and implementation of “the Equality of Men and Women,” and implementation of “People-oriented Business Philosophy” in China, the development of female human resources has attracted more and more attention; however, female career development in the enterprises is still confronted with barriers. This paper has select hotels, which are characterized with abundant female human resources, as the research object to study female employment characteristics in the hotel industry. The results of the study show that female salary is generally lower than males’ and females account for higher proportion in low-income job positions; some departments in the hotel industry, like the engineering department and security department, are considered to be male positions which only the males are competent of and are basically excluded from female consideration; married staffs usually choose to remain in service work and their turnover rate is low; unmarried females and males are inclined to leave and male turnover rate is higher than females’. Difference between male and female salary is not significant in the same job position, thus the phenomenon of wage discrimination does not highlight. Professional discrimination, human capital theory, and the traditional gender role concept are main theories to explain professional difference of males and females.

In order to promote equality between men and women and encourage more females to enter management positions, on the one hand, we should change, “men’s work centers around outside, women’s work centers around the home,” the traditional family division of labor pattern, which can reduce female burden in the family life and provide them with more opportunities to display their potential ability. On the other hand, we should change professional discrimination. Learning from female employees in foreign hotel industry, women in China should be brave to be engaged in and manage engineering department, security department, etc. Society and enterprises should actively create a good cultural atmosphere and policy environment to promote female career development and to make effort to eliminate various human gender segregations.

In order to reduce unmarried staff turnover rate, it is essential to make rich the spare life of hotel organizations. Some interaction activities among employees, such as fellowship, sports competition, and team training, are not only beneficial to strengthen cohesive force and the sense of belonging of unmarried staff to the hotel organizations, but also to express the care for employees. Besides, perfect promotion mechanism could give more promotion opportunities to talented young people, which makes them aware that hard work could get superiors or leadership recognition so that they are more willing to stay and work for hotels.

Salary is a main factor to cause staff turnover, especially unmarried staff turnover of hotel industry. So the hotel should reform salary management, for example, the formulation of salary should be in accordance with employee performance and ability—if employees have better performance and strong ability to work, to service, and to deal with an emergency, their salary should be higher. Owing to unmarried employees are more concerned with material income like salary, basic salary setting of the hotel should refer to other industries to change the situation of obviously lower wage. Besides, learning from foreign hotel industry, first-class hotels in China should advocate tips system, making tip income as supplement of staff income, in order to encourage employees to provide satisfied service and improve their work sense of honor.

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Research on the Optimization of the Government's Role in the Development of Hotel Industry

Hong Wang and Tianyu Sun

Abstract Government's role playing is one of the most important issues in the development of hotel industry. The changing stages, essence, law, trend, and optimization of the government's role playing in Chinese hotel industry are studied. It concluded that the government should change the indicators for the performance appraisal, let the related nongovernment organization work regularly and improve the participation system of government strategic decision.

Keywords Government's role · Hotel industry · Optimization

1 Introduction

On January 4th 2010, "building Hainan international tourism island" became the national strategy of China. During the spring golden festival in 2010, the price of the hotels in Yalong Bay in Sanya city went up for 3–5 times and many hotel rates went beyond 10,000 yuan. Whether the government should regulate on this phenomenon or not aroused the attention and discussion of researchers. In fact, this is not an individual case of Hainan hotel industry. On the contrary during various activities and events, the room rates of the destination hotel will rise while the service quality is not increase at the same time. This leads to the damage to consumer interests and the industry image. The government should regulate on this or not is always paid close attention to.

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Hotel is one of the earliest industries to be opened up to foreign market. What role the government should play and how to optimize the government's role is a question of practice that needs systematic analysis. Researches in the field of hotel industry mainly develop from the aspect of micro operation, focus on the hotel marketing, human resources management and service quality. The research from the macro aspect is little and in this article, the government role in hotel industry in China will be discussed systematically.

2 The Changing Course of the Government's Role in Hotel Industry in China

2.1 The Government Mainly Playing the Role of "Controller" and "Operator"

From the establishment of new China till 1978, the tourism industry had not broken the ice and fell behind. The most basic characteristics of the modern hotel: safety, sanitation, and comfort can not be guaranteed. In 1978, there were only 203 hotels and 320,000 rooms in China that can host foreign tourist,¹ while at that time the yearly number of inbound tourist is 1,809,000 person-time.² The guesthouse can not accomplish the increasing hotel receiving task. To increase the effective supply of the hotel in China became the urgent affairs. Under this background, the government mainly played the roll of "controller" and "operator" in the development of hotel industry in China.

2.1.1 The Content and Performance of the Government Roll Player of "Controller"

① The content of the government role player of "controller"

During this period, the government controlled the total supply amount of the hotel industry in China, mainly through the methods of transferring the hotel facilities to the department of tourism, utilizing foreign capital in building hotels and increasing the government input.

In May 1979, the state council endorsed the <<the proposal of changing the management system of superior hotel in China>> of the central office of tourism industry in China. It explicitly transferred some high-ranking guest house, rest house, and villa to the management of tourism branch in order to append the total amount of the supply of hotel.

¹ Yu bingyan, Zhu chengqiang. Modern hotel management[M]. Shanghai: shanghai people publishing house, 2002, 4.

² Wang dawu, Xiao qianhui, Li renzhi. The blue book of the development of Chinese hotel industry 1979-2000. Beijing: Chinese tourism publishing house. 2002. 3:4.

In 1979, the state council endorsed the report about using 2,000,000 US dollars to building the Beijing Jianguo Hotel. In 1986, <<the inform of using international commercial loan to build tourism hotels from the state council>> was promulgated. This encouraged the using of international commercial loan to build hotels and provided accordance of the using of foreign capital.

In 1984, the stage council ratified <<the report of creative work in tourism>> of the national tourism bureau and proposed that all of the country, the local government, the department, the collectivity, and the person can invest in tourism. Self-dependant and taking advantage of foreign capital are both permitted. The national tourism bureau arranged tourism fundamental invest of 25 billion, with a year average of 5 billion to build hotel, scenery spot, and other facilities.

② The performance of the government role player of “controller”

Under the specific policy regulation, the hotel supply has been increased obviously. From 1979 to 1987, the total number of the hotel in China increased from 150 to 1,283, with an average increasing rate of 31.4 %. The room number changed from 3,400 to 40,070 with an average increasing rate of 25.2 %.³ The augment of the total number and room number of hotels remitted the pressure of the receipting work of the foreign guests effectively.

2.1.2 The Content and Performance of the Government Roll Player of “Operator”

① The content of the government's role player of “operator”

At the beginning of the establishment of China, in order to develop the running management level of the hotel industry of our country, the Chinese tourism industry management bureau required the state-owned hotel highlight its own characteristics on the foundation of learning from western hotel and hold meetings to research on how to increase the service quality several times.

② The performance of the government's role player of “operator”

During the process of building up joint venture hotels with foreign investment, the government learned to facilitate the modern enterprise models by studying through analogy and reference and shortened the distance between the level of the Chinese hotel industry and the international hotel industry. The management level of the state-owned hotels increased rapidly. On July 1st 1985, the Guangzhou white swan hotel which was run by the cooperation of China and Hongkong was taken in by the world first-rate hotel organization as a full member and this was the first time for the hotel in China to enter the international first-rate hotel.

³ The tourism hotel association, Shanghai social science research center. The blue book of the development of Chinese hotel industry. Beijing: Chinese tourism publishing house. 2001: 51.

2.2 The Government Mainly Played the Role of “Regulator” and “Operator” (1988–1993)

After about 10 years of development, the hotel industry in China began to take shape. The shortage of the tourism rooms had been remitted and in some cities the supply of the hotel rooms even been over supplied and the occupancy rate decreased. In 1986, the average hotel renting rate is 88.6 % and in 1987 it decreased to 66.27 %.⁴

Among the hotels concerning foreign affairs, state-owned hotels were still the minority. In 1987, there were 2,027 state-owned hotels among the total 1,283 hotels, took up 80.05 %, the room number of the state-owned hotels is 1,45,600 and took up 78.83 % of the total number of the hotels which was 1,84,700.⁵ Many state-owned hotels succeeded in transforming from institutions to independent enterprise. But they were still belong to 20 different systems such as national tourism bureau, government office administration and the communist youth league and it led to the problems of the disorder of management, the integration of government administration with enterprise and the over administration intervene of the operation of the companies.

Under the development background of the industry as above, the government mainly played the roll of “regulator” and “controller” in the development of the hotel industry.

2.2.1 The Content and Performance of the Government Roll Player of “Regulator”

① The content of the government roll player of “regulator”

First of all, the implement of the star-rating institution

In August 1988, the national tourism bureau established the <<the regulation about the tourism hotel star rating of the people’s republic of China>> and <<the criterion of the tourism star evaluation of the hotel concerning foreign affairs of the people’s republic of China>> by consulting the international criterion and combining the actual situation of China. On 1st January 1993, the <<Classification and evaluation of the tourism hotel stars concerning foreign affairs>> became the national criterion.

Secondly, the implement of price regulation

In May 1991, in order to prohibit the tourism hotels from reducing the prices and protect the legitimate interest, the national tourism bureau and the national price bureau sent out the <<information of the lowest price limitation of the room

⁴ The association of Chinese tourism hotels, Shanghai social science tourism research center. The blue book of the Chinese hotel industry. Beijing: Chinese tourism press: 58.

⁵ The association of Chinese tourism hotels, Shanghai social science tourism research center. The blue book of the Chinese hotel industry. Beijing: Chinese tourism press: 58, 67.

price of the tourism hotel concerning foreign affairs>> and star hotels in different areas was managed by the lowest limitation of the tourism hotels.

Then, the start of the safety and fire fighting regulation

In October 1993, the ministry of public security and the national tourism bureau issued <<the inform of the strengthen of the fire control safety work of the tourism hotels>>. In April 1994, the validation meeting of the <<safety management method of the national tourism hotel and pleasure boat>> was held in Haikou by the national tourism bureau and the safety criterion of the hotels concerning foreign affairs and tourism boat.

② The performance of the government roll player of “regulator”

During this period the star evaluation institution had positive effect on the development of our hotel industry. Firstly, the star evaluation criterion provided reference to the hotel management and deduced the blindness and subjectivity in the development that resulted in the scientific management of the hotels. Secondly, the hotel presented star level so the consumer can have a basic understanding and acknowledge of the hotel, the star level became a method of tangible. Thirdly, after the implementation of star evaluation institution, people can made qualitative prediction from the star structure before invest in hotel industry. Besides, the start of the hotel safety and fire-protection regulation successfully regulated and promoted the development of the hotel industry.

But the price regulation on the hotel industry did not prove effective. Some manager of high-star hotels thought that although low price would lead to loss, the hotel servers can get practice in working and the moral can be inspired so that would provide good foundation for the running after the ending of the low season. Price decrease is a kind of running operation choice instead of malignant pricing competition. The substance of the government lowest price limitation was a kind of limitation to the company's operation behavior.

2.2.2 The Content and Performance of the Government Roll Player of “Controller”

① The content of the government roll player of “controller”

First of all, the government controlled the investment in Chinese hotel industry strictly. In November 1986, the state council issued <<the inform about the using of international commercial loan to build tourism hotel>> and pointed that from the beginning of the publication of the inform it was prohibited to build joint venture or cooperation hotels, apartment and office building (including the rebuilt of old hotels). In April 1990, the state development planning commission, the national tourism bureau, the ministry of foreign trade and economic cooperation announced <<the inform of reaffirm of the strictly carrying out of the procedural of examination and approval of the joint venture and cooperation hotels>>. The regulation on the investment had been controlled strengthened.

Then, the government led the development of the hotel management company in our country positively. In February 1987, the national tourism meeting was held in

Beijing, the national tourism bureau pointed that the hotel management companies like Holidayinn, Hilton and Sheraton in foreign countries should be established. By doing so, the government tried to strengthen the macro management of the hotel industry and promoted the competition ability of the hotels. At the same time, try to realized the collective of the hotel industry quickly.

② The performance of the government roll player of “controller”

<<the annual report of the utilization of the foreign capital throughout the country>> in 1987 showed that in 1987 there were 76 sino-foreign joint venture projects in hotel industry given permission all over the country, the foreign investment was 14 billion US dollars which was 38 % of the permission of the direct investment of foreign capitals. In fact the foreign investments into the hotel industry were not restricted effectively.

China built hotel group successfully through non-market-oriented means and improved the competitiveness of Chinese hotel management companies comparing with foreign companies. For example, in 1992 among the top 200 hotels selected by <<Hotels>>, the Jinjiang company ranked 75. But because of the distinctive problems of fuzziness of property right, omission, dislocation and offside of the ownership and the power of operation, there were still obvious distance between Chinese hotels and international hotel groups in the fields of brand operation, market network, human resource development and capital operation.

2.3 The Government Mainly Played the Role of “Regulator” and “Public Welfare Person”(1994 Till Now)

After high speed rise in the 1980s, the tourism hotel industry entered the period of developing with steady pace. The total number of the hotels and room numbers kept on increasing and the increasing rate became slow. After 1980s, many famous international hotel management groups entered the Chinese hotel market and showed the trend of specification and group running that drove the increase of the competitiveness of our hotel industry. During this period, the government mainly played the role of regulator and welfare person in the development of the hotel industry.

2.3.1 The Content and Performance of the Government Roll Player of “Regulator”

① The content of the government roll player of “regulator”

First of all, the government reformulated and perfected the hotel star evaluation institution. With the widen of the opening-up of our country, the increase of the technology level, and the change in market environment, consumer structure and human resources the institution of hotel star evaluation was revised and

consummated accordingly. Comprehensive and hierarchical regulations were made and the criterion became more standard.

Secondly, the government made the hotel criterion system more perfect. During this period, a serious of hotel industry criterions was made. For example: <<the graphic symbol of the tourism hotel public information>> (1985), <<the requirement of the quality and allocation of the appliance of the star hotels>> (1996), <<the investigation stand of the star hotels>> (2006) and <<the green tourism hotel>> (2006).

At last, the government gave price regulation of special period and special district. For example, during the Guangzhou spring commodity exchanging meeting, the supply of the hotels can not satisfied the need of the market. The market had price regulations and had the highest price limitation to impose restriction on price increase at will.

The reformulation of the hotel star evaluation institution led to the change from unify mode of "large and all-inclusive, small and all-inclusive" to personalization in hotel industry and adapted the requirement change of the hotel industry nicely. The modifying hotel industry criterion system had positive effects on the regulate development and orderly competition.

During this period, the price regulation did not prove effective. Parts of the hotels avoided the highest price regulation successfully by changing the hotel rooms a little and made the room luxurious suits to charge higher price.

2.3.2 The Content and Performance of the Government Roll Player of "Public Welfare Person"

① The content of the government roll player of "public welfare person"

First of all, the government held trains. For example, in July 1994, the national tourism bureau held the fifth tourism on-the-job training, 16 hotels and 128 managers of middle or high level took part in the training all over the country; in October the same year, the national tourism bureau held the superior financial worker train and 30 super financial officers took part in it.

Secondly, the government fostered the progress of the information management of the hotel industry. In 1995, the national tourism bureau and American Rongcuo computer company operated the introduction of the hotel management system and 50 representatives of the hotel management groups attended the meeting.

② The performance of the government roll player of "public welfare person"

The training held by the government facilitated the increase of the hotel operation level. In 1997, Hainan Huandao hotel was awarded the American "five star diamond praise" and Beijing Kempinski was admitted into world first class hotel.

The information progress of the hotel industry in China had been pushed successfully. On 1st January 1996, the first internet tourism booking wet of China was opened and the booking service in the world in our country began to make progress.

3 The Essence of the Government's Role in the Development of Chinese Hotel Industry

Just as the analysis above, we can combine the practice of the government's role changing with the theory of the government role in governmental economics, Basing on that we can step further to classify these changing roles. Then we can conclude that its essence is a dynamic process, and the relationship between government and the hotel industry is continuously readjusted to the development stages. This process can be briefly showed in the following table (Table 1).

3.1 The Government's Successful Role Playing in Cultivating the Market

Before the policy of reform and opening up carried out, the market of hotel industry in China was operated in a state of closed economy. Planning at that time was the exclusive approach to distribute resources. And the hotels then belonged to public institutions, so competition mechanism was not necessary at all in the marketing operation. While after the policy of reform and opening up carried out, the fact that our supply could not satisfy the demand of receiving foreign tourists led to the Chinese government's decision of opening up the hotel industry responsively and assertively.

3.1.1 Open the Hotel Market and Cultivate Market Firmly in Order to Create Essential Circumstances for Tourism Development

In the process of absorbing foreign investment, those who were influenced by progressive thinking for a long time thought that "it was shameful if we adopted foreigners to manage our hotels" and they asked "which the hotels should belong to, socialism or capitalism," what was worse, they even took irrational actions to interfere the investment such as "taking down the fence and pushing down the blenders." Although under these obstacles, Comrade Deng Xiaoping held explicitly that the men who had no reason should not be vexatious and firmly insisted on bringing in foreign investment in Chinese hotel industry.

When transforming the state-owned hotels to local tourism administrations and the branches of Chinese International Travel Service, Chinese government assertively claimed that in order to foster the local initiation those hotels should take the form of enterprise management and allowed the local authorities to take proper amount of the foreign currency income.

Hotel industry is one of the three pillar industries of tourism. At the initial stage of reform and opening up, offering foreign tourists accommodation was one of

Table 1 The changing of the Chinese government's role in the development of hotel industry

The role of the government		The content of the government's role playing	The methods of the government's role playing	The performance of the government's role playing
Direct runner		Run as institutions	Comprehensive administrative management	<i>Bad</i> lack of modern management and least guarantee of safety, health and cozy
The government cultivate the market (1) 1978-1987	Controller	1. transfer accommodation facility to the department of tourism	The management institution of permission	<i>Good</i> releasing the activity of the market and remit the unbalance between the supply and the requirement
		2. increase the input		
		3. strengthen the utilization of foreign capitals		<i>Bad</i> the hidden danger of the over investment of the national asset
The government cultivate the market (2) 1988-1993	Operator	1. foster the company management	Have industry training meeting	<i>Good</i> the increase of the running level of state-owned hotels
		2. guide the prominent of Chinese characteristics		
The government cultivate the market (2) 1988-1993	Controller	Control the foreign investment	Examine and approve control	<i>Bad</i> the investment of the foreign capital had not been limited
		Help to bring about state-owned hotel group		
The government cultivate the market (2) 1988-1993	Regulator	Hotel star evaluation	Policy guidance	<i>Middle</i> the nationalized hotel management company was developed but has some inborn shortcomings
		Price regulation	Apply the star evaluation criterion	<i>Good</i> specify the development of the industry
		Safety and fire control regulation	Made the lowest protective price	<i>Bad</i> exist in name only
			The price approval of the state-owned hotels	<i>Bad</i> the performance of the state-owned hotels was not good
			Policy and institutions	<i>Good</i> help to protect the interests of the consumer

(continued)

Table 1 (continued)

The role of the government		The content of the government's role playing	The methods of the government's role playing	The performance of the government's role playing
The government service the market (1994 till now)	Regulator	Complete the hotel star institution	Make, issue and apply the new criterion	<i>Middle</i> adopt the change of the environment timely but still had insufficient
		Complete the industry criterion	Make, issue and apply the industry criterion	<i>Good</i> facilitate the order and regular development of the industry
	Public service person	Organize training	Apply training	<i>Good</i> increase the quality of the personnel
		Push the development of information technology	Produce introduction meeting	<i>Good</i> guide the development of the industry effectively

the bottlenecks of the development of tourism. Fortunately, it was the government who successfully played the role of “controller” and cultivated the market successfully, so the total supply rose rapidly and remitted the state of shortage supply, which created a crucial condition for the development of tourism.

3.1.2 The Government Actively Promoted the Property Right Reform and Cultivated Market Competition Mechanism in Order to Provide a Reasonable Environment for the Hotel Industry

At the beginning of the founding of new China, in order to promote the running level of our hotel industry, the tourism institution bureau debated on the enterprise of the hotel industry. In February 1980, the national tourism bureau stressed out “the fundamental requirements of the increasing of the tourism hotel service quality in all over the country” and provided the concrete methods and measures of applying enterprise running. It kicked off the restructuring of the leading system, autonomy in hotel management, scientific management and the institution of rewards and penalties.

In 2002, eight national ministries and commissions issued together <<the measures to arrange the personal more than needed which was the result of the separation of the main and second business of the big and middle state-owned enterprises >>, which pushed the difficulties of the restructuring of the state-owned hotels to the front and began the joint-stock reform inside state-owned hotels. This provided well-organized environment for the perfect market competition system.

However, accompanied with the property right reform in state-owned hotels, some drawbacks sprung up as well. The regional and local protectionism became nagging obstacles. For example, due to the absence of official recreation budget, some state-owned hotels became the source of corruption, and some became the places for rent-seeking and money laundering. In addition, some excellent state-owned hotels also faced difficulties of going further since they were questioned to lose the state-owned assets as well. Without doubts, all these limited the vigor of the state-owned hotels in the market competition, so a further step was still needed to be taken in order to overcome the difficulties in the property right reform.

3.2 The Positive Government's Role Playing of Regulator to Remedy the Market Failure

Market failure exists in the development of hotel industry, although the market had been cultivated successfully and the market mechanism could display its function in allocating resources, we could still find the cases of market failure. Therefore government should act as a regulator in the development of hotel industry in order to counteract the market failure.

3.2.1 The Government Regulate on the Information Asymmetries in the Hotel Industry Positively

Product in hotel industry, which is mostly consisted of invisible elements, can be classified as service product, and in most cases, the transactions happen in a strange land. The imbalance of power between transaction participants on the information about quality and function namely information asymmetries may lead to the failure of the market mechanism of survival of the fittest, and even may lead to “The Market of Lemon” from the phenomenon of “Bad money drives out good if their exchange rate is set by law.”

In the development of hotel industry, Chinese government published a star-rating system in hotels which included strict procedure in inspecting and checking the rating process. To ensure the granted star, there are six indexes helping to refer. Besides, the government published some industry standards which contribute to solving the problem of information asymmetries and help to promote the healthy development of hotel industry.

Comparing with the development of the hotel industry, the process of star-rating in hotels was still lag behind. What was worse, it gradually exhibited some distances from the demand in the tourism although there were immediate renovation and modification according to the market and customers. During the process, moreover, further supervision and precaution were needed to prevent the possible government rent-seeking namely government failure.

3.2.2 The Government Regulated on the Externality Failure Positively

Tourism equips itself with the feature of synthesis which includes six elements: food and beverage, accommodation, transportation, traveling, shopping and entertainment. The six elements act as an entirety and interact each other. As we know, the development of hotel industry has a direct impact on the other tourism departments. Take it, the unreasonable hyping and rising price has a direct impact on the destination image, which may damage the benefits of other departments in tourism, impair the function of market mechanism and even impede the whole industry’s development, although for its own nothing serious.

Chinese government spared no effort to control the price of hotel industry all the time. When supply exceeded demand in the tourism market, government usually imply the lowest proactive price. While in some regions when the demand exceeded the supply, the governments would use highest price limitation to maintain the good destination image. Nevertheless, we can rarely see these active controls made any effect. Many managers believed the government intervention would go against the law of market because the price should be a result of hotels’ independent management which obeys the law between supply and demand.

3.3 The Lagged Government's Role Playing of Market Server in Counteracting the Market Failure

3.3.1 The Government's Role Playing of Public Welfare Server to Irritating Positive Externalities Began a Little Later

As we all know, the IT application in hotel management and the network of hotel reservation contributes a lot to improve hotel industry especially in the channel of distribution. Comparing with the developed hotel reservation network in world famous hotels, the hotel industry in China was still in its early stages. The reaction of Chinese government fell behind although there were some other reasons such as the general level limitation in IT application.

Besides, green hotels pay more attention to the full use of resources and sustainable development. Unfortunately, the subsidies such as tax policies in China did not efficiently support the hotels' development. And this led to higher cost of the green hotels in China, which may impair their advantages in competition and furthermore, decreased the industry's enthusiasm for green hotels.

3.3.2 The Government's Role Playing of Public Welfare Server to Remedy the Failure Supply of Public Goods Need to be Strengthened

The hotel industry has a close bond with tourism in development. Both of them were based on the effective dissemination of destination image. So the regional image working as granted public goods can help to promote the development of hotel industry. Although China was a tourism country with big amount, in terms of image dissemination, China still could not meet the needs of the industry delegates and needed to be remedied further.

In the development of hostel industry, the quality of human resources is quite crucial. What is more, the residents' affinity and communication skills are of importance as well. Hence, all of these rely on the government increasing input in education.

4 The Requirements of the Changing of the Government's Role Playing in Chinese Hotel Industry

After 30 years of reform and opening up, the role changing for Chinese government in the development of hotel industry mainly lies in two aspects. One is top-down demand of the government's role transition. The other is bottom-up demand of government's role transition.

4.1 Top-Down Demand of the Government's Role Transition

During the two sessions (the National People's Congress and the Chinese People's political Consultative Conference) in 2010, the transformation of government's role caused a heated discussion. What is more, some other elements also required government transforming its role to service-orientation, such as the urge of transformation in economic development pattern and the need of national prosperity and rejuvenation. The practice of reform requires the government to transform its role, and this top-down transition also needs government to change its role in the development of hotel industry.

At the beginning of 2010, Professor Chi Fulin, Chinese celebrated expert in reform, published a book named <<the second transition—the transition of the developing mode at the cross road>>. In the book, he pointed out there were two stages of transformation in China. The first transformation was racing toward market mechanism, which provided a crucial condition for economic taking off. The second transformation was racing toward superpower in consuming, which will benefit us to realize national prosperity and rejuvenation in modernization. What should be noticed is that, in the second transformation, government must turn into service-orientated rather than economy-orientated and this means government will become the object for us to reform. Moreover we should emphasize its new role in the process of scientifically developing, institution supply and recreation.

4.2 Bottom- up Demand of the Government's Role Playing Transition in the Development of the Hotel Industry

In order to understand the expected role of government from people who is working in hotel industry, I conducted a face to face survey. The sample was based on Hainan province, involving nearly 50 managers working in hotel industry in Haikou or Sanya. And the content included three aspects. First, what kinds of contact they had with the government. Second, what opinions they hold on the government's present role playing. Third, what suggestions they will offer to optimize the government's role playing in hotel industry.

The results indicate all those people hold positive attitudes toward the government's present role. Some people pointed out government had already tried to enhance its service-orientated role, and the promotion had come into effect already. But there still existed some places needed to be improved. Most of these inherent shortcomings are due to the mechanism, so it is hard to overcome.

The investigation showed that the needed roles of the government are: (lined according to the referring rate)

- i. The interpretation of the institutions. (For example, the related institutions of the international tourism island)
- ii. The building of the atmosphere of open up.
- iii. Education and public safety.

- iv. The perfection of the related institutions.
- v. The build and perfection of the management institution system of new tourism industry.
- vi. Promotion of the image.

The investigation showed that the roles needed to be amendatory are: (lined according to the referring rate) the price regulation of hotel; the hotel star evaluation.

We conclude that the industry delegates' expectation for the government's role playing is that the strengthen the role of "public welfare server" and the remedy of the role of "regulator."

5 The Goal of the of the Government's Role in the Developing Process of the Hotel Industry

The dynamic equilibrium between government and market is the essential condition for economic transition. The perfect combination between government and market is the only way leading to developed market economy. During this transition, the interactivity between government and market is continuously innovating, and the role of government is dynamic as well. According to both the essence and the need of the government's role changing in recent development of hotel industry, the goal and key points for the government's role optimization in the present hotel industry was analyzed.

5.1 Analysis Based on the Essence of Government's Role Changing in the Development of Hotel Industry

The essence of government's role changing in the development of hotel industry can be concluded as a continuous process which includes market cultivating, market regulating and market serving. What we must admit is that it is inevitable for China to experience this process since we want to realize the economic transition. So the first and foremost thing for the government to do is to build an effective market and then readjust and optimize its role in the development of economy continuously.

5.2 Allow the Market Mechanism to Perform Its Function Well

Nowadays, Chinese government has successfully taken its role as "marketing incubator" in the development of hotel industry and the market has been cultivated

and opened successfully. However, noneconomic operation of some state-owned hotels became the hidden threats to market mechanism and limited its function as well. These problem lies in the point that for what purpose government invests in hotel industry. Some investment of state-owned hotels was just used for corruption, rent-seeking and the achievement flaunting, so no doubt they have difficulty in participating the market competition. Measures such as inspiring hotels' vigor and letting market mechanism to perform its function are needed to be taken by government in order to cope with these hidden threats in the operation of state-owned hotels.

5.3 Counteract Market Failure Effectively

Accompanied with the formation of market and the operation of market mechanism, market failure comes as well. To solve the inherent problem, government takes an active role as regulator. However the performance still fails to meet the demand of industry operation. Contradicting to the continuous improvement of market mechanism, the performance may even turn into restriction; one suitable case is the star-rating system in hotels.

The source of this problem is what we called government failure. Governmental economics points out that there exist both government failure and market failure. Chinese government now stays in the period of transition, so it is inevitable influenced by the planned economy. And most time we can still find it depends on the government-orientated strategies. Although when dealing with problems, government can work as a regular actively, there still exist difference between performance and expectation.

5.4 Analyze From the Need of Government's Role in the Development of Hotel Industry

5.4.1 Propel the Basic Function of Market in Resource Allocation

When entering the new stage of transition, the key point for China is the transition from economy-orientated government to service-orientated government. The negative effects on economy, social and politics which are brought by government-dominant pattern require government not to work as microeconomic subject competing in the market any more and on the contrary let the market mechanism perform its basic function. In addition, government should pay more attention to things such as providing public product and service, making fair rules, improving supervising and ensuring the effective market competition.

5.4.2 Enhance the Role of Public Welfare Person to Promote the Development of Hotel Industry

The development of hotel industry has its own principles. People who working in the hotel industry urgently demand government to provide more public products for enterprises so as to create and maintain reasonable market environment and promote the sustainable development of hotel industry.

6 Conclusion

In order to resolve the key problems in the optimization of the government's role in the development of hotel industry and impel the government's role turn to service the market effectively, the following methods can be taken.

6.1 Change the Indicators for the Government's Check Which Used to Be "GDP"

If the government needs to change to the duty of providing economic public services, the most urgent point is to change the indicators for the government's check which used to be "GDP." Only the government abandon the motive to pursue local and department economic interest, can the market place real fundamental allocation function in the distribution of the resources. And only through this way can let the hotel industry develop sustainable according to the rule of market competition.

Entering into the new stage of transition, the government should establish the consideration index of take human being as the center of development, pay more attention to the health, education and free development of the human being and increase the income of the habitant. Through these ways the latent market volume can develop fully and the people ware of the hotel industry can be increased. This will do goods to the future development of the hotel industry economy no matter in supply or requirement.

6.2 Let the Nongovernmental Organizations Play a Roll in Orderly

There must exist "government failure" in the economy intervene of the government. The government should cultivate the third party of nongovernmental organization such as industry associations etc. to let the expert of the industry association play more positive role in the procedure of making up the market failure. For example: the madding of the criterion, the association of the price etc.

In China, the development of the nongovernmental organizations were always restrained, the organizations which have played roles usually had a background of official. Before the founding of public service government, the disorderly development of the nongovernment organizations can be a kind of transition of government's power and can not have the effect of negotiation and industry service. So, the government should provide the institution space for the progress of nongovernmental organizations to let them play a role in orderly.

6.3 Pay Attention to the Decision Procedure of the Participation of Industry Delegates

On one hand, the government should provide more professional public services with higher efficiency; on the other hand, the government is lack of knowledge and experience compared with developed countries in the world. For example, the content of the public service system in hotel industry, the differences of the public service system between different destinations, etc. when we resolve these questions, we can absorb the participation of the experts of industry managers and scholars, so the decision can be more scientific and rational which will help to increase the public service ability of the government in the Chinese hotel industry.

Part II
Marketing and Development
of Tourism Destination

The Eco-Experience as a Complementary Offer to Coastal Product in a Mass Tourism Destination

Júlio Mendes, Manuela Guerreiro and Patricia Oom do Valle

Abstract The new economic era “the experience economy” that we entered in the twenty-first century is challenging the overall tourism industry and destinations to respond to visitor expectations in a radically different way, demanding a new vision on what is truly being delivered to them. Within the current era, tourism businesses and destinations, in order to thrive and compete globally, are bound to recognize that experiences, not goods or services, are what motivate visitors to travel, repeat visits to the destination, and recommend it to friends and relatives. Being so, a research agenda for tourism development and quality should place at its center the nature of tourist experiences and meanings of quality tourist experiences from the stakeholders point of view, so that the industry actors can take joint action supported by in-depth knowledge of meanings attached to experiences. Researchers face many challenges and obstacles in this particular area of investigation due to difficulties inherent complexity of experience-related issues, as an effect of the dynamic, subjective, emotional and in construct definition and consensus, the opportunity for multiple theoretical approaches, as well as the contextual nature of the experience itself. In sum, the construct operationalization both for the purpose of understanding the phenomenon and for practical benefits to the industry is the main challenge. There is however a strong need for these obstacles to be tackled and overcome through this research project designed to contribute to construct definition and clarification, in consistence with an integrated approach conceived to frame the complexity of quality tourist experiences.

Keywords Tourism experiences · Satisfaction · Eco-experience · Inland

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1 Introduction

In a context of globalization and increasing competition between organizations and tourism destinations, it is important to find ways to differentiate specific and composite products in order to be successful. Fostering competitiveness in a destination entails adopting an unequivocal quality approach to meet the balance between tourists' expectations, needs and wants, and the understanding of what they think and how they live experiences.

The search for differentiation and authenticity in the tourist experience, the growing value of natural and cultural resources, the changing attitude of active tourists and the move away from "standardized" practices often contrasts with the visible degradation of many coastal destinations. It may be said that currently the traditional supply of "sun and beach" to new demand needs is a central issue in order to ensure competitiveness of coastal tourist destinations.

The concerns about tourist experiences have led Destinations Management Organizations (DMOs) to face different and more complex challenges. These challenges mean that DMOs need to develop a new vision on how the tourism system should work and to adopt new management segments. Although there has been considerable theoretical thinking on the subject, not much empirical research is available. One reason for this to happen is the multidimensional, complex, and highly diversified nature of the tourist experience. Another reason is related to the fact that supporting constructs, namely satisfaction, quality, and value, continue relatively ambiguous and not always part of an integrated vision and consistent research. And yet understanding of major and relevant dimensions of tourist paradigms should aim at achieving a high level of tourist satisfaction.

Understanding tourists experiences, based on the identification of perceptions and emotions tourists and visitors have during their stay at the destination, is a central issue for DMOs in terms of supply and positioning to potential experiences are of utmost importance to construct operationalization for effective experience management at destination level.

The main objective of this paper is to understand the tourism experience in the Algarve region in order to identify the most relevant issues concerning the increase of destination competitiveness. Moreover, this research aims at profiling the tourists who experience eco-products in the inland of the Algarve region as a complement of a core experience centered in the consumption of sun and beach products.

Focusing on tourist perceptions, this study intends to contribute to a broaden understanding of tangible and intangible activities and attributes that form the underlying basis of the tourist experience which involves the emotions and the memories that make the true story of each personal experience in the Algarve.

2 State-of-the-Art

A tourism destination consists of a coherent set of tourist products, at a specific geographical location, under a specific image and marketed under a distinctive brand name (Silva et al. 2001). They pointed out a destination is usually built around a core product under which it is developed the identity of the place and the image yield by tourists. These are very relevant topics because it looks to design the attractiveness of the tourism destination in an international set. The core products are generally associated with the type of geographical and social structure encountered (urban, rural, and coastal). For the case under study, Algarve is a sun and beach tourist destination given its natural geographical and climatic characteristics.

Since the beginning of the twenty-first century, the majority of “first generation” tourism destinations register a number of problems related to the adoption of mass tourism models, seasonality, uncoordinated spatial planning, and environmental disturbances, which represented a serious concern for public and private tourism-related industry authorities (Sedmak and Mihalic 2008).

Once in the destination, the tourist has an array of options of consumable goods that range from gastronomy to shopping, from museums, theme parks, and other events, and planning the time available in tune to needs and expectations. The “new tourist” looks to discover sun and beach destinations with greater preference given to supplementary product offers (Hewison 1987; Hughes 1987; Richards 2002; Chapman and Speake 2010; Valle et al. 2011). It is generally accepted the importance of exploring the unique characteristics of the destination, in terms of cultural and natural heritage, in order to create new products, that will enhance the tourism experiences (Costa 2004; Smith 2004; Agarwal and Brunt 2006).

2.1 *The Concept of Tourism Experience*

Experience is playing an increasingly important role in the overall economies of most tourism destinations. The process by which tourists perceive, consume, and remember an experience during a visit to a destination is complex and multifaceted because of the large number of actors involved in providing the experience. Consequently, the overall experience at the destination derives from piecemeal experiences, separated by time and space, from the initial departure experience to the experience of returning home. At a conceptual level, tourist experience consists of a continuous flux of related and integrated services which are acquired during a limited period of time, often in different geographic areas.

Li (2000) defines the tourist experience as a “multifunctional leisure activity, involving entertainment and learning dimensions.” Some researchers view it as an

encounter with spaces, places, and landscapes (Seamon 1979; Tuan 1989, 1993, 1997). Pine and Gilmore (1999), on the other hand, claim that “entertainment is but one dimension of experience.”

The tourist experience has also been studied in relation to destination image and perception, which developed into a research stream that studies issues such as destination attributes (Ross 1991), theme parks attributes (Fenton and Pearce 1988), and museum attributes (Moscado 1991), among others.

The experience is affected by a large set of factors, many of which are not directly related to the acquisition of a specific service. It is the combination of inherent factors and associated satisfaction in terms of acquired and consumed services during the holistic tourism experience which determines the overall satisfaction of tourists.

Tourist experiences have been discussed by (Clawson 1963; Boorstin 1964; Cohen 1972, 1979; MacCannell 1976; Smith 1977; Smith and Brent 2001; Ryan 2002), among others. Clawson (1963) wrote about recreation experiences; Boorstin (1964) discoursed on authenticity in tourist experiences; Cohen (1972, 1979) showed the phenomenological tourist experiences frames; MacCannell (1976) presented contemporaneous writings on tourist experiences and authenticity. Smith (1977, 2001) addressed the interaction of host and guest in travel experiences. Ryan (2002) focused particularly on the “tourist experience.”

Tourism and tourist experience past research have also focused on temporality and activity-based relationships (Clawson 1963) and some only on activity (McIntosh 1977; Crompton 1979; Borrie and Roggenbuck 2001a, b, c) presented four ways used to understand tourist and tourism experiences. Those four ways include (1) meanings-based (Botterill and Crompton 1996), (2) benefits, (3) satisfaction (Lounsbury and Polik 1992), and (4) experience-based means (Cohen 1979; Borrie and Roggenbuck 2001a, b, c).

2.1.1 Conceptualizing Tourism Experience

Cohen (1979) changed the way the tourism experience is conceptualized, from the moment he asserted that different individuals may search for different tourism experiences. A research stream developed based on the notion that the tourism experience is plural, and consequently many possible and alternative categorizations are expected to emerge (Krippendorf 1984; Pearce 1982; Plog 1977; Smith 1987). Under the new conceptual framework, by the end of the 1970s, Cohen (1979) proposed one of the most important tourist typologies (Table 1).

Urry (1990, 2002) introduced the notion of “gaze” into considerations of tourist experiences albeit that “his gazes” were challenged by Perkins and Thorns (2001). They defend that both international and domestic tourists in European settler societies, such as New Zealand, participate in active forms of touristic recreation; thus gazing is only one component of the tourist experience. They go further and suggest that a better metaphorical approach to tourism is to talk about the tourism performance, which incorporates ideas of active bodily involvement, physical activity, and gazing.

Table 1 Tourist typologies

Recreational mode	This experience requires activities like cinema, television, sport events. These are marginal activities that break the diary routine. These tourists are looking for relaxing and they appreciate entertainment opportunities
Diversionary mode	Tourists that make part of this segment are looking for lazer activities that can assure them escape opportunities. They want to re-energize themselves
Experiential mode	Tourists who are attracted by this kind of experience are looking for self-enrichment through the contact with other cultures and ways of life. They want authenticity in social, cultural, and natural fields during their trips
Experimental mode	The tourists who make part of this segment are trying to rediscover themselves through tourism experiences. This typology of tourist experience looks for meaning to his life living the authentic life of others. People aim to rediscover himself through tourism
Existential mode	This typology of tourist experience is related with a spiritual existence and may be associated, for instance, with pilgrims

Each individual expects to live a particular experience. Consequently, the very same experience has a different meaning for each one. Research has shown that tourism experiences satisfy a wide range of personal needs, from pleasure to search for meanings (Li 2000).

The tourism experience is a social construct, a socially constructed term (Jennings and Nickerson 2006), concerning a “complex process involving multiple parties in different moments of time (...) and retains value long into the future” (Andereck and Jurowski 2006). It is, in the first place, a visual event, somewhat different from daily routine (Urry 1995). But it can also be positively or negatively evaluated (Lee et al. 1994), dynamic (Hull et al. 1992), transient (Mannell 1980; Tinsley and Tinsley 1986), and context-dependent (Bell 1993; Borrie and Roggenbuck 2001a, b, c).

Recently, a research stream has been developing exploring the relationship between the quality of tourism experience and satisfaction. Experience quality is generally acknowledged as a subjective measure, while service quality, on the contrary, has objective meaning.

Satisfaction is the outcome of process of comparison between expectations and performance. Tourist satisfaction is a relevant measure in the evaluation of the experience and the degree to which satisfies expectations (Pearce 1988). However, this approach does not consider emotional and symbolic values, though they are perceived as highly important in the evaluation of the tourism experience (Colton 1987). And yet, it has been claimed that the greater the impact of emotions on the experience, the more memorable it will be (Pine and Gilmore 1999).

Vitterso et al. (2000) acknowledge that there are conceptual and methodological difficulties related to the evaluation of the tourism experience. In the 1990s, researchers adopted a post-modernist perspective on tourism (Lash and Urry 1994; Munt 1994; Urry 1990), in association with the emergence of alternative practices to mass tourism, linked to nature and cultural heritage (Barrett 1989; Poon 1989; Urry 1990).

3 Setting

Algarve, a region whose principal economic activity is sun and sea tourism (though currently undergoing a process of strategic diversification), is the cradle of Portuguese tourism which first attracted tourists in search of a good climate and the beach in the 1960s. There has since been a steady demand increase for sun and sea, a product which the region specialized in during the 1970s and 1980s.

Although sun and sea represent the main motivating reason for visiting Algarve, studies show that the region offers new market opportunities. Besides entertainment, there is another interesting facet which appeals to tourists, namely nature and rural landscape, historical, cultural, and architectural heritage, and gastronomy. This may represent a potential form of attracting more tourists, and in this way encouraging an increase in the average length of stay and daily expenditure.

Algarve is currently investing in a diversified range of products regarded as strategically important and includes golf (aimed at complementing the sun and sea product and reducing seasonality in the region), sports (through nautical events and new, marinas, port facilities), international conferences and initiatives (to reduce seasonality and enabling accommodation units to maintain a reasonable occupancy rate throughout the year), culture-oriented tourism, health tourism, and nature tourism.

4 Methodology

4.1 Questionnaire and Data

This study uses data from a questionnaire applied to 384 foreign tourists visiting the Algarve region during the 2010 winter months.

The questionnaire consisted of six sections: section I looked to understand the motivations to visit the Algarve; section II sought information about the environmental awareness of tourists; section III identified the most relevant information sources about the region; section IV enables to profile the activities carried out by tourists during their stay; section V evaluates the Algarve image; and section VI collected information on respondent's demographic profile (gender, age, nationality, marital status, educational qualifications, and employment situation).

The process of calculating the sample size involved the most conservative estimate of the sample proportion ($p = 0.5$), a 95 % level of confidence, and a maximum of sampling error of 5 %. The questionnaire has been applied by two interviewers to tourists leaving the destination at the Faro International Airport, while checking-out. The interviewers were properly identified and the study's objectives have been explained to the respondents. It has been used the systematic sampling method, because the sample is large enough to use the procedure. The sample size and random sampling ensures sample representativeness.

4.2 Data Analysis Methods

The study's variables are either nominal or ordinal, and they have been analyzed using univariate and bivariate techniques. Univariate analysis consisted of graph representations and frequency analysis. Bivariate analysis comprehended graph representations and nonparametric tests (χ^2 independence tests). Nonparametric tests are used to analyze the relation of significant independence (or absence of relation) between two variables. Data analysis used the Statistical Package for Social Sciences (SPSS) software, version 19.0. The performed statistical tests were based on a 5 % significance level. The graphs have been constructed using Excel.

5 Results

The sample's characteristics are as follows: women make up 54 % of the respondents and men make up 46 %. Age composition shows a distribution varying between 13 and 82 years old, though higher age groups are preponderant. The majority of respondents are in the 45–60 and >61 age groups (61 %). Average age is 48, and the standard deviation is 17. The age median is 50 and the mode is 65. 70 % of the 384 tourists interviewed are from UK and 9 % from Germany, the second most represented nationality.

Concerning the professional status, 49 % are still in working life, while 21 % are in retirement. In terms of marital status, 254 are married (66 %), 100 are single (26 %), and 26 are divorced (7 %). The majority holds a higher education degree (57 %). Tourists holding a secondary education degree represent 40 % of the sample.

5.1 Motivations

Motivations of tourists visiting the Algarve region as a tourism destination have been assessed through a set of reasons/motives, which served the purpose of measuring their level of importance in the decision-making process. More specifically, eight motivations have been selected and measured using a 5-point Likert scale: 1—Not at all important, 2—Not very important, 3—Indifferent, 4—Important, and 5—Very important.

Data collected show that most important reasons for selecting Algarve as a tourism destination were sun and beach, nature and rural landscape (Table 2). These reasons scored the highest in the categories important and very important (86.8 and 77.7 respectively). Other highly valued motives are visiting towns and monuments (59.4 %) and gastronomy (56.5 %).

Table 2 Motivations to visit the Algarve

Motivations	Important (%)	Very important (%)	Total (%)
Nature and countryside	49.9	27.8	100.0
Sun and beach	47.5	39.3	100.0
Cities, towns and monuments	45.1	14.3	100.0
To visit family and friends	18.3	20.5	100.0
Sport events and sport activities	16.9	10.5	100.0
Gastronomy	41.7	14.8	100.0
Health and beauty	21.5	2.8	100.0
Learn Portuguese	24.8	10.1	100.0
Another	12.9	61.3	100.0

For a deeper understanding of tourists' motivation to travel to Algarve, the team has performed several cross variable analyses. A first conclusion is that "motivation" shows statistically significant evaluation differences according to gender, but only as far as it concerns sun and beach (χ^2 test: $p = 0.037$): 36.5 % of women and 41.7 % of men evaluated it as very important.

Motivations show statistically significant variations in terms of tourists' age, in relation to three specific situations: nature and rural landscape (χ^2 test: $p = 0.013$), sport events (χ^2 test: $p = 0.002$), and gastronomy (χ^2 test: $p = 0.001$). Individuals in age groups 31–45 and 46–60 are more motivated toward nature and rural landscape than other age groups (31 and 37 % respectively believe that this motivation is very important). Higher age groups do not show especially motivated toward sport events (not at all important for 39 % of individuals over 60 years old) and lower age groups, on the contrary, are indifferent to them (26 % <30 years old and 43 % 31–45 years old). Regarding gastronomy, it has been found that it is important to tourists >65 (52 %) and in the age group 46–60. Younger respondents are less motivated by gastronomy.

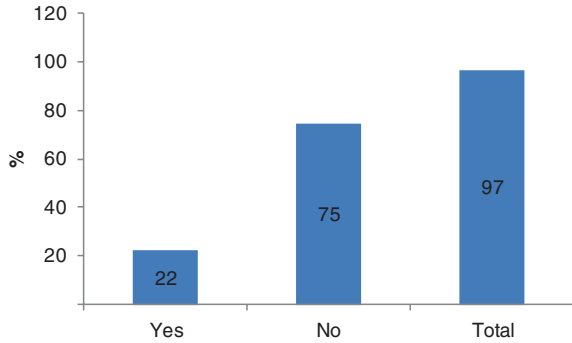
Data analysis revealed statistical significance in what concerns the relationship between motivation and education level nature in the case of nature and rural landscape (χ^2 test: $p = 0.038$). This motivation is relevant to individuals holding a secondary (56 %) or higher education degree, but very relevant to those holding lower education qualifications (40 %).

There are statistically significant differences in relation to nature and rural landscape, towns and monuments, gastronomy, and learning Portuguese for tourists that visited inland Algarve and for those who have not (χ^2 test: $p = 0.000$, χ^2 test: $p = 0.044$, χ^2 test: $p = 0.000$, χ^2 test: $p = 0.002$, respectively).

5.2 Characteristics of Tourists' Visit to Algarve

Sample data revealed that 77 % of respondents visited the region previously and only 23 % came to Algarve for a first time visit (Fig. 1).

Fig. 1 First time in the Algarve



Another issue addressed by this study has been the type of accommodation used by tourists. Data show that “apartment” is the type of accommodation chosen by 38 % of respondents, “hotel” was preferred by 21 %, and “own property” by (19 %). Rural tourism scored last (only 1 % of responses). Accommodation booking methods have been the Internet (41 %) and travel agencies (17 %). Most respondents stayed in the destination for a week (53.6 %), and average stay is 12 days (standard deviation: 8 days). Median and mode are 7 days.

5.2.1 Characteristics of Tourists’ Visit to Inland Algarve

Approximately 68 % of respondents visited the inland region of Algarve (Fig. 2).

Most visited places are located in the municipalities of Monchique, Silves, and Loulé, representing 68 % of total visits (Fig. 3).

The activities that mostly involved tourists during their stay in inland Algarve are walking in nature (26 %) and local gastronomy tours (24 %). Although not equally relevant, tourists engaged in safaris (3 %), fishing (2 %), and agriculture (4 %) (Fig. 4).

Most tourists stayed in coastal municipalities (63 %). Albufeira, Loulé, and Portimão hosted 40 % of respondents. However, 33 % of them did not make any reference to the location of their accommodation (Fig. 5).

In terms of means of transportation in the destination, 30.6 % of respondents used a rented car, 20.3 % preferred using the bus, and 19.7 % had their own car. Train was chosen by only 7 % of respondents. For those visiting the region for the first time (38.8 %), only 13.1 % traveled inland. However, taking into account tourists that visited the region the previous year (76.8 %), this means that 86.9 % searched for complementary experiences to the ones associated with the Algarve’s sun and beach product. In this last respect, statistical tests and analyses demonstrated a significant relationship between variables (χ^2 test: $p = 0.000$).

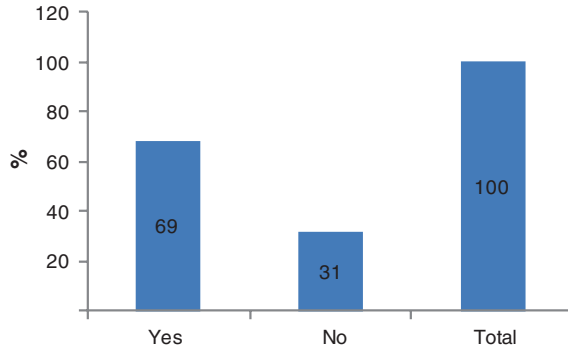


Fig. 2 Visited Algarve before



Fig. 3 Areas visited in the inland of the region

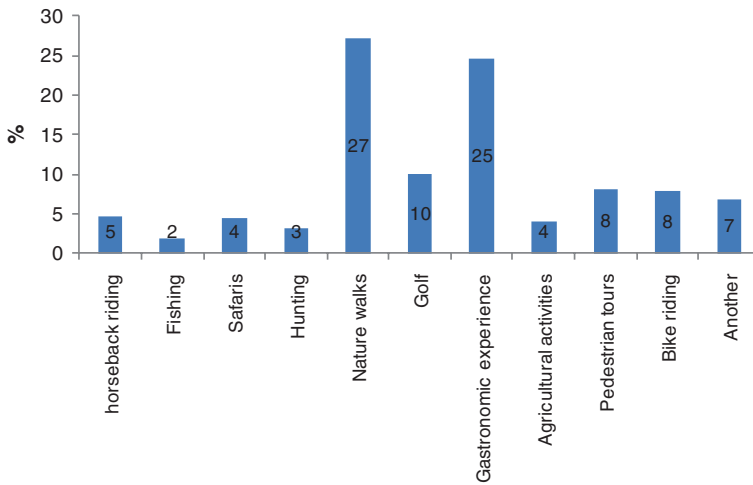
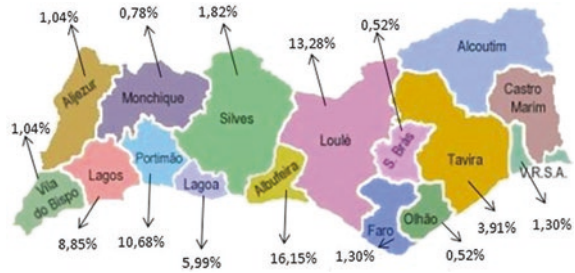


Fig. 4 Activities experienced in the inland

Fig. 5 Accommodation



5.3 Level of Satisfaction with the Tourism Experience

In relation to the Algarve experience, a significant percentage of respondents (38 %) found highly satisfied with it and 52 % satisfied. The two groups that scored higher in satisfaction levels represent 90 % of the sample, which is quite positive.

There were no statistically significant relations between overall satisfaction with the tourism experience and visit to specific locations in inland Algarve (χ^2 test: $p > 0.05$).

Such results are in conformity with previous research that have shown the holistic nature of tourism experience overall evaluation, thus not directly influenced by the discrete evaluation of touristic products. Thus being so, it is expected that activities and resources with potential to become tourism products in inland Algarve should be thought complementary traditional tourism products of the destination. In harmony with findings on satisfaction, the majority of respondents (81 %) show a high intention of repeating the visit to Algarve (Fig. 6).

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As to the intention of recommending the destination to friends and relatives, 85 % of respondents said they were favorable to do that (Fig. 8).

Recommendation to visit Algarve and repeating it show a statistically significant relation with visiting the inland region (χ^2 test: $p = 0.003$ and χ^2 test: $p = 0.000$, respectively). The highest levels of recommendation intention were found among tourists that visited inland Algarve (88.8 %). The percentage is slightly lower for tourists that remained in coastal areas (76.7 %). 86.4 % of respondents that are favorable to the idea of repeating the visit have been inland. This intention is not equally relevant for those who stayed in coastal areas (70 %).

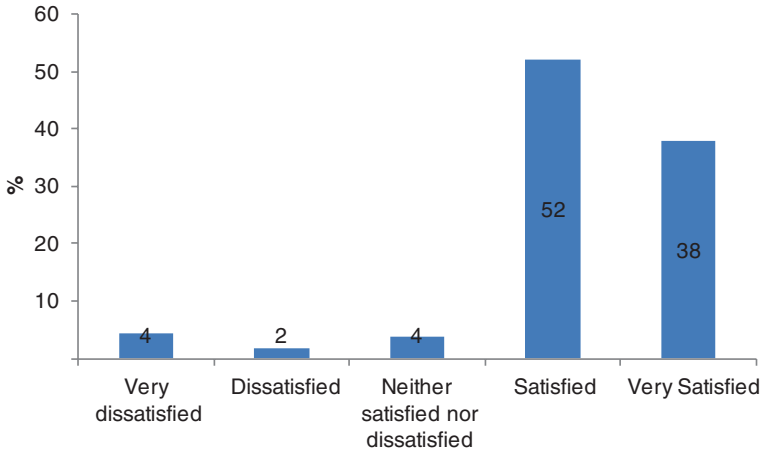


Fig. 6 Satisfaction with the tourism experience

Fig. 7 Intention of return to the Algarve

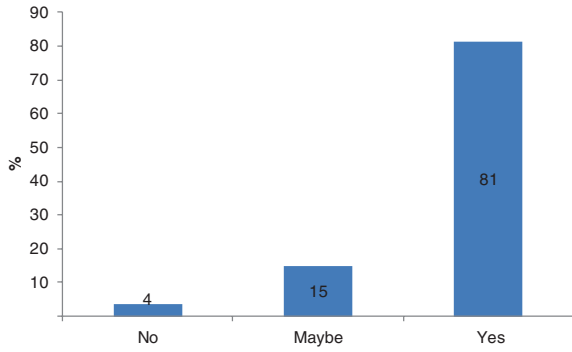
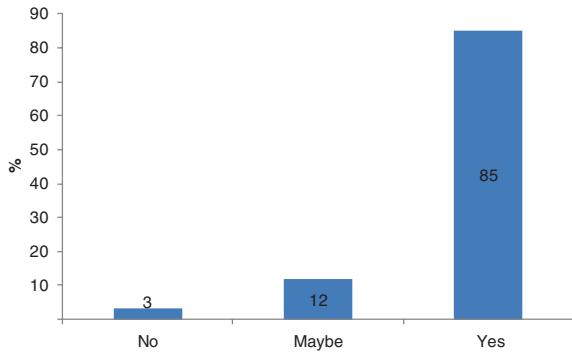


Fig. 8 Intention to recommend Algarve



6 Conclusions

In contrast to what is usually believed in relation to Algarve, main motivations for the choice of the destination have been the sun and beach product, but also nature and rural landscape, gastronomy, towns, and monuments (86, 78, 59, and 57 % respectively).

There is a whole new reality that needs to be acknowledged in order to meet the needs of new market segments that have not, so far, been considered in the DMO's communication strategies. The study identified two target markets for the region: individuals in the age groups 31–45 and 46–60, which have shown more motivated toward nature and rural landscape.

On the other hand, this motivation is associated with education qualification levels. In fact, it has shown important to individuals holding secondary (56 %) and higher (47 %) education qualification, but also very important to individuals holding lower levels of education qualifications (40 %). It is worth noting that the three levels, in average, showed a 70 % level of importance in relation to this specific motivation.

Another conclusion of the study relates to tourist accommodation in the region. Although the location of the accommodation has not prevented contact with inland scapes, the majority of tourists took accommodation in the coastline, either in apartments (38 %) or in hotels (21 %). Data suggest that there should be an integrated approach to sun and beach and nature and rural landscape products.

For tourists visiting inland Algarve, favorite activities are nature-based tours and gastronomy-related experiences. 38 % of the respondents found the tourism experience highly satisfactory, 52 % found it satisfactory, amounting to 90 % overall satisfaction with the destination.

The intention of repeating the visit is very high among these tourists (81 %), which is associated with the level of satisfaction with the visit. In addition, the intention of recommending the destination is also high, which is quite in harmony with levels of satisfaction found and the intention of repeating the visit.

A concluding remark concerns the destination promotion. The study's findings suggest that it is no longer sustainable to focus the destination's promotion exclusively on the sun and beach product. In this sense, the researchers recommend that it is necessary to design a repositioning strategy for the Algarve destination, attempting a differentiation from competition based on an integrated offer of sun and beach, nature, culture, and gastronomy.

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Research on Symbiotic Spatial Structure of Scenic Spots Based on the Original Authenticity Construction—Take Three Gorges as an Example

Hong Mu, Lulu Yao, Wei Zhang, Qianqian Ban and Zijun Lei

Abstract Symbiosis theory is applied to research on the relationship between internal units in the organic system, which has become a tool for theoretical analysis and practice in the field of tourism. This paper focuses on construction of complete, organic tourism system with life characteristics through symbiotic relationship based on original authenticity value orientation. In this paper, the space structure of Three Gorges is taken as the object, which is also regarded as one organic system. Symbiosis theory is applied to research on the interaction between the internal symbiotic units in this organic system, which provides a creative perspective for the applied study of symbiosis theory in the field of tourism development. On basis of this, relative countermeasures against Three Gorges' spatial structure and symbiotic development are illustrated.

Keywords Three Gorges · Symbiosis · Spatial structure · Regional tourism

1 Problems—Three Propositions

1.1 First Proposition: Beautiful Scenic Spots Are Embodiment of Existence, Discovery, and Values

Corresponding to this proposition there are three kinds of ideas: recognition of the beautiful scene; description of the beautiful scene, and construction of the beautiful scene. There is one concept implied in recognition and description of the beautiful scene, i.e., there are real scenic spots, which can be recognized and portrayed

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by us. However, there is another concept implied in construction of the beautiful scene, i.e., there is no fixed and real scene—it is constructed through various signs.

The difference between the construction and recognition lies in the fact that recognition is passive. Those that were thought to be objective are actually subjective. Wu Bihu defended for the idealism at the international academic seminar on “Tourism and Environment” held at 7th Tourism Frontier International Conference in July, 2007. He criticized the past philosophy—material construction promoted by industrialization. Wu Bihu insisted that materialism and idealism became totally exclusive in the context of class struggle after they were translated into Chinese as “Wei Wu Zhu Yi” and “Wei Xin Zhu Yi”. To put it right, the former should be translated as “wu zhi zhu yi” and the latter should be “li nian zhu yi”. Under the education of this exclusive philosophy for many years, Chinese people have habitual ways of thinking and dependence. Multi-way modernization should gain theoretical and scientific support from the philosophy root.

1.2 Second Proposition: Beautiful Scenic Spots Can Be Constructed Through Various Signs

Construction will compel people to innovate, create new signs, and endow the signs with specific meanings. The question is what signs to use and how to overturn?

Different conclusions are drawn from two Distribution Maps for China’s Beautiful Scenic Spots at different period of time as follows.

There is one philosophical concept implied in constructivism, i.e., Knowledge is power. All are determined by power, e.g., who produces signs, what signs are to be produced and what meanings should be endowed with the signs. As a result, the geographical images, cultural images, and historical images need to be rediscovered by means of context to generate important topics and foster new view on landscape. Faced with a world full of various signs, we think and recognize the world through signs, which act as a medium. Signs are produced and constructed (Figs. 1 and 2).

1.3 Third Proposition: Ultimate Goal of Tourism—Originality and Construction of Life System

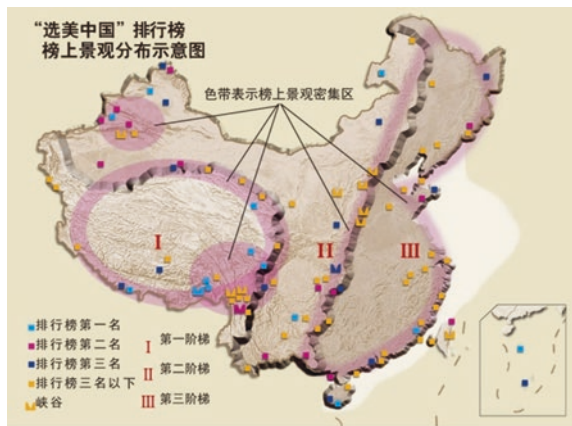
Due to the pursuit of Truth, Kindness, and Beauty, the tourists’ requirements for beautiful scenic spots have been changed from surface authenticity and surface nativeness to original authenticity and original nativeness. Original authenticity and symbiosis are two important signs for construction of beautiful scenic spots.

At present, there are a lot of problems in the tourism. Cultural heritage is displayed in isolated and dramatic form, which is far away from the cultural

Fig. 1 National scenic spots concentrated in eastern China during 1982–2005 (Provided by State Council)



Fig. 2 Scenic spots on “Scenic Splendor of China” ranking list expanding from East to North–West (Provided by China National Geography in 2008)



ecological environment and goes against “original authenticity” and “symbiosis”. As a result, the problem of Culture Isolated Island emerges and becomes more and more serious.

2 Tourism Symbiosis

In tourism large-scale system, the tourism symbiotic units are composed of various tourist enterprises, tourism regions, tourism departments, travel organizations, subjects, and objects of tourism etc. In the system supported by water-featured tourism, the tourism symbiotic units comprise of cruise ships, wharfs, scenic spots, and travel agencies. In the linear system, the tourism symbiotic units are composed of travel organizations.

One vivid comparison can be used to describe the tourism symbiotic system as follows. Tourism symbiotic system is one symbiotic system in which the symbiotic units foster the relationship just like that between the butterflies and the flowers, that is to say, the tourism enterprises are like butterflies, the scenic spots are like the flowers and the tourists are the pollen. The government acts as a person who raises the butterflies and grows flowers for maintaining the balance by narrowing the gap, holding the fairness by making the rules, and keeping the ecological balance.

2.1 Symbiosis

In Biology, symbiosis refers to close and often long-term nutritional interaction between different biological species that live together based on certain physical connection. The Symbionts in the ecological system foster the relationship of interdependence and mutual restriction based on biological nutritional connection.

Symbiosis has not only the general features of self organization process, but also has the unique characteristics in the symbiotic process. Symbiosis doesn't refer to the mutual exclusive relationship among the symbiotic units. Actually it is the mutual evolution through mutual interaction, which not only brings about new unit form, but also produces symbiotic energy and new substance structure, resulting in improvement of the survival ability and proliferation ability of the symbionts or symbiotic organizations and presenting the coordination and innovative vitality in the symbiotic relationship (Yuan 1998).

Coexistence and co-prosperity is the profound essence of symbiosis. But symbiosis doesn't exclude the competition. Symbiosis maintains its own property and state, and realizes mutual cooperation and promotion among the symbiotic units through cooperative competition, which is achieved through innovation of inner structure and functions, and by means of new divisions of the functions and cooperation among the symbiotic units. "Symmetric Mutualistic Symbiosis" Behavior Model and "integrated Symbiosis" Organization Model are the ideal models for "Win-Win" or "Multi-Win" results (Wu and Gu 2004).

The optimization of the symbiotic system refers to the evolution to "Integrated Symbiosis" under organization Model and the evolution to "Symmetric Mutualistic Symbiosis" under Behavior Model.

Symbiotic nature is shown as follows:

- (1) Symbiosis phenomenon is a kind of self organization phenomenon; symbiotic process is a self-organizing process.
- (2) Symbiosis process is the common evolution process of symbiotic units, and it is also the inevitable evolution process under the certain time-space condition. Co-evolution, common development and adaptation are the profound essence of symbiosis.

- (3) Symbiosis reflects a kind of interdependent relationship between the organizations. The emergence and development of this relation result in the organization's evolution full of more vitality.
- (4) Symbiosis process will produce the symbiotic energy as a result of joint action of symbiotic units, symbiotic models, and symbiotic environment, presenting coordination and innovative vitality of symbiotic relationship.

2.2 Requirements for Constitution of Tourism Symbiotic Relationship

The formation of the symbiotic relationship must be based on symbiotic interface and symbiosis mechanism, presenting the closer contact of substance, information or energy among symbiotic units and gradual improvement of symbiotic degree.

The general requirements for constituting symbiotic relationship are as follows: (1) with compatibility of internal property as well as connection related to time and space; (2) with symbiotic interface given time and space conditions; (3) exchange of substance, information, and energy among symbiotic units in certain way.

Requirements for constituting tourism symbiotic relationship are shown as follows:

- (1) Similarities and complementarities of the tourism resources whose distribution places are closer in space with the advantage of convenient contact;
- (2) With political or cultural tie or connection between resources and market elements.

The symbiotic mode is determined by the similarity of homogenous tourism destinations or the complementarities of heterogeneous tourism destinations. Among the homogenous tourism destinations, it is practical to strengthen the common advantages, improve the quality of the tourism products and perform new divisions based on cooperation. Among the heterogeneous tourism destinations, it is practical to learn from each other's strengths and make up for each other's deficiency. This symbiosis can refer to the horizontal symbiosis among the different tourism destinations in one region, or the longitudinal symbiosis among different industrial elements, or the mixed symbiosis among the elements related to tourism and other industries. As a result, various modes of collaboration can be adopted, e.g., Strong-strong complimentary collaboration on the basis of different advanced technologies, or strong-weak collaboration on the basis of resources, fund, technology; or weak-weak collaboration.

2.3 Establishment of Tourism Symbiosis Mechanism

The establishment of tourism symbiosis mechanism is of great significance to the steady and sustainable development of regional tourism symbiotic relationship.

After the formation of symbiosis, symbiotic interface will develop into symbiotic channel, which is the foundation for establishing symbiosis mechanism. As a result, tourism symbiosis mechanism must be based on the realization of optimization of overall regional tourism development environment. In addition, with support from the government and local nongovernment organizations, it must collaborate in accordance with the comparative advantage by putting emphasis on local benefit, market-oriental adjustment. Finally, the symmetric mutualistic integrated symbiosis can be realized by complementing each other through the flow of the regional tourism elements, by improving the coordination mechanism, the system and the organization and making a unified regional development planning.

The key to this lies in the argumentation of the initialized conditions as follows.

(1) What is the primary state? (2) Deviation degree after the administrative division; (3) deviation correction—the doer must also be who tied the bell on—the external force; (4) how to enter the spontaneous state and what kind of spontaneous state after the government forced the initialization?

2.4 Strategy for Regional Tourism Symbiotic Collaboration

Purpose of symbiosis: producing energy, maintaining system stability (Enhancing adaptability);

Key points to symbiosis: payoff matrix, initial conditions;

Problems solved in reality: Government forced mechanism (symbiosis formed through human factors);

Problems unsolved: What are the reasons why the previous forced mechanism of the government did not work effectively? Is it because the forced strength was not strong enough, or because there needs to be a high-level management organization whose power can go beyond the provincial government? Or the mechanism hasn't been formed because two elements are just bounded together without motive power? Then what is the symbiosis strategy based on the motive?

3 Frame of Spatial Symbiotic System for Three Gorges

The Spatial Symbiotic System for Three Gorges is a large-scale system, including endogenous and exogenous symbiotic system. The endogenous symbiotic system refers to the spatial symbiotic construction of scenic spots, which is composed of the main elements such as point, core, heart, pole, node, axis, wing, area. The exogenous symbiotic system is a system related to industry chain (management mode, optimization of industrial chain, operation mechanism), which is composed of scenic spots, travel agencies, and cruise ships. The following passages will focus on the endogenous symbiotic system of the scenic spots.

3.1 Current Situation of Symbiosis of Three Gorges' Scenic Spots

There are a lot of structure problems of the scenic spots in different regions for Three Gorges tour. From the point view of symbiosis, the problems are listed as follows: low-level type of symbiotic relationship, simplification of the symbiotic interface, non-optimization of symbiosis model.

There are more than 60 canyons, 49 tributaries, and many lakes and islands with drainage area over 10,000 km² along Three Gorges. The scenic spots are isolated, characterized by weak, decentralized, small-scale, and poor-quality development at present. As a result, just tiny symbiosis emerges in the spatial symbiosis, which goes against the symbiotic rules and cause waste of resources if the symbiotic density exceeds the equilibrium density. With the introduction of regional associations and large-scale organizations, the symbiosis has been enhanced, but it also presents an unsymmetrical state.

There are no uniform management and standards and there is no unified symbiotic interface of market in Three Gorges, which goes against the Jungle Law, i.e., the survival of the fittest. The symbiotic models mainly take the form of point-symbiosis, interval-symbiosis and nonmutualistic symbiosis.

3.2 Optimized Path to Symbiotic Structure

The optimized design for Symbiotic structure of Three Gorges' scenic spots covers new design and development of the linear tourism products of Three Gorges from the perspective of symbiotic construction for representation of the original authenticity and completeness with an aim of maintaining sustainable development in nature and in economic and cultural field.

Three Gorges' symbiotic system is not a simple "spatial symbiosis"; instead, it belongs to homologous symbiosis emphasizing the completeness of the geographical structure and authenticity of the scenic spots. It refers to the tourism symbiosis with symbiotic environment and symbiotic mechanism through hierarchical description by means of point, axis and area on the basis of primitive ecology and culture in order to draw on each other's advantages and mutual benefit for joint progress, coexistence and co-prosperity of the scenic spots.

The symbiotic deviation, which is caused by human factors resulting from the administrative divisions, needs to be identified on the basis of analysis of the primitive state of symbiotic structure—endogenous symbiotic system. On the basis of the regression and deconstruction of symbiotic structure, the type and number of symbiotic units can be increased and the quality parameter of symbiotic units can be maintained by setting up the initial conditions, increasing symbiotic interfaces and strengthening symbiotic tie. Then regional symbiosis can be formed by combining different symbiotic units through repositioning of the original points

to establish regional collaboration. As a result, overall and integrated attraction of Big Three Gorges' tourism brand of "symbiotic life" will be shaped.

The specific ways are as follows:

- (1) To increase the type and number of symbiotic units;
- (2) To increase symbiotic interfaces;
- (3) To maintain quality parameters of symbiotic units;
- (4) To research on the type of symbiotic density.

In terms of the structure of scenic spots, the symbiotic density of small themes with big themes should be reduced, and the symbiotic density of the big themes with small themes should be improved.

3.3 Overall Symbiotic Development Strategy for Three Gorges Tourism

- (1) The type and number of the symbiotic units in Three Gorges' Tourism Symbiosis should be increased. This is not only an important feature for establishing symbiotic relationship but also essential conditions for fostering and developing the symbiotic relationship.
- (2) The symbiotic density of the small scenic spots with large scenic spots should be reduced and the symbiotic density of the large scenic spots with small scenic spots should be improved to increase the symbiotic degree and optimize the whole symbiotic interfaces in the tourism.
- (3) Symmetry and integrated mutualism should be promoted to strengthen the symbiotic energy.

4 Suggestions

Construction of Three Gorges is based on Three Gorges' original structure originated from the life structure, which takes millions of years to form.

4.1 Ideal Organizational Model for Regional Tourism Symbiosis

"Integrated Symbiosis" is the ideal organizational model of regional tourism symbiosis, which refers to the symbiosis with independent property and function based on stable dominant symbiotic interface and disposable medium between the

symbiotic units with overall communication and interaction and stable symbiotic relationship.

In view of regional tourism, its development essentially lies in the coupling linkage between the regional tourism competition and cooperation. “Integrated Symbiosis of Regional Tourism” refers to the integration of the following elements, such as landscape, resources, markets, brands, information, industry, infrastructure, ecological environment, and system, which are realized by the regional scenic spots through overall voluntary cooperation on the basis of market-oriented symbiotic interface and the cultural, political, and resource’s connection for the anticipation on the whole or part of the market and realization of the general goal. That is to say, regional tourist destinations are concentrated in spatial form to become the hub for the tourism elements and the incubator for innovation of tourism products. Integration of resources is implemented in the regional context by breaking the boundaries of administrative regions. Free flow of goods and elements is realized and resources of passengers, brands, information, education, training, and results of R&D are shared. As a result, regional tourism system and industry chain are improved, and completed systems for urban transportation and service facilities are accelerated. Joint efforts are also made to protect the ecological environment and regulate the policy and system in the tourism regions.

4.2 Ideal Behavior Model for Regional Symbiosis Tourism

“Symmetrical mutualism” is the ideal model for regional tourism competition, which is the basic direction of evolution and fundamental principle of symbiotic system. It can attain the state of Pareto optimality and remain the state of the best incentive compatibility or the state of most efficient allocation of resources. Specifically speaking, it is admitted that conflicts between competition and regional benefit exists among the regional tourist destinations with emphasis on the differentiation strategy. On the other hand, it is held that partial confrontation should be turned into larger space for coexistence with focus on the development and protection of the common advantages, and with emphasis on expansion of the shared field by establishing new and creative partnerships from the competition and reshaping unique strategic resources and competitiveness, which cannot be imitated easily. It is also emphasized that a harmonious unified system can be established through co-evolution, common development and coadaptation in the symbiotic interface of the market with an aim of coexistence, shared resources, mutual benefit, and multi-win among the regional tourist destinations on basis of shared benefit and obligations so as to attain the highest and maximized benefit that one single part can never reach.

4.3 Requirements for Symbiotic Units of Tourism Culture

The culture of Three Gorges tourism develops with a strong dependence on local place. The requirements for symbiotic units are listed as follows:

- (1) Optimization of the carrier to control the development scale. For example, as a carrier, a village is superior to a county for the tourism development of some intangible cultural heritage.
- (2) Pursuit of the original scenery instead of the grand, shocking, modern scenery.
- (3) Presentation of the nativeness with villagers as the performers.
- (4) Cultivation of “the soil” (including descendant) as well as “the flowers”.

4.4 Development Scheme for Three Gorges Tourism

On the basis of the influence of changed value on Three Gorges Tourism and the modern traveling modes of Chinese society, unique interpretation of the Three Gorges tourism trend is made from the international and ecological perspective with an focus on the tourism development in the following 10–20 years, which can be divided into several time periods, predicting the characteristics of the forms of Three Gorges tourism and habitual transition of time sequence.

The scheme covers the following items:

- Planning on development and expansion of the tributaries and hinterland and the time sequence;
- Requirements for assessment of the symbiosis before the expansion;
- Measures to improve the symbiosis;
- Requirements for development of the homogeneous scenic spots at different regions;
- Requirements for unified planning and public bidding.

4.5 Establishment of Experimental Zone for Three Gorges Tourism

Three Gorges’ scenic spots should be integrated in artificial ways by which these scenic spots were cut apart in the past. Great efforts should be made to establish the experimental Zone for Three Gorges Tourism. It should become a pilot project for the development of the local tourism industry characterized by the pioneering, exploratory, guiding, strategic, systematic and hard reform on the basis of the following measures:

- Taking tourism as the foundation;
- Aiming to turning Three Gorges into a famous internationalized travel destination;

Emphasizing new growth points of Three Gorges Tourism;
 Focusing on experiences in exploring and promoting China's tourism comprehensive reform;
 Breaking through the bottlenecks related to land, transportation, financing etc.;
 Taking the comprehensive reform as the main task, which covers land policy, reform of management system, investment and financing policy etc.;
 Taking the comprehensive reform as the driving force.

5 Conclusion

Three Gorges is a typical cross-provincial tourist region in our county, whose core district goes across two provinces of Hubei, Chongqing and more than 20 counties. However, many factors have been changed since impoundment of Three Gorges Reservoir, such as the traffic pattern, the resources, numbers of passengers, spatial structure, investment modes, competitive situation and management pattern for Three Gorges tourism etc.

Three Gorges' Tourism involves neither a pure kind of competition, nor the cooperation in spatial form just with shared geographical resources. What is a rational state of competition? The judgment lies in the evolution of tourism system, which takes the economic development level of tourism as the standard and as the driving force for the cooperation.

The research on Tourism Symbiotic Spatial System of Three Gorges still remains at the primary stage, as this system is a large-scale one with various forms. On basis of the basic theory of tourism symbiosis and ecological concept, this paper designs the overall framework for the symbiotic spatial system of Three Gorges tourism for the realization of multi-goal system of symbiosis. The conclusion will be stated as follows.

Firstly, the tourism symbiotic space is a large-scale network with series connection with a linear space. It is one tourism symbiosis with symbiotic environment and symbiotic mechanism through hierarchical description by means of point, axis and area on the basis of primitive ecology and culture in order to draw on each other's advantages and mutual benefit for joint progress, coexistence and co-prosperity of the scenic spots.

Secondly, the symbiotic deviation, which is caused by human factors resulting from the administrative divisions, needs to be identified on the basis of analysis of the primitive state of symbiotic structure—endogenous symbiotic system. The type and number of symbiotic units can be increased for maintaining the quality parameter of symbiotic units through regression and deconstruction of symbiotic structure by increasing symbiotic interfaces and strengthening symbiotic tie.

Thirdly, on the basis of establishment of ecological esthetic value system, taking ecologicalized target as the engine for sustainable development, re-classification of current tourism resources of Three Gorges, division of tourism symbiotic

units and level-division of symbiotic system, re-positioning the original points, regional collaborative relationship is established by combining different symbiotic units into regional symbiosis.

Only when “universal feelings” implied in the tourism destinations are discovered, highlighted, and cherished, can the tourism destinations gain their fame without being criticized as “surface globalization and surface localization”. Although the resources of the same scenic spot are homogeneous in some sense, the symbiotic units in the same symbiosis are different from each other with their unique characteristics, which help them play their different symbiotic functions in the symbiosis. This is just like the saying, “No two leaves are exactly identical in the world”. More diversified strategies should be made, for example, market segmentation with different functions and characteristics for each market; emphasis on unique feature and differentiation; presentation of nativeness; establishment of high-quality scenic spots; complementing each other’s advantages etc.

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Research on Influence Factors of Dynamic Recreation Value of Desert Scenic Spots

Hong Li and Jinlian Shi

Abstract This paper summarizes present research situation of influence factors of recreation values. Based on the causality diagram of recreation value of desert scenic spots, it qualitatively analyzes direct and indirect functions and mechanism for external and internal influence factors to recreation values of desert. Through experts' investment and weighting count, it gives out importance of influence factor. The research results show that: recreation values of desert scenic spots are closely related with tourist reception and travel cost; recreation expense courts for high percentage in the per capita consumption; abundance of tourism products and natural endowment of recreation resources have great influence on recreation value of desert scenic spot.

Keywords Desert scenic spot · Recreation value · Environmental carrying capacity · Influence factors · Causality diagram

1 Research Significance

Desert tourism is based on desert tourism attractions to develop tourism activities of which can satisfy the psychological demands of the travelers, such as exploration, expedition, seeking novelty, and knowledge (Zhang et al. 2003; Wei and Wang 2008). The research on influence factors of desert recreation value is of great significance reflected in the following aspects: it is favorable to real-time monitor operation state and management efficiency of desert scenic spot; provide

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a basis for pricing a rational ticket and enhance the management level; adjust the tourism product structure for desert scenic spot, guide its transformation and upgrading, and encourage innovations of scenic spot in aspects of product, technology and management concept, etc., realize recreation value of the scenic spot and great-leap-forward development of economic benefit; realize the paid use of tourism resources, coordinate contradiction between protection and development of resources; and broaden the financing business of tourism enterprise and promote introduction of investment.

This study reviews the present situations and existed shortages during researches on influence factors of recreation value; taken desert tourism scenic spot as a complex system composed of the ecological, economic, and social subsystems, it adopts the system dynamics method to draw a causality diagram for the influence factors of recreation value of desert scenic spot; it also qualitatively analyzes the direct or indirect action and mechanism of each external and internal factor to the recreation value; finally through the expert investigation and weight calculation, the importance of these factors on recreation value are determined.

2 Research Review

2.1 Assessment Method

The international relevant researches show that assessment on the influence factors of recreation value of tourism resources is mainly based on the characteristics of the assessment method and evaluation object. Due to great operation difference during application, the factors influenced the accounting result are also different for various evaluation methods.

Presently, the methods for calculation of tourism resources value include Travel Cost Method (TCM), Contingent Value Method (CVM), Expenditure Method, Income Capital Method, etc., all of which involved two factors, namely tourist reception and tourists' average expense during calculation of resource value. At present, TCM is a relative mature and conventional method to account value of natural scenic spots without direct market price or environment resources, especially applicable to evaluation on enjoyment resources with tourism and entertainment functions, such as free or low charge natural scenic spots (Li and Liu 2010). CVM can evaluate not only on the direct value of environment resources, but also on its nonuse values. In China, CVM is only used to evaluate the economic value of natural ecological environment with results on the low side usually. Some researchers combined TCM and CVM to estimate tourism value. The evaluated value by TCM is often 20 ~ 30 % higher than that of VCM (Li and Liu 2010; Pearce and Moran 1995; Chen and Zhang 2001). Liu et al. (2006) used two TCM regression models to calculate the consumers' surplus value of Wulingyuan Scenic Area which are 8.75 and 9.21 times higher than evaluation results of CVM respectively.

2.2 *Social Economics Attributes of Evaluation Object*

The factors influenced on recreation value assessment include level of scenic spot, tourists' income and quantity, as well as population structure, and so on.

- (1) *Population of tourist source* There are some correlation among factors, such as total population of tourist source, especially percentage of urban population, and travel rate of tourist source, the willingness to pay (WTP). A certain age range of urban population with fixed income belongs to the tourism subject. During the analysis on recreation value of Hefei Botanical Garden, a positive correlation is presented between nonagricultural population and number of tourists (Wu 2005). The correlation between nonagricultural population rate at tourist source of Wuyi Mountain and Wuyi Mountain tourist is not significant (Wu et al. 1992; Yi et al. 1996). The correlation between travel rate and population of each tourist source of Changbaishan Nature Reserve established by Xue et al. (1999) is also not significant.
- (2) *Social and economic features of tourist* For the influence factors of tourists' attributes, the average monthly income versus WTP or travel rate, the opposite conclusion may be drawn due to the different study areas and survey data. For example of analysis in view of gender, WTP of men is higher than that of women (Liu et al. 2006). Gender may have extremely significant correlation with WTP, but also likely to no impact on it (Pearce and Moran 1995). Age may have significant correlation with WTP (Chen and Zhang 2001), but also likely to no impact on it (Pearce and Moran 1995; Liu et al. 2006). Tourists' career may have extremely significant correlation with WTP (Yu 2008), but also likely to no impact on it (Chen and Zhang 2001). Education background may have significant or extremely significant correlation with WTP (Chen and Zhang 2001; Liu et al. 2006), but also likely to no impact on it. Income level may have significant correlation with WTP, the higher tourist's income is, the higher the WTP will be, however, researches (Chen and Zhang 2001; Yu 2008) show that correlation between income level and WTP is not significant.

2.3 *Limitations of the Previous Studies*

It is inevitable to simplify the complex issues if the influence factors of travel value are only attributed to calculation method and tourist personal attributes. Except for calculation method and tourists' personal attributes, recreation value is also influenced by the complexity of various factors, including the social and economic conditions of tourist sources, category and grade of tourism resources, popularity and environmental carrying capacity of scenic spot, tourism expenses, tourist reception, and travel time. The tourist receptions of the scenic spot, travel

expenses, or consumers' WTP are the key influence factors of tourism value. Different tourism values have respective calculation methods; finally, all of them focus on how to determine tourist reception, travel expenses, or tourists' WTP of the tourist destination or scenic spot. The influence mechanism of these factors on recreation value is very complicated. In the existing study on recreation value, TCM considers less about tourist personal attributes, while CVM considers less about travel costs. The in-depth analysis is insufficient on the key influence factors of travel expenses and tourist's WTP.

3 Analysis on Influence Factor of Recreation Value of Desert Scenic Spot

This study focuses on the analysis on the influence factors of desert use value without consideration of influence factors of desert nonuse value. Desert use value refers to a sum of all expenses and travel time cost of whole process from departure to recreation, accommodation, and return (Meng and Chen 1994). A causality diagram (see Fig. 1) can be drawn for influence factors of desert scenic spot by the researchers according to the field survey on Inner Mongolia "Yinken" Xiangshawan, Ningxia Shapotou, Tengger Desert Wetland Park, and Inner Mongolia Tonghu desert tourism area, as well as analysis on the tourism resources of desert scenic spot and characteristics of recreation. The section below is to analyze recreation value of desert scenic spot on the basis of the causality diagram.

3.1 Influence Factor of Recreation Value of Desert Scenic Spot

3.1.1 External Factors of Recreation System Function

Total Population of Tourist Source

According to the tourist source, desert tourists can be divided into two types, namely urban/rural residents surrounding the desert and the inhabitants far away from the desert scenic spot. As the latter is concerned, the larger population scale can promise the higher percentage of residents to travel. For example of Shapotou and Tonghu Tourism Area, main tourist sources are Sichuan, Shaanxi, and Gansu provinces in the rush season. According to the demographic data of the sixth national population census in 2010, tourists from Sichuan, Gansu, and Shaanxi provinces were respectively 80.4182 million, 25.5752 million, and 7.3273 million, these provinces become main tourist sources of desert tourism in Ningxia and Inner Mongolia.

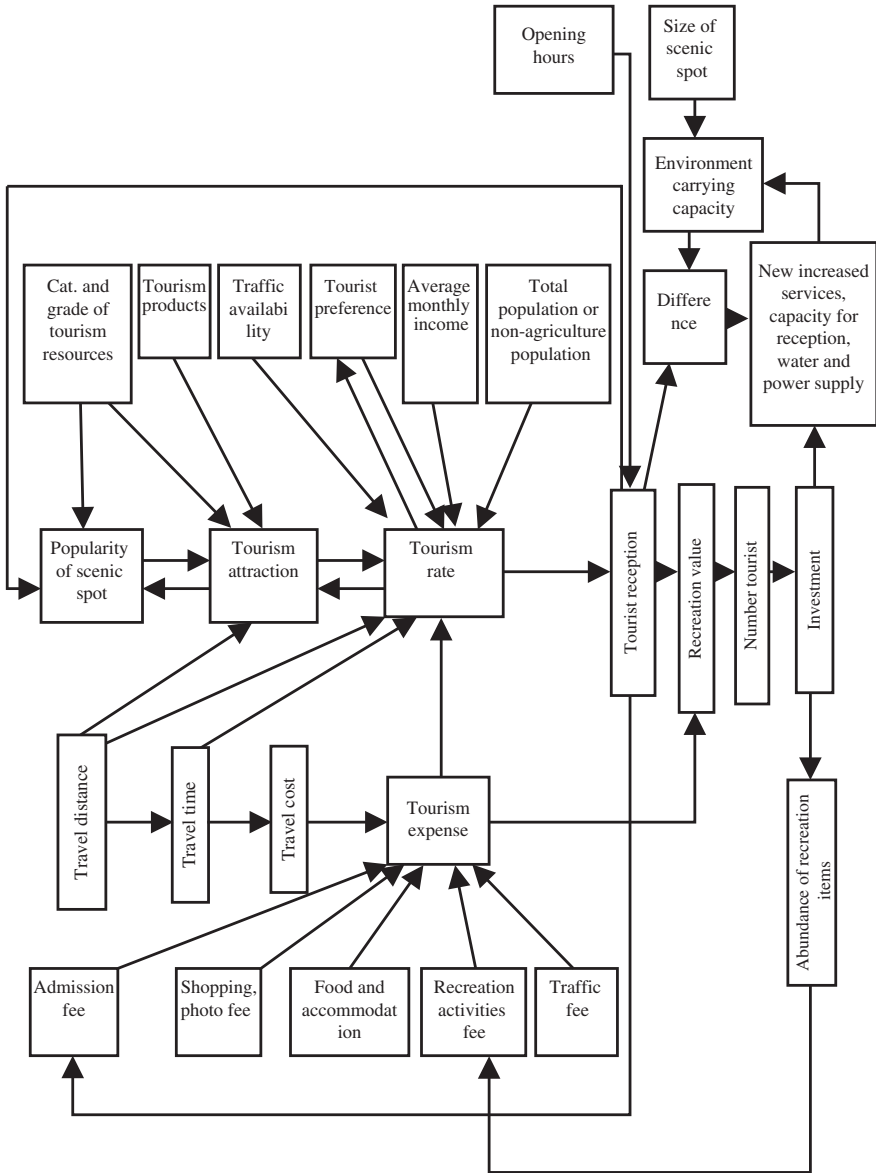


Fig. 1 Causality diagram for influence factors of recreation values of desert scenic spot

Average Monthly Income or Per Capita Disposable Income

The recreation demand of tourist source depends on the urban residents' disposable income and population above certain income (Wu 1999). The travel rate of

tourist source presents a positive correlation with the local social and economic development level, especially the per capita disposable income; the per capita travel expenses also presents a positive correlation with resident income of tourist source; namely the higher resident income can guarantee the more per capita tourism expense. The increase of the per capita disposable income lays an economic basis for development of desert tourism.

Travel Distance and Traffic Availability

Travel distance can be classified into absolute distance and relative distance. The urban residents' travel distance shows a strong correlation with urban size. Travel rate of the province with near space distance to the scenic spot is higher than that of the province with far space distance. For the same traffic vehicle, the greater the travel distance is, the higher traffic cost will be; the longer the travel time is needed, the greater the time cost will be; and the larger the travel expenses is, the lower the travel rate will be. In the foreign calculation of transportation cost, the distance is determined through jurisdiction region of the self-driving license plate and then traffic cost can be converted according to the unified criteria; for example, the criteria adopted by the United States Department of Transportation (DOT) and the American Automobile Association (AAA) is \$0.12/miles. Since the self-driving travel is still not popularized in China, there is a great difference in the traffic cost due to the different vehicle and comfortable degree selected. If the actual traffic cost of each specimen get to the destination scenic spot is directly taken as the travel cost, it may appear travel cost of tourists with near distance is high, travel cost of tourists with far distance is low (Zhao et al. 2009). Therefore, it is preferential to express the traffic cost from same tourist source to the scenic spot as same vehicle cost during the original data sorting.

Traffic availability is not only determined by space distance, but also impacted by traffic mode and route, and station distribution. Traffic availability \Leftrightarrow travel rate forms a positive feedback loop. The better the traffic availability is, the greater the travel rate will be; and the larger the travel rate is, the more tourists will be. The poor road conditions and traffic inconvenience will force the local government attach great importance to construct the external infrastructure for the scenic spot, increase traffic volume, improve road conditions, and widen the roadside, and then the traffic availability can be improved. Since many desert scenic spots are located in the margin of the northwest oasis, a large gap is still existed for traffic availability, so it is taken on phenomenon of "available arrival and difficult return," "a ticket of sleeping berth is hard to obtain," or even "a ticket of hard seat is hard to obtain" in the tourist season. As the train tickets online booking system is implemented recently, it greatly limits the individual traveler to visit many destinations at once tour.

Popularity—The popularity is a degree of being understood and known by the public. The popularity of desert scenic spot \Leftrightarrow tourism attraction forms a positive feedback loop. The greater popularity of the scenic spot is, the larger tourism attraction will be; and vice versa. "Popularity \rightarrow tourism attraction \rightarrow travel

rate → tourist reception → popularity” forms a positive feedback loop, the greater popularity of the scenic spot is, the larger tourism attraction will be, the higher travel rate is, and the greater tourist reception will be, popularity of the scenic spot can be further promoted and expanded through publicity of the tourists. This positive feedback loop can explain that popularity of the desert scenic spot is of importance to improve the travel rate, expand the tourist reception. For example, Shapotou is famous around the world for its achievement of desertification control, enjoying various titles, such as the “Top Five Beautiful Deserts in China,” “Global Top 500 Environmental Protection Unit,” “Top Twenty Famous Landscape for National Fitness in China,” “Top Ten Most Interesting Spots in China,” and so on. In 2011, the tourist reception of Shapotou scenic spot reached 900,000 person-time, and tourism income was RMB 60.18 million. The tourist reception of the famous Inner Mongolia Xiangshawan scenic spot reached 1.012 million person-time, and business revenue amounted to RMB 112.7583 million.

3.1.2 Internal Influence Factors of Recreation System Function

Attraction of the recreation spot is an interaction force between tourist source and recreation spot, it is rooted from popularity, features and quality of recreation spot, the tourists’ familiarity to the destination.

Size of Desert Scenic Spot

Although a few of desert scenic spots are lesser, for example, Gansu Yueya Spring is only 0.9 hm², many desert scenic spots are much large relative to the urban parks, scenery areas, for example, area of Shapotou in Ningxia is 13,000 hm², area of Ala Shan Desert World Geological Park is 63,037 hm², and area of Xiangshawan in Inner Mongolia reaches to 1,600,000 hm². The larger the area is, the smaller the resistance from distance is, and the greater the moment capacity and spatial capacity will be. Due to influences of objective conditions, such as climate, topography, transportation, water supply conditions, and traffic conditions, the services and reception facilities of desert scenic spot are mainly planned and designed in the desert recreation area permitted open. The activities of both team tourist and the self-driving tourist are limited in the area within a distance of 20 km to the edge of desert, only a few scenic spots have specifically designed the desert crossing program, entering into the desert hinterland areas within 250 km in view of differentiation management.

Category and Grade of Desert Tourism Resource

Tourism resource is the most important factor of which tourist destination can attract tourists, but also one of essential conditions to ensure the successful

tourism development. Desert tourism resources can be divided into 8 major categories, 22 subgroups, and 80 basic types with various characteristics, such as regional features, uniqueness, scientific and knowledge, the long-term and nonrenewable formation, morphological diversity, and functional diversity. Natural tourism resource is a foundation of tourism development of desert scenic spot, and the culture tourism resource makes tourism activities become a really high level of mental activity.

For the desert scenic spot, the more tourism resource types have, and the higher its grade is, and the greater the attraction to tourists will be. For example, Shapotou is located in the southeastern margin of Tengger Desert integrated the desert, Yellow River, the mountain and oasis, it is featured as both spectacular northwest scenery and the beauty scenery at south of Yangtze River, unique natural landscape and abundant cultural landscape, so it is honored as a monopoly tourism resources in the world by experts of tourism circle.

Dune is an aggregate of sand under action of wind, is major landform types of desert or sand (Li and Ni 2000). Due to the different wind regime, dune shapes through accumulation of sand are also different. Among the conditions of desert tourism resources, the dune shape plays a key role in influencing development of desert tourism, and size of desert zone has no obvious effect on tourism development (Wang and Hu 2010). Both Yinke Xiangshawan and Shapotou are crescent hill chain or grating hill landform with rare and wonderful singing sand landscape, diversity of dune shape provides an innate advantage for the different scenic spots to develop recreation activities, such as desert experiences, adventure and expedition, so as closely contact with the mysterious desert.

Abundance of Tourism Products

Tourism products shall be based on the types and characteristics of tourism resources, all kinds of programs or activities shall be developed and designed in view of the attributes and preference of target market, which is aimed to attracting tourists to participate in, satisfying tourists' demands and expanding the tourism income. Tourism products can be divided into a sightseeing tour type, experience type, expedition and exploration type, leisure entertainment type, and vocation type. Desert tourism products cover five types. Many people expressed on Chinese tourism areas: "more sights, less plays, and less thing worthy of meditation and pleasures," however, the experienced, participated, and challenging desert tourism products make up for deficiency of other tourism activities, which let visitors "see enough and enjoy oneself."

At present, the experienced products developed in desert scenic spot mainly include desert surfing, sliding sand, paraglider, bungee jumping, karts, horse riding, riding camels, sand bath, etc., the scenic spots with rivers and lakes distributed can be developed some experience activities, such as slip line, swimming, rowing, boating, and drifting. In order to attract participation of different tourists, the above single experience activity (such as desert surfing, and riding a camel) is

classified into the short, middle, and long line in some scenic spots; some scenic spots bundle several activities together as a combination, such as surfing + horse-back riding, surfing + riding + bungee jumping, surfing long line + horse riding + camel riding, selling package with a certain range of discount (RMB 20 ~ 50).

The exploration products developed in desert scenic spot mainly cover hiking, camel riding, motorcycle riding, or self-driving across the desert, etc. At present, the hiking across desert is still in a spontaneous state organized by the tourist friends with higher glamor index, but extremely challenging and risk. Ningxia Shapotou and Inner Mongolia Tonghu tourism area develop the camel riding across Tengger Desert with linear distance of 8.3 km, time needed 4 ~ 5 h, and price of RMB 500/person. This kind of short and midway organized across the desert and expedition may become the future development direction of desert tourism exploration.

The entertainment products developed in desert scenic spot mainly cover such activities as national song and dance, campfire party, all kinds of cultural art festival. For example, Yinken Xiangshawan has planned the first-class specific activities with depth experience in China, such as “Erdos Wedding” performed by Mongolian Art Troupe, the original campfire culture performance and Yurt Sacrifice of Meeting at the Yurt. Similarly, since 2009, Shapotou began to performing “Camel Bell Sounds” with live-action in the tourism area, hold a mirage bonfire party every day, and regularly held the Super Pickup Challenger.

Tourist Reception

Tourist reception depends on some factors of desert scenic spot, such as open time, travel rate, tourism expenses, and tourism carrying capacity.

Travel rate is a percentage of the tourists of which a destination or scenic spot receipted from certain region accounting for total population in the region, generally calculated by means of questionnaire. It is shown from Fig. 1 that travel rate is comprehensively influenced by various factors, including population of tourist source, tourism attraction, tourist preference, tourist attributes, travel distance, travel time, and travel cost. Travel preference \Leftrightarrow travel rate, tourism attraction \Leftrightarrow travel rate all form the positive feedback loops, namely the larger travel preference is, the higher tourism rate will be; and vice versa. The greater tourism attraction is, the higher travel rate will be; and vice versa. The average monthly income and the travel rate present a positive correlation, the higher the income level is, the greater travel rate will be, and vice versa. Travel expense has significant or extremely significant negative correlation with travel rate; namely, the larger travel expenses is, the lower travel rate will be. Travel time and travel rate present a negative influence correlation; the longer travel time is needed, the lower travel rate will be; but it is necessary to test through the statistical hypothesis whether travel time has a significant effect to the travel rate or not.

Desert carrying capacity refers to maximum number of tourists held by the desert scenic spot without affecting tourists' experiences; it depends on not only the space and ecological capacity of the desert scenic spot, but also the economic capacity, and mental capacity of tourists and local residents. The appropriate carrying capacity of the desert scenic spot shall be determined according to the "Cannikin Law." Assumed that capacity of a desert scenic spot is known, when the visitor reception is no more than the environmental carrying capacity, the scenic spot shall focus on the resources development, target market orientation, and product innovation, expand popularity of the scenic spot through the appropriate marketing strategy, try to attract tourists, and increase the tourist reception. It is shown from Fig. 2 that tourist reception → recreation value → tourism income → investment → new services, capacity of reception, water and power supply → environmental carrying capacity → tourist reception form a positive feedback loop. With the increasing tourist reception, tourism income will increase accordingly, the enterprise can invest more capital to expand service, capacity of reception, water and power supply, the environmental carrying capacity will be accordingly expanded, and tourist reception will be further expanded.

When tourist reception is more than the environmental carrying capacity, the bigger the difference between them is, the more serious the possible environmental and social negative impact may cause, the greater the investment required, the higher the new tourism services, capacity of reception, water and power supply will be, and then the greater the environmental carrying capacity can be obtained, which causes such difference less. (Tourist reception and environmental carrying capacity) difference → investment → service, capacity of reception, water and power supply → environmental carrying capacity → such difference form a negative feedback loop, which limits infinitely expansion of the investment and environmental carrying capacity; while tourist reception → such difference investment → -new services, capacity of reception, water and power supply → environmental carrying capacity → tourist reception form a positive feedback loop. The expansion of tourist reception brings the increased investment, enlarges the carrying capacity of desert scenic spot, and accordingly further expands the tourist reception.

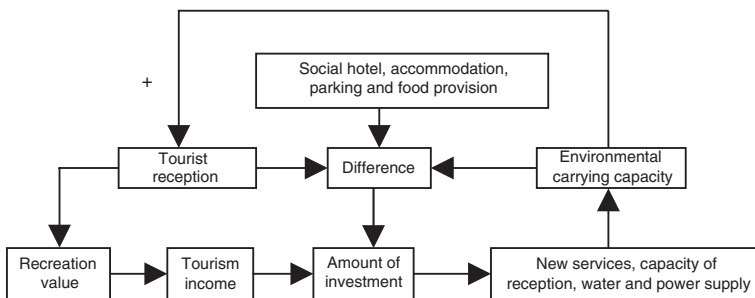


Fig. 2 Relationship diagram between tourism reception and environmental carrying capacity

Environmental carrying capacity is a relatively stable value in a certain period of time. With the increasing number of tourists and investment, it will become a variable and always keep a dynamic balance. Analyzed from the composition of environmental carrying capacity (spatial, ecological, economic, and mental capacity), the water supply capacity is the first key restriction to the tourist reception, secondly followed by the traffic availability from the tourism destination to scenic spot, reception capacity of the hotel, catering, size of the scenic spot, the ecological capacity, parking lot, and reception capacity of toilets; with strengthening the environmental hygiene management, the secondary factors are not the restrictive preconditions of the tourist reception.

Tourism Expense

Travel costs represent average cost of each tourist of tourist source each for one tour. Leisure time value is calculated according to 1/3 of the daily wage. Travel expense → recreation value → tourism income → investment → recreation project → recreation activity cost → travel expense form a positive feedback loop. The larger per capita travel expense is, the larger recreation value of the scenic spot will be, the greater tourism income can make, the more fund can be used for recreation project development, the greater the recreation projects can become, and then the more expenses of tourists used in the experience program (Fig. 1). Travel expense → travel rate → tourists reception → tickets cost—travel expense form a negative feedback loop. Travel expense and travel rate present a negative correlation; the larger travel expense is, accordingly the lower travel rate will be, the less tourist reception is, and the lower ticket income also is. That is, when amount of tourist is larger; the operator tends to raise the ticket price on the excuse of restricting passenger flow for “the ecological environment protection,” presently the tourism industry falls into a strange circle of “a rise every 3 years.” Ticket price can raise 20 %, or even 60 % every time, and accordingly the tourist expense is increased, which leads to travel rate and tourist reception decline in a short period.

Desert tourism can be considered as a tourism form integrated sightseeing tourism, ecological tourism and sports tourism, special tourism. Desert adventure and expedition are the concrete manifestation of ecological tourism. Compared with other tourism forms, cost for recreation activity in desert tourism accounts for a large proportion of tourism expense. For example of Ningxia Shapotou tourism area, assumed a tour from Beijing to Zhongwei City needs 4 days totally, lodging 3 nights, and only one scenic spots is traveled, the per capita tourism expense is RMB 3595 ~ 3915. Among of them, each expenditure is sorted by amount in turn: recreation activities (RMB 945 ~ 1265/person), time cost (RMB 870/person), accommodation (RMB 600/person), transportation (RMB 590/person), meals (RMB 400/person), tourism shopping (RMB100/person), and ticket fee (RMB 90/person). Of course, tourists from thousand miles away can not only travel one scenic spot, generally may visit other attractions by the way. For example, tourist

from Beijing to Zhongwei City may visit Gaomiao Park in the Zhongwei and Inner Mongolia Tonghu Tourism Area. After such expense is allocated into transportation, accommodation, meals, tourism shopping, and time cost of whole trip from Beijing to Zhongwei according to the ticket fee or tourism time, cost for recreation activities accounts for a large proportion of per capita expense in the tour of Shapotou.

Analyzed on the composition of recreation activities at Shapotou, the biggest expense for riding camel cross the desert from Shapotou to Tonghu is (RMB 500/person), secondly followed by bungee (RMB 160/person), hang gliding (RMB 100/person), strop ropeway (RMB 80/person), desert surfing (RMB 80/person, short route), kart (RMB 40/person), horse riding (RMB 40/person), camel riding (RMB 40/person), sliding sand (RMB 30/person), sliding sand cableway (RMB30/person), desert escalator (RMB 20/person), and battery truck (RMB 5/person). The proportion of tourism expense, especially expense for recreation activities has very large influence on the recreation value of desert scenic spot, and the role of ticket price is very small, which indicates that the desert scenic spot similar to Shapotou has been completed transformation from the original sightseeing tourism to experience tourism, special tourism and sports tourism, the “tickets economy” has been substituted by the “experience economy and low carbon economy.” Desert scenic spot has been transformed from the initial irritating programs with less entertainment, such as sliding sand, horse riding, and camels riding, to middle-end program, such as cableway across the Yellow River, bungee and desert karts, and further derived some high-end programs, such as across the desert, the round-trip of oasis (RMB 50/person), round-trip desert adventure (RMB 150/person), and the desert sunset (RMB 80/person), which is also in line with the direction of modern tourism.

3.2 Evaluation on Importance of the Influence Factors of Recreation Value of Desert Scenic Spot

Twelve factors are selected from the internal and external factors of recreation value of desert scenic spot, and 20 experts are invited to sort their importance order (Yu 1996), the survey data are analyzed by computer with results in Table 1. Among all influence factors of recreation value of desert scenic spot, the abundance of tourism products is most important, ranking the first, which has an important effect on tourist’s experience. The more the variety and quantity of tourism products have, the more scope tourist can choose and the stronger enthusiasm participation experience will be. Recreation endowment of resources relates to popularity of the scenic spot; the higher level of resource promises the greater popularity and tourist reception. Therefore, recreation endowment of resources is ranked as the second place according to its importance. The average expense

Table 1 Integrated weight of influence factors of recreation values

No.	Factor	Factor	Weight	Integrated weight	Rank
1	External factor (0.3333)	Geographical position of scenic spot	0.2267	0.0755	9
2		Population size of tourist source	0.1333	0.0444	11
3		Traffic convenience	0.2533	0.0844	6
4		Regional per capita income	0.1067	0.0356	12
5		Popularity of scenic spot	0.2800	0.0933	4
6	Internal factor (0.6667)	Size of desert scenic spot (area, etc.)	0.1143	0.0762	8
7		Recreation resources endowment (type, grade)	0.1786	0.1191	2
8		Abundance of tourism products	0.2071	0.1381	1
9		Visitors reception	0.1214	0.0810	7
10		Average tourist expense of in scenic spot	0.1571	0.1048	3
11		Environmental carrying capacity	0.1357	0.0905	5
12		Tourism income	0.0857	0.0571	10

corresponds to the product abundance in the scenic spot, ranking the third place. The recreational products of desert scenic spot have been transformed from sight-seeing type to the entertainment experience, exploration, and expedition, therefore, desert recreation activity is featured as adventure and high consumption. Tourist reception is also of great importance, ranking the seventh. According to its importance, the environmental carrying capacity is ranked the fifth, following the popularity. Size of desert scenic spot is ranked as the eighth with less impact to the tourism development. Other factors, such as the geographical location, tourism income, population of tourist source, regional per capita income, have weak effect on the recreation value.

During comparison between this research results and the research on the national park by Tang et al. (2010), an interesting phenomenon is appeared that the importance order of each factor established by Tang et al. (2010) is just opposite to that in this paper. For National Park, protection function is the most important, followed by the recreational function, scientific research function, and education function, while the unique characteristics of desert tourism is based on the special natural geography environment and humanistic environment of arid area as a carrier, paying more attention to enjoyment and recreation of tourism activities (Pan 2000). Therefore, among the influence factor of recreation value of desert tourism, products abundance, the level, status, and role of resource are very important (Table 2).

Table 2 Comparison of importance order of influence factors

Importance order	Recreation value of desert scenic spot	Recreation function of National Park ([18])
Abundance of tourism products	1	7
Level of recreation resource	2	4
Environmental carrying capacity	5	6
Traffic availability	6	3
Tourist number	7	2

4 Conclusions

Abundance of tourism products is one of the most important factors among external and internal factors. The ecological environment of scenic spot of desert is very vulnerable; recreation experience of tourists plays an important role in its functions. So among the influence factor of recreation value of desert tourism, products abundance, the level, status, and role of resource are very important.

Compared with other tourism forms, cost for recreation activity in desert tourism accounts for a large proportion of tourism expense. The price of ticket of scenic spot accounts for a very small proportion of tourism expense. Many scenic spots of desert have been completed transformation from the original sightseeing tourism to experience tourism, special tourism and sports tourism, the “tickets economy” has been substituted by the “experience economy and low carbon economy.”

According to its importance, the environmental carrying capacity is ranked the fifth and it has very small impact to the tourism development.

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Research on the Administrative System Reform of Exploitation-Prohibited Region: Taking Hailuogou, Gongga Mountain as Example

Guanghai Fu, Chunrong Tong, Dongdong Sun and Lihui Lou

Abstract Many tourist attractions in China are cross-entitled in the same area as National Nature Reserve, National Park of China, National Forest Park, and National Geo-park. This phenomenon leads to a series of problems of overlapping management, which result in high cost and low efficiency, and may destroy the authenticity and integrity of the natural ecological and cultural heritage. Taking Hailuogou, Gongga mountain as example, this paper proposes a strategy of implementing super ministry reform, integrating management mechanism, and constructing national park based on main functional region division policy. Meanwhile, the paper emphasizes the significance of the administrative system reform of exploitation-prohibited region, which is of great importance to implement the main functional region division.

Keywords Main funregion division · Administrative system · National park · Hailuogou · Gongga mountain

1 The Basic Conditions of Country Forbidden Development Area

The land in China is divided into four areas: optimization development, important development, limited development, and forbidden development in the Major Function Oriented Zoning (MFOZ) based on the environmental carrying capacity of resources in different regions, the existing strength, and future development potential of land and space development in China.

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Table 1 Basic information about exploitation-prohibited region in China

Type	Number	Acreage (km ²)	Proportion of land are (%)
National nature reserve	319	92.85	9.67
World cultural and natural heritage	40	3.72	0.39
National scenic area	208	10.17	1.06
National forest park	738	10.07	1.05
National geological park	138	8.56	0.89
Total	1,443	120	12.5

Note The statistical results of the table as of October 31, 2010. Net of the total area of some of the overlapping area

According to MFOZ, National Nature Reserve, World Culture Natural Heritage, National Park of China, National Forest Park, and National Geo-park belong to the forbidden development area. These areas that are representative of the natural ecosystem comprise rare and precious wild animal and plant species, special value natural vestige locus and cultural remains site, and so on, and need to be declared forbidden zones to carry on industrialization and urbanization development in the national territory space development.

Mandatory measures are carried out to protect the forbidden development area based on legal laws and regulations, strictly control of artificial factors that affect the authenticity and integrity of the natural ecology and cultural and natural heritage (Zhang and Xie 2003), and forbid all kinds of development activities that are against the MFOZ. What is more, we are trying to guide the people shift in order to realize the pollutant “zero emissions”, and improve the quality of the environment.

By October 31, 2010, forbidden development areas were 1,446 in total, approximately 1.2 million km² of the total area, and 12.5 % of the total land size (See Table 1).

2 The Overview of Hailuoguo, Gongga Mountain

Hailuoguo has rich tourism resources and is full of human and natural landscapes located in the southeast margin of the Tibetan Plateau, the south-central section of the Snow Mountains, Gongga Mountain eastern foot. It is located in the border zone of the Luding, Kangding, Jiulong, and Shimian, which is between latitude 29°20′–30°20′ and longitude 101°30′–102°15′, only 296 km from the provincial capital of Chengdu, 36 km from the capital city of Kangding, and 50 km from the red city Luding County. It covers an area of 906.13 km². Hailuoguo is the main tourist destination of the Shangri-la eco-tourism zone, which at the same latitude away from the metropolis, has the world’s most spectacular maritime mountain glaciers, majestic ice falls, complete ecological vegetation landscape, huge natural oxygen bar, a large magic Redstone Park, the quality of the snow-covered hot springs, a harmonious Han-Tibetan culture, and rustic country setting (Fig. 1).

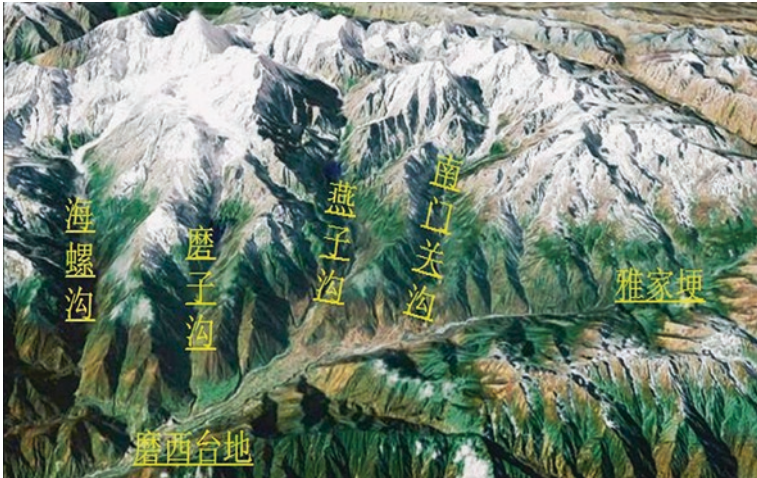


Fig. 1 Aerial view of Hailuoguo, Gongga mountain

Since October 15, 1987, Hailuoguo has introduced numerous provincial tourism resorts in Sichuan Province (1995), national key scenic spots (including state-level key scenic area in Gongga mountain, 1988), the National Forest Park (1993), National Nature Reserve (included in Gongga mountain National Nature Reserve, 1998), and the National Geological Park (2001), the State AAAA-class tourist area (2001). After 20 years of development and construction, Hailuoguo, which has become a national scenic area, possesses maturing infrastructure and continuously improving reception capacity, owning 63 enterprises that can provide work opportunities to nearly 3,500 people and supply more than 9,000 beds for tourists by 2011. Tourism has become the main channel to increase employment of the masses in scenic spots, and tourism enriching effects increasingly appeared (Fig. 2, Table 2).

Fig. 2 Hailuoguo, Gongga mountain scenic area over the years the number of tourists

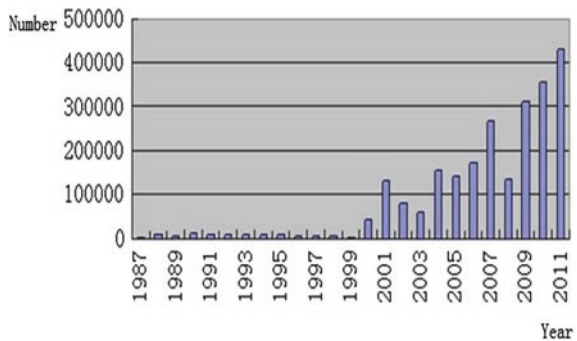


Table 2 Hailuogou, Gongga Mountain scenic area, socio-economic data for 2004–2011

Year	The regions' GDP (million)	Rural per capita net income(Yuan)	Tickets (thousand)	Revenues from tourism (billion)
2004	6,235	1,106	154.9	1.04
2005	7,006	1,238	141.8	0.93
2006	8,117	1,280	172.9	0.97
2007	10,321	1,720	266.0	1.46
2008	12,574	1,957	135.2	0.87
2009	10,928	2,193	295.7	2.38
2010	24,000	2,440	355.6	3.08
2011	36,000	2,956	430	3.42

Currently, Hailuogou is managed by the Gongga Mountain Nature Reserve Authority, Gongga Mountain Scenic Area Administration, Hailuogou Authority, and Ganzi Prefecture Bureau of Forestry, Ganzi Land and Resources Bureau and other departments simultaneously. In other words, Hailuogou is a typical overlapping management scene.

3 The Disadvantages of the Multiple Management and Multiregional Blend

HaiLuoGou scenic spot has won many honorary titles; it proved that HaiLuoGou's natural resources are of high grade of extremely important, scientific, protection, and ornamental value. However, a number of honorary titles given to a scenic spot phenomenon reflects a problem in the landscape resource management. Scenic areas, nature reserves, forest park, geological park, tourist resorts, and overlapping cross settings cause a management organizational overlapping setting, and hence also multiple department management policies (the ministry of construction, forestry department, ministry of land and resources, the national tourism administration, and its subordinate vertical management institutions). It brings a lot of difficulties to HaiLuoGou scenic resorts, such as resources protection, project examination and approval, and unified management. Because of the existence of nature reserves, scenic spots, forest park, geological park, and tourism resorts there are many differences in setting up processes, such as resources protection standard, planning requirements, development and utilization, supervision and management, and so on. First of all, with multiple departments to formulate policies, the most significant malpractice is the competent administrative department based on different types of resources' protection standards, in their own authority within the scope of each does things in his own way. They have different views; the scenic spot internal homogeneous resources cannot proceed on joint development, with hardly any orderly and effective protection of resources development and utilization. Second, in the case of development planning, due to



Fig. 3 Lost control of Moxi town residential buildings style

the differences at the time of planning, between those responsible for planning the technical design in the department, resulting in overall conception, design style differs. In particular, the designer must consider the client's requirements and interests, create reserve range and grade designations, tourism small town construction dimension and style and contradictory. Third, planning to do a lot, but through examination and approval and has the legal effect of the less. Due to the lack of scientific tourism town construction planning guidance, the reasonable development and construction is no guarantee, appear even constructive destruction (Fig. 3).

4 Countermeasures and Suggestions

There are numerous scenic areas similar to HaiLuoGou. Sichuan province has issued 16 national geological parks. There are five places of scenic area blending with national nature reserve: HaiLuoGou, JiuZhaiGou, HuangLong, Four Girls Mountain, NuoShui River; there are seven scenic areas blending with national key scenic: HaiLuoGou, JiuZhaiGou, HuangLong, Four Girls Mountain, GuangWu Mountain–NuoShui River, Long Men Mountain, XingWen Shi Hai. Blending mutually makes the nature reserve protection functions relatively ignored, protect weakened strength; National geological park in tourist scenic spot management often marginalized. Because, scenic spot earlier set up, the legislative comparatively perfect, having more influence on the community residents and tourism market. Compared with geological park, the local people's government gives more

attention on scenic tourism resources development and marketing. Geological Park in tourist scenic spot management being marginalized, the departments of land and resources have their own reasons. Geological Park establishes original intention is to protect the geological relics, popular science knowledge, and the development of tourism. However, in the actual implementation process, the geological exploration departments pay more attention to the investigation of geological relics, evaluation and geological park planning and declaration, despise geological park tracking service. Their ideas stay in “creating geological park is for geological exploration units opened up new social services, provides the new development space” levels. For example, HaiLuoGou site was awarded the national geological park qualification in 2001, after that, geological park construction, protection and development speed slow. Up to now, because of lack of funds and not enough attention, geological park overall planning has not put into practice; Geological museum has not built; Most of the geological relics point landscape instruction plate have already destroyed, The expedition route plank road and cabin in decay; Geological park scientific research and information construction work has not yet started.

4.1 Pay Attention to the Implementation of the Main Body Function Area Planning

According to our country “twelfth five-year plan” period formal implementation of the national strategy main body function region, to prohibit development zone (national nature reserve, the world cultural and natural heritage, national scenic area, national forest park and the national geological park) in accordance with the law to implement compulsory protection. By learning from the American national park of legislation and management experience, we should establish the management mechanism, operation mechanism, fund mechanism and supervision mechanism, adapt to the main body function region and ensure that management method, management ability in the service management objectives (Fei 2003; Li 2005).

We should through the perfect legal laws and regulations and planning system to constraint development activity of not comply with the main body function orientation, through the establishment of compensation mechanism leading the local people’s government and the market main body consciousness propulsion main body function construction.

The legislation should be provided in the central government and local government, between different government departments, between resource protection and business development, between management agencies and non-governmental organizations of power between obligations.

To position the same or cross and implement multiple management of the national nature reserve, the world cultural and natural heritage, national scenic

area, national forest Park, the national geological park, must be defined function orientation, clear unified management main body.

4.2 Implement Large Administrative Department Management System and Integrate Management Institutions

National Nature Reserve, national scenic area, national forest parks, national geological park are national and even world natural heritages that are high grade, irreplaceable, and nonrenewable. At present, multiple management departments are settled in an area, even overlapping; if this continues, each will act in his own way, range and extent of protection and exploitation will be conflicting, interpretation of regulations will not be uniform, the implementation of planning and construction of the project will be restrictive on each other, protection and rational use of natural resources and historical remains will not be sustainable, and thus it will not be able to achieve the sustainable development of tourist attractions. The important way to solve this problem is to implement large administrative department management systems and to integrate management institutions.

Large Administrative Department Management System is a greater department. To promote the integrated management and coordination of government affairs, government departments could be combined based on their management function into a supermost government organizational system. This is characterized by expanding the range of management business in a ministry; kinds of relational affairs managed by a department. This will minimize multiple management and improve administrative efficiency and cut administrative costs.

The current situation in China is that it has individual departments as the legal system, so after reform there will be relevant law enforcement entities, jurisdiction of the proceedings, and law application need to make a corresponding adjustment. The Standing Committee of the National People's Congress must make a decision about institutional reform in law application to avoid the emergence of chaos. Meanwhile, most of the reform will inevitably involve the question of amending the existing laws and regulations. We should take this opportunity to enhance the harmonization of the legal system in China, and the implementation of comprehensive legislation.

Within protected areas (scenic) a unified management should be implemented. To effectively avoid that in the same protected areas (scenic) multiple management institutions exist with high management costs, low management efficiency, and contradictory management policies. Before the reform of the State Council, some well-known scenic spots with multiple blending districts have made attempts at reform in this area. For example, the Jiuzhaigou Scenic Area Administration was implemented in July 2011, with an efficient scenic management system—five brands, one set of men (Nature Reserve Administration, Scenic

Area Administration, the World Heritage Authority, Geological Park Authority and 5A-level scenic Authority, five brands of foreign and internal co-located, a set of men).

4.3 Establishment of Gongga Mountain National Park

The term “national park” was first put forward in 1832 by American artist George Catlin (George Catlin), and then it was followed by many countries worldwide. In 1994, the National Park was defined by world Conservation Union (IUCN) as: National Park management goal is to protect the ecosystem and provide opportunities for recreation, it refers to such land and (or) Marine natural areas are designated to be used to: ① protect the ecological integrity of one or more ecosystems for the contemporary or future generations; ② prohibit exploitation or occupier behaviour contrary to the objectives of protection; ③ provide opportunities compatible with spiritual, scientific, educational, entertainment and excursions on environmental and cultural (Li et al. 2007).

In China, the generalized National Park not only refers to the national scenic area, but also includes the National Nature Reserve, National Forest Park, the National Geological Park. Academia can also appeal that National Wetland Park, Mine State Park, the National Water Conservancy Scenic be included in the National Park (Mu and Wang 2011).

In order to strengthen the management of the Gongga Mountain National Nature Reserve, Gongga Mountain Scenic Area, Hailuoguo National Forest Park, Hailuoguo national geological park, and give full play to its proper social and economic benefits, it is recommended to exercise unified management by the Sichuan Provincial Government on behalf of the nation, including administration, human affairs, funding, Business Technology, development planning, security, and so on. The Gongga Mountains National Park Service (positive at the county level), is directly administrated by the government of Sichuan Province. The provincial government implements the management of the relevant departments in a unified and coordinated way. Provincial government will come forward to resolve the problem, when the policy or industry regulations conflict. So then, we can get the NPC interpretation of the law, and contribute to a higher legislative level of “National Parks Act or the National Heritage Act.”

This management system has clear responsibilities, high working efficiency, avoids contradiction with the local government, can minimize the phenomenon of competing for profit, buck-passing, and squabbling with each other. The Gongga Mountains National Park Authority is managed by the provincial government, as the direct management institution of the National Park, its power is higher than the local departments to avoid multiple managements.

When the time is right, the Gongga Mountain National Park Administration can be managed by state administration instead of provincial government, for greater efforts to protect the funds, technology and professional management talents

required for resource conservation, and ecological environment protection. This is conducive to the Gongga Mountain region's ecological protection, green development, and improve the living standards of the people of the region.

5 Conclusions

With most reforms of the State Council actively implemented, the main functional area planning and driving the construction of the National Park will promote the implementation of scientific operation management of the Gongga Mountain Hailuoguo National Park and sustainable development of the local economy. It is a good idea to set up nature reserves, scenic spots, forest parks, geological park in the same region, which is worth reference for other forbidden development zones to reform Management system and operation mechanism.

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The Research into the World Heritage Value and Tourism Development of Dike-Pond Agriculture in the Pearl River Delta

Shenghui Guo

Abstract The Dike-Pond agriculture is a traditional agriculture model developing in the Pearl River Delta of China. 600 years ago, people in the Pearl River Delta dug the low-lying field into a pond, accumulated the clay around as its dike, raised fishes in the pond, and planted mulberry, fruits or vegetables on the bank, so a variety of farming models such as Mulberry, fruits or vegetables-dike-fish-pond came into being. Of these, the parts and function of Mulberry-Dike-Fish-Pond are the most special. Virtuous circles, with “Flourishing mulberry-Robust silkworm-Big fish-Fertilized field,” consist of raising fishes in the ponds, planting mulberry on the bank, raising silkworm with mulberry, feeding fishes with silkworm dropping, fertilizing the mulberry with pond clays, which made great contributions to the economical development of the Pearl River Delta and even the whole China and was called “Rare scenery in the world and the model of virtuous circles” by the United Nations Educational, Scientific, and Cultural Organization. With the change of economical system and update of agriculture, nowadays the Dike-Pond agriculture declines and is in the danger of disappearing. Several years ago, FAO and other international organizations set up the project of “Globally Important Agricultural Heritage Systems” to develop and protect traditional agriculture in new perspective. Referring to the explanation to the standard of the World Agricultural and Cultural Heritage Systems by FAO, the author finds the world heritage value of the Dike-Pond agriculture quite distinct: its rich diversity in production, biology and culture, the harmonious relationship between human and nature, the coordinated development of human and society, the common thought about Circular Economy and ecological civilization, promoting the local sustainable development. Tourism development is also an important way of transmitting and developing the agricultural culture of the Dike-Pond agriculture so it is necessary to develop agricultural culture tourism by building up museums, agriculture bases, synthetic ecotourism areas and taking other measures.

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Keywords Dike-pond agriculture · The world agricultural heritage · Tourism development · The Pearl River Delta · Mulberry-dike-fish-pond

1 Introduction

The Dike-pond agriculture is the most typical traditional agricultural production mode in Pearl River Delta region. With a long history and sound combined effect, it is the wonderful mode of the ancient ecological culture in our country (Zhong et al. 1987). In Ming Dynasty and Qing Dynasty, quite a few local documents introduced and recorded the Dike-pond agriculture, which appeared in Pearl River Delta and had been prevalent there for several hundred years. As it made great contribution to the economic boom and social progress of the local place, it is praised by the UNESCO as the “beautiful place and paragon of virtuous cycle rarely found on the earth.” In addition, it is promoted and applied internationally. Hence, it is praised by society widely and attracts widespread attention of the academic world (Ruddle and Zhong 1988; Korn 1996; Lu 2005; Wong 1999). The academic research on mulberry-dike-fish-pond started in the 1950s (Zhong 1958). In the 1980s, Guangzhou Institute of Geography researched the interaction between the dike-pond system as well as land and water systematically with locating and semi-locating observation methods (Zhong et al. 1993). This started the climax of research on the Dike-pond agriculture. Afterward, a large volume of writings researched the relations between ecological structure of the dike-pond agriculture on the one hand and material cycle, the process and causes of vicissitude, combined effect, and geological environment on the other hand as well as the promotion and application at home and abroad, etc. The writings were from the perspectives of geography, ecology, history, sociology, agriculture, etc. This provides theoretical guidance for the development of the Dike-pond agriculture and inheriting of the Dike-pond culture. However, since the beginning of twenty-first century, especially in recent years, with the decline of the dike-pond agriculture in Pearl River Delta as well as the transformation of social economy, corresponding academic research has been decreasing drastically. The existing research is mainly limited to such aspects as the current situation and treatment of dike-pond, reconstruction and regulation and control of ecology, spatial pattern and evolution (Zhang 1994; Yang 1995; Li et al. 2005). Many relevant new conditions and new issues, however, are not researched in time and in depth.

The dike-pond agriculture in Pearl River Delta is both a special production mode and the precious cultural heritage of mankind. In 2002, Food and Agriculture Organization and Global Environmental Facility and other international organizations launched and set up together the “Globally Important Agricultural Heritage Systems” program, which can also be called Global Agricultural Heritage. It has provided a new idea for development and protection of global traditional agricultural mode and has received positive response from many countries and regions (Jeffrey 2003; Karo et al. 2006; Min 2006). Currently,

more than 10 programs in the world, including the rice-fish farming system in Qingtian County, Zhejiang Province and terraced field system in Hani, Yunnan Province in our country, have successfully been declared global agricultural heritage (Su 1987). But as the excellent paragon of the traditional agricultural mode in our country, the dike-pond agriculture in Pearl River Delta, which has been praised highly by UNESCO, has not applied for recognition as a global agricultural heritage up to now. Achievements of research on the Dike-pond agriculture from the perspective of the cultural heritage are rare.

Some new disciplines such as tourism management have touched upon the research on heritage protection and tourism development of the Dike-pond agriculture (Han et al. 2008; Guo 2009), but most are superficial and only researchers put forward certain points or certain ideas without expanding the research. Some may just talk in generalities with less pertinence and practicality. Particularly, systematic research in depth on the value of agricultural heritage, and current situation of tourism development and solutions is lacked. Like many other things, lack of theoretical research will certainly confine the development of practice. At present, although the development practice of the Dike-pond agriculture tourism in Pearl River Delta region has made some progress and has gained some actual effects, there are still many difficulties and problems. With low level and small scale, the tourism development is still at the primary stage, which does not match its unique historical status and tourism value (Guo 2009). Research on related theories needs more efforts urgently.

Therefore, on the basis of summarizing and reviewing the development and evolution process of the Dike-pond agriculture in Pearl River Delta, this paper purports to analyze in details the global cultural heritage value, meanings of tourism development and current situation and problems of tourism development. Then the paper will put forward corresponding solutions and advice. It expects to offer scientific basis for the dike-pond agriculture in Pearl River Delta applying for recognition as world cultural heritage, inheriting of the Dike-pond ecological culture, and development of dike-pond agricultural and cultural tourism. This will push forward the scientific transformation and reasonable rebirth of the Dike-pond agriculture under new social and economic conditions.

2 Dike-Pond Agriculture in Pearl River Delta and Its Development and Evolution

2.1 Dike-Pond Agriculture in Pearl River Delta

Pearl River Delta region is situated in the south part of Guangdong Province, China. It is formed by alleviation of three major rivers, Xijiang River, Beijiang River, and Dongjiang River. In the area, there is a dense river network. It has low and flat topography, having many places with elevation lower than 1 m. As a result, it has poor drainage and too much water frequently leads to flooding (Qu 1985). The region has tropical and subtropical monsoon climate with sufficient

rain in concentrated monsoon. And thunderstorm occurs frequently. In times of rainstorm, the flooding water in the river results in disasters, vast farmland being flooded. Additionally, the influence of the sea tide worsens the flood, which goes against agricultural production, especially the traditional cultivation mode of crops. Under the circumstances, after long period of exploration by people in Pearl River Delta, the low-lying land which frequently has flood is dug to form the pond. The mud is piled around the pond, forming the dike. People breed fish in the pond and cultivate fruit trees or other crops on the dike. Thus, the famous dike-pond agricultural production mode is created.

According to the varieties of the crops cultivated on the dike, the Dike-pond agriculture can be classified into many different types. If fruit trees are planted on the dike, then it is called fruit tree-dike-fish-pond. If vegetables are cultivated on the dike, then it is called vegetable-dike-fish-pond. If there are flowers on the dike, then it is called flower-dike-fish-pond. If mulberries are cultivated on the dike, then it is called mulberry-dike-fish-pond. Among different kinds of dike-fish-ponds above, the mulberry-dike-fish-pond has the largest scale in history, best combined benefits and highest popularity. Therefore, the mulberry-dike-fish-pond has been synonymous with the dike-pond agriculture in Pearl River Delta.

As with mulberry-dike-fish-pond, people plant mulberry on the dike and breed fish in the pond. The waste of fish and pond silt are the fertilizer for mulberries. The mulberry leaves are used to breed silkworm whose cocoon is collected to produce silk, while the waste of silkworm and waste silk water are poured into pond as fish feed. Thus, a virtuous cycle of “exuberating mulberry leaves—strong silkworm—fat fish, fertile pond silt—good growth of mulberries—high quality of cocoon” and the unique agricultural production mode which combines farming and breeding together comes into being (Fig. 1).

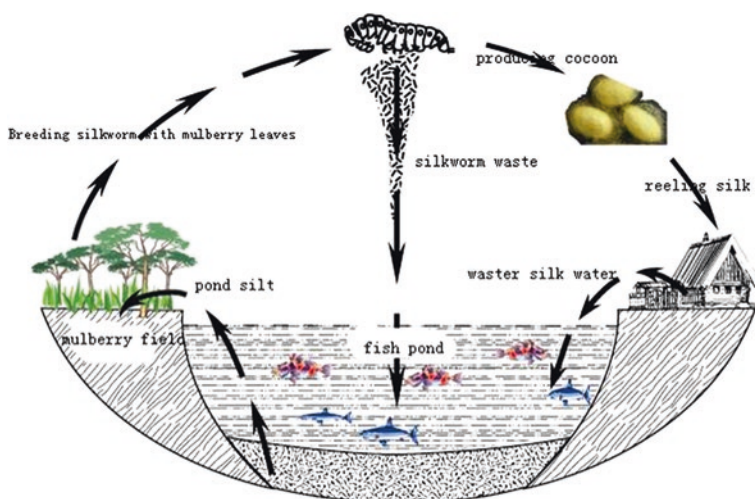


Fig. 1 Schematic diagram of the production cycle of mulberry-dike-fish-pond

2.2 *Development and Prime of Mulberry-Dike-Fish-Pond*

The earliest dike-pond in Pearl River Delta is fruit tree-dike-fish-pond, which appeared in Jiujiang in Nanhai, Gulao in Heshan, and Longjiang and Longshan in Shunde in about the middle or late period of fourteenth century. The fruit trees like longan and lychee were main crops on the dike. The reason was that the fruit trees could protect the dike, decrease the influence of flood, and generate more profits than rice. Therefore, in fifteenth century and sixteenth century, fruit tree-dike-fish-pond developed in large scale and expanded eastward to Chencun, etc. At that time, “most dikes and dams are covered with lychee and longan...” in Pearl River Delta. Now there are many place names such as “Longan Dike” and “Lychee Village,” etc. This proves the prosperity of the ancient fruit tree-dike-fish-pond in local place.

In the middle and late sixteenth century, with the rise of silk industry in Guangzhou and Foshan etc., people found that breeding silkworm could generate far more profits than cultivating fruit trees could. The mulberries grew fast, while the production cycle of the silkworm was short and within a year it could produce seven or eight times. Besides, planting mulberries and breeding silkworms together with breeding fish in pond could formulate a virtuous cycle and they could promote each other. Thus, people cut down the fruit trees and planted mulberries on the dike. Then the mulberry-dike-fish-pond replaced the fruit tree-dike-fish-pond and became the main mode of the Dike-pond agriculture in Pearl River Delta.

Afterward, with the development of the world commodity economy, the raw silk of Guangdong gradually had brick sales in the world market and the output and price increased continuously. So people had more enthusiasm for planting mulberries and breeding silkworms. The area of mulberry-dike-fish-pond expanded greatly. Jiujiang in Nanhai and Longjiang and Longshan in Shunde became the professional sericulture production base. In Shuiteng and Xingtang of Shunde, “half of the villagers planted mulberries” and the pomp that “all the women take sericulture as a profession” appeared (Qu 1985). The mulberry-dike-fish-pond in Pearl River Delta experienced three development climaxes.

After the First World War and before the world economic crisis in 1929, mulberry-dike-fish-pond entered its heyday of historical development. After the war, the price of raw silk increased every year. The profits of sericulture and fishery in pond were several times or even one dozen times of those generated by grains. Hence, the extreme phenomena of “stopping growing rice to plant mulberries” and “turning farmland to pond” appeared. The mulberry-dike-fish-pond gained unprecedented popularity. According to historical records, the total area of mulberry-dike-fish-pond in Pearl River Delta amounted to 13.5×10^4 hm², reaching the highest level in history (Zhong et al. 1987). Its range expanded from Shunde and Nanhai to surrounding areas. It started from Guangzhou-Sanshui railway in the north and reached Shiyi of Zhongshan. In the west, it covered the trunk stream of Xijiang River and included Panyu and Dongguan in the east. In southwest, the range extended to Jiangmen and Xinhui. A huge mulberry-dike-fish-pond distribution area with Shunde as its center was formed (Fig. 2) (Zhong et al. 1993).



Fig. 2 Regional distribution of mulberry-dike-fish-pond in Zhujiang Delta in heyday

2.3 Decline and Function Transition of Dike-Pond Agriculture

After the world economic crisis in 1929, the mulberry-dike-fish-pond in Pearl River Delta declined rapidly. Due to economic crisis, the international market demand for raw silk fell drastically and the raw silk encountered poor sales. The reeling mills closed down one after another. In 1926, there were 202 reeling mills in Pearl River Delta, while in 1931 the number was decreased to 111 and in 1934 only 37 mills existed. Consequently, the area of mulberry land decreased. In 1935, the land in Shunde and Nanhai decreased by 50 % and in Zhongshan more than 90 % (Huang 1989). After 1938, because of the invasion of Japanese troops, the mulberry-dike-fish-pond in Pearl River Delta suffered further destruction. By 1949, the existing total area was only $1.2 \times 10^4 \text{ hm}^2$, less than 1/10 of that in 20 years before (Agricultural records 1976).

After New China was founded in 1949, the government adopted effective measures to enable the old production method to be restored and to develop to some degree. The area of mulberry-dike-fish-pond expanded once. The structure of dike-pond and the production technology were improved and the output increased for some time.

After the 1980s, the social economy developed and natural environment changed. On the one hand, the improved degree of industrialization and urbanization resulted in the added value of land and more labor costs. As a kind of labor intensive industry, cultivating the mulberries and breeding silkworms cost relatively more working hours. Compared with other new industries, the input-output profits of sericulture was comparatively lower. People were not so enthusiastic

about silkworm production. The cultivation of mulberries and breeding of fish were extensive and the dike collapsed and the pond was shallow. On the other hand, with the rise of chemical fiber industry, a large amount of chemical fiber production with fine quality and reasonable price replaced the silk. So people were less dependent on silk. In addition, the environment pollution got worse and the diseases of silkworms and mulberries were increasingly serious, which resulted in worse quality and decreased output. All these factors made the mulberry-dike-fish-pond give place for other industries. The mulberry land was used for other purposes and the mulberry-dike-fish-pond decreased day after day (Liu et al. 2008).

In the 1990s, especially in the new century, mulberry-dike-fish-pond in Pearl River Delta almost retreated from the economic field. As a kind of agricultural production mode, it almost disappeared. Only several hundred hm² of it in several scenic spots in Shunde and Nanhai is kept in the form of heritage and scientific technology education. What replace it are the new vegetable-dike-fish-pond and flower-dike-fish-pond as well as the modern hard dike-pond fish farming. The function and form of the Dike-pond agriculture especially the mulberry-dike-fish-pond change continuously. Its economic function weakens obviously, while its functions of cultural heritage, scientific technology education and tourism development etc. become increasingly conspicuous.

3 The World Heritage Value of Mulberry-Dike-Fish-Pond Agriculture in Pearl River Delta

According to the interpretation of Food and Agriculture Organization, the world agricultural heritage is a type of new world heritage. It is equivalent to the world cultural heritage. It refers to the unique land application system and farming landscape formed through long-term co-evolution and dynamic adaptation of the country and the environment it has. This kind of system and landscape has rich biological diversity, being able to satisfy the needs of development of local social economy and culture and in favor of promoting the regional sustainable development (Guo 2007). The cultural heritage value of the dike-pond agriculture in Pearl River Delta is quite obvious, which is mainly demonstrated in the following aspects: biological diversity and cultural diversity, synergy with and adaptation to nature and social environment and the function to promote the regional sustainable development.

3.1 Rich Production Diversity, Biological Diversity, and Cultural Diversity

For the dike-pond agriculture, especially the mulberry-dike-fish-pond in Pearl River Delta, the typical mode is cultivating mulberries on the dike, breeding fish in the pond, breeding silkworms with mulberry leaves, and feeding fish with dung

of silkworms. This realizes the organic combination of many production links, such as cultivation of mulberries, breeding silkworms and fish farming, forming the production chain with characteristics. This kind of farming mode, which integrates cultivation of mulberries and fish farming, breaks the separability and unicity of traditional agricultural crop farming and breeding industry. This mode demonstrates the obvious feature of production diversity. It not only increases the source and channel of income and promotes the stability of agricultural production, but also realizes the reciprocity and mutual benefit of all the production links and improves the use efficiency of resources. Besides, the dike-pond agriculture has some other production forms. For example, people interplant or intercrop napier grass, soybean, vegetables, flowers, and so on in the dike; raise chickens and rabbits among the mulberries; raise ducks in water or plant water lettuce, water hyacinth, *Alternanthera philoxeroides*, duckweed, and other aquatic plants; raise pigs with water lettuce, napier grass, etc. In this way, the three-dimensional production, which integrates farming, fishery and husbandry together, is realized (Qu 1985). If the production of biogas by using pig manure, fowl manure, and cocoon water as well as such product processing and market transactions as breeding silkworms, making cocoon, silk spinning, and dyeing are taken into consideration, the dike-pond system can be called the integrated multiform production mode with many links which combine farming, fishery, pasture husbandry, commerce, and trade together.

The dike-pond agriculture owns many living things, including mulberries, silkworms, fish, livestock, fowl, vegetables, fruit trees, and other plants and animals. So its biological diversity is outstanding. In terms of plants, there are all kinds of mulberries with Guangdong Jing mulberry as the major variety, including fruit trees like longan, lychee, banana, sugarcane, and citrus; flowers such as jasmine, rose, chrysanthemum, orchid, and citrus *oleocarpa* Tanaka; vegetables such as Chinese cabbage, lettuce, broccoli, flowering cabbage, zucchini, tomato, etc.; food crops such as soybean, corn, peanut, sweet potato, etc.; terricolous and aquatic plants such as napier grass and water lettuce. As to animals, apart from silkworms, there are four kinds of Chinese carp, represented by chub, bighead carp, grass carp, and pangolin. In the meantime, there are omnivory fishes, including carp, crucian carp, bream, and black carp; good quality aquatic species including shrimp, sea eel, terrapin, largemouth bass, etc.; farm animals such as chicken, duck, pig, etc. If the migratory bird, insect, and all varieties of plankton and micro-organism perching here are counted, the dike-pond system altogether owns as many as more than one hundred kinds. Its biological diversity is very typical.

The dike-pond agriculture also creates, inherits, and develops colorful cooking culture, dress culture, folk culture, architecture culture, and religion culture. Its biodiversity lays a rich material foundation for the diversity of cooking culture. Through orientational processing, people make various kinds of edible animals and plants into a variety of delicate food. The pond fish can be cooked into dozens of dishes (Tu 1982). "Food of Guangzhou and cooking of Fengcheng are best" (Fengcheng is the nickname for Daliang in Shunde) is the vivid description of the cooking culture in the Dike-pond agriculture region. The popularity and inheriting

of making technology of gambiered Canton silk (rust-colored variety of summer silk) demonstrate the unique and fashionable dress culture in the Dike-pond region. The bachelor girls deciding to never get married is the unique marriage custom and social phenomenon which occurs with the popularity of mulberry-dike-fish-pond. “Shunde Ancestral Temple” and “Nanhai Temple” are the temples which are constructed to worship the forefathers and to handle the family business and to consecrate the silkworm god, gnome, kitchen god, deity Zhen Wu, Goddess Matsu, and other gods. The temples are also built to hold such folk artistic and religious activities as dragon boat race, local opera, local opera on water, and autumn opera held to celebrate or pray for good harvests. The architecture culture such as the picturesque and natural village layout fully shows the unique and rich culture diversity in dike-pond agricultural region (Wu 1986).

3.2 Demonstrating Good Adaptation to and Coordination with Special Natural Environment

The dike-pond agriculture is the land utilization method explored by people in Pearl River Delta through long-term production practices. It adjusts measures to local conditions, makes best use of the advantages, and bypasses the disadvantages. It is the product of long-term adaptation to the local special natural environment and synergetic development with it. To great extent, it reflects the special natural landscape of the local place at that time and shows the co-evolution of the relationship between men and nature.

In ancient times, the Pearl River Delta, a place full of calamities, had “low-lying topography and frequent flood.” The river network was dense and the land was low. So the water could not be drained well. In spring and summer, rainstorm was frequent. The flood water of Xijiang River, Beijiang River, and Dongjiang River was discharged down. In Pearl River Delta, the water often overflowed the watercourse, causing disasters. In case of jacking of sea tide, the flood water could not recede in time. Thus, flood disaster in large scale was formed. The low-lying place was full of water, which seriously threatened agricultural production. In particular, this went against the cultivation of rice. In order to solve the contradiction between flood and production, people finally found the solution after a long period of exploration: dig the low-lying waterlogged land to form a pond for breeding fish; stack the mud into dike and plant mulberries on the dike. In this way, people invented the mulberry-dike-fish-pond mode (Wu 1986). Before the rise of mulberry-dike-fish-pond, there was once enclosing tideland for rice cultivation and fruit tree-dike-fish-pond. The two kinds of production modes were the relatively good adaptation to the natural environment at that time. Through practice, people found that the mulberry-dike-fish-pond could help prevent flood and eliminate disasters and was able to make full use of land and water resources to increase both production and income. This mode could realize the harmonious relationship between humankind and nature. So it developed in large scale (Lo 1996).

3.3 Sound Social and Economic Effect and Realization of Synchronization and Joint Improvement

The complex production links of the Dike-pond system bring many sources and channels of income. Cultivating mulberries, breeding silkworms, reeling silk, breeding fish, and interplanted and intercropped vegetables, peanuts, and corns, etc., will generate considerable economic benefits. Additionally, the virtuous internal cycle and mutual promotion render the quantity and quality of all varieties of production above higher and better respectively than other regions. The economic benefits of the Dike-pond agriculture are very obvious. Notes of Guangdong said that “1 μ land can produce 250 kg mulberry leaves and the silkworms can produce 2 kg of silk by feeding on these leaves; a family with 10 μ land for mulberries and silkworms can raise eight family members”; “breeding fish can generate much money”; “a boat full of raw silk is worth a boat full of silver.” A Brief History of Longjiang written in the period of Daoguang Emperor recounted that “the place Shunde has a good approach to getting enough food...this depends on cultivating mulberries, breeding silkworms, raising pigs and breeding fish”; “cultivating mulberries and breeding fish can produce far more benefits than cultivating crops can.” The descriptions in relevant documents prove the fact as well. The good profits brought by the Dike-pond agriculture render the Pearl River Delta wealthy gradually in the tide of commercial economy.

While creating much material wealth, the dike-pond agriculture could produce good social and cultural effects. With complex structure and finer division of labor, the mulberry-dike-fish-pond was able to absorb plenty of labor. Relevant research showed that mulberry field employed 2,000/hm² each year and that the fish pond employed 1,200/hm² each year (Zhong et al. 1987). If crop rotation, interplanting, intercropping, and silk reeling processing were taken into consideration, more labor would be needed. In addition, different kinds of work had different labor intensities. So, all the people could participate in it all year around. This solved properly the contradiction of dense population and shortage of cultivated land. Therefore, in the heyday of mulberry-dike-fish-pond, people in Pearl River Delta lived and worked in peace and contentment. Different people were engaged in different work and got what they wanted. The families and society were harmonious. Fights, social disturbances, unemployment, etc., rarely occurred (Guo 2010).

“Only when people have enough food can they behave in good manner.” People in Pearl River Delta became wealthy gradually by cultivating mulberries and breeding fish, valued culture and education very much. They built schools and academies of classical learning to boost education. The society had gathered many learned talents and piles of intelligent scholars. Shunde, Panyu, and Nanhai became the famous home to culture and art with Number One Scholars, successful candidates in the highest imperial examinations, literary giants, and artists emerging one after another. In Shunde only, there were 4 Number One Scholars, 429 successful candidates in the highest imperial examinations and 2,088 successful candidates in the imperial examinations at the provincial level (Office of Shunde

Chronicles 1993). This took a very important place in the structure of talents in Guangdong history.

In Ming Dynasty and Qing Dynasty, the population in Pearl River Delta was large while there was little land. And the clan forces were strong. The development of the Dike-pond agriculture took the advantage of these conditions and solved the social problems caused by them effectively, promoting the harmonious development of mankind and society. Take Shunde for example. In 1849, the population density was 1,277 persons/km², which was dozens of times of the average number in the country. Large population, relatively little land and shortage of cultivated land became the most serious social problems of the region (Office of Shunde Chronicles 1993). If people only had cultivated rice on the land, there would not have been enough food to raise such a large population. Meanwhile, cultivating rice absorbed less employed population. Fortunately, since there was mulberry-dike-fish-pond which could produce “ten times more than the crops,” the profits created by land had increased and plenty of population had been employed in breeding fish, cultivating mulberries, breeding silkworms, reeling silk, and other links. This relieved the social contradiction caused by large population and comparatively little land, realizing the synchronization and joint improvement of mankind and society.

3.4 Promotion of Sustainable Development by Circular Economy and Idea of Ecological Civilization

As the integrated artificial ecosystem, mulberry-dike-fish-pond boasts unique structure and complex functions. The dike, mulberries and silkworms constitute the subsystem of mulberry dike. The pond, fish and plankton in water make up the subsystem of the pond. The two subsystems are connected organically by pond silt and dung of silkworms. The pond silt fertilizes the mulberries; the mulberry leaves breed the silkworms; the fish feeds on the dung of silkworms; the fish feces are manure in the pond. Every production process is closely connected with each other. The waste created by the former link is used fully by the next link (Tu 1982), forming the low-cost, low-input, and high cost-effective circular production. Therefore, it is honored by the UNESCO as the “beautiful place and paragon of virtuous cycle rarely found on the earth” (Deng 2003).

The dike-pond agriculture adjusts measures to local conditions and makes full use of soil fertility. Through the land–water interaction of dike and pond, it adjusts the moisture and nutrient automatically and relieves drought and flood disasters. It makes full use of solar energy and organic fertilizer and seldom uses farm chemical and chemical fertilizer, so it has low consumption, less pollution, and no waste. The scientificness, reasonability of mulberry-dike-fish-pond, and the virtuous cycle of “exuberant mulberries—strong silkworms—large fish—fertile soil” having been formed fully demonstrate the simple consciousness of ecological civilization that human should respect nature and make use of nature. On the other hand,

through the production mode of mulberry-dike-fish-pond, the nature keeps the ecological balance well and realizes water and water conservation. Thus the structure of the natural ecology is stable and the ecology functions well.

Due to cyclic utilization of internal substances and energy, the dike-pond system reduces the consumption of natural resources. Therefore, during several hundred years when mulberry-dike-fish-pond was prevalent, the total amount of such natural resources as land resources, water resources and light and heat resources in Pearl River Delta had basically been kept at certain level and been utilized sustainably. In the meantime, the reasonable match of mulberry field and fish pond and the interaction between the two in the Dike-pond agriculture region ensure certain green belt and wetland, reduce drought and flood disasters and maintain a good ecological environment. The sustainable use of the resources and good ecological environment fully demonstrate that dike-pond agriculture can promote the sustainable development in Pearl River Delta. After the rise of the Dike-pond agriculture, the Pearl River Delta has maintained relatively strong momentum for development. With prosperous economy and stable society, the region goes ahead of surrounding areas and other similar regions and becomes the economic center of Guangdong Province and the preeminent base of the maritime Silk Route (Guo 2010; Ye and Tan 1987).

4 Tourism Development of the Dike-Pond Agriculture in Pearl River Delta

4.1 Value and Meaning of Tourism Development

The dike-pond agriculture is both a kind of old land utilization system and a special cultural landscape. It owns the tourism value in many aspects, especially for Pearl River Delta which is not rich in natural tourism resources and where residents often travel around, the tourism development meaning is more important. The huge demands of tourism market and development potential can satisfy the recreational and leisure needs of local people and can receive the sightseeing visitors.

The dike-pond, especially patches of mulberry-dike-fish-pond, is comprised of many mulberry dikes and fish ponds in different shapes. They have latticed distribution with green mulberry dikes and blue fish ponds. Overlooking from afar or looking down at the mulberry-dike-fish-pond, people can see a vast chessboard dotted with green and blue which forms very beautiful and special scenery. When people approach the mulberry-dike-fish-pond, the green mulberries embrace the clean water. The scenery changes with the change of visitors' position and with the progression of seasons. The mulberries on the dike-pond are scattered randomly. The mulberry leaves dance gracefully with the breeze. The various kinds of fish in the pond have different shapes. They swim in groups of three or five and jump out of the water surface now and then, evoking ripples. What a pleasant and dizzying scene!

Entering the mulberry-dike-fish-pond, people can own a pleasant sight and a delightful mood. Among the mulberry trees, people can have different recreational activities according to their own will. The lush mulberry leaves can be collected and played. The large mulberries can be picked and eaten by people. The thin and long mulberry twigs can be made into various fine handicrafts. Visitors may admire the wriggly body or easeful sleep of silkworms in silkworm house or silk mill. People can give them a mulberry leave to experience what is nibbling. They can also swing the silk vehicle to make cocoon and reel silk and to taste the joy and sorrow of women breeding silkworms. On the fish pond, people can boat. They can paddle, close their eyes and rest their mind, feed the fish or catch the fish. Besides, they can sit along the pond to throw the fishline into water to experience the delight of fish biting the bait. They can also stroll in the dike-pond amid the soft breeze, listening to the babbling water.

The ecological meaning and environment-protection role of mulberry-dike-fish-pond are second to none in our country and in the world. Its scientificness and the unique history and culture it contains attract many overseas visitors for scientific investigation or social experience. For the teenagers, mulberry-dike-fish-pond is the living teaching materials for them to learn the principles of ecological cycle and to strengthen the environmental awareness.

4.2 Current Situation and Problems of Tourism Development

Being a precious tourism resource, the dike-pond agriculture tourism in Pearl River Delta has been developed to some degree and it begins to take shape and has achieved initial success. In the whole region, there are about 200 hm² of mulberry-dike-fish-pond whose main function is tourism development. It is distributed in Shunde, Nanhai, Panyu, Zhongshan, Guangzhou, etc. The cultural relics and documents related to mulberry-dike-fish-pond are restored, collected and reorganized. Rural tourism, agricultural tourism, museum places, and former residences of celebrities with mulberry-dike-fish-pond being the theme are developed (Table 1). They attract more than ten million tourists every year (among them, more than 10 million are foreigners). They have achieved obvious economic effect of tourism.

However, it cannot be avoided that the dike-pond agriculture tourism development in Pearl River Delta is still in the initial stage and there are many problems. They are mainly showed in lacking of overall plan, comparatively small-scale, relatively little popularity, serious redundant buildings within a small area, unreasonable project design, under-exploitation of tourist souvenirs, unscientific landscape design, low re-travel rate, little market promotion, and some agricultural parks which are unworthy of the name or title even cheating the visitors (in the name of mulberry-dike-fish-pond development, running the real estate business).

Table 1 Statistical table of dike-pond agricultural tourism development in Pearl River Delta

Type	Development content and features	Representative scenic spot
Dike-pond agricultural rural tourism	Use former producing area of mulberry-dike-fish-pond; renovate the dike-pond; dredge the river; repair the silkworm houses; maintain the natural and original scenery and rural culture in the region of dike-pond and rivers	Pengjian in Shunde, Dawen Village in Panyu, Minzhong in Zhongshan, iqiao in Nanhai
Dike-pond agricultural ecological park	Clear a patch of low-lying chaor and develop it by employing mulberry-dike-fish-pond and its idea as well as the modern ecological agriculture theory and technology to form a modern ecological agricultural farm combining production, sightseeing, leisure, recreation, food and drink and vocation. Run it commercially in such forms as tendering and rent	Changlu Farm, Jinhua Agricultural Ecological Park, Lixiaolong Fairyland, xinshiji Agricultural Park, Aidele Farm, Guangxin Ecological Agricultural Park, Baosang Park
Dike-pond agricultural museums	Build special museums to exhibit the real production tools, image-text and historical materials of mulberry-dike-fish-pond production. These are aided by modern acoustic, optical and electrical technologies and other electronic technologies as well as the mimical production scene	Shunde Exhibition Center, Nanguo Sidu Museum, Panyu Dawen Village Exhibition Center
Former residences of celebrities near mulberry-dike-fish-pond	Repair the former residences of influential people who have made great contribution to the mulberry dike fish pond production and collect and display relevant real objects and materials	Former Residence of Chen Qiyuan, Shunde Bingyu Residence

4.3 Solutions to and Suggestions for Tourism Development

Strengthen the efforts of government guidance and policy support. The dike-pond agriculture tourism development is the objective need of tourism development and is an important approach to overall development in urban and rural areas and the sustainable development of the Dike-pond agriculture. Government of different levels should highly value it, guide it positively and strengthen the efforts of policy

support. According to the goals and requirements relevant to modern agricultural parks and development of modern service industry in Outline of Reform and Development Plan for Pearl River Delta Region, the government should organize as soon as possible people to prepare and revise the land development and utilization plan of the whole region to ensure that the dike-pond agriculture, including the mulberry-dike-fish-pond will develop reasonably and proportionally.

Integrate the resources to form scale effect. The current development is mainly in the examples given above. Small-scale and redundant buildings within a small area, etc., are the problems existing ubiquitously. It is necessary to according to the market segmentation reorganize the resources and to choose one to two villages with favorable resource conditions as the emphasis of development to form scale effect. Build a large number of mulberry-dike-fish-ponds surrounding the villages to form the “all the residences are surrounded by the ponds.” In the village, build streets whose theme is the culture of mulberry-dike-fish-pond industry. Repair and restore the silkworm houses and exhibit the farming instruments. The arrangement of the streets should show the features of mulberry-dike-fish-pond and the poems of men of letters of different dynasties to eulogize the mulberry-dike-fish-pond as well as the popular science of silkworm and mulberry. The shops should sell the goods and folk crafts related to mulberry-dike-fish-pond.

Display the history and improve the culture taste. The mulberry-dike-fish-pond is not only a kind of land utilization mode, but also a kind of historical culture and ecological culture. It reflects the innovative spirit of people in Pearl River Delta of acting according to circumstances, drawing on advantages and avoiding disadvantages and developing the strong points and avoiding the weak points. As a kind of production mode, it has disappeared in Pearl River Delta. The mulberry-dike-fish-ponds developing at current stage are formed through restoration and reconstruction. When creating the scene of mulberry-dike-fish-pond, the similarity in “shape” should be pursued. More importantly, the similarities in “spirit” should be valued more. Interpret the mulberry-dike-fish-pond history and culture clearly with multiple means such as acoustic means, images, pictures, texts, and real tools so that people can understand its cultural connotation and the essence of its spirit. Therefore, the tourism development of mulberry-dike-fish-pond should not promote simply by digging some fish ponds and cultivating some patches of mulberry land. The development should be about exhibiting the splendid history of mulberry-dike-fish-pond, the production process, combined effect and its modern enlightenment through the scenes, real objects, and images as well as texts.

Strengthen the efforts of marketing and create the international brand. The traditional mulberry-dike-fish-pond agriculture production in Pearl River Delta is renowned overseas. In contrast, the tourism development of mulberry-dike-fish-pond is not so good. At present, among the scenic spots developed only the Shunde Changlu Farm is the national 4A-class scenic spot and has some comprehensive strength. Others have little popularity. So, more efforts should be spent on marketing and advertising. Make full use of TV, radio, newspaper, Internet, and other media to promote the mulberry-dike-fish-pond scenic spots especially in the provincial or international markets. Create the international brand and improve the influence and fame of the products (Guo 2009).

5 Conclusion and Discussion

The dike-pond agriculture in Pearl River Delta is not only a unique production mode, but also a beautiful scenic spot and the precious cultural heritage (Karo et al. 2006). With the change of social and economic conditions, the dike-pond agriculture which was prevalent in Pearl River Delta for several hundred years as the advanced production mode has begun to decline and is confronted with development crisis. The evaluation of this unique production mode cannot simply care for its ever decreasing economic benefits. Instead more attention should be paid to its obvious social and ecological effect. People should recognize fully its significant value of agricultural heritage and meanings of tourism development. With rich biological diversity and cultural diversity, the mulberry-dike-fish-pond not only satisfies the needs of social and economic development of local places, but also demonstrates the co-evolution of man and nature as well as man and society. It promotes the sustainable development in Pearl River Delta and is the precious cultural heritage in our country and in the world. It is quite necessary to protect and develop it by means of world agricultural heritage and relevant ideas. The paper suggests that relevant departments should highly value it and go into action actually to take the chance to apply in time for the recognition as a world agricultural heritage. Efforts should be made to plan it and develop the place into travel and leisure attractions and the base of popular science education. To inherit and develop the dike-pond agricultural culture, scientific protection and reasonable utilization of the Dike-pond agriculture can be reinforced through some measures and ideas, such as the construction of modern ecological agricultural parks and promotion in places outside the Pearl River Delta even some low-lying and pluvial places in foreign countries.

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Study on Microblog Marketing Feasibility and Countermeasures of Tourism Enterprises in China

Qin Peng

Abstract The microblog marketing is a brand new network marketing model; it can achieve a variety of business functions, such as brand information dissemination, interact with consumers, customer service, public relations services, electronic commerce, and so on. In China's tourism industry's "12th Five-Year" development planning outline, the National Tourism Administration explicitly encourages tourism destination and tourism companies to carry out tourism publicity and marketing activities through microblog. In this paper, through analysis of the role played by microblog marketing of tourism enterprises, combined with the characteristics of tourism industry, the feasibility of tourism enterprises to carry out the microblog marketing are analyzed, and a tourism microblog marketing strategy is proposed. This strategy has systematicness, scientificness, rationality and validity, can effectively promote the development of China's tourism industry.

Keywords Microblog · Network marketing · Tourism enterprises · Feasibility analysis · Countermeasures

1 Introduction

Since the first microblog site appeared in China in 2007, this emerging form of media has been popular and sought by wide audiences. At the end of December 2011, users of microblog in China reached 250 million (Wang 2011). Today, microblog is more popular than the blog, SNS website during the same period. Many enterprises have spotted a microblog marketing opportunities, promote their

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own brands and merchandise, and release the promotions, new products, and other information with efficient and convenient microblog's conditions (Ma 2010). The microblog provides an efficient platform for social marketing. The microblog marketing in China has become a new industry. Tourism enterprises, such as scenic spots, hotels, travel agencies have opened microblog for competing for network marketing positions (Baran and Davis 2005). The microblog platform is greatly significant to shape travel corporate image, image promotion, and maintenance.

2 Concept of Microblog Marketing

Microblog is the abbreviation of microblog, which is information-sharing, dissemination, and access platform based on user's relationship (Weinberg 2009). Users can post text messages of 140 words or less, video and audio links, or a single picture update information through the WEB, WEP, and a variety of client components personal community, and achieve real-time sharing. Everyone can forward and do evaluation of others through microblog. It is possibly for enterprises to obtain customer- consumer experience and carry out the word of marketing.

The so-called microblog marketing means that companies use the microblog to publish information, brand display, user communication, customer relationship management, and a series of marketing behavior in a particular network community to achieve goals of internet marketing strategy (Xu 2011). Tourism consumption is off-site field experience behavior. Before tourists make travel decision, they tend to refer from media advertising and recommendation of a friend. Then word-of-mouth effect is particularly important in the tourism marketing. So for tourism enterprises, depending on the traditional or online media advertising alone is not enough to improve the visibility. It is more necessary to win the good reputation of tourists. Spreading through the microblog inspires potential tourists' tourism consumption. Microblog provides new network marketing for tourism enterprises.

3 Influence of Tourism Enterprises from Microblog Marketing

3.1 *Promote the Brand and Enhance the Visibility of Tourism Enterprises*

Microblog is to foster and promote the brand image of tourism enterprises, and a good way to enhance the tourism enterprise visibility. Due to the unique interaction and modes of transmission of multi-channel, the microblog is able to achieve face-to-face dialog between tourism enterprises and fans. This will not only be able to increase trust, but also ensure the quality of the dialog, while improving the reputation and popularity of its products and brands (Yang 2011).

3.2 As a Platform for Information Dissemination and Marketing of Tourism Products

Tourism enterprises release new corporate dynamic marketing activities, industry information, tourism products sharing through microblog to attract the attention of the audience, achieve the purpose of brand exposure and brand awareness. At the same time, the enterprises establish audience of brand loyalty and ultimately to reach marketing purposes.

3.3 Interaction with Tourists, Maintenance and Management of Customer Relationships

On the one hand, the strong interaction of microblog makes travel companies directly in contact with the visitors' feedback to increase opportunities for tourists' dynamic demand, to establish good contact with tourists. In addition, travel companies can search associated with their own content and comments through keyword, and reply recommendations for tourists. It will improve our products and services continually, and enhance the user experience. On the other hand, tourists share text, pictures, video, and other travel experience in the tourism process or after the completion of the travel. Then, a large number of potential tourism can obtain more product information to enhance corporate visibility.

3.4 To Monitor the Dissemination of Results and Handle Crisis PR

Tourism enterprises can collect and analyze visitor remarks, obtain dynamic tourists' consumption through the platform of microblog. At the same time, tourism enterprises through microblog monitor and track the remarks of stakeholders, customers, media, and opinion leaders specially, and found crisis of signs in time, then fight for the first time to solve the crisis. When the crisis has happened, the tourism enterprises could publish process of crisis in the enterprise microblog. Enterprises will actively, openly, and transparently respond to the misunderstandings and make up for the mistakes in time and control the events to expand.

4 Feasibility Analysis of Tourism Enterprise Microblog Marketing

4.1 Theoretical Feasibility

Despite the rapid development of the tourism industry and the number and variety of tourism products increasingly rich, the life cycles of products are getting shorter. The needs of tourists increasingly personalized. However, the

products' homogenization phenomenon and the monotony of traditional marketing methods are more serious. Due to lack of innovation, the operation of the process and the lack of stickiness, tourists are no longer willing to be the earth to receive information, and prefer more favored active participation in experiential, interactive marketing campaigns. From the perspective of tourism enterprises, progress of the Internet has led to the vigorous development of network marketing, and tourism enterprises must learn a new network marketing strategy (Zhou 2011). Now, marketing has gone to a fiery extent; and the unparalleled marketing advantage of microblog provides a new marketing platform for tourism enterprises.

4.2 Policy Monitoring Feasibility

The so-called microblog marketing means that companies use microblog to publish information, brand display, user communication, customer relationship management, and a series of marketing behavior in a particular network community to achieve goals of internet marketing strategy. Tourism consumption is off-site field experience behavior. Before tourists make travel decision, they tend to refer from media advertising and recommendation of a friend. Then word-of-mouth effect is particularly important in the tourism marketing. So for tourism enterprises, depending on the traditional or online media advertising alone is not enough to improve the visibility. It is more necessary to win the good reputation of tourists. Spreading through the microblog inspires potential tourists' tourism consumption. Microblog provides a new network marketing for tourism enterprises.

4.3 Policy Monitoring Feasibility

Although microblog marketing has a distinct advantage compared with traditional marketing, there is also the trouble because of the lack of policy monitoring. It includes the microblog innate "user-operated media" properties and distrust from the network. This is the most worrying problem among tourist enterprises, who are carrying out microblog marketing. The major microblog portals are all real-name system on March 16, 2012, such as Sina, Sohu, rattan hearing, Net ease, and so on. It takes "the front desk voluntary background real name". When registering, the users must use real identity. If it does not take real-name certification, it would lose its publishing and forwarding, and become mute accounts. At the same time, once the remarks, contrary to the policies and regulations, are released after the certification, they will be banned. It is not only to ensure the microblog security, but also to protect the user experience, and to defend the microblog marketing of social foundation through the above measures.

4.4 Cost Control Feasibility

The microblog marketing can be an effective control of marketing costs. Traditional marketing methods are usually more expensive. It almost does not incur any costs with microblog carrying out marketing. It is free that enterprises register microblog account, apply for official certification, as well as daily microblog. Therefore, enterprises can fully enjoy the microblog marketing's improvement of the brand awareness, product, or service promotion effect under the premise of low-cost expenditure. Numbers, headers and footers must not be used.

5 Tourism Enterprises Microblog Marketing of Countermeasures

Tourism is a need for the dissemination of information industry, tourism development, microblog, a new marketing tool.

5.1 To Enhance the Quality of the Tourism Product, to Compact the Basis of Microblog Marketing

Microblog marketing of tourism enterprises hope to obtain sustainable results. It is the most fundamental thing for them to continue to develop new tourism products, to improve the quality of service of tourism enterprises to attract more tourists, and let tourists get a pleasant and wonderful travel experience to bring the good word of mouth, and establish a favorable brand image in the eyes of the public. Currently, many of our tourism enterprises have realized the tremendous role of microblog as a new medium of communication, and have seized a piece of network marketing positions. However, because most of the tourism images of the tourism enterprises are not distinctive, and product innovation is not enough, it is not able to attract the attention of the users in many tourist microblog. So, tourism enterprises must continue to improve the tourism product, and establish a deep impression on tourism image.

5.2 To Choose the Right Media Platform, to Implement Targeted Marketing

Because there are many portals, which provide microblog service, tourism enterprises should select the influential microblog platform, which is focused on the target user groups. At the same time, tourism enterprises must obtain certification and

form a good image of authority, as well as facilitate external search engines, and spread easily. Currently four portals in the field of microblog own their own target customers and unique advantages such as Sina celebrity achievements, the most popular and the participation groups of Sina microblog are primarily the elite and the working population. The advantage of Tencent is based on the rich resources of the QQ users. Early in the trial version of Tencent QQ2010, microblog has been integrated functionality, and QQ client, which coverage is great, combines with mobile terminal. The Tencent microblog participation groups are primarily students and lower age staff. The Sohu advantage lies in building microblog grassroots and microblog campus. Net Ease microblog network's advantage is MSN imports, which have had a larger influence, and Netease microblog participation groups mainly contain business people. With groups and advantages of the participation of the four portals, tourism enterprises should not blindly select microblog platform. Based on the target market of their own business and brand positioning, tourism enterprises must carefully select one of the four major portals or several microblog marketing, achieve precision marketing communication strategy.

5.3 To Form the Professional the Microblog Marketing Team, to Culture Core Fans

When tourism enterprises open up microblog marketing, they must build a professional microblog marketing team, select professional microblog platform maintenance, and arrange specialized marketing staff to timely follow-up information. Travel microblog marketing personnel need to have the expertise of the tourism marketing, and they also need to acquire a certain amount of network information management knowledge, computer knowledge, and copywriting knowledge. Tourism enterprises seek own target audience enterprises, thus pay attention to them to develop their own core fans, thereby establishing a fan base of corporate and brand by mining microblog users' information. It also can be a hot topic or periodic events, attracting the participation of the fans, increasing loyalty.

5.4 To Rich Content Microblog Releasing, to Control Update Rate of Microblog

Tourism enterprises can publish some news and enterprise dynamic by official microblog, some content related to enterprises, but the vast majority of content should be with enterprise closely related, note that the setting of the enterprise information to ensure easily to be searched. Tourism enterprises publish in diversity form by microblog release. Not only limited to text, but also you can have a more vivid video, pictures, and audio. The image videos of tourism enterprises can also play very good effect of publicity through the microblog.

The microblog using interface is flashback form, and the latest information is in the top. Microblog updates content quickly, and many users cannot pay attention to certain information in time, which has been submerged in a mass of information, which is difficult for users to see. The microblog information of tourism enterprise daily should select a reasonable releasing point in time, seize the peak posting time to update the information. The enterprise microblog release to moderate, nonscraper, to ensure released information to let followers see and not be too often to publish, which requires tourist enterprises to grasp the good and the right time and number. Published contents and topics must be loyal, and content must be included with the keyword in order to facilitate a high-quality user search.

5.5 To Concerned About the Hot Topic, to Take Event Marketing

The most effective way is to attract fans to post a topic. On the tourism enterprise microblog platform, it concerns about the hot topic, publishes original content related to the corporate brand, and designs innovative event marketing program by obtaining a lot of Zhuantie Comments, which reflect the value of the enterprise microblog. And it also attracts quality fans and potential customers by focusing on others, reprint and comments. At the same time to carry out some interesting prizes activities and enterprises are expected to reach the purpose of information dissemination.

5.6 Strengthen Microblog Interactive, Build a Real-Time Monitoring Mechanism

Tourism enterprises in marketing microblog to form a good interaction with the fans make more concern for their own fans than the general microblog master, discussing with them and forming interactive flow of information. On the one hand, this practice can maintain the popularity of microblog. On the other hand, it can deepen fans awareness of the bloggers in order to achieve the purpose of tourism enterprise microblog marketing better. Meanwhile, what travel marketers needs communicating with the users of the microblog in microblog marketing process is a living language, rather than the official propaganda; it is good way to achieve travel recommendations from your fans and timely feedback and continuous improvement in product quality to attract more consumers. At the same time, to build real-time monitoring mechanism by microblog platform, using a variety of technical means to make records and statistics with fans' demands and to make classified records and statistics of the brand or product evaluation (Zhang 2012). On the one hand, it can monitor real-time audience of customers and potential customers, study competitors' strategies. On the other hand, for the brand or product reviews and doubt, in case of tourism enterprises crises, it may be the timely positive

guidance on the negative word of mouth through the microblog, so that the negative news can submerge as soon as possible on search engine, and the loss of business drop to a minimum. Brand monitoring can also help tourism enterprises track fans the latest comment on the brand. It can get a harbinger of the market dynamics and even public relations crisis by “concerned about the topic”.

6 Conclusions

Because tourism enterprises microblog marketing is a new marketing mode, it has not formed into a mature model. This article can only be mounted thereon for a preliminary discussion. But the tourism enterprises should take the microblog marketing as the future development of a trend, and microblog will have higher market value and broad prospects.

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Research on Motivation, Experience, Satisfaction and Behavioral Intention of Museum Tourism—A Case of Macau Museum

Juan Tang and Chenyu Qiu

Abstract With the continuous development of the society, the functions of museum go beyond collection, conservation, display of cultural and spiritual heritage. It has developed into a multifunctional institution with education, leisure, entertainment, social significance. Modern museums not only provide people with place to learn new knowledge, but also serve as new tourist attractions for the city. Now, museum tourism is becoming a major driving force to stimulate economic growth of the city. Visiting the museum itself is a process of experience, the study of which can greatly promote the development of museum and help fully realize its functions. This paper aims to study the visitor's motivation, experience, satisfaction, and behavioral intention, and some relevant suggestions are put forward as a result of the research.

Keywords Research on motivation · Experience · Satisfaction · Behavioral intention · Museum tourism

1 Introduction

Museums provide multifunction including education, leisure, entertainment, social interaction, etc. They not only provide people a place to absorb knowledge and experience history, but also serve as new tourist attractions, which are in turn a more and more important economic driving force for many cities, especially in tourism industry. Giving that promising economic prospect, more and more attention from government is focused on museums, in hope that economic and cultural value can be explored to a greater degree. Tourism sector as well, need a more diversified product portfolio where museum can play certain part. Visiting

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museum is a process of experience from the perspective of customers. The perception of this experience has influence on their satisfaction and behavioral intention. As a result, evaluation about museums, even the whole tourist destination.

2 Literature Review

2.1 *Museum Experience*

Museums provide visitors with the experiences through design environments, exhibits, events, crowd activities, shops, restaurants, websites, and other services. These factors that influence visitors experiences are mainly sorted into four categories: physical comfort and accessibility, such as well designed museums, safe parking, pavement, seats and resting area, clean lounge, etc.; friendliness, such as welcome behavior, security and others employees; interpretation, narration, and ways to find information, i.e., the use of multimedia; recreation and leisure facilities (Kotler 1999). Goulding (2000) summarized four factors that influence the experience of visiting a museum: (1) Social-cultural factors, which includes cultural identification, continuity of theme and story, conversation and story building from evaluation of stimulus, social interaction. (2) Cognitive factors, which contains the creation of mindful activity, involvement and engagement, inner reflection and imagination, variation of stimulus to create a meaningful “whole,” perceived authenticity. (3) Psychological orientation factors, which includes scene setters, routing, and mapping. (4) Physical and environmental factors, including crowding, seats, and noise. Stogner (2009) discussed the important impact of the media has on the museum experience. He regard that rational use of the new technology can change the experience of museum visiting. Technologies enable the museum with entertainment capability, immerse the visitors in the theme and even encourage them to interact with the museum; make visitors access to the information immediately; provide visitors visual enjoyment; help to fulfill self-related experiences and make knowledge acquisition to be more specific and targeted; help to improve the sharable attributes of experience; help to motivate the visitors creativity.

So far in the measurement of the main assessment tools on experience, Experience and Strategy Module proposed by Schmitt (1999) has been used relatively widely. It aims at using a form of experience module-that is “sense,” “feel,” “think,” “act,” and “relate,” and coordinates these five dimensional modules with experience medias, including communication, vision, language mark, product exhibit, joint brand shaping, space environment, websites, electronic media, and personnel to attract consumers and to provide the foundation to experience marketing, which final goal is to create a perfect experience to the customers. This study combined the definition of these five experience modules, namely “sense,” “feel,” “think,” “act,” and “relate” from Schmitt’s Experience and Strategy Module and the related attributes of museum experience, and proposed the question items regarding to the dimension of museum experience in the questionnaire.

2.2 Motivation, Satisfaction, and Behavioral Intention

2.2.1 Motivation

As an important educational and leisure setting like museum, the research of the motivation factors of people visiting a museum has been widely attached importance to, and helped the industry insiders to understand the expectations of different visitors' experiences in the museum. Perarik et al. (1999) considered that visitors would not return to the museum unless they had found their desirable experience type. Doering (1999) concluded that if the driving interests of visitors are different, then their choice of experience is also different. According to Packer and Ballantyne (2002), motivational factors includes individual characteristics, such as personal goals, capability beliefs, etc.; scene characteristic, such as opportunities for learning; aspects that arouse interest, etc. Through the study of the relevant literature review, they summarized five motivational factors that influenced the visitors' experience: (1) Learning and discovery (the desire to discover new things, expand knowledge, be better informed and experience something new or unusual); (2) Passive enjoyment (the desire to enjoy oneself, to be pleasantly occupied and to feel happy and satisfied); (3) Restoration (the desire to relax mentally and physically, to have a change from routine and recover from stress and tension); (4) Social interaction (the desire to spend time with friends or family, interact with others and build relationships); (5) Self-fulfillment (the desire to make things more meaningful, challenge abilities, feel a sense of achievement and develop self-knowledge and self-worth).

Burton et al. (2009) conducted an in-depth interview in two major museums in Australia. Analysis of the depth interviews identified four clusters of factors that facilitated or impeded informants' leisure choices: logistics (time to reach destination, transportation, parking), finite time (alternative leisure commitments, a willingness to visit a museum only in a specified pattern, need for more flexible and creative opening hours), cost (cost of museum entry, cost of associated items such as food, parking, and the other consumption activities except the tickets) and fulfillment of museums generally and specific attractions within them (educational enrichment, cultural variety, pleasure) as the important factors.

Although the research of motivational factors has been paid highly attention by the academia. But most scholars' research were limited to explore the definition of these motivational factors and the study on the relationship of these motivational factors and the other factors that influence visitors' experience was scarce, for example physical environment of the museum, etc., as a consequence, it has reduced the integrating effectiveness of the research on motivational factors into the practice. This paper combined the characteristics of museum theme, motivation of leisure and recreation and motivation of visiting museum, and used these aspects as the basis parts of the motivation scales in the questionnaire.

2.2.2 Satisfaction

Cardozo (1965) first put forward the discussion of satisfaction, and he believed that satisfaction differs according to individual preference, expectation, perception, motivation, etc., good customer satisfaction would increase repurchase intention of the customer. Singh (1988) found that satisfaction is the feeling of contentment regarding to the multidimensional, multiobject product attributes. Customer satisfaction construct contains price of a product, service efficiency, service personnel attitude, company overall performance and degree of closeness to customers' ideal company, etc. (Ostrom and Lacobucci 1995). Burns et al. (2003) divided tourist satisfaction construct into facilities, service, and information and recreation experience. Gobster and Westphal (2004) classified tourist satisfaction into five dimensions: environment landscape, safety facilities, service facilities, cleanliness, and convenience. From the above discussions among scholars about satisfaction, we can learn that satisfaction can be generally sorted into overall satisfaction and satisfaction concerning to multidimensional product attributes. This paper proposed question items related to satisfaction based on literature review and museum attributes.

2.2.3 Behavioral Intention

Engel et al. (1995) regard behavior intention derived from attitude, it means the specific activity or behavior disposition that consumer would take after the consumption. Zeithaml et al. (1996) suggested that behavior intention can be viewed as what a tourist will behave in the future based on his or her subjective judgment, and is split broadly into favorable and unfavorable behavior intentions. Boulding et al. (1993) using repurchase intention and willingness to recommend to measure consumer behavior intention. Jones and Sasser (1995) argued that behavior intention includes willingness to repurchase product or service and initiative recommendation behavior to relatives and friends. Zeithaml et al. (1996) used five dimensions: loyalty, switch intention, willing to pay more, external response and internal response to measure the consumer behavior. Cronin et al. (2000) regard favorable behavioral intentions are associated with a service provider's ability to get its customers to (1) say positive things about them, (2) recommend them to other consumers, (3) remain loyal to them (i.e., repurchase from them), (4) spend more with the willingness to tell others about service providers and so on. Summing up the above literature review, the author decided to use willingness to revisit, willingness to recommend, willingness to publicize virtue, willingness to purchase relevant product as the question items in terms of behavior intention of the questionnaire in this paper.

2.3 Research Hypothesis

The framework of the current study is derived from a preceding discussion of relevant literatures and theories, and aims at exploring the relationship about visitors'

motivation to museum, museum experience, satisfaction, and behavior intention. Thus, there is strong support for interaction effects to take place among these variables:

Hypothesis 1: There is a correlation between visitors' motivation to a museum and their museum experiences, satisfaction, and behavior intentions

Hypothesis 2: Visitors' motivation to a museum has a positive effect on their satisfaction with the museum

Hypothesis 3: Visitors' motivation has a positive effect on their behavior intentions

Hypothesis 4: Visitors' museum experience has a positive effect on their satisfaction

Hypothesis 5: Visitors' museum experience has a positive effect on their behavior intentions

Hypothesis 6: Visitors' motivation to a museum has a positive effect on their museum experiences

3 Methodology

3.1 Sampling/Selection of Subject

In this study, data collection was carried out in Macao Museum from May to July in 2011, which is located in Mount Fortress. It was built by the Jesuits in the seventeenth century, and opened on April 18, 1998. Through its plentiful exhibits, the Macao Museum demonstrates the peaceful coexistence of life of the various communities that have inhabited the city for centuries and their histories to the visitors. The Macao Museum consists of three levels: Genesis of Macao Region (1st floor)—Presentation of the origins of Macao, commercial activities, religions and cultures of the two civilizations for centuries. Popular Arts and Traditions in Macao (2nd floor)—Different aspects of traditions and popular art of Macao; industries and activities which are now rare or even disappearing as well as entertainment, daily life styles, religious ceremonies and traditional festivals in different stages of Macao history. Contemporary Macao (3rd floor)—Display the characteristics of contemporary city life and the outlook for the future of Macao. The Macao Museum is the only comprehensive museum in Macao, and as an important window to display its historical and cultural charm to the outside world, the museum is very representative and has certain popularity as well as a large stream of visitors. Due to these advantages, the Macao Museum is conducive to convenience sampling and the author decided to use it as an example in the research.

3.2 Research Procedure and Questionnaire Design

The empirical study of the current research consists of four phrases:

(1) Propose the research framework and theoretical hypotheses to facilitate the research and further the questionnaire design; (2) Develop a draft questionnaire by forming the structure and items through literature review and research framework;

(3) Conduct a pilot test and then further adjust the way of asking questions and revise the question items. (4) Implement the final survey formally and acquire adequate data to study the relationship between visitors' motivation, museum experience, satisfaction, and behavior intention.

During the questionnaire design process, the questionnaire structure and items were preliminarily developed and the relevant variables were measured through a conceptual analysis of literature and hypotheses proposing. The questionnaire's final version included five parts: demographic characteristics of participants, motivation to visit the museum, museum experience, satisfaction, and behavior intention. Derived from literature review, the scales of motivation were summarized into to bring more appealing topics in conversation, to expand knowledge field, to pursuit of like-minded friends, to obtain comfort and happy experiences, to increase communication time with relatives and friends, to improve personal value and self-fulfillment, to relieve the pressure, to educate the next generation. The museum experience part consisted of five dimensions, which were sense, feel, think, act, and relate experiences, and totally includes 29 items. Satisfaction was measured by these four aspects, namely museum environment, activity, service, and experience, and three questions about the overall satisfaction. The concept of behavior intention here meant favorable behavior intention which was mentioned by Zeithaml et al. (1996) and was measured by six question items: willingness to revisit, regarding the museum as the first choice of leisure and recreation, recommending the museum to relatives and friends, recommending the museum to other people, willingness to publicize virtue and willingness to purchase product. With a five-point Likert scale, participants indicated their attitudes by checking how strongly they agree or disagree (1 = strongly disagree; 5 = strongly agree). The higher score a visitor gives means the stronger positive intention of this visitor.

From April 30 to May 1, 2011, the author conducted a small-scale survey among the visitors on the open space of the access to the Macao Museum. A convenience sampling method was used and the pre-survey had distributed 71 questionnaires, 61 of these were valid and the response rate was 85.9 %. The Cronbach's coefficient alpha value analysis was as follows in Table 1.

Table 1 Reliability of the pilot survey

	Cronbach's alpha
Visitors' motivation to the museum	0.730
Visitors' perception of experience at the museum	0.953
Sense experience	0.851
Feel experience	0.835
Think experience	0.787
Act experience	0.779
Relate experience	0.842
Satisfaction after visiting the museum	0.923
Behavior intention after visiting the museum	0.953

The reliability level for each item had all exceeded the critical value of 0.7, and it confirmed that the measurements used in this study have achieved adequate level of reliability, thus the questionnaire is available to distribute. A few words and expressing were revised and finalized according to the pilot test results, and the final formal survey instrument was conducted to the visitors on the open space of the access to the Macao Museum on June 15–July 12, 2011, using a convenience sampling method. A total of 500 questionnaires were distributed, resulting in 467 that were valid. The response rate is 93.4 %.

4 Analysis and Results

4.1 Demographic Characteristics of Respondents

In the 467 valid samples, there is no obvious difference in terms of the proportion of males (44.5 %) and females (55.5 %). As it was shown in Table 2, the majority of visitors ($n = 324$, 69.4 %) were young, aged between 19 and 24 years old. Followed by those aged between 30 and 40 years old ($n = 86$, 18.4 %). The percentage of the top two sample size of all tested sample was 87.8 % in the age structure. With respect to gender and age distribution, female respondents were slightly more than male, mostly aged between 19 and 40 years old in the research of visitors at the Macao Museum. The monthly income of the test sample was mainly distributed in 1,000 yuan RMB (including less than 1,000) and 1,001–5,000 yuan RMB, added up to 62.96 % of the total sample size. The monthly income of respondents mainly concentrated in the medium and low-income population, thus the author predicted that the reasonable ticket price is one of the reasons that many medium and low-income visitors chose to go to the Macao Museum. Higher accessibility can help the museum realize the purpose of popularize the general public education. In terms of education background, nearly half of the respondents (49.9 %) achieved a bachelor degree, and the differences between the proportions of those obtained high school degree (17.1 %), technical college degree (14.3 %) postgraduate degree and above (15.6 %) were relatively small. Students constituted a higher percentage (30.6 %) of the participants, followed by employees engaged in service industry (19.5 %) and manufacturing (13.7 %) industry.

Table 2 Reliability of the Survey

	Cronbach' alpha
Motivation	0.759
Sense	0.857
Feel	0.840
Think	0.850
Act	0.815
Relate	0.820
Satisfaction	0.914
Behavioral intention	0.863

As far as visitor identities is concerned, there is a great proportion gap between foreign visitors and local residents as the former constituted 94.4 % of all the respondents while the later only took a tiny percentage of 5.6 %. It can be seen that the Macao Museum still have many shortcoming in realizing the goal of educating local resident and there is a big space for improvement.

4.2 Reliability and Validity of Questionnaire

This study has a relative high reliability level. The Cronbach's coefficient alpha value for visitor motivation measure scale is 0.759. With regard to visitor perceived museum experience, the Cronbach's alpha value for its five dimensions are as follows. "Sense experience" (0.857), "Feel experience" (0.840), "Think experience" (0.850), "Act experience" (0.815), and "Relate experience" (0.820). The reliability level of each dimension exceeded the acceptable level 0.8; therefore, it can be said with confidence that the measures were reliable.

4.3 Descriptive Statistic Analysis of Visitors' Motivation, Experience

As we can see from the Table 3, the second item "to obtain comfort and happy experiences" and the fourth item "to expand knowledge field" ranked the top two score with 3.85 and 3.87 respectively, regarding the mean scores of all items in the

Table 3 Means of every dimension in the questionnaire

	Items	Mean
Motivation	Enhance the popularity	2.91
	Expansion of the field of knowledge	3.85
	Find friends	2.70
	Self enjoyment	3.87
	Increase communication in the relatives and friends	3.38
	To enhance the value of individuals	3.74
	Alleviate the usual pressure	3.43
	Educate the next generation	3.26
Sense (mean: 3.75)	A clear visited theme	3.71
	Exhibition content rich	3.60
	Illustrates the text clear	3.70
	Facilities for the disabled	3.61
	Good rest facilities	3.73
	A quiet and comfortable environment	4.11
	High-tech help experience	3.81

(continued)

Table 3 (continued)

	Items	Mean
Feel (mean: 3.64)	Feel respected	3.67
	Feel joy	3.91
	Integration into the atmosphere	3.64
	Professional	3.49
	Staff trusted	3.55
	To be welcomed	3.57
Think (mean: 3.61)	To stimulate thinking	3.74
	More meaningful life	3.68
	Creative topics	3.48
	Satisfy curiosity	3.63
	To deepen the knowledge to understand	3.70
	Stimulate product interest	3.45
Act (mean: 3.5)	Stimulates the exchange	3.44
	Experience activities	3.46
	Souvenirs	3.37
	Share experiences with friends	3.63
	Continued interest in learning	3.58
Relate (mean: 3.68)	Get to know new friend	3.18
	Agree with exhibits information	3.60
	Promote quality	3.72
	Value for money	3.61
	To achieve the purpose	3.78
Satisfaction	Environmental satisfaction	3.93
	Activity satisfaction	3.62
	Service satisfaction	3.76
	Experience Satisfaction	3.76
	Overall satisfaction	3.79
	Meet expectations	3.62
	Beyond expectation	3.25
Behavioral intention	Visit again	3.44
	Leisure choice	3.17
	Recommend to friends and family	3.58
	Publsize to others	3.60
	Recommend to others	3.64
	Purchase willing	2.91

section of visitors' motivation to a museum. The first item "to bring more appealing topics in conversation" and third item "to pursuit of like-minded friends" got the lowest mean scores, and the scores were 2.91 and 2.70 respectively. It can be seen that visitors to Macao Museum relatively agreed with that "to obtain comfort and happy experiences" and "to expand knowledge field" are the primary visiting motivation. In relation to museum experience, the sixth item "the overall

environment is clean, quiet and comfortable” in the sense experience and the second item “make you feel happy and pleasant” in the feel experience possessed the highest mean scores of 4.11 and 3.91, respectively. While the lowest scores were the first item in the relate experience “impel you to make acquaintances with new friends” and the third item in the act experience “participating in making souvenirs are attractive,” their mean scores were 3.18 and 3.37. It suggested that visitors have a relatively high perception toward the environment and atmosphere of the Macao Museum, but their perception over the interactive experience were relatively low. Regarding the five dimensions of experience, the highest mean score was sense experience, followed by relative experience, feel experience, think experience and act experience. It can be perceived that the visitors had a higher perception of the sense experience. Generally, most visitors had a relatively high satisfaction level of the whole Macao Museum and its various aspects, while the seventh item of the satisfaction section “this visit had exceeded my expectation” possessed the lowest score of 3.25. This means that the Macao Museum still has many improvement spaces in giving more surprises to the visitors and exceeding their expectation. As far as visitor behavior intention part is concerned, the highest mean score was recorded at 3.64 which went to the item “when other people ask you for advice, you will recommend the museum”; and the lowest score was “purchase exhibition relevant products” with only 2.91. We can draw a conclusion that there existed a relatively high passive behavior intention among visitors, thus in stimulating visitors’ active behavior intention aspects there is plenty of room to improve. Selling relevant products of the exhibition is one source of the museum incomes; therefore, it is necessary for the Macao Museum to improve the appeal of the products related to the exhibition.

4.4 Correlation Analysis Between Visitors’ Motivation, Experience, Satisfaction, and Behavior Intentions

The overall aim of this study is to explore if there are correlations between visitors’ motivation and museum experience, and satisfaction after visiting a museum and behavior intention. Hence a Pearson correlation analysis is used to analyze the data. Due to the correlation coefficient(r) ranges from $+1$ to -1 , the closer the index approach ± 1 the more significant of the correlation is indicated. The correlation index ranging from 0.70 to 0.99 indicates a high correlation, 0.40 to 0.69 indicates a moderate correlation and 0.10 to 0.39 indicates a low correlation. According to Table 4, there are two terms which had a correlation value more than 0.69 (high correlation), the correlation between museum experience and satisfaction was 0.704, and the correlation between satisfaction and behavior intention was 0.718. With the significance at the 0.000 level, less than 0.01, it indicated that there are positive, high correlations for both museum experience and satisfaction, and satisfaction and behavior intention. The other four terms had recorded the Pearson correlation value higher than 0.39 (moderate correlation) were as follows: visitors’

Table 4 Correlation analysis between visitors' motivation, experience, satisfaction, and behavior intentions

	Motivation	Experience	Satisfaction	Behavioral intention
Motivation	1	0.525**	0.395**	0.429**
Experience		1	0.704**	0.657**
Satisfaction			1	0.718*
Behavioral intention				1

motivation and museum experience (0.525), visitors' motivation and satisfaction (0.395), visitors' motivation and behavior intention (0.429), and museum experience and behavior intention (0.657) with a significance level of 0.000, less than 0.01. The results from these analyses illustrated that there were positive, moderate correlations between visitors' motivation and three other items, namely museum experience, satisfaction, and behavior intention. It also indicated that there is a positive, moderate relationship between museum experience and behavior intention.

4.5 Multiple Regression Analysis of Visitors' Motivation, Museum Experience, Satisfaction, and Behavior Intention

This study adopt the multiple linear regression analysis method to predicate how the value of visitors' motivation and experience would influence the value of satisfaction and behavior intention, and how the visitors' motivation would influence the museum experience. A stepwise regression analysis is applied to get an optimal regression function equation, thus only factors with significant effect were reserved.

- (1) Linear Regression Analysis of Satisfaction on Visitors' Motivation, Museum Experience: The ΔR^2 value of the museum experience and satisfaction was recorded at 0.495, and it indicates that 49.5 % of satisfaction can be explained by visitors' museum experience and their R^2 . The standardized regression coefficient of museum experience showed a positive and significant effect at the significance level of 0.05, while the standardized regression coefficient of visitors' motivation didn't show a significant effect so it was eliminated from the equation. The results revealed that if the standardized coefficient of museum experience increased, a significant increase would show on the standardized coefficient of visitors' satisfaction toward the museum. According to its significant influence on visitors' satisfaction, museum experience should be added into the regression equation. In this case, the values of Y and X would be visitors' satisfaction and museum experience, respectively. According to the coefficient and constant from the regression equation, a regression function equation was created: $Y = 0.610 + 0.844X$ (Table 5).

Table 5 Regression analysis of satisfaction on visitors’ motivation museum experience

Dependent variable	Independent variable	<i>B</i>	β	ΔR^2
Satisfaction	Experience	0.844	0.704**	0.441
	Constant variable	0.610		

Table 6 Regression analysis between visitors motivation, museum experience and behavior intention

Dependent variable	Independent variable	<i>B</i>	β	ΔR^2
Behavioral intention	Experience	0.856	0.856	0.441
	Constant variable	0.374	0.374	

- (2) The Regression Analysis between Visitors Motivation, Museum Experience and Behavior Intention: The ΔR^2 value of the museum experience and behavior intention was recorded at 0.441, and this means that 44.1 % of the behavior intention can be explained by the museum experience and its R^2 . The standardized regression coefficient of museum experience showed a positive and significant effect at the significance level of 0.05, while the standardized regression coefficient of visitors’ motivation didn’t show a significant effect so it was eliminated. The results of the regression analysis revealed that if the standardized coefficient of museum experience increased, a significant increase would show on the standardized coefficient of behavior intention too. According to its significant influence on visitor’ behavior intention, museum experience should be added into the regression equation. In this case, the values of *Y* and *X* would be behavior intention and museum experience, respectively. According to the coefficient and constant from the regression equation, a regression function equation was created: $Y = 0.374 + 0.856X$ (Table 6).
- (3) The Regression Analysis between Visitors’ Motivation and Museum Experience: The ΔR^2 value of the visitors’ motivation and museum experience was recorded at 0.441, and this means that 30.9 of the museum experience can be explained by the museum experience and its R^2 . The standardized regression coefficients of “self-improvement and enjoyment” and “sociality” showed a positive and significant effect at the significance level of 0.05. The results of the regression analysis revealed that if the standardized coefficient of “self-improvement and enjoyment” and “sociality” increased, a significant increase would show on the standardized coefficient of museum experience. Furthermore, it also revealed that “self-improvement and enjoyment” is identified as the item which has the most effect on museum experience. According to its significant influence on museum experience, “self-improvement and enjoyment” and “sociality” should be added into the regression equation. In this case, the values of *Y*, X_1 and X_2 would be museum experience, “self-improvement and enjoyment” and “sociality” respectively. According to the coefficient and constant from the regression equation, a regression function equation was created: $Y = 1.913 + 0.371X_1 + 0.113X_2$ (Table 7).

Table 7 Regression analysis between visitors’ motivation and museum experience

Dependent variable	Independent variable	<i>B</i>	β	ΔR^2
Experience	To enhance the value of individuals	0.371	0.467	0.309
	Social motivation	0.113	0.160	
	Constant variable	1.913		

5 Conclusions and Discussion

5.1 Conclusions

As shown in Table 8, of all the test of the research hypotheses only Hypothesis 2 and Hypothesis 3 are rejected, the other hypotheses are all supported.

“To obtain comfort and happy experiences” and “to expand knowledge field” were the most cited in the motivation section. It indicated that most visitors to the Macao Museum agree with these two motivations as their primary motivations to visit the museum. By conducting a multiple regression analysis, the results revealed that the squared standardized coefficient of motivation does not explain satisfaction and behavioral intention very well and failed in reaching a significance level. Therefore, it indicated that motivation does not affect satisfaction and behavior intention, and there was no causal relationship between visitors’ motivation, satisfaction, and behavior intention. But there indeed existed a moderate and significant correlation between visitors’ motivation and museum experience, and moreover the coefficient values of “self-improvement and enjoyment” and “sociality” had shown a positive, significant effect on museum experience. Within the two motivations which had a positive impact on museum experience, “self-improvement and enjoyment” had more influential effect upon museum experience. These conclusions are similar to those of Zhongliang Dai, Liying Wu, and Yongyu Chen which were mentioned in the similar research findings in the second chapter. In relation to museum experience, the highest scores were recorded

Table 8 Conclusions of hypotheses

Hypothesis 1: There is a correlation between visitors’ motivation to a museum and their museum experiences, satisfaction, and behavior intentions	Supported
Hypothesis 2: Visitors’ motivation to a museum has a positive effect on their satisfaction with the museum	Not supported
Hypothesis 3: Visitors’ motivation has a positive effect on their behavior intentions	Not supported
Hypothesis 4: Visitors’ museum experience has a positive effect on their satisfaction	Supported
Hypothesis 5: Visitors’ museum experience has a positive effect on their behavior intentions	Supported
Hypothesis 6: Visitors’ motivation to a museum has a positive effect on their museum experiences	Supported

by “the overall environment is clean, quiet and comfortable” and “make you feel happy and pleasant,” while “impel you to make acquaintances with new friends” and “participating in making souvenirs are attractive” had the lowest scores. It can be seen from the results visitors had a relatively high perception toward the environment and atmosphere of the Macao Museum, but their perception over the interactive experience were relatively low. Moreover, visitors had a higher perception of the sense experience. The results from the multiple regression analysis revealed that museum experience has a significant coefficient effect on satisfaction and behavior intention, and the standardized coefficients values were positive. It indicated that museum experience has a positive effect on satisfaction and behavior intention. The conclusion is very close to the research findings of scholars such as Zhongliang Dai where similar research findings were introduced in the second chapter, which suggested that museum experience has a positive impact on the behavior intention.

Visitors’ satisfaction level of the whole Macao Museum and its various aspects were mostly high, and in terms of behavior intention, the lowest behavior intention was “purchase exhibition relevant products.” The results of the correlation analysis found that there was a positive, significant correlation between visitors’ motivation, museum experience, satisfaction, and behavior intention. Through the visitors’ motivation didn’t have a direct casual relationship with satisfaction and behavior intention, it still had a positive correlation with both satisfaction and behavior intention. By means of improving the positive impact on visitors’ motivation and museum experience, we should see an increment in satisfaction and behavior intention.

5.2 Suggestions

Based on the previous results and findings, the present study provides some recommendations to the staff members of the Macao Museum regarding the operation and management, and offers suggestions for future research.

5.2.1 Effectively Enhance Interactive Experience, and Accelerate the Implementation Function of Educating Local Residents

With regards to respondents’ demographic profiles, the majority of visitors were young, aged between 19 and 29 years. The group income, with student group is given priority to, belonged to a medium level. When conducting the survey, the author found out that most visitors, mainly referred to those not belonged to the ticket discount group, chose only to visit the Mount Fortress and then left. The main reason for that was the ticket prices outweighs the museum’s own attraction, and resulted in the phenomenon that most visitors were belong to the ticket discount group. For this reason, the author suggests that the museum should extend free museum days, and increase the added value of visiting museum, such as

presenting visitors with some memorable small gifts, to increase the appeal of the museum and expand the source of visitors, so as to achieve the aim of promoting the history and culture of Macao.

Educating people is one of the most functions of museum, but as showed by the background information there is a huge gap between the number of visitors from outside and local residents. This indicated that further improvement of the function of educating local residents of the Macao Museum is needed. The author believed that the museum should strengthen the cooperation with the education department of the government, and foster the history and culture pride of local residents from childhood. Starting with the group of youngsters, it can influence the other groups around them indirectly, improve the overall quality of the local residents and enhance their interest in active learning local history and culture. The museum should also enhance the publicity among local residents to make the relevant activity information of the museum to be known by local residents more obviously and directly, and appropriately increase the interactive activities to promote the communication among people and enhance the entertainment feature of the museum, for instance the museum can set up a souvenir making participation activity link or provide computer equipments to make commemorative cards with the aid of high-tech so the visitors can make characteristic souvenirs that are appropriate for keeping to themselves or giving to others as a gift. Moreover, the museum can build a coffee shop at a proper location of the third floor where the characteristics of contemporary Macao are presented so that local residents can enjoy the leisure time in a historical and cultural atmosphere, enhance communication with their companions and it can even help them make new friends. Meanwhile, on the premise of improving the leisure and recreational atmosphere to attract local residents, this measure can provide a place where local residents could think and discuss the history and culture of Macao exhibited in the museum, accelerate the realization of the function of educating local residents indirectly and promote the sustainable development of the education function of the Macao museum.

5.2.2 Stimulating Self-improvement and Enjoyment Motivations of Visitors and Improving Museum Experience Effect

The research results revealed that visitors' motivation have a positive effect on museum experience, and among these motivations, "self-improvement and enjoyment" was the most influential one. It meat most visitors had a prior motivation of acquiring self-improvement and enjoyment. The results also indicated that visitors' experience have a positive effect toward satisfaction and behavior intention. For this reason, the author suggests that the museum should step up the publicity efforts and raise the visitors' motivation of self-improvement and enjoyment. For example, the museum can join hands with the local publicity and education institutions to promote the museum to the residents of other regions by means of television and joint activities, and stimulate curiosity about exploring Macao's history

and culture among potential visitors. In addition to improving the possibility of turning the potential visitors into actual visitor source, enhancing visitors' perception toward museum experience indirectly can also stimulate the motivation of self-improvement and enjoyment of potential visitors, and consequently increase their satisfaction with the museum and stimulate the favorable behavior intention.

5.2.3 Strengthening the Museum Experience to Enhance Visitors' Satisfaction and Favorable Behavior Intention

The research results confirmed that visitors' museum experience have a positive effect on satisfaction and behavior intention. And, given that, the author suggests that the museum should not only stimulating self-improvement and enjoyment motivations of visitors, but also helping to satisfy these motivations during the visiting process. The museum should pay more attention to improve the expression of the content which presented in each exhibits and guide services in order to achieve continuous improvement so that it can provide visitors with more comfortable and pleasant experience. For instance, conduct a study to identify what the visitors' most comfortable temperature and lighting are alike and make adjustment. Moreover, the museum can install an after visiting suggestion box, continuously collect visitors views and opinions toward the museum and adopt the constructive suggestions. According to the personal information that visitors filled in, the museum can send gifts to some visitors as a token of appreciation and gratitude so as to make the visitors feel that their personal values had been realized and satisfied. Besides, the museum can organize small activities inside the museum, such as distributing questionnaires about relevant knowledge of the exhibition content near the exit. By publishing the correct answers, the respondent who has all the correct answers would be rewarded with an exquisite small gift. By doing so, visitors can be aware of their knowledge acquisition situation after visiting the museum as well as getting substance results of museum experience, thus helps to increase visitors' satisfaction and favorable behavior intention.

Additionally, the museum can enhance the museum experience so as to improve the visitors' satisfaction level and behavior intention from these five dimensions: sense experience, feel experience, think experience, act experience and relate experience. Take the feel experience as an example, the museum should pay more attention to providing customized services, i.e. increasing artificial guided tour services, building more interactivity between service personnel and visitors to improve their feel experience. This can improve visitors' satisfaction from the emotion aspect, and stimulate visitors' favorable behavior intention. Regarding to think experience, the museum can provide visitors with thoughtful services and spaces, i.e. exploring which way of expression and what atmosphere is more beneficial to guide the thoughts of visitors, providing professionals to answer visitors' doubts and questions. In addition to relate experience, the museum can take an active part in international history and culture related conferences to further improve its popularity. Working together with the Macao

government, the museum should further build Macao's positive image as "Famous Historic and Cultural City" and introduce it to the world. By means of making it relevant to the social and cultural environment, this can have impact upon the potential community members.

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Part III
Tourism Resource and Tourism Impact

The Economical and Social Impacts of Tourism on Kharga Oasis Local Citizens in Egypt

Tamer Hamdy Abd El Latif Ayad and Shujun Ye

Abstract Tourism industry is recognized by specialists as a sector which support and sustain economic growth recording important increases in different parts of the world. It has proven effectiveness as it has significant effect on culture, environment and provide economic incentive both in developed regions and in developing or poor regions. This paper aims to explain the relationship between tourism activities and the economic development, and to measure the attitudes of Kharga Oasis local citizens in Egypt towards the economic indicators of tourism development. In addition, it attempts to assess the impacts of tourism development projects (TDP) on the local people. A quantitative research method was adopted for this study. To achieve the research objectives, data has been collected through 116 questionnaires distributed among Kharga Oasis local citizens. Also secondary data has been used together with reviewing some literature in the field of tourism economics and tourism development. The results revealed that tourism development has positive impacts on Kharga Oasis citizens from the viewpoints of Kharga local people. However there is a quite number of citizens who failed to decide positive or negative scale for a number of tourism development measures. So tourism development policies in Kharga Oasis should concentrate on tourism projects that are fulfilling the requirements of sustainable tourism development. To maximize the benefits of tourism development in Kharga Oasis, it is essential to create local culture consciousness for the importance of concentrating on sustainability requirements in the future.

Keywords Tourism development • Economic impact • Social impact • Kharga

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1 Introduction

One of the most significant economic, social, and cultural phenomena of the past 50 years has been the strong and sustained rise of tourism. The UN division for sustainable development defined the economic development as a process of improvement in the general economic condition of society. The concept of economic development differs from the related concept of economic growth in that while the latter implies the exclusive pursuit of higher real incomes (what is normally referred to as the “standard of living”), the former seeks progress on wide range of economic objectives, including not only the standard of living but also standards of health and education, the distribution of income, and other indicators of the “quality of life” (UN-CSD 1999).

Tourism has emerged from being a relatively small-scale activity into a global economic phenomenon from the 1960s onward. The potential for tourism to generate economic development was largely accepted as axiomatic. National governments looked to tourism as a generator of income, as a means of earning foreign exchange, as a source of employment, and as a means of bringing wider economic benefits to regions with otherwise limited economic potential. Consequently world tourism expanded largely unrestrained during the 1960s and 1970s. National tourism authorities were established to promote tourism and to ensure that the flow of economic benefits from tourism was maximized and to eliminate poverty (WTO 2002a, b).

As world tourism continued to expand, however, a disturbing array of social and environmental impacts began to present them. These impacts included the modification of indigenous cultures, increases in prostitution and crime, the pollution of sensitive natural areas, and the excessive use of energy and water resources (Jenner and Smith 1992). By the early 1990s, national tourism authorities had generally come to realize that the economic benefits of tourism would not be achievable in the long run unless tourism was properly planned and managed to include an explicit concern for the social and environmental assets upon which its future prosperity depends. The established policy objective of tourism, to stimulate economic development, was therefore widened to include the condition that any such development must also be sustainable (UN-CSD 1999). Researcher in this paper will highlight on the relationship between tourism development and the economic development and will measure the attitude of Kharga Oases local citizens towards the economical and social variables of tourism development in Kharga Oases.

2 The Economic Dimension of Tourism

Studies on the impacts of tourism have shown that a destination’s population recognizes economic and social benefits and costs of tourism on their community and lives (Gee et al. 1989; Jurowski et al. 1997; Choi et al. 2006). Economic

benefits are usually regarded as the most important benefits of tourism and include increased employment opportunities, income generation, tax revenue, and improved standard of living (Ap 1992).

According to the World Travel and Tourism Council report (2012a, b), Travel and Tourism continues to be one of the world's largest industries. The total impact of the industry means that, in 2011, it contributed 9 % of global GDP, or a value of over US\$6 trillion, and accounted for 255 million jobs. Over the next 10 years this industry is expected to grow by an average of 4 % annually, taking it to 10 % of global GDP, or some US\$10 trillion. By 2022, it is anticipated that it will account for 328 million jobs or 1 in every 10 jobs on the planet.

2011 was one of the most challenging years ever experienced by the global Travel and Tourism industry. However, our latest research suggests that, despite political upheaval, economic uncertainty, and natural disasters, the industry's direct contribution to world GDP was 2.8 % of total GDP in 2011, and is forecast to rise by 2.8 % in 2012, and to rise by 4.2 % pa, from 2012–2022. The total contribution of Travel and Tourism to GDP was US\$ 6346.1 billion (9.1 % of GDP) in 2011, and is forecast to rise by 2.8 % in 2012, and to rise by 4.3 % pa in 2022. Also in 2011 Travel and Tourism directly supported 98,031,500 jobs (3.3 % of total employment). This is expected to rise by 2.3 % in 2012 and rise by 1.9 % pa to 120,470,000 jobs (3.6 % of total employment) in 2022, and the total contribution of Travel and Tourism to employment, including jobs indirectly supported by the industry, was 8.7 % of total employment (254,941,000 jobs). This is expected to rise by 2.0 % in 2012 to 260,093,000 jobs and rise by 2.3 % pa to 327,922,000 jobs in 2022 (9.8 % of total). Visitor exports generated US\$ 1,170.6 billion (5.3 % of total exports) in 2011. This is forecast to grow by 1.7 % in 2012, and grow by 3.6 % pa, from 2012 to 2022. Travel and Tourism investment in 2011 was US\$ 743.0 billion, or 4.9 % of total investment. It should rise by 3.5 % in 2012, and rise by 5.6 % pa over the next 10 years to US\$ 1,320.4 billion in 2022 which represents 5.1 % of total investment (WTTC 2012a).

In Egypt tourism industry is very important to the economy and is identified as one of the major sources of economic growth. In 2011 the direct contribution of Travel and Tourism to GDP in Egypt was 6.7 % of total GDP, and the total contribution of Travel and Tourism to GDP was 14.8 % of GDP in 2011, and is forecast to rise by 4.8 % pa in 2022. Travel and Tourism directly supported 1,353,000 jobs which represents 5.8 % of total employment. This is expected to rise by 0.6 % in 2012 and rise by 2.1 % pa to 1,673,000 jobs in 2022. While the total contribution of Travel and Tourism to employment, including jobs indirectly supported by the industry, was 13.1 % of total employment (3,079,500 jobs). This is expected to rise by 2.2 % pa to 3,807,000 jobs in 2022 which represents 12.3 % of total employment. Visitor exports generated 21.2 % of total exports in 2011. This is forecast to grow by 5.7 % in 2012, and grow by 4.8 % pa, from 2012–2022, to 15.9 % of total in 2022. Travel and Tourism investment in Egypt during 2011 was 12.0 % of total investment. It should rise by 5.8 % pa over the next 10 years to 11.4 % of total in 2022 (WTTC 2012b).

3 Social Impact of Tourism

The positive and negative impact of tourism on the host destination's socio-cultural structure has been an issue for a long time. Foster (1985), Inskeep (1991), Witt (1991), Friges (1996), Matheison and Wall (1982) all contribute to the account of Social Positive and Negative Impacts on the host destination.

While there are various definitions of social development, most of them converge around the concepts of improving the well-being of a country's citizens, promoting higher standards of living, employment and conditions of economic and social progress. Social benefits also include the maintenance of traditional cultures, increased intercultural communication and understanding, improved social welfare, quality of life, improved shopping and increased recreational opportunity (Long et al. 1990; McCool and Martin 1994).

Matheison and Wall (1982) thought that social impacts of tourism can be considered as "The changes in the lives of people who live in destination communities, which are associated with tourist activity in regard to moral conduct, creative expressions." Cultural impacts can be thought of as the changes in the arts, traditional ceremonies, customs and rituals and architecture of people that result from tourism activity. Witt (1991) claims that the greater the difference between the host community and the tourists, the greater will be the affect of tourism on society. This presents a challenge to decision makers in regard to the type of tourism that a destination is trying to attract.

4 Methods of Measuring the Economic Impact of Tourism

There are several recognized methods of measuring the economic impact of tourism, such as multipliers, Input-Output analysis (IO models) and more recently Computable General Equilibrium Models (CGE) models. However combining these methods, for example multipliers with IO models or using other econometric models represent other possibilities to assess the tourism impact upon economy.

Traditionally, multipliers have been used as the main method of analyzing and measuring the economic impact of tourism, especially Keynesian multipliers, which connects tourism expenditure to production, incomes, employment or any other variables which presents interest. Actually the term tourist multiplier refers to the ratio of two changes, in one hand the change in one of the key economic variables such as output (income, employment or government revenue) to the change in tourism expenditure (Cooper et al. 1993, p. 116). On the other hand, it could be stated that tourism multipliers capture the secondary economic effects (indirect and induced) of tourist expenditure (WTO 2002a, b, p. 101).

Therefore, there are a lot of multipliers of various kinds, such as output multiplier, employment multiplier, production multiplier, sales multiplier, income

multipliers. Such multipliers are relatively straightforward to calculate and provide a quick and simple way of assessing the overall magnitude of a change in tourism expenditure. Most multipliers are expressed as a ratio of total effects to the direct effect of expenditure, also called ratio multipliers. In this case there are two types of multipliers:

- (1) Type 1 multipliers: are those that include the ratio between direct plus indirect effect to direct effect.
- (2) Type 2 multipliers: are those including also the induced effects.

Other multipliers could be calculated using the Keynesian formulas measuring the income generating in the economy by an additional unit of tourist expenditures (Surugiu et al. 2009).

The more developed and integrated the economy the tourism multipliers are more likely to be higher. The higher the value of the multiplier the greater the economic impact of tourist expenditure (WTO 2002a, b, p. 103). However because of their oversimplification, and because they usually do not rely on a detailed description of the specificity of tourism and of the economy under study, the use of exogenous multipliers gives only approximate results (UNWTO 2008, p. 99). That is why the interest was moved towards the use of general equilibrium techniques—IO models and CGE models.

IO models begins with the construction of a table, similar to the table of national/regional accounts, which shows the economy of the destination in matrix form. Each sector of the economy is shown in each column as a purchaser of goods and services from other sectors in the economy, and in each row as a seller of output to each of the other sectors. Then a series of equations are computed considering that a change in the level of final demand will create an increase in the level of activity within the economy, which manifests itself as changes in the output and sales of each sector (Cooper et al. 1993, p. 122). Where sufficient additional data are available the most expanded Input-Output model is recommended to measure the economic impact of tourism on Balance of payments, Gross domestic product (GDP) (including income distribution among sectors and regions), Employment, Government budget, and Stabilization policies such as Investment policy and Tax policy (UN-ESCAP 1990, pp. 12–13).

The Tourism Satellite Account is a single most important new macroeconomic policy analysis tool developed in the last decade to measure tourism demand and its implications for a national economy. The TSA is a distinctive method of measuring the direct economic contributions of Tourism Consumption to a national economy. Its unique approach derives from employing the principles and structure of the internationally adopted System of National Accounts (SNA) to measuring the direct economic impact of tourism. The TSA comprises a set of inter-related tables that show the size and distribution of the different forms of Tourism Consumption in a country and contributions to GDP, employment and other macroeconomic measures of a national economy (UNWTO 2011).

5 Tourism in Rural and Remote Areas

The economy of remote rural areas has traditionally been dependent upon a single local industry, either agriculture, fisheries or other (Carlos and Charlotte 2001). At the same time the early development of world tourism was focused particularly on coastal areas. Indeed the “tourism resort” originated as a purpose-built response to the evident popularity of coastal areas as tourism destinations. However, with the growth of demand for less geographically specific forms of tourism, such as cultural tourism, adventure tourism, and ecotourism, many coastal resort destinations now find themselves in economic decline. With few alternative economic activities to fall back on, many coastal resorts are now trying to re-invent tourism in their area by diversifying into those market segments that are presently experiencing growth. A good example is Spain, which having experienced a decline in coastal resort tourism has reoriented its marketing strategy to emphasize cultural and rural tourism in the coastal hinterlands (Surugiu et al. 2009).

Tourism is often more effective than other industries in generating income and employment in rural, remote and depressed regions of a country. Indeed, the development of tourism usually has a relatively greater economic impact in such areas. Where incomes are relatively low, an involvement in tourism can provide a huge lift to the economic well-being of local people. Tourism also stimulates economic development in other sectors of the economy where it has backward linkages, including agriculture, transport, catering and retailing (Archer 1989). In rural areas experiencing the decline of traditional industries such as agriculture, forestry and handicrafts, tourism may represent the only realistic opportunity for creating economic activity and bringing about economic regeneration. Diversification into tourism-related activities can help supplement the incomes of those working in depressed economic sectors and ease some of the pain of economic restructuring. The development of tourism may also help to moderate or even arrest the migration of people from rural areas to cities in search of work (Weaver and Lawton 2004).

6 The Role of Tourism in Less Developed Countries

Tourism has considerable potential for growth in many Developing Countries and Less Developed Countries (LDCs) where it is a significant economic sector and growing; and that it has advantages when compared with other economic sectors. This can be summarized in the next points (Muhanna 2007):

- (1) Tourism redistributes wealth. Both internationally and domestically, tourism is seen as an effective means of transferring wealth and investment from richer, developed countries or regions to less developed, poorer areas.
- (2) Tourism is consumed at the point of production. Because of this the opportunities for individuals and micro-enterprises, in urban centers or marginal rural areas, to sell additional products (e.g. handicrafts and souvenirs) or services (e.g. guiding, music or dancing) to these potential consumers are therefore considerable.

- (3) Most export industries depend on financial, productive and human capital.
- (4) No trade barriers to tourism. Unlike many other forms of international trade, tourism does normally not suffer from the imposition of trade barriers, such as quotas or tariffs.
- (5) Tourism has particular potential in many countries with few other competitive exports.
- (6) Tourism is a much more diverse industry than many others and can build upon a wide resource base. Diversity increases the scope for wide participation, and for the informal sector through livelihood diversification, for example where a farming household produces crafts or sells produce to a local lodge.
- (7) Tourism is often reported to be more labor intensive than other productive sectors.
- (8) Tourism offers, in principle, more opportunities for backward linkages throughout the local economy than other industries. Such opportunities include both direct links, such as the expansion of the local farming industry to provide food for hotels and restaurants, and indirect links with, for example, the construction industry. As we have already mentioned the multiplier effect of this industry normally achieves a significant level.
- (9) A variety of other, secondary reasons may also be suggested for the popularity of tourism as a development option. These include the facts that the development of tourism may lead to infrastructural improvements and the provision of facilities that are of benefit to local communities as well as tourists; that tourism often provides the justification for environmental protection through, for example, the designation of national parks; and, that tourism may encourage the revitalization of traditional cultural craft and practices.

All of these points together explain why virtually every country in the world disposes, to a lesser or greater extent developed a tourism industry.

In Asia tourism has become a significant source of foreign exchange revenues for many countries of the region, including some least developed countries and island developing economies. For example in 2006, tourism activities in Maldives contributed 66.6 % of the country's GDP and accounted for 65.9 % of its exports, while in Vanuatu the tourism industry contributed 47.0 % of the country's GDP and 73.7 % of its total export earnings. In 3 of the other 13 least developed countries in Asia (Cambodia, Lao People's Democratic Republic and Nepal), tourism accounted for more than 15 % of export earnings (UN-ESC 2007).

7 Tourism Development in Kharga Oasis

The New Valley Governorate covers a large part of the Western Desert. Located to the west of Egypt's Nile Valley and it's the biggest governorate in Egypt, covering an area of 4,58,000 square kilometers, about 44 % of the total surface area of Egypt. The construction and reclamation of the New Valley began in 1959. It consists of three oases, Kharga, Farafra and Dakhla. Kharga is about 600 km south west of Cairo (USAID 2007; SIS 2012).

Kharga is the capital of the New Valley Governorate. It is situated 191 km east of Dakhla and 244 km due south of the Nile Valley city of Asyut. The Kharga depression is an elongated depression of some 7,000 square kilometers, stretching 185 km from north to south and 80 km east to west. In 2010, the total population was estimated to be around 2,00,000 capita in the New Valley oases, with 80,000 capita in Kharga oasis. The labor force of the New Valley, around 71,761 persons, represents approximately 30 % of the total population. The average unemployment rate is 14 % of the total labor force (CISS 2011).

The economical situation in the governorate relies mainly on Agriculture, which is the dominating sector and comprises approximately 60 % of the manpower. Cultivated area amounts to approximately 130 thousand acres, which rely completely on underground water. The cash economy generally depends on selling the yearly harvest of dates and olives to external buyers. Government intervention and private external investments support large-scale development such as oil and gas production and large-scale agricultural projects, as well as small-scale industry such as the bottling of mineral water and agro-industrial processing plants. The government established 385 investment projects. 96 of these projects are industrial, 239 are agricultural projects, 21 are tourism projects and 29 are service projects (State Ministry of Environment 2008).

During the last two decades, the tourism industry in Egypt has diversified in terms of attractions, products, and geographic distribution. The original foundation of Egyptian tourism was the world-famous presence of antiquities in the Nile Valley. In response to the market opportunities created by the attractive natural resources in Egypt, new destinations and new kinds of tourism products have been introduced according to the relative advantages of different geographical and natural resources. New destinations with new tourism products have emerged in different regions, helping not only to diversify Egypt's tourism product, but also to distribute tourism more evenly across the country. The New Valley oases benefited enormously from the new trends in tourism in Egypt as one of the new destinations for ecotourism (CISS 2011).

The New Valley oases is one of the most promising destinations offering an ecotourism product in Egypt but is still only responsible for 0.4 % of the tourist nights and 1.51 % of tourists visiting Egypt. Tourism is the fastest growing sector within study area's economy as a new contributor to its GDP and has contributed to the balanced development of the New Valley Governorate since the beginning of the new millennium. From that time, tourism became one of the preferred ways of creating economic activities in the study area, which drained a part of the buying power towards the economically under-developed region of the New Valley oases. Tourism significantly gave the opportunity to enable the local community to benefit from the revenues generated from tourism activities. Over the past few years, tourism development has not only improved the image of the study area but has also fed into its economic activities, education system, public services, and even public attitude. The Governorate improved infrastructure by investing in transportation facilities and community buildings, significantly enhancing the ability of the area to attract new visitors and tourists. Air transport facilities in Kharga

and Dakhla provide air service. Extensive road improvements along the oases have improved access to the region from Cairo, Asiat and Luxor. These investments are ample evidence of Egypt's commitment to implementing tourism development in the New Valley region (CISS 2011).

The 2005 Human Development Report for Egypt indicates that the average per capita share of the gross domestic product in the New Valley Governorate amounted to 6,295.6 pounds, and ranks 12th among governorates in Egypt in terms of domestic product (UNDP 2005). In 2009, the tourism industry in the study area generated LE80 Million "US\$15 Million." The New Valley has begun to establish a unique ecotourism industry that is highly favored by European tourists. According to the latest tabulation, the approximate total value of tourism projects in the study area is currently LE110 Million "US\$20 Million." The investments in tourism industry in the study area are expected to double over the next 5 years, coinciding with the launch of several new projects (New Valley Governorate 2010) The following Table 1 presents an overall tourism market characteristics in the New Valley Governorate:

According to statistics of the Regional Tourism Authority of the New Valley Governorate, the total tourist arrivals was more than 1,72,034 tourists in 2010, an increase of 11 % over the previous year 2009 with 155301 tourists, and against 48471 tourists in 2000 with a growth of nearly 350 % in 10 years. The average length of stay in 2007 was 2.8 days, which increased to 2.9 in 2008. The total number of tourist nights in 2010 was 437785 nights against 357340 nights in 2007 showing 22 % growth in the last 3 years and over 280 % growth in the last 10 years. The following Table 2 presents the number of tourists and nights by nationality in Kharga Oases comparing with New Valley Governorate:

Table 1 Overall tourism market characteristics in the New Valley governorate

Item	Unit	Value
Number of rooms	Room	924
Occupancy rate	%	87 %
Number of beds	Bed	1,835
Number of tourists	Tourist	1,55,321
Number of tourist nights	Thousand nights	4,07,256
Average length of stay	Day	2.6

Source New Valley Governorate, Information Center (2010)

Table 2 Number of tourists and nights in Kharga Oases

Nationality	Kharga Oases		New valley	
	Tourists	Nights	Tourists	Nights
Egyptians	15,120	39,312	41,723	87,645
Arabs and Africans	6,450	16,770	16,221	47,963
USA	5,625	14,625	17,615	46,994
Australian and Asians	6,120	15,912	18,637	51,500
Europeans	20,205	52,533	61,105	173,154
Total	53,520	139,152	15,5301	407,256

Source New Valley governorate, Regional Tourism Authority (2010)

Table 3 New Valley hotel capacity by category and main Oases in 2009

Item	Hotel category				Total hotels	No. of rooms	No. of beds
	4*	3*	2* or Less	Under category			
Kharga	1	–	4	5	10	394	824
Baris	0	–	–	2	2	40	80
Dakhla	1	1	6	5	13	345	689
Farafra	0	1	1	2	4	108	239
Total	2	2	11	14	29	887	1,832

Source New Valley Governorate, Regional Tourism Authority (2010)

The hotel capacity in the new valley oases have developed from 7 hotels in 2003 to 16 hotels in 2007 and up to 29 hotels in 2009 and the governorate is currently expanding its hotel capacity and several new facilities were under construction to meet the growing demand for additional lodging. Accommodation was mainly of 3–4 star standard with eating facilities with tasteful western cuisine to meet present and anticipated future tourist needs. The following Table 3 presents New Valley hotel capacity by category and main oases in 2009.

8 Methodology

A quantitative research method was adopted in this study. So the data from this study were quantitatively analyzed. Quantitative data were analyzed with the aid of Statistical Package for Social Sciences (SPSS) version 17 and Excel Spread Sheet in Office 2007.

Data were collected through two sources of data. First source is the official documents and reports about the area of study. Second source is interviews with local people of Kharga Oases. A random sample of 116 of local citizens of the area was chosen for the interview. A questionnaire was designed for the purpose of achieving the research objectives. A questionnaire conducted based upon the Likert's 5-item scale. Questions were prepared to assess the tourism development impact on the local people of Kharga Oases. Respondents were asked to provide answers on each item that was measured by a 5-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree, and this questions will be analyzed using descriptive statistic.

9 Analysis and Results

9.1 The Attitudes of Kharga Oases Local Citizens Towards Tourism Development Impacts

This section of the research paper attempts to measure the attitudes of the local citizens in Kharga oases towards the process of tourism development in their area. This measure is considered as indicator of the extent to which the local people

have benefited socially and economically from tourism development projects (TDP) in the area. Table 4 shows the main variables that were used as indicators for the impact of tourism development.

9.2 *Fitness of the Chosen Tourism Development Measures (Variables)*

For measuring the appropriateness of the ten variables that were proposed to measure the attitudes of Kharga local citizens towards tourism development impacts, T. Test, Std. Deviation and Mean Difference with 95 % confidence interval of the difference were used as explained in the next Table 5.

Table 4 Tourism development measures

Tourism development variables	Symbol
1 Tourism has created jobs for our community	X1
2 Our Living standard has increased considerably because of tourism	X2
3 Tourism has given economic benefits to local people and business	X3
4 Tourism has attracted investment to our community	X4
5 Tourism has changed our traditional culture	X5
6 Tourism has resulted in noise and pollution	X6
7 Construction of hotels and tourist facilities has destroyed the environmental resources	X7
8 Tourism has resulted in positive impacts on the cultural identity of our community	X8
9 Tourism has encouraged a variety of cultural activities by the local residents	X9
10 Tourism has resulted in more cultural exchange between tourists and residents	X10

Table 5 Statistical characteristics and one-sample test

Development measures	t	df	Sig. (2-tailed)	Std. deviation	Mean difference	95 % confidence interval of the difference	
						Lower	Upper
X1	86.831	116	0.000	0.58	4.66	4.55	4.77
X2	89.460	116	0.000	0.48	4.04	3.95	4.13
X3	80.622	116	0.000	0.50	3.79	3.70	3.88
X4	93.204	116	0.000	0.47	4.11	4.03	4.20
X5	38.190	116	0.000	0.84	2.98	2.83	3.14
X6	30.562	116	0.000	0.73	2.09	1.95	2.22
X7	33.619	116	0.000	0.80	2.50	2.36	2.65
X8	60.106	116	0.000	0.68	3.80	3.67	3.93
X9	1,64,773	116	0.000	0.26	4.03	3.99	4.08
X10	95,348	116	0.000	0.53	4.67	4.57	4.77

Likert Scale (1 = Strongly Disagree to 5 = Strongly Agree)

Depending on the previous table results t. Sig. (2-tailed) equal $0.000 < 0.005$. Standard deviation of mean ranges from 0.26 to 0.84 which means that it's small mean difference range from 2.09 to 4.67 which means that most tourism development indicators are far away from the scale of disagree/strongly disagree and near to the scale of strongly agree /agree.

9.3 Distribution of Frequency of Kharga Local Citizens' Attitudes

The Table 6 presents the viewpoints of Kharga local citizens on the impacts of tourism development in Kharga Oases area according to the Likert scale.

According to the above mentioned Table 6, Local citizens of Kharga Oases have stronger positive attitudes towards tourism development in New Valley Area. The average of attitudes is 49.6 % in the scale of agree and 18.2 % in the scale of strongly agree. This result could be supported by only 10.6 % in the scale of disagree and 4.4 % in the scale of strongly disagree. However there is a quite percentage that could not decide their attitudes to be in the scale of strongly agree/agree or of strongly disagree/disagree, this percentage is 17.2 % for the scale of Neither disagree nor agree.

The majority of Kharga local citizens believe that tourism development impacts are very important and positive, as is demonstrated by the fact that the most tourism development indicators are located in the scale of strongly agree/agree, includes Tourism has created jobs for our community, Our Living standard has increased considerably because of tourism, Tourism has given economic benefits

Table 6 Tourism development measures distribution

Tourism development impact measures	1		2		3		4		5	
	No	%	No	%	No	%	No	%	No	%
X1			2	1.7			34	29.3	80	69
X2	1	0.8			9	7.8	90	77.6	16	13.8
X3			1	0.8	26	22.4	85	73.3	4	3.5
X4			1	0.85	1	0.85	96	82.8	18	15.5
X5	5	4.3	29	25	47	40.5	35	30.2		
X6	27	23.3	53	45.7	36	31				
X7	15	12.9	35	30.2	59	50.9	7	6		
X8	3	2.6	2	1.7	16	13.8	89	76.7	6	5.2
X9					2	1.8	108	93	6	5.2
X10					4	3.5	31	26.7	81	69.8
Average of Attitudes %	-	4.4	-	10.6	-	17.2	-	49.6	-	18.2

1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, 5 = Strongly Agree

to local people and business, Tourism has attracted investment to our community, Tourism has resulted in positive impacts on the cultural identity of our community and so on. So generally we can say that local citizens of Kharga oases are satisfied with tourism development outcomes.

However the future tourism development policies in New Valley area (Kharga Oases) need to concentrate on the requirements of sustainability, because a quite number of Kharga local citizens failed to decide either positively or negatively on a number of measures. As we can see from table number (3) that the scale of Neither disagree nor agree is chosen with high percentage for the following measures: Tourism has changed our traditional culture (40.5 %), Tourism has resulted in noise and pollution (31 %), Construction of hotels and tourist facilities has destroyed the environmental resources (50.9 %).

10 Conclusion

The main conclusions of this paper can be summarized as follows:

The tourism sector makes a significant contribution to the Egyptian economy, representing around 14.8 % of GDP in 2011 and 5.8 % of total employment in 2011 if only the direct effect is considered. However, when indirect effects are taken into accounts, these percentages rise to 13.1 %.

Likert scale analysis explains that Kharga local citizens have strong positive attitudes towards tourism development in New Valley area, the average of the attitudes is 49.6 % in the scale of agree and 18.2 % in the scale of strongly agree. However there is a quite percentage of respondents who could not decide their attitudes to be in the scale of strongly agree/agree or of strongly disagree/disagree, this percentage is 17.2 % for the scale of Neither disagree nor agree.

The majority of Kharga local citizens consider that the impacts of tourism development are very important and generate positive benefits for local people. That's because tourism has created jobs for local community, local citizens' living standard has increased considerably because of tourism, Tourism has given economic benefits to local people and business, and Tourism has attracted investment to Kharga local community. Also tourism has resulted in positive impacts on the cultural identity of local community; Tourism has encouraged a variety of cultural activities by the local residents and so on.

Governmental tourism development policies in New Valley area (Kharga Oases) need to concentrate on the requirements of sustainability. As the analysis of respondents' answers shows that there is a quite number of Kharga citizens failed to decide either positive or negative scale for a number of tourism development measure.

To maximize the benefits of tourism development in Kharga it's important to create local culture consciousness for the importance of taking the sustainability requirements into consideration while choosing TDP and in the stage of tourism products and services consumption.

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Residents' Perception and Attitudes Toward Tourism Impact Under Different Participation Mode in China

Jiaxue Liu, Suyan Shen and Quan Gao

Abstract Resident's perception and attitude is one of the primary contents to tourism impact studies. As one of the important stake holders, degree of local residents supporting to tourism development plays a key role. In addition to illustrating multiple dimensions of tourism impact perceptions and attitude of local residents, this research further examines the effects of residents involvement. The paper authenticates and analyzes the relational model. Three structural variables (participation, tourism impact perception and support degree of rural residents) used to build a structural equation model exploring interrelationship and influencing factors. The research provides a method for identifying tourism development effects and causes to support effectively sustainable management of rural destinations.

Keywords Rural tourism destination · Residents' involvement of rural tourism · Perception and attitude · Tourism impact

1 Introduction

Many rural communities attempt to utilize “tourism” as a major local development strategy in China. However, increasing evidence suggests that tourism development leads not only to positive, but also to negative outcomes at the local level (Lankford et al. 1994). Tourism development can not sustain in an area for long,

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unless it can really contribute to the host community. As one of the important stakeholders, degree of local residents involvement and supporting to tourism development plays a key role. Local residents' perception and attitudes toward the impacts of tourism are likely to be an important planning and policy consideration for sustainable development of existing and future tourism programs. Although many studies have been performed to identify residents' perception and attitude toward tourism impact, including dimensions and content of local residents perception toward tourism, differences of residents perception and attitude and its causes, relationship and interactive mechanism between residents perception and attitude, comparative study on different communities residents and so on, just a few have assessed relationships between involvement of local residents and residents' attitude toward tourism which is an important, yet not well understood, area of research.

For the purpose of achieving sustainable supporting, this article, taking Ganggu Village and Fujiabian Village, Jiangsu province as examples, attempts to investigate and analyze the interactive relationship between residents' involvement in local tourism development, residents' perception and attitudes to tourism impacts, further explore the relationship between rural tourism community involvement and residents' attitude. Attempts to identify the main controversies and obstacles in the process of rural residents taking part in local tourism development, pursue suitable means to balance different stakeholders' interest, provide reference for local development planning.

2 Literature Review and Conceptual Model

2.1 Resident's Perception and Attitude

Resident's perception and attitude is one of the primary contents to tourism impact studies and achievements are so great. Liu and Var (1986) suggested that tourism development is usually justified on the basis of economic benefits and challenged on the grounds of social, cultural or environmental destruction. Lu et al. (2009) indicated that tourism development may change residents' relationships to one another and to their community. It is generally felt that residents' perception toward tourism impact including economic, social, cultural and environmental impact. From the perspective of human being, residents' perception can be divided into perceived negative tourism impact and perceived positive tourism impact. According to the theory of Tourism Area Life Cycle (TALC) (Butler 1980), if negative impact of tourism development decreases, residents of tourism destinations became more positive toward tourism development. Perdue et al. (1990) proved that relationship between residents perceived profits and their supporting level are positively correlated. A number of studies in recent years have identified host residents' perception of tourism impact are assessed in terms of benefits and costs of social, economical and environmental aspects.

2.2 Involvement of Local Residents

Murphy (1985) put forward to the tourism community involvement in Tourism: a Community Approach, but not until in the middle of the 1990s, community involve tourism development attracted the attention of scholars. World Trade Organization (WTO), World Tourism and Travel Council (WTTC) and Earth Council definitely confirm that community involvement is the important part to the sustainable tourism development in Tourism in the twenty first Century Agenda. Local residents are cells of community, act as the main actor and receiver of community involvement, local residents lay the foundation to sustainable tourism development. Residents' perception and attitude toward rural tourism interacted with their involvement level of tourism. As a result of the above discussion, the following working hypotheses are presented:

H₁: rural residents' involvement positively impact on perceived benefits of tourism development.

H₂: residents' perceived benefits positively impact on the attitude of future tourism development.

H₃: rural residents' involvement negatively impact on perceived costs of tourism development.

H₄: residents' perceived costs negatively impact on the attitude of future tourism development.

H₅: rural residents' involvement positively impact on the attitude of future tourism development.

3 Method

3.1 Study Site

There are mainly two patterns of rural tourism development in China: One is government dominant model, refers to those rural destinations were planned, invested, developed, operated and managed mainly by government, and the tourism incomes also under control of government; the other is enterprises dominant model, refers to rural destinations were operated and managed by enterprises according to government's polices, tourism profits belong to enterprises these two patterns have different sponsor and profit distribution manner, leads to different community involvement patterns.

Ganggu Village located in the north part of Lixiahe area, Jiangsu province, where has a history of more than 1500 years of cultivation. Alternating of the Yangtze River and sea deposited lots of little mounds in the river. In order to resist flood, local people piled up those mounds and plant crops on it called Duotian hundreds years ago. For the purpose of prospering local tourism industry, local government direct local resident plant rape on 4,600 of Duotian in Ganggu Village, and form the famous landscape of "amazing rape flower sea of million islands."

It is one of the most well-known tourism sites in Xinghua city. Moreover, government of Xinghua City and tourism bureau invested in construction of sightseeing tower, build up more than 1,000 m long wooden footway, equipping with sightseeing wood boats and so on, to make Ganggu Village become a rural destination. According to the recent statistics, tourism revenue is about RMB 36,000,000 Yuan with 660,000 arrivals in 2011.

Fujiabian Village lies in Honglan Township, Lishui County, Jiangsu province, where the provincial hi-tech agricultural park, Fujiabian Agricultural Industry Park is located. Fujiabian Village cultivated more than 3,000 mu plum garden, millions mu strawberry garden and ecological landscape resources, each year, Fujiabian Plum festival and strawberry harvest festival attracts millions of tourists, drive the development of local farm house tourism. Tourism and leisure agriculture have become the supporting industry of local economy, statistics shows that tourists arrivals had been over 300,000 in 2008.

3.2 Survey Instrument

The items of field survey were originally derived from a comprehensive review of existing literature (Wang et al. 2011; Jorgensen and Stedman 2001). A pilot test distributed to 10 selected experts in tourism study was conducted to test the internal consistency of the questionnaire items. According to the characteristics of study sites, the final version of survey questionnaire consisted of the following major sections: the first section included questions concerned with demographic background; the second section consisted of 15 statements concerning the economic, social, cultural and environmental impacts of rural tourism; The third section included 6 statements relative to community involvement; The final section designed 6 statement to get information on overall assessment of tourism (attitude). In relation to the last three parts. The selected 37 items were rated on a 7-point Likert scale where 1 = Strongly disagree (SD) and 7 = Strongly agree (SA).

3.3 Data Collection and Analysis

About 380 questionnaires were distributed to the local residents of Ganggu Village and Fujiabian Village, Jiangsu province from October 1st to October 7th of 2012. 178 and 166 effective questionnaires were recollected later. As rural agriculture is declining in China, most young people have gone to city looking for non-agricultural jobs, majority of rural residents are senior and women with lower education. Some questionnaires was completed through in-depth personal interviews by investigators. The samples include people with different ages, residents time,

Table 1 Social characteristics of respondents in Ganggu Village and Fujiabian Village

		Percentage	
		Ganggu (%)	Fujiabian (%)
Gender	Woman	46.5	33.5
	Man	53.7	66.7
Age	15–29	22.8	7.3
	30–45	30.9	40.3
	45–64	30.9	35.4
	>65	14.5	13.9
Education	Primary school	20	13.6
	Middle school	33.6	33.9
	High school	26.4	33.1
	Collage	28.1	28.1
Length of settlement	<3	11.8	6.3
	4–10	11.8	16.9
	10–30	28.2	38.1
	>30	48.1	38.0

education level and occupation. The randomly chosen samples ensure the reliability of the study results. Reliability analysis (Cronbach's Alpha) was carried out, resulting in 0.841 and 0.884, respectively. Generally, An Alpha of 0.7 or above is considered acceptable as a good indication of reliability (Gursoy et al. 2002). Table 1 shows the social background of the respondents.

Exploratory factor analysis (EFA) was employed to derive the underlying dimensions of destination image and residents' perception. Conformational factor analysis (CFA) and SEM were used to test the conceptual model that examined the relationship among residents' perception, residents' attitude, involvement level of two study areas, then analyze and explain the results and explore the causes.

4 Results

4.1 Comparative Analysis of Attitude

Research on the residents' perception and involvement mainly focus on the attitude of residents. Residents' attitude of Fujiabian Village and Ganggu Village were measured from two perspectives: one is the desirability to participate, the other one is the supporting degree of further development of local tourism.

Comparative analysis of desire to participate, supporting further development of local tourism (showed in Table 2) indicates that, residents attitude of the two Village are slightly different. Residents of Ganggu Village were more positively than Fujiabian Village.

Table 2 Comparative Analysis of Residents Attitude of Ganggu Village and Fujiabian Village

		Percentage	
		Ganggu (%)	Fujiabian (%)
Desire to participate	1	0	0
	2	0	1.0
	3	0.9	1.0
	4	5.5	10.0
	5	8.2	11.0
	6	9.1	17.0
	7	76.4	59.0
Support further development	1	0	0
	2	0	2.0
	3	1.8	1.0
	4	7.3	10.0
	5	8.2	9.0
	6	7.3	23.0
	7	75.5	55.0

4.2 Evaluation of Proposed Model

Principle axis factoring extraction method with oblique rotation was adopted. Underlying dimensions of residents perception were derived according the rules of eigenvalue of item higher than 1, factor accumulative loadings over 60 %, items with loadings lower than 0.4 and with loadings higher than 0.4 on more than one factor were eliminated. The same EFA procedure was used to verify the underlying dimensions of residents perception of Fujiabian Village and Ganggu Village as the latent variable of residents perception.

Structural Equation Modeling (SEM) is a technique for simultaneously estimating the relationships between observed and latent variables, and the relationship among latent variables. SEM is a method that gained popularity because it combines confirmatory factor analysis and regression analysis into a single model, which is valuable for sociological, psychological and other relationship research.

The proposed model hypothesized that there were significant causal relationships among four latent variables of “perceived benefits,” “perceived costs,” “personal involvement,” and “attitude.” Standard estimated hypothetical model and indicate significance of two sites are shown in Figs. 1 and 2.

Note: I₁: i get a job from scenic area or related to tourism; I₂: my relative works in scenic area or related to tourism; I₃: my job related to tourism; I₄: i take part in the management of local tourism development; I₅: i take part in decision making about tourism development; I₆: tourism is closely related with my family. P₁: rural tourism enhance local reputation; P₂: rural tourism contribute to protect local cultural relics; P₃: rural tourism promote communication with outside world; P₁₂: tourism leads to more income; P₁₃: tourism leads to more job opportunities; P₆:

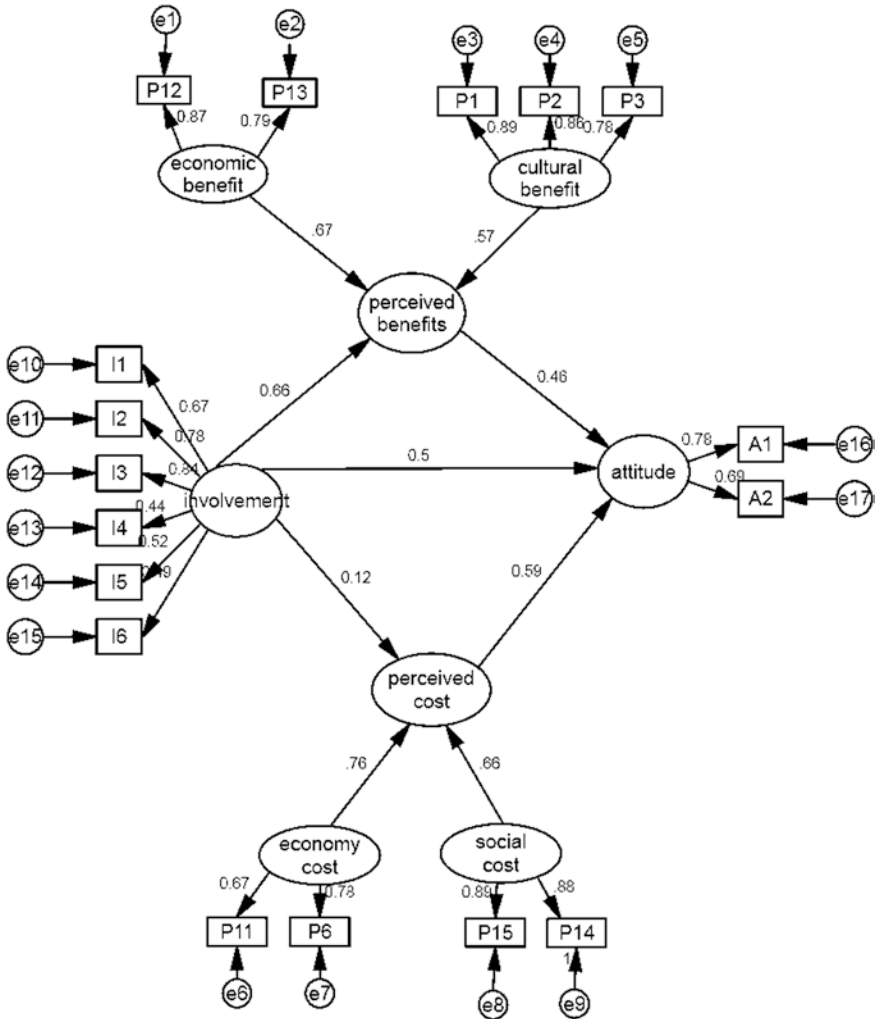


Fig. 1 Parameter estimation of structural equation model of residents support in Ganggu Village

living standard is increasing because of rural tourism; P7: Prices are increasing because of rural tourism; P14: rural tourism gives benefits to a small group of people in this region; P15: tourism development increase contradictions among neighborhood; P10: tourists make traffic situation became crowded.

As it shown in the Figs. 1 and 2 that all variables were significantly related to their specified constructs, verifying the posited relationships among indicators and constructs. Various measures of overall model goodness-of-fit and measurement model fit were assessed to determine if the proposed model can be accepted (Table 3). It showed fairly high reliability of the measurement model.

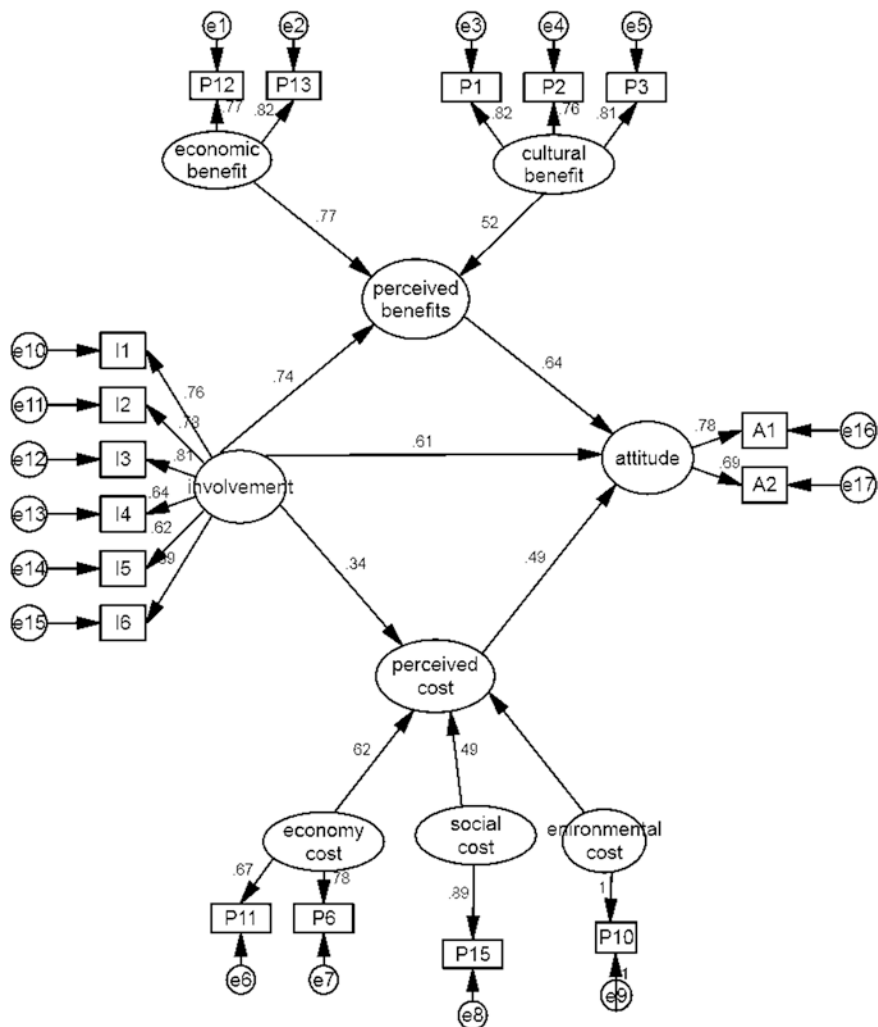


Fig. 2 Parameter estimation of structural equation model of residents support in Fujiabian Village

Table 3 Result of confirmatory analysis of structural equation model

Hypotheses	CR.		P	
	Ganggu	Fujiabian	Ganggu	Fujiabian
H1	3.987	4.786	***	***
H2	2.674	3.949	***	***
H3	3.127	2.793	0.063	***
H4	3.098	3.513	***	***
H5	2.768	2.675	***	***

During the process of path analysis in SEM, path index is the standard regression coefficient between latent variables, which reflect the degree of interacted of the latent variables. Path analysis results of sample sites and testing results are shown in Table 3 and Fig. 3.

According to the result of confirmatory analysis of structural equation model (Table 4), there are single direction between the four latent variables, which means the measurement model is a typical recursive model, in accordance with the conceptual model.

Analysis results shown that our results confirm that there is a strong relationship between residents' involvement and attitude toward tourism impact. But difference exists between Ganggu Village and Fujiabian Village. According to the path index of II–I6, residents' involvement of Fujiabian Village shows more deeply involvement than Ganggu Village. Ganggu residents' perception toward environmental cost is not as significant as residents of Fujiabian Village.

Combined with the investigation and field interviews, the history of tourism development in Ganggu Village is less than Fujiabian, because of government dominants in construction of scenic area and advertising, most income are from ticket sale, few people earn lots of money through running local restaurants and hotels and so on, most local residents receive little allowance from government, make they positively supports tourism development but have lower involvement level and supporting degree. In contrast with Ganggu Village, tourism of Fujiabian Village is dominant by enterprises, government play the role of supporting and policy directing, most local residents take part in running restaurants and hotels,

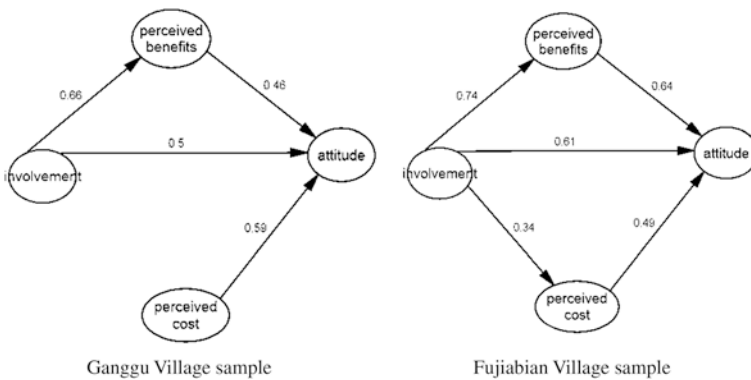


Fig. 3 Path analysis results of sample sites. **a** Ganggu Village sample, **b** Fujiabian Village sample

Table 4 The Goodness-of-Fit between Hypothetical Structural Equation Model and Revised Structure Equation Model

Index	RMSEA	RMR	GFI	NFI	IFI	CFI
Standard	<0.05	<0.05	>0.90	>0.90	>0.90	>0.90
Ganggu	0.045	0.033	0.903	0.902	0.934	0.932
Fujiabian	0.002	0.041	0.825	0.886	0.907	0.907

sealing agricultural and sideline products and so on, leads to relatively deeply involvement and results in more significant effects of community involvement.

5 Conclusion

Resident's perception and attitude is one of the primary contents to tourism impact studies. In addition to illustrating multiple dimensions of tourism impact perceptions and attitude of local residents, this research further examines the effects of residents' involvement through comparative study.

Exploratory factor analysis (EFA) was employed to derive the underlying dimensions of destination image and residents' perception. Conformational factor analysis (CFA) and SEM were used to test the conceptual model that examined the relationship among residents' perception, residents' attitude, involvement level of two study areas. Results showed that this analysis frame contribute to reveal the influence mechanism of residents' tourism support under different involvement mode.

Comparative analysis indicates that, residents' attitude of the two Village are slightly different. Residents of Ganggu Village are more positive than Fujiabian Village.

SEM Analysis suggests that there is a strong relationship between residents' involvement and attitude toward tourism impact. But difference exists between Ganggu Village and Fujiabian Village. Different involvement mode under different dominant force and profit distribution are the main causes.

Limited by time and funds, this study only carried out less than 200 residents for each sample sites, SEM analysis results needs further modified. It is necessary for us to go into investigation and consider more comprehensively.

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Analyzing Regional Rural Tourism Development with a Cognitive Mapping Approach: The Case of Jiangsu Province, China

Suyan Shen and Shaojing Lu

Abstract This paper analyzes rural tourism development in Jiangsu province of China by using a cognitive mapping approach. The cognitive maps were elicited by nine focus group interviews in different regions of Jiangsu province. Cognitive maps were analyzed by using Decision Explorer's functions for domain analysis, loop analysis, and cluster analysis. The results indicate different key issues and internal structure of rural tourism system in northern and southern region of Jiangsu province. However, current land use regulation is the common bottleneck to limit rural tourism development for Jiangsu province.

Keywords Rural tourism · Cognitive mapping · China · Policy

1 Introduction

Tourism activity in rural areas has remarkably increased in many developed countries for more than 40 years, such as France, Spain, Austria, and the United Kingdom. Rural tourism has speedily developed and become an important concept of tourism in China as well during the latest two decades (Su 2011). It is helpful to improve the rural economy and to build a harmonious society for 'previously marginalized groups' in less-developed rural regions of China (Rvan et al. 2009).

Jiangsu is an eastern coastal province of China. It has the highest population density. The per capita GDP of Jiangsu ranks first in all Chinese provinces, shown on National Bureau of Statistic of China (2011). In recent years, the rural

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tourism in Jiangsu has a wide role to play in the rural development, such as job creation, farm diversification, promotion of local food and drink, interaction of related industries, and community cohesion. However, in the process of rapid development of rural tourism, there are many problems and difficulties to limit its sustainable development, such as inadequate infrastructure, lack of scientific planning and management, low-quality products, etc. In order to improve rural tourism development further, Jiangsu Provincial Tourism Bureau started to organize and conduct the Project of Policies and Strategies of Jiangsu Rural Tourism Development in 2011. This paper presents part of the research results of this project by using a cognitive mapping approach.

Cognitive mapping is a well-established method for eliciting, representing, analyzing, and comparing complex problems (Eden 2004). It has been used as a decision-making tool in general management studies. However, little use has been made of cognitive mapping in analyzing rural tourism development.

2 Rural Tourism in Jiangsu Province

Jiangsu is divided into 13 prefecture-level divisions (prefecture-level cities) (see Fig. 1). Rural tourism of Jiangsu province began in the late of 1970s. In the middle and later period of the 1990s, the rural tourism began to develop rapidly. At present, there are nearly 4,000 rural tourism sites in rural area of Jiangsu, including the forms of “Nong jia le” (Happy farm home) tourism, folk-custom tourism, rural eco-tourism, agro-tourism, leisure farm tourism, festival tourism, etc. Table 1 lists the total number of rural tourism sites with titles awarded by different official



Fig. 1 The research region

Table 1 Rural tourism demonstration sites in Jiangsu

Titles	Official bureaus to award the title	Total number
National agricultural tourism demonstration sites ^a	China national tourism administration	124
National leisure agriculture and rural tourism demonstration counties	Agriculture ministry and China national tourism administration	3
National leisure agriculture demonstration sites	Agriculture ministry and China national tourism administration	8
National characteristics of the landscape tourist town (Village) ^a	Ministry of housing and urban-rural development of China and China national tourism administration	20
National historical and cultural town (Village)	Ministry of housing and urban-rural development of China	19
Provincial historical and cultural town (Village)	Office of housing and urban-rural development of Jiangsu province and office of culture of Jiangsu province	21

Note ^a Ranked 1st in China Mainland Provinces

bureaus in China. It indicates Jiangsu has rich rural tourism resources with great tourism value. The annual visitors are over 70 million now, accounting for about 17 % of the total visitors in Jiangsu province. People who work for rural tourism directly in Jiangsu are more than 260,000.

In the Opinions of the State Council on Accelerating the Development of Tourism Industry, it is reported clearly that China will continue to make people rich by rural tourism. Jiangsu Provincial Tourism Bureau drafted the Criteria for Classification and Evaluation of Jiangsu Provincial Rural Tourist Area (Spots) in 2009. Jiangsu Provincial Bureau of Quality Supervision officially promulgated and implemented it as the provincial standard in 2010. These regulations and standards improve Jiangsu's rural tourism development theoretically and practically. However, there are still many problems and limitations for developing rural tourism in practice for Jiangsu. What has been achieved at present? How achieved? What is considered important in policy and why? What are the problems? How to solve the problems by making new policies? This paper investigates these questions.

3 Methodology

3.1 Cognitive Mapping

Cognitive mapping alludes to an individual's ability to construct a mental representation of the geographical or spatial environment (Blades et al. 1999). It emphasizes on spatial cognition of the environment. However, the use of map-like constructs has been transferred to other domains to visualize how people

conceptualize, simplify, and make sense of complex problems (Huff and Fletcher 1990). Cognitive mapping has been extensively used in various areas of operations research and general management studies (Axelrod 1976; Eden 1992; Fiol and Huff 1992; Huff and Jenkins 2002; Kwahk and Kim 1999; Liu and Sature 1999; Heijden 2005). However, most of research on tourism and cognitive mapping has focus on visitors' spatial understanding of an environment in order to better study tourist behavior (Farsari et al. 2010). There are only a handful of studies using cognitive mapping as a management tool to understand tourism management (Copland et al. 2004; Farsari et al. 2010, 2011; Xiang and Formica 2007). Although there is a growing interest in using cognitive mapping in tourism research (Kahle 2003), very limited work has applied this approach to analyze tourism development and examine tourism policies and strategies in the context of Chinese regional rural tourism.

For analyzing tourism development, cognitive maps or models can be elicited by a set of concepts and relationships, which can reveal an individual's perception of the problem examined (Eden 2004). Concepts are the elements of the cognitive map. The relationships are represented by arrows pointing from one concept to another to the direction of the relationship. For example, a link between concepts A and B ($A \rightarrow B$) means that A may have an effect on B or A may lead to B (Farsari et al. 2010). It is useful for structuring and exploring complex problems and can help decision makers to make better inferences of nonlinearity involved system (Rosenhead and Mingers 2001).

3.2 Data Collection

Qualitative and quantitative approaches are two basic types in cognitive mapping. The qualitative approach focuses on using the representation of concepts and relationships in the cognitive map to provide rich description of the perception of the subject being studied (Xiang and Formica 2007). Compared with quantitative approach, qualitative approach is relatively easy to see how each of the concepts and relationships relate to each other as well as the overall structure of the whole set of portrayed assertions. The most popular method for collecting data in cognitive mapping was face-to-face, semi-structured, in-depth interviews (Farsari et al. 2011). Interviewees can be asked directly about their "thoughts." Moreover, such qualitative data can be well documented and supported by some special software that allows the drawing and detailed analysis of the cognitive maps. In order to make the interviews more inexpensive and efficient, the cognitive mapping method used in this research was based on several focus group interviews. A focus group is a form of qualitative research in which a group of people are asked about their perceptions, opinions, beliefs, and attitudes toward a product, service, concept, idea, or policy (Naomi and Henderson 2009).

Nine focus group interviews were conducted in March of 2012 at nine sub-regions of Jiangsu province of China, namely, Lianyungang, Xuzhou, Suqian,

Huai'an, Nantong, Suzhou, Wuxi, Changzhou, and Zhengjiang. Key persons in the focus group interviews are stakeholders of rural tourism, such as local farmers, rural tourism operators, and related officials. All individuals were initially contacted with E-mails providing information on the purpose of the research and main questions which may be asked in the interviews. Focus group interviews ranged from 30 min to 2 h, with the usual duration of about an hour. Respondents were free to talk first. And then questions were asked to elicit issues and relationships. For example, "Why is this considered important for local rural tourism development?" and "What kind of problems did you meet when developing local rural tourism?" Interviewees were encouraged to talk specifically about concrete policies of their own agency at the time of interview, as well as their personal suggestions and recommendations. Nine focus group interviews were recorded, transcribed, coded, and redrawn on a computer using special cognitive mapping software (Decision Explorer Version 3.3).

3.3 Data Analysis Method

Considering the similarity and differences of economic and rural tourism development within Jiangsu Province, two cognitive maps were identified to describe policies of rural tourism in the region. One for the northern region and one for the southern region (see Fig. 1). An example of the resulting two cognitive maps is shown in Fig. 2. Two maps were analyzed by using Decision Explorer's functions for domain analysis, loop analysis, and cluster analysis.

Domain analysis calculates the total number of input and output arrows of the immediate surrounding of a concept, which can reveal the key issues. Loop analysis is to identify both negative and positive feedback mechanisms, which are considered

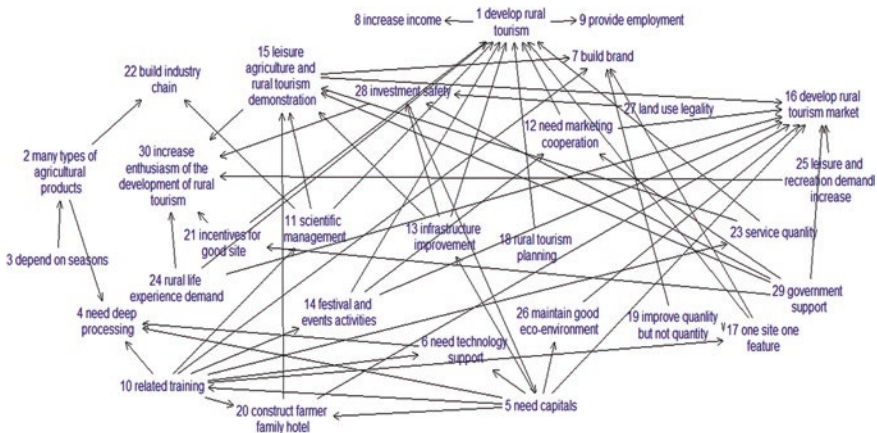


Fig. 2 An example of mape

important in policy formulation. Cluster analysis is to reveal groups of related concepts representing aspects of policies within a cognitive map (Farsari et al. 2011). Comparisons of different maps' properties can reveal the extent to which individuals construct the domain being investigated in a similar way to one another.

4 Findings and Discussion

4.1 Key Issues in Rural Tourism Development

Domain analysis is based on the premise that the more the concepts linked directly or indirectly in a concept, either as input or output links, the more important the concept is. The result of domain analysis for northern Jiangsu cognitive map shows that "related training," "develop rural tourism market," "need capitals," "government support", and "investment safety" are listed as key issues for rural tourism development. Cognitive map for southern Jiangsu area reveals that "extend visitor's stay time," "improve accommodation environment," "mine traditional culture," "standard tourism operation," and "new land use policy" are key issues. These key issues revealed from domain analysis also emphasize the weakness and important aspects for current rural tourism development in different area of Jiangsu province. It indicates that northern Jiangsu and southern Jiangsu area are in two different phase of rural tourism development. Northern Jiangsu area is still in the initial and developing phase, while southern Jiangsu in the mature phase. In fact, rural tourism in southern Jiangsu areas developed much earlier than that in northern Jiangsu area. Due to rapid economic development in 1990s–2000s, southern Jiangsu areas have enough capitals for rural development. And it has a good tourist market because of its location, Shanghai on the east and Zhejiang on the south, which are both main tourism market in China. Nowadays, stakeholders of rural tourism in southern Jiangsu province pay more attention to culture and standard operation issues.

It is obvious that most operators and owners of small rural tourism business lack management and marketing skills in running an efficient business. It is the fact that most of them have been little educated in culture, service, and technical training, which is especially the case for the less-developed rural areas of northern Jiangsu province. Necessary training is the most needed for the farmers. Capitals and market are another two key aspects to limit rural tourism in Northern Jiangsu.

4.2 Internal Structure of Rural Tourism Policies

Cluster analysis of cognitive maps explores the subsystems and their internal structure. After cluster analysis, the results show that there are three clusters in cognitive map of northern Jiangsu area and two clusters in cognitive map of southern Jiangsu area. Clusters of different sizes and different degrees of interrelatedness to other clusters (subsystems) were identified based on the relationships between the

concepts. For example, in cognitive map of southern Jiangsu, “explore traditional rural culture” is the most densely related cluster to the other cluster contributing to soft environment areas such as “need human resources in management and marketing aspects,” and “rural tourism planning.” In northern Jiangsu cognitive map, “need capitals,” “need related training,” and “efforts in agricultural and rural tourism demonstration sites” are the most densely related cluster to the others.

Loops are important to conceptualize causations and investigate feedback mechanisms (Axelrod 1976). The cognitive map for southern Jiangsu area examined in the present research is characterized by the absence of loops. As explained by Farsari et al. (2011), mental model is simpler than reality and thus sustainable rural tourism policy can be much more complex than what has been mapped. Policy makers tend to rationalize and conceptualize the policy domain. The loop analysis of the cognitive map for northern Jiangsu area shows that it contains one loop. Three concepts, “need capitals,” “improve infrastructure,” and “safety environment of investment,” form a loop. As far as the mental model concerned, making policies to create safety environment for investment is the most important for improving rural tourism in northern Jiangsu area. Land use policy has the most important effect for the safety environment of investment. The existing system of collective village ownership and current illegal land use way (farmland for construction) cannot provide safety perception for investors.

5 Conclusion

This research has examined the perceptions of stakeholders in Jiangsu province of China about rural tourism development. It has contributed to current studies of rural tourism by analyzing policy issues and their interrelationships in a case study using a cognitive approach. Considering, the regional differences with Jiangsu province, two cognitive maps have formed by nine focus group interviews. Given time constraints and availability of a second meeting arrangement, the cognitive maps have not been redrawn or commented by former interviewees. Nevertheless, this study reveals the complex of rural tourism system by defining the elements (concepts) and the relationships of the system under investigation. The multiple analysis techniques were employed in the cognitive mapping method. The results indicate that northern Jiangsu area and southern Jiangsu area are in different development phase of rural tourism. Rural tourism in northern Jiangsu area is still in the initial stage, while that of in southern Jiangsu area in mature stage. Stakeholders in southern Jiangsu area pay much more attention to extend visitor’s stay time. Accommodation is the key issue for improving rural tourism further. Among many elements to limit accommodation development, land use issue is the most important one. To develop rural tourism in northern Jiangsu area, market, land, and capitals are the key problems to solve. Therefore, the key issue to limit rural tourism development in Jiangsu province is the current land use system in China. Useful information can be provided to policy makers.

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A Comparative Research on Industrial Features Between Festivals and Exhibitions in China

Xiaomin Wang and Guangquan Dai

Abstract With content analysis method, this paper analyzed information of 2,276 festivals and 630 exhibitions from November 2006 to June 2008 in China, which was collected from consecutive subscription of Google Gmails that contained message about Chinese festivals information. Regarding festivals and exhibitions as two different independent populations, the industrial features were compared, such as the index of seasonal concentration, the time duration, the index of industry concentration, and the influencing scale. Results of this paper show that in terms of temporal distribution the festivals were more dispersed among different seasons, and festivals lasted for a longer time than exhibitions. In terms of influencing scale, both of the scales of festivals and exhibitions showed a feature of “two head is large, the intermediate part is small” (the proportion of regional festivals and exhibitions are lower than that of national and local ones). In terms of industry distributing festivals were more concentrated than exhibitions.

Keywords Festivals · Exhibitions · Industrial features · Seasonal concentration · Time duration · Industrial concentration · Influencing scale

1 Introduction

Amount, variety and popularity of festivals and special events, which were developed or being actively developed as leisure and cultural pursuits for residents, as well as for their economic and community development benefits, has

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been growing enormously in recent years (Gursoy et al. 2004). Entering the twenty-first century, a lot of FSE (festivals and special events) have been held in China, such as the Shanghai Expo, the Beijing 29th Olympic Games, Guangzhou Asia Games and Shenzhen College Students' Games, and so on. FSE, having promoted the regional and city's development, are becoming the new impetus to the tourism industry in China.

Being two important parts of the FSE, Festivals and exhibitions have essential differences. Getz classified FSE into twenty different typologies, such as cultural celebration, heritage commemoration, performing art, and so on, and the festivals and the exhibitions were just two categories of them. Getz thought that festivals, being social and cultural phenomenon, were themed, public celebrations, and exhibitions, being divided into Trade and Consumer Shows, were providing a chance for producers to test, sell their products (Getz 2007). As Getz believed that the term "festival" was overused, and it was often used in the same way as "having a good time" (Getz 2007), this paper classified the "festivals" that were open, public, and nonprofit into a total population. Based on the analysis above, the development of festivals would be closely related to natural environment, cultural phenomenon, local culture, and so on; while exhibitions should be closely related to location and consumer market, and so on. As different characteristics of festivals and exhibitions would result in differences of industrial features, comparing and analyzing these differences is helpful to manage festivals and exhibitions.

2 Background

It is in the 1980s when the study of events in the papers and monographs emerged, and events study became more active and thorough in the 1980s. Now research contents of FSE wildly involve, including events definition, concept system and classification, event tourists, events design and management, image formation and destination branding, policy, effect and evaluation of events, factors affecting attendance, stakeholders, consumer-consumer interactions, family decision-making, gender differences, professional associations, and venue selection, interdisciplinary research of event industry and so on (Ritchie 1984; Getz 2010, 1997; Crompton and McKay 1997; Yu et al. 2005; Getz 2008). Results of these researches mainly concentrate in the media, popular culture, public relations and leisure tourism and many other fields (Dai and Bao 2003).

At present, the study of industrial features of FSE has drawn some researchers' attention. In the Google academic search, entering the festivals/exhibitions industry, thousands of records can be found (entering "exhibitions industry," more than 117,000 records found). However most of these records are about the economic effect of festivals or exhibitions, the development, management and evaluation of festivals or exhibitions, and so on. There are just few scholars who study the industrial feature differences between festivals and exhibitions. There are some scholars who study the differences among different kind of festivals or exhibitions.

Tommy D. Andersson and Donald Getz studied the differences between private, public and not-for-profit festivals. They discussed important policy and management implications of tourism. Four samples of festivals from the UK, Australia, Norway and Sweden were systematically compared in terms of their ownership, governance, structure, and content. They found that although the festivals offered a similar product and had similar mandates, they differed considerably in terms of revenue sources, cost structure, use of volunteers, corporate sponsorship, and decision-making (Andersson and Getz 2009). Herbig et al. compared non-exhibitors and exhibiting firms, examined major differences between the two groups, and provided a profile of non-exhibiting firms. They finally offered some tips around when to, and when not to, exhibit and aspects to increase exhibit effectiveness (Herbig et al. 1997).

In China, the FSE study appeared relatively late. In 2003 and 2004, Dai and Bao wrote articles on the development of FSE and FSE tourism research in western countries, conducting a comprehensive review of these domains (Dai and Bao 2003, 2004). Yu et al., with the review of China's FSE researches, found that the contents mainly concentrate on the following four aspects in China: the definition, development and management of the festivals, economics analysis of festivals, festival events operation mode (Yu et al. 2005). On features of FSE, Yu et al., basing on the analysis of 436 City FSE samples, developed the spatial distribution map of the city festivals, and observed patterns of festival spatial distribution in China's cities (Yu et al. 2004). Dai and Chen studied the spatial and temporal distribution of China's exhibition industry with the content analysis method (Dai and Chen 2010).

Currently there are few scholars who study differences of industrial characteristics between festivals and exhibitions. In China, Chai et al., basing on the theoretical analysis and experts' opinions, analyzed the differences of influencing factors between exhibitions, conferences and festivals (Chai et al. 2010). However Chai Shousheng's study was just a theoretical analysis, without actual case or data verification. Tommy D. Andersson and Paul Herbig studied the industrial features differences, but their researches were confined to the festivals, without comparing the differences between festivals and exhibitions. Based on the former research mentioned above, this paper studies the differences of industrial between festivals and exhibitions.

3 Research Design and Data Sources

3.1 Research Design

In order to describe and compare the industrial features of festivals and exhibitions, some variables would be introduced. As temporal factors can produce large differences to the developments of festivals and exhibitions, the concentration and duration of time are analyzed. Excessive time concentration will bring a series of negative effects. For example, during the busy season reception facilities can not meet people's demands, which would result in negative impression to the hosting

regions, while during the off-season, with few tourists, tourism enterprises would face poor performance. As the activities which last for a relatively longer time can bring greater economic benefits, the research of time duration is also significant. Based on the analysis above the two variables, seasonal concentration index and time duration, are introduced.

With all of the festivals and exhibitions being classified into the traditional industries, the industry distribution, which can describe the development of the festivals and exhibitions in different industries, are analyzed and the industry concentration index are calculated. In addition the influencing scales of festivals and exhibitions are also compared.

3.2 Data Sources and Data Processing

With content analysis method, this paper collects the information of festivals and exhibitions which were held during November 2006 and June 2008 in China. Bing a scientific research method for analyzing literature content, Content analysis is considered to be objective, systematic, quantitative (Krippendorff 1980), it is used to construct and measure the variables for the purpose of the research (Li 1999). Common content analysis methods include (Zou 2006): (1) the interpretation content analysis method, which is a kind of intensive reading, understanding and interpretation of the text to convey the author's intention; (2) the experimental content analysis method, which combines qualitative and quantitative content analysis, divides the text content into a certain category, calculates each type of element occurrence frequency, and describes the apparent content characteristics; (3) the computer content analysis, which has advantage of speed and accuracy in data collection, storing, editing and sorting process. This paper, integrating the three methods above, extracts related-data from webpages, and constructed a SPSS database.

Based on the general principles of content analysis, this paper selected Internet webpages which contain information, such as the "Festival," "Tourism Festival," and "FSE," and research data was extracted from this webpages. Data extractions were done by the following steps: (1) from November 2006 to June 2008, inspected the 3,238 subscribed Google Gmails one by one, which contained festivals or exhibitions news, such as "Google News-Festival," "Google News-Tourism Festival," "Google News-FSE"; (2) selected 2,276 festivals and 730 exhibitions from the webpages as the object of study; (3) the festival webpages information was analyzed by content analysis method, and some data was updated for the latest information.

With the statistical software SPSS15, industrial characteristics of the festivals and exhibitions are compared in this article. As seasonal concentration index, industry concentration index and time duration variable are calculated by province and each province has two corresponding values (festivals' and exhibitions'), this paper will adopts "Paired-Sample T Test" to compare the difference of festivals and exhibitions.

4 Research Content and Found

4.1 *The Comparing of Seasonal Concentration*

In terms of time concentration, this paper introduces the index of seasonal concentration, which can be calculated by follow formula:

$$R = \sqrt{\sum_{i=1}^{12} (xi - 8.33)^2 / 12}$$

In the formula, Xi accounts for the proportion of activities (festivals' or exhibitions') of each month throughout a year (for example if the proportion of festivals in a month throughout the year accounts for 5 %, then Xi is 5). "8.33" shows if all the activities are distributed averagely in one year, and the average proportion for each month is 8.33 % (100 % divided by 12). Based on the analysis above, it seems if the value of R is close to zero, the activities are more dispersed among deferent months; and if the value of R is great, the activities are more concentrated.

The number of festivals and exhibitions of each month are accounted by province firstly, and some festivals or exhibitions are excluded for the lack of seasonal information. The statistics show the rate of seasonal information loss of the festivals is 8.2 %, and the rate of exhibitions is 8.5 %. With the qualified records of festivals and exhibitions, this article calculates seasonal concentration index of festivals and exhibitions.

Data show that the values of seasonal concentration index of festivals between different provinces range from 4.65 to 7.98, and values of exhibitions range from 3.76 to 27.64. The statistics show the exhibitions' values of the top 7 are above 18, which are far greater than other provinces (most values of other provinces are less than 10). The reason may be that the records of exhibitions in those provinces are too less, such as Tibet, Xinjiang, Gansu, Guizhou, Ningxia, Qinghai, Macao (having the top 7 values, the number of the exhibitions in these provinces are less than 3), so those 7 provinces above are excluded. Besides the number of festivals in Taiwan and Hongkong is 7, much less than other provinces, so Taiwan and Hongkong are also excluded.

With 25 provinces left, making all of the provinces ranked by the value of seasonal concentration index of festivals (from big to small, Fig. 1), it seems that most values of seasonal concentration indexes of exhibitions are greater than that of festivals. However regular change can not be found, for example the province with a great value of festivals does not necessarily mean a great one of exhibitions, and the converse is also true. There are also no regular differences among East, the Central and West, for example, in each of the three regions there is at least one province in the top 5.

With the "Paired-Sample T Test," the statistics show the average values of Seasonal concentration indexes of festivals and exhibitions are 5.57 and 8.84 respectively. It seems that the seasonal distribution of festivals is more dispersed

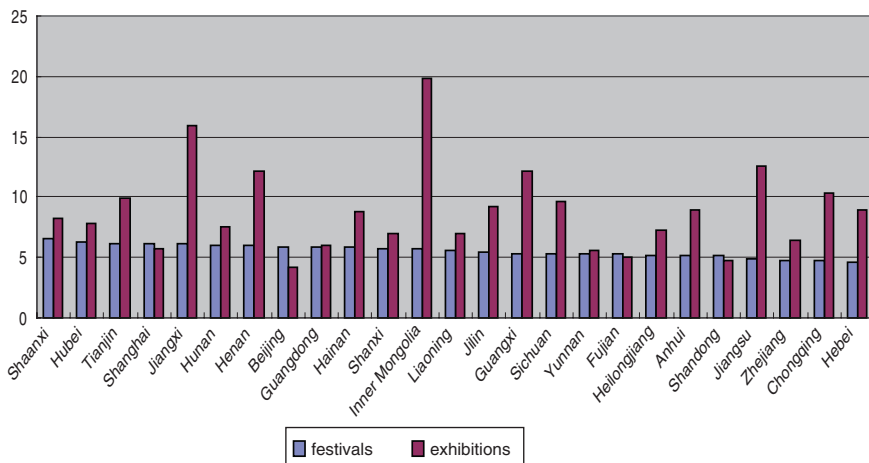


Fig. 1 The comparing of seasonal concentration of festivals and exhibitions by provinces

than that of exhibitions. In order to verify this conclusion, this paper proposes the following hypothesis:

Hypothesis one:

H₀: the means of seasonal concentration index values of festivals and exhibitions are equal.

H₁: the means of seasonal concentration index values of Festivals and exhibitions are unequal.

With the “Paired-Sample T Test” method, the results show that difference of means of festivals and exhibitions is 3.27, the value of p is 0, less than the significant level of 0.05, so the original hypothesis should be refused (Table 1).

The result indicates that the means of seasonal concentration index values of festivals are less than that of exhibitions, so it can be concluded that the seasonal distribution of festivals is more dispersed than that of exhibitions. The reason of this phenomenon may be that the development of festivals is related with folk customs and religions, which are various and distributed among different regions in Chian. However the holding of exhibitions may be highly related with the busy seasons of sale, production or consumption, so the seasonal concentration of exhibitions tends to be more concentrated.

Table 1 Classification by festival scale in different areas

Location	International (%)	National (%)	Regional (%)	Local (%)	Community (%)	Total (%)
East	47.67	34.89	7.14	9.91	0.40	100.00
Central	49.47	36.79	4.86	8.25	0.42	100.00
West	35.58	42.65	8.14	13.63	0.00	100.00
Total	44.75	37.47	6.89	10.55	0.29	100.00

4.2 The Comparison of Time Duration

For the lack of time duration information, 775 festivals and 217 exhibitions are excluded, the loss rates of festivals and exhibitions are 34.1 and 34.4 % respectively. In order to improve the accuracy of analysis, this paper excludes some provinces, and there are 21 provinces left (Table 2).

With the days of duration of festivals or exhibitions, and the amount of festivals and exhibitions in each province, the average time duration of festivals and exhibitions can be calculated. Statistics show that the average value of time duration of festivals is 17.60 days, and the differences between provinces are relatively large: time duration value of festivals in Sichuan province is 39.68 days (the longest one), and the shortest one is 5.33 days (Hainan province). The average time duration value of exhibitions is 4.62 days, and the longest one is 11.47 days (Liaoning province), the shortest one is 3.20 days (Anhui province). It also seems that there are no regular differences of time duration among East, the Central and West. For example in each of the three regions, there is at least one province in the top 5 (Fig. 2).

It seems that the value of time duration of festivals is greater than that of exhibitions, In order to prove the conclusion above, we propose the following hypothesis:

Hypothesis two:

H₀: The means of time duration values of festivals and exhibitions are equal.

H₁: The means of time duration values of festivals and exhibitions are unequal.

Table 2 Classification by exhibition scale in different areas

Location	International (%)	National (%)	Regional (%)	Local (%)	Individual company (%)	Total (%)
East	56.69	15.57	8.27	18.00	1.46	100.00
Central	32.20	31.36	10.17	25.42	0.85	100.00
West	47.83	18.84	17.39	15.94	0.00	100.00
Total	50.84	19.06	9.70	19.23	1.17	100.00

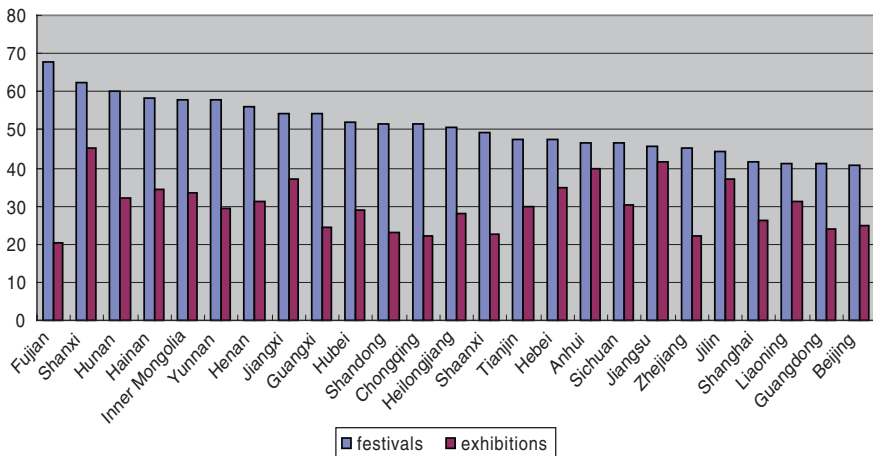


Fig. 2 The comparing of industrial concentration of festivals and exhibitions by provinces

With the “Paired-Sample T Test” method, the results show that the value of p is 0, less than 0.05 significant level, the original hypothesis should be refused, and it means that time duration of festivals is significantly longer than that of exhibitions. The reason may be that with relaxed atmosphere people prefer to stay longer in festivals. For example the “2007 Sichuan Cuisine and Beer International Festival” lasted for about 150 days. Nevertheless, as people pay more attention to cost and efficiency in exhibitions, want to complete all task in a short time, the time duration of exhibitions is shorter relatively.

4.3 *The Comparison of Scales*

This paper classifies the scales of festivals and exhibitions by five categories respectively, “International”, “National,” “Regional,” “Local,” and “Community” (“Individual company”). With 228 festivals and 32 exhibitions are excluded for lack of scale information, the loss rate is 10.02 % and 5.08 % respectively. In all classifications of the 2,048 Festivals, “International festivals” accounts for 44.75 %, the proportion of “National festivals” is 37.47 %, “Regional festivals” is 6.89 %, “Local festivals” and “Community festivals” is 10.55 % and 0.29 % respectively.

The statistics show that the “International exhibitions” accounts for more than half of the total (50.84 %), and the ratios are slightly different among East, the Central and West. The proportion of “International exhibitions” is the highest one in East (56.69 %), followed by the western (47.83 %). Although the ratios of “Individual companies” in all of the three regions are low, but it seems that this kind of exhibitions tends to be more concentrated in Eastern.

It is found that both of festivals and exhibitions show a feature of “two head is large, the intermediate part is small” (the proportion of regional festivals and exhibitions are lower than that of national and local ones). The reason may be that after being held for many years, activities, with high impact, evolve into international and national ones; and those, with low impact, gradually evolve into local ones. However the number of regional activities reduces for coordination between cities is difficult, and the cost is higher than that of local ones, and the reputation is lower than that of the internationals and nationals.

4.4 *The Comparison of Industry Concentration*

For comparing the concentration of industry this paper introduces a index, which can be calculated by the following formula:

$$G = 100^* \sqrt{\sum_{i=1}^n \left(\frac{x_i}{\bar{T}}\right)^2}$$

In this formula “ X_i ” is the number of activities (festivals or exhibitions) in the “ i ”th industry, “ n ” is the number of the total industries, (with 98 industries in this paper), “ T ” is the number of festivals or exhibitions. If the value of “ G ” is close to 100, the industry concentration is high, and if the value is close to 0, the industry concentration is low.

To compare industry distribution, this paper classifies all of the festivals and exhibitions into traditional industries. The statistics show the loss of festivals are 425, accounting for 18.7 %, and the loss of exhibitions are 3, accounting for 0.4 %. Cause of high industry information loss of festivals may be that the industry information of festivals is not outstanding, and the industry of a festival can be classified into any kind, such as “China Weihai International Habitat festival.”

There are 25 provinces left for comparing analysis of industry concentration. The statistical results show the top 10 industries of festivals are “Arts and culture industry” (accounting for 43.8 %), “Agriculture” (17 %), “Entertainment” (9.2 %), “Sports” (8.4 %), “Forestry” (4.8 %), “Fisheries” (2.5 %), “Food manufacturing industry” (2 %), “Beverage manufacturing” (1.7 %), “Catering” (1.6 %), and “Agricultural and sideline products processing” (1.1 %). The top 10 industries of exhibitions are “Transportation equipment manufacturing” (8.93 %), “Real estate” (8.77 %), “Arts and culture” (7.97 %), “Manufacture of artwork and other manufacturing” (5.26 %), “Agricultural and sideline products processing” (5.10 %), “Textile and garment, shoes, hat manufacturing” (4.15 %), “Telecom and other information transfer services” (3.83 %), “Manufacture of electrical machinery and equipment” (3.67 %), and “Commercial and service Industry” (3.51 %).

Statistical results show that the proportion of the top 10 of festivals is much higher than that of the exhibitions, the proportion of “Culture and the arts” is in a position of absolute advantage in festivals, followed by “Agriculture,” “Entertainment,” and “Sports.” However with no one industry accounting for more than 10 %, industry concentration of exhibitions is seemed to be relatively dispersed. Besides in East, the Central and West, there are almost no changes on order among the top five industries of festivals, while the changes of order of exhibitions are relatively great.

With the “Paired-Sample T Test” method, the statistical results show that the means of industry concentration indexes of festival and exhibitions are 50.86 and 30.19 respectively. It seems that the value of festivals is higher than that of exhibitions. Based on the analysis above, this paper puts forward the following hypothesis:

Hypothesis four:

H_0 : The means of industry concentration variables values of festivals and exhibitions are equal.

H_1 : The means of industry concentration variables values of festivals and exhibitions are unequal.

With the “Paired-Sample T Test” method, the testing results show that the mean difference of industry concentration of festivals and exhibitions is 20.67, and the value of P is 0, less than the significant level of 0.05, so the original hypothesis should be excluded. The result indicates that industry distribution of festivals is more centralized than that of exhibitions. The reason may be that most of festivals are concentrated in the “Arts and culture industry.”

5 Conclusions and Discussion

5.1 *The Conclusions*

Seasonal concentrations, time durations, industry distributions, and influencing scales of festivals and exhibitions are analyzed and compared in this paper. With space limitations, this paper does not analyze other characteristics. This article, employing the webpage content analysis method, obtains records of 2,276 festivals and 630 exhibitions; and introduces some variables, which make the empirical analysis possible, such as the concepts of seasonal concentration, industry concentration index and so on. The research results show that in terms of seasonal concentration, festivals are more dispersed, and the time duration of festivals is significantly longer than that of exhibitions. In the comparison of influencing scale, both festivals and exhibitions show a feature of “two heads are large, the middle part is small.” In terms of industry concentration, the festivals are more concentrated than exhibitions.

5.2 *Inadequate and Prospect*

With webpage content analysis, this article collects information of festivals and exhibitions, which were held from November 2006 to June 2008 in China. The fact that not all of Festivals and exhibitions would be disclosed on the Internet may influence the analysis results. At the same time loss of information of festivals and exhibitions also produces a side effect to this paper. In addition, the data collection only lasted for one and a half years, without 3 complete and consecutive years, the change trends of features cannot be analyzed in this paper. Later researchers can take a further research in breadth and depth. For example, as a further temporal distribution research a shorter time cycle (by month or by week) can be divided. In addition further analysis of reasons, such as the cause of industrial differences between festivals and exhibitions, can also be explored.

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A Study on College Students' Motivation for Leisure Travel in Macau

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Abstract The youth tourist market in Macau is currently promising, as the number of college students is increasing every year, and these college students are potential customers in this market. The General Secretary of the Federation of International Youth Travel, Peter DeJong, pointed out that the actual consumption of young tourists has reached a high-end standard because of their long travel cycle, their high degree of environmental awareness and their courageousness to explore new environments. In particular, the per capita consumption is much greater than the economic benefits created by those who stay in five-star hotels “high-end tourists.” By promoting and developing this market, the related tourism enterprises could be structured to enhance a comprehensive and sustainable development in Macau’s tourism industry. The main focus of this research is to study college students’ motivation for leisure travel in Macau. The model of pull and push suggested by Dann (1977) was employed in this study to investigate college students’ motivation for leisure travel. The findings showed three categories in the push factors; a esthetics, learning, and self-actualization. Pull factors included the ability to find hygienic and comfortable accommodation and delicious food as two priority concerns while choosing a tourist destination. Finally, it is hoped that these findings can provide some possible recommendations to the tourism industry in Macau.

Keywords Leisure tourism · Travel motivation · Youth market · High-end tourists · Sustainable development

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1 Introduction

Since the establishment of the Macau Special Administrative Region, the Macau economic situation is growing increasingly. Due to gambling rights changes, tourism and related industries have benefited. Macau, the so-called “Monte Carlo of the Orient,” has an economy that relies heavily on gambling. However, the gambling industry is also a source of instability in the Macau economy, as the nature of gambling businesses is not susceptible to technological advancement or productivity growth. It’s reliance on single economic development, could cause a crisis in Macanese economy. In recent years Macau has attempted to divert itself from developing single economies through gambling to focus more on culture and humanity since its heritage was recognized in world heritage in 2005. Since 2008, the Chinese government has decided to develop Macau as the tourism and leisure center of the world. Essentially, Macau is attempting to develop itself to be one of the best tourist destinations to increasingly attract national and international tourists.

According to the statistics of the Macau educational department, there were 32,543 college students in 2011 in comparison with 32,312 in 2010 and 31,249 in 2009. It is evident that increasing number of students has been studying in Macau in recent years based on the successful promotion of the higher educational policy. Employing professionals from worldwide acclaim and developing its international image, Macanese education wins its own reputation and attracts more Chinese students to choose Macau to pursue their higher education. As a result, the youth travel market consists of not only Macanese college students but also the mainland Chinese students. For example, there were 17,296 Macanese students and 15,248 mainland students in 2011.

Most research focuses on the issues of tourism development and management in Macau; however, little has been done to consider the tourism market for young adults. In developing a serial plan on the promotion of the tourism industry in Macau, the youth market should not be neglected. Currently, increasing numbers of college students are studying in Macau every year. In the near future, those Macanese college students will become the main trend of society. In other words, these college students are about to formally enter into society and become the new social strength. Leisure travel helps enhance students’ social and rational cognition, personality, enhance the international vision, cultivate esthetic ability, and improve their comprehensive quality. Exploring college students’ motivation for leisure travel in Macau allows the tourism enterprises and related departments to promote a comprehensive and sustainable development of leisure tourism. Therefore, it is important to explore what the motivations of college students are and to facilitate the government in improving its policy on the youth market.

The purpose of this research focuses on college students’ motivation for leisure travel in Macau. The aim of this research is to employ the motivation factors to explore college students’ motivation for leisure travel. In order to achieve the goals of this research, the research questions were designed as follows:

What are the leisure travel features of college students in Macau?
What factors motivate college students to travel?
Which features of a destination encourage students to visit it?

2 Literature Review

Motivation has been defined as biological and psychological needs and wants. (Dann 1981; Pearce 1982; Uysal and Hagan 1993). Travel motivation refers to a set of needs that motivate a person to take part in a tourism activity (Pizam et al. 1979). Kozak (2001) suggests that an empirical examination of tourist motivations is essential because it helps to identify the attributes of tourist destinations to match tourist motivations. This helps to identify markets which encompass such destination features.

Most human behaviors can be predicted by inner motives as “internal stimuli,” for example, personal needs or desires, which guide people to reach their goals, and external motives such as environmental and social factors, which draw people’s interest (Gleitman 1986; Iso-Ahola 1989) to fulfill their intentions. Similarly Dann (1977) indicated while a specific resort may contain a number of attractions for a number of potential tourists, their actual decision to visit such a destination is resultant from his earlier need for travel. According to Crompton (1979), most tourist motivation is related to travelers’ decisions on choosing destinations which involve the concept of push and pull factors. These factors explain how individuals are pushed by internal variables, and how they are pulled by a travel destination (Uysal and Hagan 1993). As a result, an examination of “push” factors is thus logically, and often temporally antecedent to that of “pull” factors (Dann 1977). In short, tourists are pushed and pulled by some sources of inherent forces. Individuals are pushed by motivation variables into making travel decisions and are pulled by destination attributes (Uysal and Hagan 1993).

The push factors are socio-psychological motives and include tourist’s desires such as the desire for escape, novelty seeking, adventure seeking, dream fulfillment, rest and relaxation, health and fitness, prestige, and social interaction, family togetherness, and excitement. Most push factors originate from intangible or intrinsic desires of human beings (Uysal and Jurowski 1994; Chon 1990; Crompton 1979). Several studies have been conducted from such perspectives (Crompton 1979; Dann 1977, 1981; Iso-Ahola 1982, 1989; Pearce and Caltabiano 1983; Pyo et al. 1989; Uysal and Hagan 1993; Yuan and McDonald 1990). The push motivations have deemed useful in explaining the desire to go on a vacation, while pull motivations have deemed useful in explaining the choice of destination.

Pull factors can be the features, attractions, or attributes of the destination (Crompton 1979). The pull factors are motives aroused by the destination rather than emerging exclusively from within the travelers themselves. Pull factors are inspired by a destination’s attractiveness (Yoon and Uysal 2005) and a specific destination pulls people to realize their needs of particular travel experiences,

such as natural and historic attractions, food, people, recreation facilities, and the marketed image of the destination (Uysal and Hagan 1993). Therefore, the attractive characteristics of a destination may encourage and inspire intrinsic push motivations (McGehee et al. 1996). Such perspectives have been employed in several studies such as Iso-Ahola (1982); Pyo et al. (1989); Yoon and Uysal (2005); Yuan and McDonald (1990).

In tourism research, the push and pull concepts have been used to represent the internal and external stimuli respectively. Studies show that one of the best ways to understand tourist motivation is to examine and conceptualize tourists' behavior using push and pull factors (Kim and Lee 2002; Kim et al. 2003; Klenosky 2002). Many previous studies have researched the different types of tourists travel motivation in China. These studies mainly investigated the types of travel motivations and their preferences, tourist consumption behavior, and so on. However, few related studies of travel motivation have been carried out in Macau. Therefore, it is the intention of this researcher to apply this theory to explore the travel motivation of college students in Macau.

3 Methodology

3.1 Research Instrument

This study is based on Dann's (1977) model; that is, the push and pull factors of motivation. Several previous studies were reviewed to help construct and finalize the first draft of the instrument. The questionnaire was divided into three parts. The first part was designed to obtain personal information, the second part to understand the leisure travel features of college students, and the last part examined the students' motivation for leisure travel. 12 items were gathered. Each push dimension contained 12 items, with a 5-point Likert scale ranging from "not at all important (1)" to "extremely important (5)." As for the investigation of push factors, the questionnaire was designed to rank the features of tourist destinations from "priority" (1) to "less concern" (5).

3.2 Sampling

According to Morrison (1993) and Cohen et al. (2000), the quantitative research not only depends on the appropriateness of the research methodology and instrumentation, but it also needs to adopt a correctly selected sampling strategy. Purposive sampling was chosen as the method for this research because its advantages allowed the researcher to build up a sample on the grounds of satisfying the needs of this research. In order to reduce the bias, this researcher was careful in categorizing the subjects, from the grade and the major of the participants and also from the participants' original place of birth. Consequently, the samples involved

in this study included participants who were studying and living in Macau and from different faculties and grades.

3.3 Pilot Study

The purpose of the pilot study was to investigate the possible problems and risks that could be potentially present during the formal study (Cohen et al. 2000). It is also important to carry out a pilot study to verify that the research context and design methods are appropriate for an acceptable outcome of the study. The pilot study was conducted on the 5th of May 2011. Fifty students from different grades and faculties volunteered to take part in this study. After which, some modification of questions was carried out in order to clarify some vague meaning in the statements.

3.4 Data Collection

The main study was carried out at the Macau University of Science and Technology from the 10th to 20th of May 2011. The researcher and her graduate students divided into two groups to distribute the questionnaires. One group only distributed the questionnaires to local students and the other group focused on distributing the questionnaires to non-local students. The two groups distributed questionnaires to different faculties after the students finished their sessions. The purpose of the study was firstly introduced by the research group and then the subjects were asked if they were willing to participate. Later, the research group identified their hometown before requesting participants' willingness to respond to the questionnaires. The gender issue was also controlled by the research group when they distributed the questionnaires. Finally, the questionnaires were administrated to 450 university students, and 415 valid copies were returned.

3.5 Assessing Validity and Reliability

The overall sample size was found adequate to conduct a principal component analysis on the 9 travel motives using the Kaiser-Meyer-Olkin (KMO) measurement. The KMO was meritorious (.763) as it was greater than the suggested 0.70 baseline (Ryan and Glewndon 1998). In order to examine the underlying dimensions of college students' motivations for travel, principal component analysis with a varimax rotation was applied to the 9 motivational variables used in the questionnaire. Nine items for each factor were examined for this study, and the factor loading scores of the rotated solution were more than 0.57 for all push factors.

Reliability of each of the resulting factors was determined using Cronbach's alpha with acceptable reliability estimate set at 0.7 (Nunnally 1978). In this study, the results showed that alpha coefficients ranged from 0.75 to 0.73.

4 Research Results

A total of 450 questionnaires were distributed and 415 valid questionnaires were finally obtained. Demographic profile of sample showed in Table 1. The raw quantitative data obtain from the valid questionnaires ($N = 415$) was coded and then entered into statistical package SPSS 17.0 for analysis. Table 1 shows the demographic profile of the sample. The gender of the respondents did not show great differences between the male students (53.98 %) and female students (46.02 %). As the last year students had left school for internship while conducting this research, the last year students only occupied 6.3 %. The first, second, and third year students were evenly distributed. The local students comprised 54.77 % and the non-local students 47.23 %.

4.1 The Analysis of Leisure Travel Features

Table 2 displays the results of leisure travel features. 69.6 % of college students traveled 1–2 times per year. One quarter of students traveled 3–5 times per year. More than half of the students (54.6 %) intended to travel for 4–6 days and around one third of students for 1–3 days. Only one tenth of students traveled over a week. The sources of travel information were from friends (42.9 %), internet (31.1 %), and media (13 %). Students mostly traveling with friends comprised 54.5 % and those traveling with family, 38.1 %. Only 2.4 % of students traveled with tour groups and 5.1 % preferred traveling alone. The most preferable tourist destinations were mainly located in Mainland China (82.2 %). Those choosing to travel in a foreign country made up only 11.8 %.

Table 1 Demographic profile of sample

Variable	Frequent	(%)
Gender ($n = 415$)		
Male	224	53.98
Female	191	46.02
Grade ($n = 415$)		
First year	131	31.60
Second year	124	30.10
Third year	133	32
Four year	27	6.30
Residence ($n = 415$)		
Local	227	54.77
Non-local	188	47.23

Table 2 College students' leisure travel features

Variable	Category	Number	(%)
Number of travels	1–2 times	289	69.60
	3–5 times	108	26
	over 5 times	18	4.40
Length of stay	1–3 days	144	34.70
	4–6 days	225	54.20
	over 7 days	46	11.10
Information	Friends	178	42.90
	Internet	129	31.10
	Media	54	13.00
	Travel agent	43	10.40
	Others	11	2.70
Companionships	With friends	226	54.50
	With family	158	38.10
	With group	10	2.40
	Alone	21	5.10
Preferable places	China	341	82.2
	Abroad	49	11.8
	Macau	25	60

4.2 Factor Analysis of Pull Factors

The results of the pull factor analysis are presented are presented in Table 3. Factor 1 was labeled as “a esthetics,” and included three attributes and had a reliability level of 0.75. The three attributes accounted for 33.61 % of the total variance. They were: enjoy humanity, enjoy natural environment, and enjoy ethnical culture. Factor 2 named “Learning,” included three attributes and had a reliability level of 0.75. The three attributes accounted for 19.02 % of the total variance. They were: participate competition; learn new things broaden one’s horizon. Factor 3 was labeled “Self-actualization” and included three attributes; self-development, experience new life style, and enjoy freedom. The three attributes explained the 13.74 % of the total variance and had a reliability level of 0.73.

4.3 Ranking for Pull Factors

The results of the pull factors are presented in Table 4. There were five categories of main pull factors being ranked. The top three factors were hygienic and comfortable accommodation, delicious food and diversity entertainments and shopping. The factors of convenient transportation and tourism-related service were less of a concern to college students when choosing a tourist destination.

Table 3 Factor loading and communality for push factors

Push factors	Factor 1	Factor 2	Factor 3	Communality
Factor 1: aesthetics				
Enjoy humanity	0.880			0.791
Enjoy natural environment	0.846			0.742
Enjoy ethnical culture	0.694			0.570
Factor 2: learning				
Participate competition		0.833		0.712
Learn new things		0.794		0.644
Broaden one's horizon		0.732		0.599
Factor 3: self-actualization				
Self-development			0.840	0.729
Experience new life style			0.780	0.648
Enjoy freedom	33.61	19.02	0.706	
Variances			13.74	0.537
Cumulative variance (%)	33.61	52.63	66.37	
Cronbach's alpha	0.75	0.75	0.73	
Number of items	3	3	3	

Table 4 Ranking for pull factors

Category	Means	Rank
Diversity of entertainments and shopping	3.49	3
Delicious food	2.82	2
Convenient transportation	3.53	4
Hygienic and comfortable accommodation	2.34	1
Tourism-related service	3.97	5

5 Discussion and Recommendations

5.1 Discussion

The empirical data collected from the survey and descriptive analysis of the results has portrayed the college students' characteristics. According to the research findings, this study has gained insight into the college students' motivation for leisure travel in Macau. The importance of this research is twofold. Firstly, this study explored the different leisure travel features of college students in terms of the travel frequency, length of stay, companionships, source of travel information and preferable tourist destinations. Based on the results, the travel motivational factors can be portrayed; the college students in Macau would travel 1–2 times every year and they would intend to travel for 4–6 days every time. Surprisingly, they chose to travel in mainland China rather than going abroad. Furthermore, the travel information they obtained was mainly from friends or the Internet, and they prefer to travel with friends.

Secondly, the instrument in this research was developed using push and pull factors. The results illustrated that the college students' motivation for leisure travel was mainly presented within three categories; a esthetics, learning, and self-actualization. The results tended to suggest that college students in Macau were not motivated to pursue any adventure activities or socializing with people. In comparison with the study carried out by Zheng and Lai (2008) where their results showed only two factors. Socializing and adventure were not included in this current study. It could be suggested that because the students in Macau live in a tensional city life, they tend to be more willing to enjoy natural and cultural landscapes to relax in instead of pursuing certain adventure activities or socializing with others during their leisure time.

Regarding the pull factors, this researcher intended to classify the features of a tourist destination into five categories; diversity of entertainments and shopping, delicious food, hygienic and comfortable accommodation, convenient transportation, and tourism-related service. The results showed that the college students favored mostly the standard of hygienic and comfortable accommodation when choosing a tourist destination. The delicious food was their second concern, followed by diversity of entertainments and shopping. Surprisingly, the tourism-related service such as banking or posting mail only drew a small amount of attention by students within the five categories. It could be assumed that the college students in Macau searched for health and safety as their priority during their leisure time. This is probably because many international hotels have expanded their branches in Macau recent years, providing luxury hotels with higher quality food and accommodation. As a result, it could be that the students are easily influenced by their living environment to consider the better tourist destination as the one with higher quality food and accommodation.

5.2 Recommendations

Based on the findings of this study, it is suggested that not only the tourist industry but also the government should pay more attention to the youth travel market. Whilst the Macau government and travel industry welcome more and more tourists coming from all over the world, it is urgent to consider the promotion of the youth market in Macau. It is essential to promote this market, as the college student population will expand every year. The government should not only consider their school education, but also encourage them to associate with the outside world by traveling to broaden their minds. To culture college students to have global vision from leisure travel should be essential for the Macanese government to consider as part of educational development. It can be concluded as the Chinese saying goes, "we gain more from traveling ten thousand miles than studying ten thousand books."

In order to strengthen the youth market in Macau, there are several suggestions to make. First is to improve the Macau tourism policy. Not only the government

but also school authorities should support the youth travel market. For example, the government departments need to well establish tourism law to protect youth safety while traveling. Besides study tours, school authorities may negotiate with the tourism industry to organize special tours based on the interest of the students. Improving the promotion information system in the campus would strengthen the communication between students in order to share their travel experience and information. In doing so, the youth market could be promoted much more easily among students. The creation of a youth market for college students according to their special interest would also establish a distinctive tourism brand in Macau. Close cooperation with the mainland tourism industry would promote the youth market by means of providing discount flight tickets or accommodation, and arranging various tours for college students to participate in. Finally, it is essential to monitor the youth market by researching and exploring the students' travel motivations across time to modify and provide a better service for this market.

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Part IV
Tourism Resource, Safety and Education

On Tourism Management Professional Teachers' Team Construction in Colleges and Universities—in Changchun Normal University as an Example

Hui Li

Abstract Our country's tourism education started relatively late, the tourism management professional is mostly in a relevant subject transformation based on the built. To improve the tourism education level, we must first strengthen the tourism professional teachers' team construction. Taking Changchun normal University's tourism management professional teachers' team construction experience and the existing problems, for example, the article discusses the current urgent need to resolve problems in Colleges' and Universities' tourism management professional teachers' team construction which from build structure reasonable specialized teachers' team and training business superb professional leader two aspects.

Keywords Colleges and universities · Tourism management professional · Teachers' team · Changchun normal university · Construction

1 The Necessity of Tourism Management Professional Teachers' Team Construction

In the early 1990s, China's Education Reform and Development Compendium (1993) pointed out, "The revitalization of the hope of the nation lies in education, and the hope is that the education of teachers. Building a good political professional quality, reasonable structure, relatively stable teacher troop, is education reform and development of the vital importance for."

In the twenty-first century, the Chinese government pointed out again, "teacher is the fundamental of the education. A good teacher, a good education." National medium and long-term education reform and development compendium (2010–2020) stressed that we should improve teachers' quality and strive to create a noble ethics, business exquisite, reasonable structure, full of vitality of high-quality professional teachers.

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Needless to say, the construction of teachers' team is always the important content of national education development, various and of all kinds school actively respond to a nation called for, to strengthen the construction of teachers' team.

But compared with other subjects, college of tourism management specialty is a new subject, mostly in a relevant subject transformation based on the built, such as history, geography, sports, economic management, agriculture, traditional Chinese medicine, foreign language, etc.

As one of the key talent cultivation conditions of teachers originate from the universities and colleges is the original subject teachers, are less vulnerable to formal and system of tourism discipline theory and knowledge training, lack of deep understanding of the tourism industry, the more the lack of tourism industry in the actual exercise and thorough research. It is difficult to do the academic frontier knowledge and the latest industry trends timely impart to students in the teaching. They have professional limitations (Guo 2004).

After 20 years of development, although each university's tourism professional teachers has gradually tourism specialized, but there are still a series of problems which the teacher staff shortage, the school record level somewhat low, the experts in the field of less, the scientific research level is not high, theory divorced from reality is more serious, the team strength is not strong and so on. That has restricted the further development of colleges' and universities' tourism professional in China.

In order to completely change our country in international tourism education in backward position, we must strengthen the tourism professional teachers' team construction, so as to improve our team quality level.

2 The Tourism Management Professional Teachers' Team Construction in Changchun Normal University

Along with our country tourism industry in the national economy and social development to enhance the role of, in the world the status of tourism industry continuously improve, tourism higher talents training and team construction increasingly mentioned important strategic position. Many universities have set up professional tourism in order to adapt to the needs of society.

In 2002, Changchun normal University set up professional tourism management. In the professional construction process, we always take the construction of teachers' team in the first position, already certain achievements have been made, there is also some problems and shortcomings.

2.1 Achievements

Excellent teachers, is to improve the quality of teaching personnel security. According to professional tourism management personnel training plan request, the school established the professional teachers team construction planning.

2.2 The Construction of Professional Leader

Our school to pay attention to professional leader in the practical teaching of guidance and the exemplary role and arrange an associate professor, master tutor, dr history as a leader.

She already has nearly 10 years of provincial tourism administration departments work experience, since transferred to our school, and have been concurrently the provincial tourism education training teachers, the national tour guide qualification test of the judges.

She published academic paper dozens, finished at or above the provincial level scientific research project many items, the project, and editor textbooks have won awards at the provincial level.

She gained the school level “San Yu Ren” advanced individual, school level outstanding communist party member, outstanding graduation thesis guidance teacher, the first prize of “challenge cup” of college students competition guidance teacher, municipal guide contest excellent teacher award, the national tourism colleges’ and universities’ service skills (guide’s service) contest excellent mentorship honor.

She has made tourist certificate, travel agencies consultant certificate, advanced hotel management division card and so on industry qualification certificate, it is typical “the double-qualified teacher” professional leader.

2.3 The Construction of Teachers’ Team

In order to strengthen the construction of teachers’ team, and promote the professional teaching team in age, job title, degrees, learning edge structure, In the recruitment of full-time teachers, our school is considered fully the learning edge structure, the professional and full-time teachers were from Hong Kong university, Jilin university, Northeast normal university, Liaoning normal university, and other universities.

Our school has encouraged young teachers for master’s or doctor’s degree, at present, there are four reading doctor, two reading master; the school also has aided in higher learning of young teachers at home and abroad for further study, these measures are improved to varying degrees of the young teachers education level and teaching level.

Our school also encourage young teachers in complete the teaching task at the same time, actively participate in professional social practice work, such as a travel agency part-time guide, star hotel part-time manager, not only exercise teacher’s practice ability, but also enhance the teaching ability to solve practical problems. That is to say, according to the characteristics of tourism professional strong practicality, we teachers do the theory with practice, basically reaches the “double-qualified teacher” standard.

2.4 Problems

2.4.1 Professional Teachers in Small Scale, Research Energy Is Insufficient

As stated above, our professional tourism has 11 full-time teachers, four of them reading doctor, two reading master, the six reading personnel assume only half the normal teaching workload, reduced, also is only 8 full-time teachers, bear the tourism professional students more than 400 people of classroom teaching, students' practice, investigation, professional practice, graduation thesis guidance.

Although each semester we will hire 2–3 part-time teacher for us to share the 2–3 course, but overall, the student/teacher ratio reached nearly 35:1 plead, professional teachers gap is so big.

The research shows that more than 39 % of the world's countries or regions student/teacher ratio for 6–10 people, 30 % countries or regions student/teacher ratio of 11–15 people, 16.26 % of the countries or regions student/teacher ratio for 16–25 people (Yuan and Guo 2009), and our country ordinary university student/teacher ratio 17.28:1 (Jiang 2011). Our school student/teacher ratio is far higher than these data.

In comparison, we pay the normal 2–3 times the effort, just for the guarantee of the quality of teaching. In order to obtain students', parents', school officials' satisfactory teaching effect, each teacher put almost all energy in the teaching work, only in a short period of two holidays, has the energy to engage in scientific research work.

2.4.2 Lack of High Level Professional Masters (Scholars), Lack of High Quality Academic Achievements

Tsinghua University's famous former headmaster Mei Yi-qi once said, "university must have famous masters (scholars)," fully illustrates the importance of master (scholars) for university. Similarly, to improve the professional level, every university must rely on the support of high-level professional masters (scholars).

High-level professional masters(scholars) who has a very deep academic attainments, a solid professional knowledge, a profound theoretical foundation and a lot of practice experience, with the professional master the interdisciplinary subject knowledge and academic development trends. Who has active academic thoughts, distinguished teaching and scientific researches, in the international and domestic academic circles of a certain status and influence (Guo 2008), can organize, direct ordinary teachers improve fastly teaching and scientific research ability, so as to promote the construction of teachers' team.

Our leadership also fully aware of the importance of high-level professional masters (scholars), the open recruitment different levels of high-level masters (scholars), according to our university website (The Changchun Normal University website 2012). But up to now, the school also cannot introduce tourism

professional high-level professional masters (scholars). Maybe some related treatment is not enough rich? Or the school is located in the northeast of the motherland, the geographical position relatively remote? Our school is still just an ordinary universities, no fame?

The lack of high-level masters (scholars), our professional knowledge is limited, academic field of vision is not quite open, although have some practical experience, but the lack of profound theoretical foundation; And the lack of domestic and international academic communication, cannot understand promptly academic latest dynamic, so it is difficult to produce high-quality academic achievements.

3 The Urgent Need to Resolve Problems of Tourism Management Professional Teachers' Team Construction

For many years, about the construction of teachers' team discussion has been opinion views, scholars from different point of view put forward suggestions and ideas which to our school provide great reference. At present, our school is the problem to be solved badly for teachers to expand the scale, enhance academic levels.

3.1 Expand the Scale of Teachers

In the current state repeatedly compression university teachers' organizational circumstances, expand the scale of teachers seemed difficult. We should draw lessons from foreign part-time teacher management experience, construct a considerable number, relatively stable part-time teacher resource pool, formulate corresponding access standard, match with the corresponding training mechanism, the labor contract management, strengthen their sense of responsibility and the teaching quality be guaranteed (Zhang 2011).

Rational utilization of part-time teachers, professional teachers will make half or even most of the energy to scientific research, so as to improve the professional teachers' awareness of innovation and the quality of the application form, can not only enhance the professional scientific research strength, but also enrich the teaching content, promoting teaching reform.

3.2 Training Masters, Enhance Academic Levels

If constructing qualified teachers' team is the base of the pyramid frame, masters' training is to make spire, only a coordinated, can make whole teachers structure more reasonable (Zhu 2007). A variety of reasons, our school fails to introduce high level masters, so, we should focus on the cultivation of it. The cultivation of

masters, must create the first-class talent environment, including policy, work, life and academic, etc. (Fan 2006).

For the innovative young highly educated talents, should be timely implementation of outstanding young teacher training plan, encourage and help them to be career planning and professional development plan, promote their professional expertise of development (Hu 2009), enhance their sense of responsibility and the sense of mission.

The university should strengthen the material incentive, to improve their teaching, scientific research work conditions, for them to participate in domestic and international academic exchanges, cooperation and competition to provide corresponding funds safeguard. At the same time, in the campus allowance, scientific research funds, further study, the title assessment work arrangement, spouse work arrangement, children's schooling, etc. to provide certain preferential policies.

The university also should adopt certain spiritual incentive. Can draw lessons from American universities for excellent teacher opened up special exhibition hall spirit incentive measures (Ying 2011), also can put their name engraved on the wall in national archives, publishing masters' series, etc.

At the same time, building relationships which can increase the satisfaction of unity, harmony, mutual support and understanding, create comfortable academic "soft environment" for them, so as to produce a sense of belonging and identity school (Yu 2008).

Finally, so they can give full play to its consciousness, initiative, enthusiasm and creativity, soon will become a professional master, and lead all the teachers to raise the level of academic.

4 Conclusions

In a word, the tourism professional to get steady development, for our country becomes the world tourism power training a large number of high-level and high-quality tourism specialized talents, we must first strengthen the tourism professional teachers' team construction, make reasonable structure, relative stable full-time and part-time teachers, cultivate noble ethics, business superb professional masters, enhance academic levels, and actively deal with the increasingly fierce international competition.

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Research and Practice on Cultivating Pattern of “Cooperation Between School and Enterprise, Combining Learning with Working, Group Developing” in Higher Vocational Education

Ying He and Fang Liu

Abstract The innovation of cultivating pattern is a decisive question in higher vocational education. The cultivating pattern of “Cooperation between School and Enterprise, combining learning with working, Group Developing” is the professional one which takes college–industry collaboration, joint effort in nurturing students and employment, cooperation and development as the main line, the employment as the guidance, the ability as the standard under the comprehensive arrangement of the local government. And it aims at cultivating quality-oriented personnel. Tianshui tourism Vocational Education Group, which is built with Gansu Industry Polytechnic College at the core, has already obtained satisfying results and extracted the crucial steps with the successive exploration and practice on cultivating pattern in the past 3 years. During this process, the innovation and reform about the curriculum system setting based on the course of work is the breakthrough to put the cultivating pattern into effect. Meanwhile, the established school mutual training center by enterprise and college and the external Ding Gang internship base are the supports to carry out the cultivating pattern. Besides, the formation of professional teaching team with higher vocational characteristic is the guarantee to implement it. What is more, the leading role and the platform from the government are the push factors to achieve the pattern.

Keywords Cooperation between school and enterprise · Combining learning with working · Group developing · Cultivating pattern · Teaching

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1 Introduction

The cultivating pattern of “Cooperation between School and Enterprise, Combining Learning with Working, Group Developing” is the professional one which takes college–industry collaboration, joint effort in nurturing students and employment, cooperation and development as the main line. This pattern, relying on enterprises and industry, led by vocational colleges, builds the Vocational Education Group (hereinafter referred to as: Vocational Education Group) under the comprehensive arrangement of the local government. Meanwhile, it takes the employment as the guidance, the ability as the standard, the career field in trade as the learning contents. Moreover, it aims at cultivating quality-oriented personnel with behavior-oriented teaching mode. The essence of this pattern is, with the help of the platform built by the Vocational Education Group, to let students involve in learning, experience the study in simulation professional teaching scenario, and then, to apply learning outcomes, to examine learning effort and to perfect learning content in real vocational situation. The ultimate purpose of this pattern is to achieve the goal of improving students’ ability of learning as well as students’ comprehensive professional quality at the same time. In this pattern, the Cooperation between School and Enterprise is the basis for work-integrated learning; the latter in turn is the effective approach for the former. The final objective for Group Developing is to achieve the deep collaboration between school and enterprises and to promote the effective combination between work and learning.

2 “Cooperation Between School and Enterprise, Combining Learning with Working, Group Developing” Is the Only Way to Cultivate Highly Skilled Personnel

2.1 The Construction of Modern Social Industrial System in China Wants the Way of Combining Production, Learning, and Research to Train a Mass of Skilled Talents

At present, China is in a crucial period of striding forward to a economic power from an economic giant, a human resources powerful nation from a manpower resource country. The grand economic and social background of accelerating the change of economic growth mode and developing modern industrial system asks vocational education to train a group of high-skilled personnel. In other words, vocational education, as the powerful motive for social and economic development, is one of the supporters for modern industrial system construction.

2.2 The Policies in China Support the Cultivating Pattern of “Cooperation Between School and Enterprise, Combining Learning with Working, Group Developing”

The statements on Vocational Education from the Long-term Plan on Education Reform and Development (2010–2020) point out that “the improvement of quality is the highlight. The vocational education should promote the reform in teaching methodology by taking service as the purpose, the employment as the guidance. Besides, vocational colleges should practice the cultivating mode of Cooperation between School and Enterprise, combining learning with working as well as the system of enterprises Dinggang internship. Meanwhile, to establish and maintain vocational education quality assurance system and to admit enterprises to take part in the evaluation of education quality is needed. Furthermore, to mobilize the enthusiasm of enterprises is important. To establish and improve the mechanism of running schools by the guidance of industry and the involvement of the trade under the government-dominated system is required. In addition, in order to lay down rules to accelerate the Cooperation between School and Enterprises and to improve the systematization for the Cooperation between School and Enterprises. What is more, to work out favorable policies, to encourage enterprises to allow the internship and practice from students and teachers and to encourage firms to strengthen its financial support to vocational schools are decisive for vocational education” (Connotation, Type and Function of Vocational Education Group 2011). As for Group Developing, The Several Opinions on Promoting Higher Vocational Education Reform and Innovation and Leading the Scientific Development for Vocational Education (Vocational and Adult Education Department from Ministry of Education 2011, 2012) further points out that “to innovate the system of running school, to Encourage local government and industry (enterprise) build higher vocational school together, and to explore the way of setting up Vocational Education Group for industry (enterprise) and vocational school is put forth. In addition, to give full play of their respective advantages among school, government, trade, and enterprises in the field of industry program, fund raising, application of advanced technology, selection and appointment of part-time teachers, the construction of practice bases, and students’ employment is needed. All the measures mentioned above are used for the construction of building the long-term mechanism for the cooperation among government, trades, enterprises, as well as schools in terms of vocational education, which means a collaborative education mechanism in different department, different area, different field, and different majors” (Geng 2006).

All these measures and policies fundamentally ensure the practice and exploration of the cultivating pattern of “Cooperation between School and Enterprise, combining learning with working, Group Developing.”

2.3 Talent Cultivation Targets for Higher Vocational Education Meets the Needs of Enterprise Human Resource

The higher vocational education aims at training high-level technical application-type talents in the field of technology, production, management, and service. It is the platform for millions of professional personnel. The work connotation for this kind of talents change the mature technology and standardized management into real production and service. In other words, the workplace and post is the grassroot. The personnel trained by higher vocational education is the human resources wanted by enterprises, which becomes the driving source for the survival and sustainable development of enterprises and influences the improvement of core competency for enterprises. The practice and research from many industrialized countries has fully confirmed that the improvement of enterprise's innovation ability, survive development opportunities and productivity is largely benefited by dedication from frontline employees (Lu 2011). Therefore, the talent cultivation targets for higher vocational education meet the needs of enterprise human resource. In other words, the vocational education is an important way to improve and redevelop human resources quality in enterprises.

2.4 Group Developing Strategy is an Important Way to Extend the Depth and Breadth of the Cooperation Between School and Enterprise

Economic and social development puts forward new task for higher vocational education. And it also provides a new opportunity for the development of Vocational Education Group. The Group Developing promotes a deep fusion between Vocational Education Group chain and industry chain. Firstly, the fund of the group changes the way of cooperation from bilateral one between certain schools and enterprises to the comprehensive one between various Vocational Education Groups and enterprises. This kind of all-round cooperation is a typical feature of Vocational Education Group. The syndicated cooperation can almost cover all the needs of skilled talents in the industry, and it also provides personnel training which corresponds to the demands of industry development for the trade and all-round training and further education for practitioners in the trade. All these can eventually form the interdependent coexistence situation between enterprise and Vocational Education Group. Besides, the way that effectively attracting social capital, especially the industry enterprise funds for vocational education, that mobilizing more social forces to participate in vocational education and that expanding high-quality resources for vocational education will to a great extent, change the phenomenon that during the process of "school-enterprise cooperation and work-integrated learning," the aspect of college is active, while the aspect of enterprise is negative. So to speak, Group Developing Strategy is an effective way to extend the depth and breadth of the cooperation between school and enterprise.

3 The Practical Exploration About the Cultivating Pattern of “Cooperation Between School and Enterprise, Combining Learning with Working, Group Developing”

According to the target of the application and occupation from higher vocational education personnel training, judging by the characteristic of tourism industry and tourism enterprise’s running status, the Tourism Management in Gansu Industry Polytechnic College has been carrying out the program of connotation construction since 2009. This major, being a leading member in Tianshui Tourism Vocational Education Group, has made a good teaching and social effects by practicing the cultivating pattern of “Cooperation between School and Enterprise, Combining Learning with Working, Group Developing.”

3.1 Taking the SetUp of Tourism Vocational Education Group as an Opportunity, Forming a Broad Stage for “School-Enterprise Cooperation and Work-Integrated Learning”

The eventual target for Group Developing is to solve effective cooperation between school and enterprise. Although in recent years, the various forms of cooperation between colleges and enterprises appear constantly, however, vocational colleges have not yet form the close cooperation made with the enterprises. Most of the enterprises do not put investment into vocational colleges, and they do not participate in the vocational education. Moreover, they do not provide long-term and stable internship position which matches advanced level of industrial technology development, which put vocational colleges into a one-sided enthusiasm during the cooperation. Thus, the Group Developing ties the reconstruction of school-enterprise cooperation in a new stage.

Tianshui Tourism Vocational Education Group, built with Gansu Industry Polytechnic College at the core, is a diverse cooperation Vocational Education Group which takes contracts as the main link (Qu 2008). This group, composed of vocational colleges, enterprises, government, trade union, involves in Gansu (Tianshui), Shanxi, Shandong, Fujian, Inner Mongolia. After 2-year operation, the group has the preliminary effect in the integration and sharing of resources of vocational education. It had great progress especially in promoting the cooperation and making the connection close between vocational colleges and enterprises. At present, it has been formed four modes: the school-enterprise cooperation across the region—“Lanhai hospitality mode,” “the Silk Road Travel Agency mode” which means enterprise directly involves in teaching design, “Lanzhou Hotel mode” in which the typical work task has been fixed and the work-integrated learning has been applied, Guanzhong—Tianshui economic zone mode which serves regional economic development in Northeastern China.

3.2 Practice the Pattern of “Cooperation Between School and Enterprise, Combining Learning with Working” Under the Mechanism of Group Developing System

3.2.1 By Use of Group Members’ Diversified Advantages and Industry Background, Making the Professional Cultivation Plan for the Talented People Which Meets Requirements of the Trade

To set up Specialty Establishment Committee and examine personnel training plan on the basis of units from Vocational Education Group is one of the important duties of it. The construction of personnel training plan is a three-phase process. The first step is task analysis. In this phase, members from the group analyze professional task to determine work responsibilities and duties for each. And then, it comes to job task analysis. In this period, enterprise personnel finish it with specialized teachers, so that the capability goal for finishing each task in a certain job responsibility will be determined and the professional task will be selected. The third phase is to analyze and design teaching process. According to the results of the analysis, the curriculum system will be fixed, and the professional task will be taken as the main line to design course syllabus. All the tasks in this phase will be finished by teachers with the help of members from enterprises.

3.2.2 Taking the Typical Work Task as the Main Line and the Improvement of Students’ Core Skills as the Goal, School-Enterprise Jointly Design Teaching Content

On the basis of the cultivation plan for the talented people mentioned above, in the light of the requirement for the integration of course construction, by taking a typical work task as the carrier, giving priority to practice, with theoretical knowledge as supplement, the curriculum design and development mode has realized from a single one to a comprehensive one based on the work process. For instance, by visiting scores of tourism enterprises and investigating and analyzing kinds of tourism resource, Tianshui 2-day travel line has been developed, which fill many blank of Tianshui tourism line. Therefore, to develop teaching content based on tourism product not only forms a distinct characteristic, but also leads new idea in Tianshui tourism line exploitation.

This kind of teaching design combines theoretical knowledge of tourism practice with each project in order to let students intuitively grasp theoretical knowledge by accomplishing each task. In this way, students can command theoretical knowledge as well as practical skill of local guide, which blends students’ cognitive competence development with professional self-identity and realizes integration between teaching and working.

3.2.3 Taking Professional Job Context Based on Curriculum Design as the Main Line, Adopting the Integration Teaching Model of “Teaching, Learning, Doing”

In teaching, the integration teaching model of “teaching, learning, doing” changes classroom teaching into job context learning, and it converts teacher-centered classroom into student-centered one. Taking project as carrier, it put job task and duty into classroom teaching. Besides, this model stretches teaching content by working process, and designs tasks by each working step and required vocational ability. In a word, the integration teaching model of “teaching, learning, doing” adopts projects to form teaching process. This kind of teaching model not only strengthens education function of training for vocational students, but also realizes dual objectives (projects brought into campus, professional personnel came to enterprises, attending school like starting work, taking classroom learning as career practice) of the cooperation between school and enterprise in education.

3.2.4 To Strengthen Cultivating the Vocational Ability on Combining Learning with Working for Dominant and Achieve the Combination of Teaching in Class, Simulation Training and Practice in Various Enterprises on Different Levels and the Joint of School and Enterprises Undertaking the Employment Together

This kind of cultivating pattern adopts flexible instructional mode and teaching organization of combing learning with working to form the cultivating mode of “from learning to work, relearn and rework.” The study time will be arranged from the first semester to the third semester, and the practice in enterprises will be in the fourth and fifth semester, and in the sixth semester students can study in school. The specific arrangement will be introduced next. In the first semester, there will be 1 week training in specialties. Students can visit training bases to learn the enterprises and their cultures introduced by the professionals and develop their basic view on occupation. In the second and third semesters, students will have 2–4 weeks per semester to have the special practice in enterprises. In the fourth semester and fifth semester, students will practice in travel companies. In the sixth semester, students will compose the practice summary and post analysis. The corporation between school and enterprises provides a platform for enterprises and students to have a deep understanding to each other, and the practice in enterprises realize the both way option between enterprises and school as the foundation of students obtaining a good job.

3.2.5 Aiming to Build a Professional Faculty Fitting to Occupational Cultivation in Order to Improve and Strengthen the Construction of Teachers Group of a Teaching Team with “Double Qualifications”

It is the key to build a teaching team with “Double Qualifications” for achieving the purpose of higher vocational cultivation. The following measures are mainly taken to help the professional faculty qualified to the cultivating pattern reform of “Cooperation between School and Enterprise, Combining Learning with Working, Group Developing”.

Firstly, it is the need to strengthen the construction of professional teaching faculty. This mainly contains three aspects. First, we need to confirm effective team goals; second, to fester the excellent leaders; third, to form a harmonious team culture.

Secondly, it is the need to focus on the double competency quality of full-time teachers. Professional teachers need to practice in enterprises annually and partially in order to accumulate the practical experience and improve the teaching ability.

Thirdly, it is necessary to optimize the full-time teacher’s structure. The colleges invite and recruit teachers from universities, society, and enterprises focusing on the ratio increase of teachers with experience in enterprises and strive to the rational configuration of teachers’ knowledge structure (professional), educational structure, age structure, sex structure, improving and optimizing the structure of full-time faculty in order to provide a reliable guarantee for sustainable development of school.

Fourthly, it is the need to construct a relative steady part-time teacher team. Hiring teachers from local area with rich practical experience in this industry and have senior technical titles of the technical staff or department manager and skills (star) as a part-time teachers, establishing the “binary teacher team management mode,” and regarding the management and construction of a professional teaching team as an important part. Forming a part-time teacher imparting mechanism with practical skills in course and fostering high-quality skilled talents is in urgent need.

3.2.6 It Should Take the Industry Access as System, Market Demand Specifications for the Talented Students and Students’ Actual Ability in Work as References in Order to Carry Out the “Double-Certificates” Process Evaluation System with the Graduation Certificate and Occupation Qualification Certificate

The implementation of the “linking class certificates with the occupation qualification standard” should be taken. We should put the occupation qualification into the curriculum system, and strive to make the course examination and occupation skill appraisal together. For instance, in the assessment of courses such as “the basic knowledge on tourist guide,” “tour guide,” “travel regulations,” and other courses, the tourist guide qualification certificate can be used to be as the replacement in

order to permit generation of test. For the occupation quality courses, the system of process evaluation should be actively implemented, taking the skills competition, work display instead of examination papers, doing a variety of dynamic form like match and workplace instead of a single static test.

3.3 Practicing the Form of “Harmonious Development Through Middle and High Level” Under the Collectivized Running Mechanism

Higher Vocational Education Collectivization which is the leader of National Demonstrative Higher Vocational Colleges regards the creation of similar specialty in higher vocational schools as the main body, and similar industries, enterprises and research institutions as the basis, and the regional advantage industry as the pillar, and the specialized construction as a link and realizing the sharing of resources as the goal in order to set up a unite of the industry level education association, the academic education, occupation training, and lifelong education.

Cultivating Pattern of “Cooperation between School and Enterprise, Combining Learning with Working, Group Developing” in Higher Vocational Education covers a plurality of types and levels. It contains secondary education, vocational education, preservice education, vocational education, academic education and nonacademic education, academic certificate education and qualification certificate training forming the talent cultivating, training and services integration. Collectivization school running can be the dominant in the group of colleges in higher occupation education pilot system designing higher vocational integration through the talent training scheme, actively exploring the joint of middle and higher vocational courses based on mutual recognition of credits, and implementing more flexible model like sectional management. The purpose is to achieve an orderly group in the vocational education in the cohesion of 10 aspects, such as training objectives, professional setting, curriculum system and textbook, teaching resources, enrollment system, and industry guidance in the middle and higher vocational education. On this account, the singularity and reiteration caused by the lake of school-running level, educational system, and curriculum structure configuration in middle and higher vocational education.

4 Key Points of Implementing the Cultivating Pattern of “Cooperation Between School and Enterprise, Combining Learning with Working, Group Developing”

The author thinks it should grasp the following few keys to combine with the tourism management specialty of Gansu Industry Polytechnic College implementing Cultivating Pattern of “Cooperation between School and Enterprise, Combining Learning with Working, Group Developing.”

4.1 Building Government Leading and Platform as the Booster

The government actively builds regional sharing practice base and Vocational Education Group, school–enterprise cooperation network as a platform to promote school–enterprise cooperation, sharing the resources and equipment resources of vocational colleges. The member units of Vocational Education Group abide by the “group charter,” implementing of combining learning with research and production, forming the “free association” in transregional, on multipurpose, in multilevel which is also a “community of interests” with clear division of labor and resource complementary. Under the market economic condition, interest mechanism is the power to promote school–enterprise cooperation and development and the tie to maintain the benign operation of school–enterprise cooperation. The government should put the vocational education into social and economic and social development plan to establish and perfect a series of policies and regulations that are conducive to promoting school–enterprise cooperation, formulating corresponding management measures made the school–enterprise cooperation based on the rules. It is also needed to guide, encourage, and support enterprises to participate in the vocational education, raising initiative and enthusiasm of enterprise to participate in it, and forming a plurality of funding sources and implementing invests body diversity.

It is also necessary to strict labor admittance system, to formulate and perfect the employment laws and policies, to promote and standardize the occupation qualification certificate admittance system of enterprise employment.

4.2 Developing the Curriculum Reform Based on the Working Process as the Breach of the Implementation of this Model

Breaking through the constraints to the curriculum design of scheduling on traditional curriculum system, confirming the identification of the curriculum based on tasks, organizing the content of the course based on occupation ability with typical product (service) as the carrier to design teaching activities, and strengthening skill training based on the occupation skill appraisal. Besides, we need to integrate theory and practice taking a typical working task as carrier to design teaching activities.

4.3 The Support of this Model is the Co-construction and Sharing of Campus Real Type (PUI) Training Base and the Close of the Off-Campus Practice Base

It is needed to construct campus learning production real (PEI) training base and the close off-campus practice base on the basis of complete process flow and occupation post skill requirements of occupation technology field of typical working

tasks. Moreover, it is necessary to introduce the tourism enterprise management mode, task, and working content into campus training base, making both organic combine and complement each other in order to unite the education, employment, technology organic and form of tourism talents cultivation industry chain under the premise of fully integrating the advantages of resources. This is both the premise of ensuring the project teaching based on working process, and the platform of student occupation skill training. At the same time, it is important to improve standard system construction and performance evaluation of the extramural base of training process management and change extensive type management of post practice.

4.4 Forming Professional Teaching Team with Higher Vocational Characteristics as Security of the Implementation of This Model

The construction of higher vocational teachers' team should not only form influential professional leaders and backbone teachers in the professional (industry), but also should establish the part-time teacher team with "the exchange of school and enterprises." Teaching staff with "dual structure" and the "double quality" is the guarantee to improve practice teaching quality of vocational college. Therefore, it is necessary to encourage teachers to participate in a full-time occupation qualification certificate examination, or send them to participate in big, medium-sized tourism business practice and research projects, making them to become a teacher with "dual structure" and the "double quality." On the other hand, it is needed to hire backbone of skilled teachers in industry enterprises and technical to come to school to teach part-time through the official introduction, introduction of flexible and enterprises and sharing with enterprises, to construct teacher team with full strength and a teaching staff with excellent quality and reasonable structure.

"Double-competency teachers" type not only can guide students' practice in accordance with standard tourism management professional post, enhance students' practical skills, but also can provide the typical cases of tourism enterprise, playing an irreplaceable role for improving the quality of teaching.

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A Discussion on Tourism Resources Evaluation

Shuang Liu and Nengzhi Tan

Abstract This paper discusses evaluation factors, evaluation system, Analytic Hierarchy Process (AHP)-based evaluation method of tourism resources. Taking into account the evaluation factors should be independent of each other and the number of factors should be manageable, the evaluation system should involve the differentiation of goal layer, project layer, factor layer, and the determination of each element, especially evaluation goal and factors, the evaluation method should be improved. Thus, 35 evaluation factors have been identified. Each factor has a strict definition and evaluation criteria of five levels. And some different indicators could be chosen to measure for a factor. The improvement of evaluation method is presented including introducing strategy options layer and appropriate arrangement for the scoring process. Further work will be carried out on this frame system, which mainly includes the identification of indexes for some factors based on the specific spot area.

Keywords Tourism resources · Evaluation factors · Evaluation system · Evaluation method · AHP

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1 Introduction

With the rapid development of the tourism industry, tourism resources have been developed a lot. The scientific understanding and the proper evaluation of tourism resources are a premise of tourism resources development and utilization, which plays a guiding role in tourism development (Xu 2001). Tourism resources evaluation is the important subject of tourism resources research, and an indispensable link in tourism resources development (Yin and Song 1995). Tourism resources evaluation has gone through the stage of a qualitative evaluation of single factor (experience) and the stage of a multifactor quantitative evaluation (mathematics model) (Qiu 2009).

In China, the tourism resources evaluation started in 1980s. Yong Wanli published a paper, “Division of Scenic Spot and Tourist Resources of The Wuyi Mountains” (Yong 1984). From then to 2000, the number of research papers slowly increased year by year. And the rapid growth has appeared since 2000. According to these papers, mainly qualitative methods of evaluation of tourism resources had been used before 2005. Since 2005, the quantitative evaluation has accounted for the advantage (Fig. 1). China Tourism Resources Census Standard (trial draft) published in 1992, established the state standard for tourism resource evaluation. And in May 2003, the state standard Tourism Resources Classification, Investigation and Evaluation (GB/T18972-2003) officially launched (Fig. 1).

There are a large number of researches and the implementation of state standards to promote the tourism resources evaluation, contributing to the development of tourism. However, there could be found some worth exploring issues through comparative analysis of the literature.

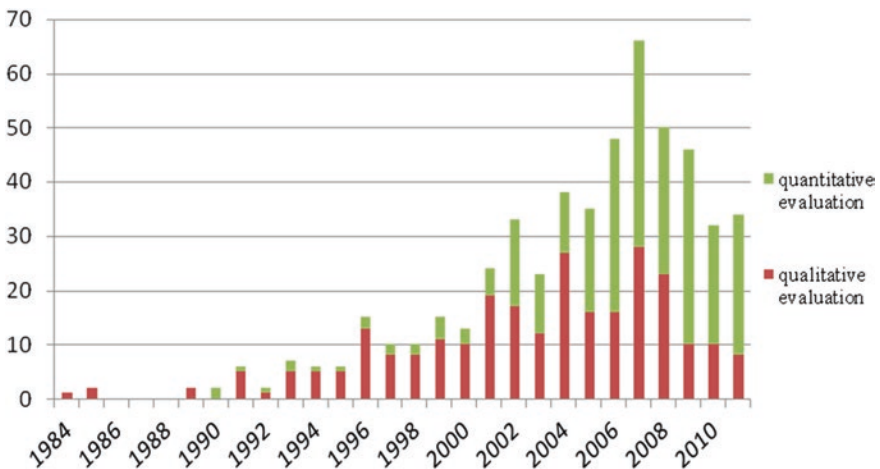


Fig. 1 Qualitative and quantitative variation of tourism resources evaluation

1.1 The Evaluation Factors' Naming is not Enough Standardization

The concepts of state standard's evaluation factors are some fuzzy and the number of factors is only eight, which can not cover all of tourism resources types. Many resources cannot be "pigeon-holing" (He 2006). Therefore, some researchers selected other evaluation factors without standardized name. For example, in rural tourism resources evaluation, one researcher gives the factors' names such as "pleasure," "integrity degree," "science education," and "accommodation" (Hu and Shi 2009). Another one gives "pleasure degree," "integrity," "education science," and "eating" (Xiong 2010). Same meaning factor has a different name.

1.2 Many Papers Have no Evaluation Criteria and Show a Stronger Subjectivity

Most of the research papers have no specific factor rating criteria, such as the paper "Tentative study on the quantitative evaluation of water tourism resources—Taken Chongqing metropolis area 'two river four-banks' as an example" (Qin and Yang 2011). Only a few papers dealt with specific ratings criteria, for example, "Classification and evaluation of ecotourism resources of nature reserves in Gansu" in which each factor has a clear score standards' explanation (He and Wang 2011). In addition, some researchers use qualitative description to distinguish among the different levels of factor, which shows a stronger subjective, such as the score standard of the traffic conditions of tourist source is set as "very most convenient," "most convenient," "more convenient," and "convenient" (Li et al. 2010), without introducing some quantitative index such as the distance to tourist source.

1.3 The System of Evaluation is not Enough Standardization

Every tourism resources evaluation refers to the selection of factors and the construction of hierarchical system of evaluation factors. The state standard evaluation system is not comprehensive with limiting tourism resources evaluation to their own value and ignoring the evaluation of development value of tourism resources (Lin and Chen 2010). So many researchers proposed the respective evaluation system such as rural tourism (Yin et al. 2007; Mao 2009), geological tourism (Sun et al. 2008; Yang et al. 2008; Gong et al. 2009) and ecological tourism. There are some differences of selected factors among those evaluation systems. And there are some differences of hierarchical system of evaluation factors among them (Zhou 2007; Wang et al. 2007; Yang et al. 2003). Some systems are divided into four level, goal layer, comprehensive layer, project layer, factor layer, others are divided into three level, goal layer, project layer, factor layer.

1.4 *The Use of Analytic Hierarchy Process Method is to be Improved*

In order to support decision-making, Analytic Hierarchy Process (AHP) unifies the qualitative factors and quantitative factors through scoring by experts or the public in form of a back-to-back and one more feedback so as far as possible to exclude subjectivity. Many researchers use AHP to evaluate tourism resources with ignoring its advantage of the subjectivity reduction. And AHP hierarchical system has an option layer, all the paper did not refer to the option layer. It is more beneficial to combining tourism resources evaluation with decision option.

Based on the above four issues, this paper presents a discussion of the following three aspects, expected to be helpful in evaluation of tourism resources.

2 The Standardization of Evaluation Factors

This section discusses for the above first two issues. For statistics and comparative analysis, the GB/T18972-2003 and 30 papers was selected, among them each 10 papers is respectively about geological tourism resources, rural tourism resources and ecological tourism resources. Statistics show that 337 specific factors appear in the literature. By comparing and analysing these factors, two facts are focused. The first one is some different name factors with same concept. And the second is some factors could be seen as same object’s different attributes. Based on the consideration that evaluation factors should be independent of each other and that the number of factors should be manageable, 35 evaluation factors are selected (Table 1). Each factor is then given a strict definition and evaluation criteria. The latter is divided into five levels, i.e., excellent, good, fine, OK, and poor. Due to

Table 1 35 Detailed evaluation factors

Evaluation factors				
Resources type	Resource size and abundance	Resource level	Scientific research value	Popular science education value
Cultural value	Ornamental value	Leisure values	Mountain landscape	Waters landscape
Forest landscape	Geological landscape	Biological landscape	Astronomical landscape	Humanities landscape
Environmental protection	Environmental safety	Environmental capacity	Air quality	Air pollution index
Air anion content	Water quality	Acoustic quality	Vegetation coverage index	Comfortable travel period
Tourist market	Traffic conditions	Accommodation facilities	Catering facilities	Shopping facilities
Entertainment facilities	Service quality	Economic benefits	Social benefit	Government policy

Table 2 Tourism resources evaluation specific factors, meaning, level, and evaluation standard

Evaluation factors	Meaning	Level	Score basis and standard
Environmental safety	People live in a no pollution and safe state of destruction, it means the risk of natural ecological environment and human ecology in the sense of the survival and development and disasters incidence size	Excellent	Environmental safety guaranteed, disasters incidence 0 time/year
		Good	There are certain environmental safety dangers, disaster incidence 1 time/year
		Fine	Environmental safety has obvious security danger, disaster incidence 2 times/year
		Ok	Environmental safety has serious security problems, disaster incidence 3 times/year
		Poor	Environmental security has very serious security problems, disasters incidence 4 times/year
Environmental capacity	Regional environment of human activities affect the biggest capacity including ecological environmental capacity, physiological environment capacity and basic space capacity	Excellent	Clean ecological environment capacity; let 80 % visitors feel very comfortable; each of the basic space of 100 m ² standard
		Good	80 % of the ecological environment capacity; let 70 % visitors feel very comfortable; each of the basic space of 80 m ² standard
		Fine	70 % of the ecological environment capacity; let 60 % visitors feel very comfortable; each of the basic space 60 m ² standard
		Ok	60 % of the ecological environment capacity; let 50 % visitors feel very comfortable; each of the 40 m ² basic space standards
		Poor	Below 50 % and net ecological environment capacity; let below 50 % visitors feel very comfortable; each of the 20 m ² basic space standards

space limitations, Table 2 only lists environmental safety and environmental capacity factors, their definitions and evaluation criteria as examples.

For the second fact, some different indicators could be chosen to measure for a factor. For example, there are at least two evaluation index for the factor of water

Table 3 Water quality evaluation factors connotation and evaluation standard

Evaluation factors	Meaning	Level	Score basis and standard
Water quality	Around the crowd space and it can be directly or indirectly influenced the development of human life	Excellent	The surface water environment quality standards (GB3838-2002) the first class
		Good	The surface water environment quality standards (GB3838-2002) the second class
		Fine	The surface water environment quality standards (GB3838-2002) the third class
		Ok	The surface water environment quality standards (GB3838-2002) the fourth class
		Poor	The surface water environment quality standards (GB3838-2002) the fifth class
Water quality	The ground water, especially the hot spring	Excellent	Classification and accreditation for service-rated hot spring enterprise (LB/T016-2011) the five star
		Good	Classification and accreditation for service-rated hot spring enterprise (LB/T016-2011) the four star
		Fine	Classification and accreditation for service-rated hot spring enterprise (LB/T016-2011) the three star
		Ok	Classification and accreditation for service-rated hot spring enterprise (LB/T016-2011) the two star
		Poor	Classification and accreditation for service-rated hot spring enterprise (LB/T016-2011) the one star

quality (Table 3). The first evaluation index is referred to the water environment quality and the second evaluation index to the water tourism value.

3 The Establishment of the Evaluation System

In Sect. 1.3, it was mentioned that evaluation system is four-layer system or three-layer system. Because most of evaluation systems have no option layer, four-layer systems would become five-layer systems if option layer added. So, the three-layer system is preferred.

The establishment of the evaluation system involves the differentiation of goal layer, project layer, factor layer, and the determination of each element, especially evaluation goal and factors.

While building the evaluation system, several questions should be considered.

3.1 Whom Do the Evaluation Work?

In other words, who request the project of tourism evaluation? Generally, it is a government or a company. The goal of evaluation is determined by the requirement of a government or a company. Of course, it is possible to evaluate tourism resources for visitors.

3.2 What is the Object of Evaluation?

The object of evaluation falls into the great range. It could be a spot, or a scenic area, or an administrative region (a city, a county, etc.), or a class of spots, or a class of scenic areas.

3.3 What are Resources Types?

According to the classification of tourism resources, the tourism resources is divided into natural resources and human resources. Natural resources can be subdivided into ecological resources, geological resources, forest resources, nature reserve, and so on. Cultural resources can be subdivided into rural tourism resources, sports tourism resources, industrial tourism resources, red tourism, black tourism resources, and so on.

3.4 What Is the Development Situation of Tourism Resources?

Some tourism resources have not been developed. Many tourism resources is developed. For the former, it should do a pre-evaluation. For the latter, it generally do a postevaluation, it could also do a pre-evaluation if you want to reinvent the wheel. Tourism resources' pre-evaluation primarily focus on resources potential evaluation. And in postevaluation, the focus would be transferred to economic benefits and ecological security.

3.5 Does the Evaluation Object Have One or More Strategy Options?

It is best if the answer is yes, because the different strategy option could changes the evaluation of factors. It is important that selected evaluation factors should cover all of strategy options.

Based on the answers of above questions, every element of goal layer, project layer, factor layer, and option layer could be selected or determined. Therefore the evaluation system could be built.

4 Evaluation Method and Process

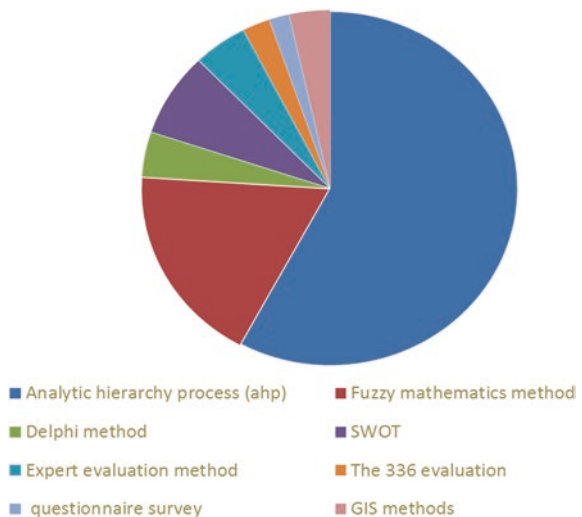
Through internet 488 papers about tourism resources evaluation had been searched. The sum of used evaluation methods is up to 36. Among them, AHP is a quantitative method that the used frequency is 99 (Fig. 2).

4.1 AHP Summary

The AHP is a structured technique for organizing and analysing complex decisions in group decision-making. It was developed by Thomas L. Saaty in the 1970s.

Users of the AHP first decompose their decision problem into a hierarchy of more easily comprehended subproblems, each of which can be analysed independently. Section 3 discusses the evaluation system of tourism resources, which is the first step of AHP.

Fig. 2 Tourism resources evaluation method



The second step is to do pairwise comparisons for every two elements at each layer. Here experts give their judgments about the elements' relative meaning and importance.

The third step is to check the consistency of the judgments. The AHP converts these judgments to numerical values that can be processed and compared over the entire range of the problem. If passed the testing, a numerical weight or priority is derived for each element of the hierarchy in a rational and consistent way.

4.2 Tourism Resources Valuation Method Based AHP

There are many cases in which AHP was used for tourism resources valuation. It is necessary that the evaluation of tourism resources should be in accordance with the AHP method steps. Here are the further description of the issues mentioned to be improved in Sect. 1.4.

First of all, introducing strategy options layer would be an important improvement in tourism resources evaluation. For example, there is a spot. It could be developed as a state park or as a theme park. Two options may not only increase the number of factors, but will have a different perspective and therefore will change the scores of factors.

Secondly, an appropriate arrangement for the scoring process would be another important improvement. The scoring process can be divided into two or three times. Every time scoring can be done by experts in form of a back-to-back. Before the second time scoring, the experts should receive the statistics data about the first scoring, therefore each one can independently decide whether or not his scoring need to be changed. The third time, and so on. This is a stepwise process of consensus with reducing subjectivity as far as possible.

5 Case Illustration

Here is the illustration of the postevaluation system of ecotourism resources (Fig. 3). Ecological tourism has developed rapidly in recent years, which meet an increasing demand for people returning to nature and understanding the nature. Most important feature of ecotourism is nature-oriented. It can make more people aware of the nature, promoting the awareness of nature conservation and love of nature (Yang and Wang 2000).

Taking into account the characteristics of ecotourism and the developed state, three evaluation projects and 13 evaluation factors have been identified, while introducing two development programs at the option layer. It is important to note that some of the factors that belong to the resource value project, but also belong to the environmental quality project.

In fact, that is a postevaluation frame system of ecotourism tourism resources system. Further work will be carried out on this frame system, which mainly

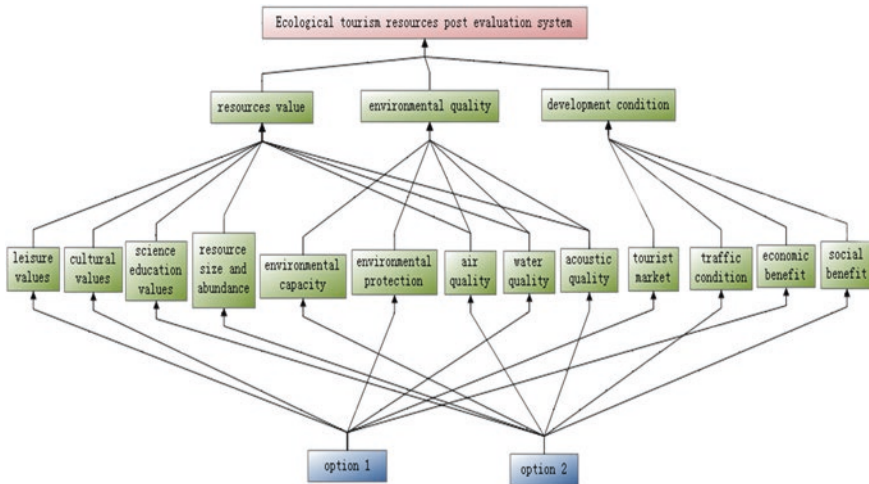


Fig. 3 Ecological tourism resources postevaluation system

includes the identification of indexes for some factors based on the specific spot area and scoring those factors according to above mentioned AHP method (Fig. 3).

6 Conclusion

On the basis of hundreds of papers, this paper discusses evaluation factors, evaluation system, and AHP-based evaluation method in relation to tourism resources.

Taking into account the evaluation factors should be independent of each other and the number of factors should be manageable, 35 evaluation factors have been identified. Each factor has a strict definition and evaluation criteria of five levels. And some different indicators could be chosen to measure for a factor.

While the evaluation system is built, it should know the answers of five questions, that is, who do evaluation work? What is the object of evaluation? What are resources types? What is the development situation of tourism resources? Does the evaluation object have one or more strategy options?

This paper also discusses tourism resources valuation method based AHP, which is currently widely used and presents from two aspects to improve the use of AHP, that is, introducing strategy options layer and appropriate arrangement for the scoring process.

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Research on the Tourist Demands and Evaluation for Public Tourism Services

Jufeng Xu and Mengyang Sun

Abstract “Public tourism services” is an generic term covering public tourism affairs which focus on tourists demands and aim at satisfying the conjunctive demands for public tourism and recreation—but for a nonprofit purpose. Based on more than 10 years’ practical experience of public tourism services, the services can be divided into tourism information/consultation services, tourism infrastructure, the safeguards of the interests of tourists, tourism safety assurance, and the local soft environment in tourist destinations, etc. In order to find out whether the public tourism services of tourist destinations meet the tourists’ demands, an investigation was launched in Beijing, Shanghai, and Chengdu. The results indicate tourism infrastructure, local soft environment, and tourism safety assurance are what most concern tourists in respect of public tourism services.

Keywords Public tourism services · Demands and evaluation · Tourism infrastructure · Tourism safety assurance · Local soft environment

Public tourism services are the practice of public services in the field of tourism and specifically combine the characteristics of public services and tourism.

As with the existence value of public services, the public tourism services provide the services to those who demand such services and simultaneously take account of efficiency and equity, with the core goal of satisfying the public interests and the public demands for tourism and recreation. Therefore, “Public tourism services” is an generic term covering public tourism affairs which focus on tourist demands and aim at satisfying the conjunctive demands for public tourism and recreation—but for a nonprofit purpose.

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Despite the different forms, channels, and suppliers of the services, the public tourism services can be divided into tourism information/consultation services, tourism infrastructure, the safeguards of the interests of tourists, tourism safety assurance, and the local soft environment in tourist destinations, etc., based on the current development situation of China's tourism and more than 10 years' practice and practical experience of public tourism services at home and abroad.

With a huge Foreign Independent Tourist (FIT) market, the public tourism services conducted by tourist destination cities, like Beijing and Guilin, have in recent years provided the convenience to the public in terms of life quality development and leisure enjoyment. Have the public tourism services conducted by the tourist destination cities satisfied the demands from tourists? How do the tourists evaluate all the items of public tourism services? The researches on these questions have critical practical value to the increase of satisfaction and loyalty for tourist destinations, the growth of the quality of public tourism services, and the further improvement of the public tourism service system.

1 Means to Research the Tourist Demands and Evaluation for Public Tourism Services

1.1 Research Time and Place

This paper conducts the researches based on the questionnaire which involves five factors of public tourism services tightly related to the public self-help tours, including the tourism information services, tourism infrastructure, the safeguards of the interests of tourists, tourism safety assurance, and the local soft environment in tourist destinations. The purpose is to investigate the self-help tourists' demands for each factor of public tourism services and evaluation for the importance of each factor.

A questionnaire survey was launched from April to July 2011. The survey sites selected are Beijing (970 questionnaires), Shanghai (304 questionnaires), and Chengdu (190 questionnaires) where tourists are relatively concentrated.

1.2 Demographic Characteristics of the Respondents

The survey samples have a quite extensive range and an extremely high representativeness. Besides one from overseas, the respondents' residence places nearly spread all over China, including Hong Kong, Taiwan, four direct-controlled municipalities, and 26 provinces. In addition, the respondents have a relatively equal proportion in terms of gender and marital status. About 50 % of the respondents range from 24 to 44, and more than 70 % have graduated from junior colleges or universities and even have higher education backgrounds. The monthly incomes of most respondents rang from RMB1,000 to RMB5,000, and so these respondents belong to the medium- and low-income population. However, 52 ones have the monthly incomes of more than RMB10,000, accounting for 3.7 %. The detailed demographic characteristics of the respondents are shown in Table 1.

Table 1 Demographic situation of the survey on the tourist demands and evaluation for public tourism services

Characteristic value	Proportion	
Gender	Male	49.5
	Female	50.5
Age	15–24	30.1
	25–34	35.6
	35–44	16.5
	45–54	13.0
	55–64	3.6
	Greater than 65	1.2
Education background	Primary school	0.5
	Junior high school	3.8
	Technical secondary school or senior high school	17.4
	Junior college or university	70.6
	Postgraduate or higher	7.8
Marital status	Married	46.5
	Unmarried	53.5
Place of residence	Beijing	50.3
	Shanghai	11.4
	Sichuan	8.1
	Others (29 provisions/cities)	21.4
	Overseas	0.1
Monthly incomes	No incomes	20.4
	Less than RMB1,000	3.2
	RMB1,001–RMB3,000	28.6
	RMB3,001–RMB5,000	28.3
	RMB5,001–RMB8,000	10.7
	RMB8,001–RMB10,000	5.0
	RMB10,001–RMB30,000	3.0
	More than RMB30,001	0.7
Profession	Public servants	4.7
	Managers of enterprises and institutions	13.5
	Specialized technicians or culture and education technicians	8.9
	Organization/enterprise employees	25.4
	Private entrepreneurs	4.9
	Retired personnel	4.9
	Workers	6.3
	Peasants	1.2
	Soldiers	0.6
	Students	21.8
Others	7.8	

2 Analyses for the Behavior Pattern of Self-help Tourists

The main body that requires the public tourism services consists of foreign tourists, local inhabitants, tourism enterprises, and tourism industry personnel. In this paper, however, in consideration of the tourist demand characteristics in a new-stage public tourism, independent tourists—including self-help tourists and semi-self-help tourists—are thought as the main body requiring the public tourism services in the mass tourism age. As a result, independent tourists are the objective of this survey.

The self-help or semi-self-help tours are another type of tourism compared to the package tours. In the package tours, the tourists select to purchase the packages, for which the travel agencies have determined the tourist routes, and then complete the tour process and activities, including dining, accommodation, transport, sightseeing, shopping, and entertainment. In this way, the tourists can only passively receive the contract-price tourism products. However, the self-help or semi-self-help tours basically get rid of the travel agencies' pre-arrangements and give the tourists the freedom to choose service items and tourist routes. The semi-self-help tours allow the tourists to independently choose the tour programs and decide the tour time, but commission the affairs, such as car booking and accommodation, to the travel agencies. Most affairs involved in this tourism type need to be settled by the tourists themselves. The operations are complex, but the tourists can have more freedom and the tours are full of personalization.

In this survey, 59.6 % of all the respondents have ever taken the self-help or semi-self-help tours; 40.4 % were taking the self-help or semi-self-help tours at that time; 53 % would plan the self-help tours. Although the self-help tours' market share cannot be derived from or shown by these data, it can be found out that the tourists have strong desires for the self-help tours and the proportion of self-help tourists will remain or even hit a record high for some time to come.

For the ways to collect the self-help tour information almost half of the respondents (47.4 %) choose the "information inquiry before setting out"; 43.5 % prefer the combination of "information inquiry before setting out" and "information inquiry after reaching destinations." The self-help tours' greatest advantage that attracts the tourists is the "freedom and autonomy" which are based on a range of careful preparations by the tourists prior to the tours. The most critical step to achieve such advantage is to successfully collect all the tour-related information. Through a large amount of information collection, the self-help tourists can make the "package tours" on them own. However, they also need the maturity and support of the factors of public tourism services. It is either one of the important guarantees for the development of self-help tours or the question required to be researched in this paper.

3 Analyses for the Self-help Tourists' Demands for the Factors of Public Tourism Services

3.1 Demand Analyses for the Tourism Information Services

In order to successfully complete the self-help tour plans, the tourists are required to make good arrangements for all the steps during the tours, i.e., to be aware of all about dining, accommodation, transport, sightseeing, shopping, and entertainment. In this paper, these six elements are also taken as the main contents of the survey. The respondents are required to judge the demand intensity of the corresponding element ranging from “not important” to “extremely important” (five points, with the value “1”–“5”) according to the attitude scale. Furthermore, allowing for the fact that a few tourists may not understand individual elements or not be clear about the relevant conditions, we set “having no idea” as an option and assign the value of “0” to it, so as to ensure the reliability of the questionnaire to the greatest extent.

The statistical results of the mean values (Table 2) show the demand intensity of “transport” is greatest, with the value of 4.23. The second one is the demands for “accommodation” (4.07). The third one is the matters needing attention for the local travel (4.02). The demand intensity of “tourist shopping information” (3.19) is the least one of all the mean values of the survey. “Getting out of homes”—achieving the spatial displacement by all kinds of transportation—is the most important step for tourists to finish the tour activities. The strongest demand for the tourist transport information is in line with the realities that transport infrastructure has developed off balance in China, that the number of the population is extremely large, and that the tour time is relatively concentrated. In China, the self-help tours are in the early stage of development. Even though the tourists free themselves from the travel agencies’ constraints, sightseeing is the main purpose for tours, and the pure leisure tours and shopping tours are relatively few. According to the percentages of the information demands, nearly 30 % of the respondents think the “shopping” information is “not important” or “not so important,” and nearly 20 % of the respondents think the “entertainment” information is “not important” or “not so important.” These data are basically 10 % more than other elements. It can be clearly seen that the “entertainment” and “shopping” are in a fringe position and even dispensable in the self-help tours.

Table 2 Mean values of the demands for the tour-related information

Dining—food information	Accommodation—accommodation information	Transport—tourist transport information
3.85	4.07	4.23
Sightseeing—attraction introduction	Entertainment—entertainment and leisure information	Shopping—tourist shopping information
3.91	3.52	3.19

3.2 Demand Analyses for the Tourism Infrastructure

The tourism infrastructure is the material base for tourists to complete the tourism activities. Besides the common infrastructure shared with the inhabitants in tourist destinations, such as the transport facilities, financial services, medical services, communication facilities, the specialized tourism infrastructure is required to be established, such as the transport facilities specially toward the attractions, tourism reception conditions, tourist service centers, and entertainment and leisure facilities. In consideration of the self-help tourists' demands for both the common infrastructure and the specialized tourism infrastructure, we respectively make the corresponding investigations and statistics in this survey.

According to the statistical results of Table 3, "the public security" (the mean value of 4.46) is paid the most attention by the tourists among the common infrastructure, and "the transport facilities especially toward the attractions" (the mean value of 4.13) is paid the most attention among the specialized tourism infrastructure. Because the self-help tours are under independent arrangements and in free situation for most of the time and the tourists are in relatively unknown environment, personal safety is the most important. In recent years, the personal injuries and property damages of tourists have consecutively occurred, so the diplomatic service, tourism departments, and public security departments of China have successively issued the tourism safety warnings. It provides the safety education and guidance to the tourists from the official perspective and enables the tourists to take the public security as an important criterion to select tourist destinations. The survey result that the tourists pay the most attention to the transport facilities accords with the condition that the tourists care about the transport information. It can be seen that the self-help tourists of China most care about the transportation convenience.

"Opinions of the State Council on Accelerating the Development of Tourism Industry" points out that the main task of the tourism development is to accelerate the establishment of the tourism infrastructure which focuses on tourism roads,

Table 3 Mean values of the importance of infrastructure on the self-help tours

Common infrastructure		Specialized tourism infrastructure	
1. Local transport facilities	4.24	7. Transport facilities specially toward the attractions	4.13
2. Local communication facilities	4.18	8. Reception conditions, like hotels and travel agencies	4.02
3. Local financial services	3.55	9. Sightseeing and service facilities of attractions	4.06
4. Local public security	4.46	10. Tourist service centers/tourist information centers	3.76
5. Local environment and sanitary conditions	4.37	11. Local leisure, entertainment and shopping facilities	3.63
6. Assurance services, like medicine and emergency assistance	4.25		

the parking lots of attractions, and tourist service centers, etc. These Opinions are in line with the demands of the self-help tourists and the current stage of the self-help tour development. On the whole, the tourism transport means tightly related to the self-help tours are various and abundant, including the long-distance transport means between cities; the infrastructure for getting in or out of cities, like airports and stations; and the public transport means within cities, like metros. In addition, there are the tourist distribution centers and sightseeing buses improved gradually in recent years by a few cities with the developed tourism. These various and alternative transport infrastructure have made the tours more convenient and comfortable. The further researches discover that the respondents think “the public transport means within cities,” like metros and buses, are most important (the mean value of 4.19), and then follow “the infrastructure” (the mean value of 3.98), like airports, ferries and stations, and “the long-distance transport means between cities” (the mean value of 3.94). Along with the rise of self-driving tours, “the facilities critical for self-driving tours” (the mean value of 3.81), like signage, are also paid attention by the tourists. Meanwhile, the convenient car hire services are required to be provided in the cities away from hometowns. All these demands put raise comprehensive and multiaspect requirements to the tourism infrastructure. Both the public tourism demands and the rising self-help tour demands need to be considered in the establishment of the tourism transport facilities.

3.3 Demand Analyses for the Tourism Safety Assurance

Maslow’s Hierarchy of Needs suggests safety is the second need for human being. Tourism safety is a demand under the special living condition when people are “on the way.” Safety is one of important factors influencing tourists’ decisions and the tourism development. The sense of insecurity on tourism activities will cause the decrease of tourists. For instance, Sichuan earthquake, Hainan rainstorm, and Egypt’s turmoil, etc. have had the great influences and impacts on the tourism of tourist destinations. Owing to the variability of the time and space of tourism activities as well as the extensive and complicated contents involved, safety is required for the six aspects of tourism activities, i.e., food safety, accommodation safety, transportation safety, sightseeing safety, shopping safety, and entertainment safety. In addition to these aspects which are easily identified and have relatively small influences, earthquakes, robbery, terrorism, communicable disease are also the nonsafety factors in tourism. These risks do not frequently happen, but are able to create the big attacks on the tourism and have the significant influences on the tourists’ confidence for tourism safety.

From the perspective of the public services of mass tourism, this paper abstracts six public service issues for the safety assurance—tourism safety warning services, emergency assistance and emergency disposal services, tourism insurance purchase, accommodation safety, food safety, and medical assurance.

The survey results indicate the tourists remarkably concern about such public service issues, especially “the food safety” (the mean value of 4.57) and “the

accommodation safety” (the mean value of 4.52). Among the researches on the tourism safety, the foreign scholars put the cognitive factor in food safety in the first place. They believe the fact that many individuals in the catering industry ignore the food safety for pursuing excessive profit and short-term profit will bring about various negative influences on the customers and induce the hidden dangers to the tourist food. In China, the food safety problems have frequently occurred in recent years, such as using the faulty materials, adding the toxic substances, overusing the food additives, misusing the chemical additives inapplicable to food processing. The media attention and exposure have led to the unprecedented concern for food safety. It accords with the conclusions of the foreign scholars, and the survey results fully show that people put the food safety in the first place. Accommodation is the important place for the tourists to rest and relax. However, hotels may become another hidden danger because of their openness and the tourists’ weak awareness for safety.

It is not uncommon that the unforeseen circumstances occur during tours, which are harmful to the personal safety and property of tourists. To reduce these risk losses, tourism insurance is one of important approaches, which consists of the medical expenses, personal accident compensation, double compensations for accidents, the round-trip expenses for emergency medical services, the insurance for personal wealth and credentials, and personal liability insurance. The tourism insurance has been existed in China for long time, and the tourism departments require the insurance for all package tourists in order to regulate travel agencies. Because the self-help tours have not been fully and directly administrated by the tourism departments, the relevant tourism insurance is operated mainly through guidance and recommendation. As a result, the awareness of tourists for tourism safety assurance becomes the critical guarantee for tourism insurance purchase.

3.4 Demand Analyses for the Safeguards of the Interests of Tourists

The tourists would like to safeguard their legal rights and interests in the process of tours, but overcharging and unreasonable charging are common. Therefore, the tourism departments should, during the supervision for tourism, safeguard the interests of tourists, actively deal with the current problems in the market, encourage and train the related personnel to work with credibility and professionalism, and help the tourists to establish the confidence for the personnel and for the safeguards of tourism interests.

According to the survey, the fake tourism information distribution, cheating and overcharging, no channels for complaints and unreasonable charging are mainly the common phenomena of infringing on the interests of tourists. From the perspective of the humanities and social science, the establishment of any attractions is the outcomes of the social development, which determines the nature of public goods of some tourism resources. In cases where the tourism departments fix

the low prices for entertainment and leisure places as a return for the national and enable the public to acquire the education on ecological environment and history culture, there is no doubt it is a representation of safeguarding the interests of tourists. Therefore, issuing the tourism discount coupons and lowering the prices of entrance tickets are also considered as the safeguards of the interests of tourists in the survey. The survey results show “avoiding being cheated and overcharged” (the mean value of 4.53) and “acquiring real and reliable tourism information” (the mean value of 4.52) are the most concern to the respondents. However, “acquiring the tourism discount coupons” (the mean of 3.77) and “the lower prices of entrance tickets” (the mean value of 4.04) are placed in the secondary position.

3.5 Demand Analyses for the Soft Environment in Tourist Destinations

The practices indicate what attract tourists in the tourist destinations are not only the rich tourism resources and massive historical heritages, but also the local soft environment, which is critical for the tourists’ decisions about tours. The establishment of the soft environment in a tourist destination is a complex project which requires an overall operation in the destination. The friendly local residents, good professional qualities, relaxing leisure atmosphere will jointly build a comfortable environment of the tourist destination. Among the soft environment of a tourist destination, “the qualities of tourism personnel” (the mean value of 4.30) acquires the most concern, and then follows “the local leisure and holiday atmosphere” (the mean value of 4.16).

The self-help tours have no unified actions and organization compared to the package tours, so the great randomness and uncertainty exist in their tourism activities. It requires the tourist destinations to create better tourism environment and provide safe and full-service tourism atmosphere, allowing for both soft and hard environment.

4 Analyses for the Importance of the Factors of Public Tourism Services on the Self-help Tourists

To find out the self-help tourists’ judgments for the importance of the five factors of public tourism services, we require the respondents to judge the importance of these factors—the tourism infrastructure (including both the common infrastructure and the specialized tourism infrastructure), tourism information services, tourism safety assurance, the safeguards of the interests of tourists, and the local soft environment in tourist destinations—in the last two questions of the questionnaire. The statistical results show three factors, “the tourism safety” (the mean value of 4.43), “the safeguards of interests” (the mean value of 4.37), and “the common infrastructure” (the mean value of 4.29), have the most importance.

Table 4 Mean values of the importance of the factors of public tourism services

Common infrastructure	Specialized tourism infrastructure	Tourism information services
4.29	4.20	4.04
Tourism safety assurance	Safeguards of the interests of tourists	Local soft environment
4.43	4.37	3.80

As to the judgments for the importance of public tourism services on the completion of self-help tours, the respondents give a mean value of 4.02. Nearly 20 % of the respondents do not give the positive replies on such importance, choosing “not important,” “not so important,” and “in between.” This result is lower than the respective mean values of the most factors of public tourism services in Table 4. It can be concluded that the public tourism services are still relatively abstract and unfamiliar to the respondents. If the services can be reified and realized, the respondents may be easier to judge and comprehend the factors and are able to make the importance judgments.

Regression analyses are made in order to further identify the influence intensity of the five factors of public tourism services on the judgments for the importance of public tourism services. The relational model for the importance of the public tourism services on the self-help tourists and all the factors of public tourism services is built to find out which factors have more influences on the importance of the public tourism services.

The variables corresponding to most questions of the questionnaire are not quantitative variables, but ordinal variables which have the role of classification. Therefore, a linear regression model is not applicable, when the cause-and-effect relationship between the factors of public tourism services and the implementation of the important processes of self-help tourism plans. This paper employs an optimal scaling regression, and the equation is as follow:

Importance of public tourism services = $0.134 \times$ common infrastructure + $0.147 \times$ specialized tourism infrastructure + $0.052 \times$ tourism information services + $0.091 \times$ tourism safety assurance + $0.078 \times$ safeguards of the interests of tourists + $0.14 \times$ local soft environment.

5 Conclusion

Tourism infrastructure, especially transport and accommodation facilities, are the important material guarantees for tourists to complete the tourism activities. The infrastructure either helps to achieve the special displacement of tourists or becomes the attraction for tourists and the critical consideration for the tourist destination selection. As a result, the improvement of the facilities of public tourism services and the accelerated establishment of the tourism transport, signage system, tourism consultation service platforms, and independent tourist distribution centers should be taken as the priority in our country.

The local soft environment in tourist destinations becomes the second important influencing factor. This statistical result differs from the findings of literature, since few literatures have taken local soft environment as the part of public tourism services. Based on the analyses, one of the reasons is that other factors are all have the visible research points and also the focuses according with the rapid development of independent tour trend. On the contrary, the establishment of the soft environment is relatively placed in the secondary position, and the invisible nature of the soft environment as well as the difficulties for quantification still influence the tourism to define the relevant work scope. The results of this survey, however, give out a definite signal to the tourism that the indications measuring and influencing tourists' satisfaction on tourist destinations are not limited to the tourism resources, tourist consultation centers, and distribution centers, etc. The invisible factors, such as the tourism personnel of tourism destinations and the local leisure and holiday atmosphere, also have important influences on the judgments for the level of public tourism services.

The tourism safety assurance is the third important influencing factor. As early as the last century, the tourism safety already drew the attention of the foreign scalars and the tourism. Until now, it has always been the priory of the tourism and the core services for the safeguards of the interests of tourists. In the developed countries and areas, it has transformed from the traditional ex-post compensation to the all-round services involving the ex-ante, in-between, and ex-post affairs, which is a modern tourism concept widely recommended. In this paper, the tourism safety assurance is split into the ex-ante part—the tourism safety warnings and tourism insurance purchase, the in-between part—the emergency assistance, and the ex-post part—the medical guarantees. Safety is the lifeline of the tourism. During the development of the tourism, China have to further establish and develop a mature system of the tourism safety assurance, especially the safety managements for attractions, emergency assistance and tourism insurance.

The tourism information demands are required over the whole process of tours. The intensity of the self-help tourists' demands for the tourism information services is also great according to the survey results. This factor, however, does not show the significant influences in the optimal scaling regression of the importance of public tourism services. Namely, the tourism information services have a small influence on the importance of public tourism services. Currently, the tourism information service system has been extremely mature in the developed countries. Although our country has also proposed it on the agenda and is committed to its planning and establishment, many aspects still need to be improved. For example, the information is not comprehensive, not updated timely and even not true. Therefore, the reliance and concern for the tourism information services are merely in the level of awareness, but not action, for the self-help tourists of China.

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A Study on the Formation Mechanism of ‘Lv You’ Tourists Incidents—An Qualitative Analysis Based on Grounded Theory

Yongguang Zou and Xiangmin Zheng

Abstract The words ‘Lv You’ sounds like tourism in Chinese, now it a new type of travel mode in China. The safety and security of ‘Lv You’ tourism has been an important issue for scholars, local authorities and ‘Lv You’ tourists. With the help of Nvivo 8.0 in managing and coding original resources, this paper adopts internet interview and information collection as basic method. By using qualitative analysis method based on the Grounded Theory, which includes open coding, Axial coding, selective coding, the paper concludes four factors that might account for ‘Lv You’ tourist incidents: individual factor, environmental factor, management factor and institutional factor. The analysis finds that ‘Lv You’ tourist incidents have their own rules of origin, process and spatio-temporal evolution. Following the whole process of ‘Lv You’ tourism, considering every possible promoting factor, this paper analyzes the formation mechanism of the ‘Lv You’ travelers’ stage of preparation, stage of experience and stage of rescue. Based on the formation mechanism, this paper divides ‘Lv You’ travelers into cautious travelers, normal travelers, and adventurous travelers.

Keywords ‘Lv You’ tourism · Tourist incidents · Formation mechanism · Qualitative analysis

1 Problem Posing

With the rapid dissemination of information, ‘Lv You’, as a new type of tourist organization has been highly adopted by modern tourists as a representation of life style and a type of outdoor sports. Nowadays, outdoor sports have become

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a new trend in tourism industry, such as mountain-climbing, hiking, fishing, skiing, rock-climbing, rafting, river-tracing, bicycle motocross and camping, have been more accepted and adopted by the public. However, the high risk of outdoor sports has constantly caused all kinds of accidents. Some reports has revealed a harsh situation that there were 483 accidents happened to the outdoor sport enthusiast from the year 2009 to 2011, which basically means there were at least two accidents every week. At the same time, it is controversial that some accidents were caused by the tourists' overconfidence and ignorance of possible dangers (Yi 2012). Especially in the new media time, high rate and efficiency of the dissemination of information lead to great influence on the development of certain tourist destinations. At the same time, there are a lot of legal disputes about these accidents. Thus, the safety and security of 'Lv You' have attracted the attention of local authorities and tourist enterprises. Most research and studies done by the domestic and foreign scholars are about the current situation of 'Lv You' tourism, and also the statistical analysis of the accidents. With the high frequency of tourist accidents, more studies on the general process and reason mechanism of 'Lv You' tourism are required. It is important and necessary to find out the reasons of potential incidents, so that certain measures can be taken timely.

2 Progresses of Related Researches

2.1 'Lv You' Tourism

'Lv You' tourism was firstly brought up by the Sina Tourism Forum. It was actually inspired by the mountaineering which rose at the end of the 18th century, had been popular for two centuries in the western countries. In 1990s, its descend-ent activities were introduced to China which were adventurous and leisure. It differs from traditional sports and travel mode by combining travel with sports, nature and interpersonal communication. It free people from their social life, presents them with the beauty of nature, and endows people with energy and positive life attitude. Afterwards, with the changes of forms, the outdoor sports have developed its own groups, culture, consumer market and pattern of consumption. However, the concept of 'Lv You' tourism has not been defined. Wang and Zhou (2010) believe that 'Lv You' refers to two kinds of people, one is outdoor sports enthusiasts who take hiking, traversing, mountain-climbing etc. as ways of body-building, and the other one is travelers with the purpose of appreciating landscapes, knowing culture, experiencing the life and collecting folk stories. Wang (2012) proposed that 'Lv You' refers to outdoor sports enthusiast who take hiking, riding bicycles and driving as trip mode and participate in activities like camping, mountain-climbing, rock-climbing, rafting, traversing, and fishing etc. Wang (2011) suggested that 'Lv You' equals to outdoor sports enthusiast who likes challenging, and the activities they participate are maximal exercises which are dangerous, extreme and adventurous. Zeng (2003) believes that 'Lv

You' is tough travelers who travel with mates and preferring undeveloped but beautiful places; they are fond of trudge and field exploration, and the activities they participate include hiking, fishing, skiing, rock-climbing, rafting, tracing the river, cross-country cycling and camping etc. Han and Gu (2009) believe that 'Lv You' refers to those independent travelers who communicate and get information by the internet without any reliance on the travel agencies; they usually choose undeveloped and newly developed natural scenic spots as tourist destinations; they participate in the activities like hiking, exploring, self-driving, rafting, mountain-climbing, riding and photographing; their whole trips aim at self-fulfillment, pressure-relieving, mind-refreshing and getting close to the nature. The definition of 'Lv You' that Hu and Wang proposed basically covered the contents of 'Lv You' tourism. Thus, this paper adopts their definition as the concept of 'Lv You'.

The studies on the behaviors of 'Lv You' are also important. The way 'Lv You' get information, share experience and make friends is independent, digitized and mutual. The similarities of cultural background, consumption mode and action logic lead the characteristics of their behaviors to be infomercial, novelty-seeking and self-helping which become the symbols of this group. Han Jing and Gu Cheng found that the instantaneous and fast-spreading of tourist message brought by the network information technology make more and more 'Lv You' travelers adopt new ways of traveling which are endowed by the times, such as the way of organizing, the characteristics of their behaviors, the avoidance of popular tourist attractions, the pursuit of ecology, the culture needs, and the anticipation of consumer. Wang Baojun suggested that 'Lv You' usually plan the trip by them and purchase everything they need on the trip; it is a free and independent way of traveling.

The definition of 'Lv You' has not been carried out for a separate study in other countries. Most studies concentrate in backpacking travelers, safarist, and independent travelers, and especially emphasize the characteristics of backpacking travelers. Scholars like Pearce (2005), concluded the behavior characteristics of backpacking travelers to preference for cheap accommodation, fondness of communication, flexible travel arrangements, and top choice for nature-appreciation, culture-experience and adventurous activities, and mass participation. Nash et al. (2006) has found out the interaction between backpacking travelers' requirements for accommodation and their degree of satisfaction, and backpacking travelers' concentration on the economical hotels or express hotels rather than the quality and level of service. Sørensen (2003) analyzed the Anthropologic characteristics of backpacking travelers. Backpacking travelers' decisions on the route selection and destination are influenced by their own cultural background, sometimes even by the brochures, introductions and comments on the websites. David and Boulware (2004) took the point of Gender discussing the characteristics of female backpacking travelers, and found out that female backpacking travelers are almost the same with male backpacking travelers in travel time, choice for destination and changes of decisions, but the budgets they made are more practical than those of male travelers. Philip and Foster (2007) believed that travel as a backpacker is like going to a university, which means tourist's motivation largely depends on individuals' skills.

Individuals' personal overall skill is the key factor of backpacking travel, and has direct relation with the travel process.

2.2 Researches on the Safety of 'Lv You' Tourism

As the burgeoning development of 'Lv You' tourism, tourist accidents frequently occurred. The safety and security of 'Lv You' tourism now has become an important issue for the scholars, local authorities and 'Lv You' travelers. Domestic scholars have done some researches on these accidents. Wang and Zhou (2010) thought that many accidents were caused by travelers' poor awareness of safety. Travelers of this type like going to the remote places. Considering most travelers of this type are lack of common sense of self-rescuing and related exercises, and the poor prediction and preparation against accidental problems brought by the dissymmetry of information, the number of accidents caused by these two factors is large. Wang (2011) pointed out that most accidents in 'Lv You' tourism were about falling, slipping, sudden death, drowning and avalanche. Besides the natural factors like field environment, human factors such as poor health condition, poor preparation, unsuitable shoes, social environment and structure of organizations are the main causes for those accidents. The interaction between natural factors and human factors influence 'Lv You' tourism from the beginning to the end. Mi and Ren (2009) concluded the causes of such accidents to the organizer, traveler and the problems of tourist destinations.

Researches on the security assurance of 'Lv You' tourism have also been done. It is revealed that 'Lv You' tourists' awareness of buying insurance is weak, and the popularization of insurance is low, and tourists' ability of risk-transferring is poor. According to the research targeted at tourists of this type from Beijing, Shanghai and Guangzhou which was done by related institutions, only 20–30 % of the tourists interviewed had purchased the tourist insurance. In Lu's (2011) research, she revealed the poor condition of rescue mechanism in China. She found that most rescue were organized by senior 'Lv You' tourists, and other rescues done by the police, the public security and foresters were temporary which lack unified coordination and conductor.

Exploration, as one of the symbols of this group, is the hot spot in 'Lv You' tourism. The exploration travel in other countries has been mature, so the perceived actions and risk cognitions are formed. Martha et al. (2009) have done research on rock-climbing enthusiasts' ability of risk cognition, and found out that their cognition of safety and predictions against risk were much better than normal tourists. Wichasin (2011) has done a research on the relevance between the risk cognition and risk prediction of the backpacking travelers in Thailand, and has proved that there was a positive correlation; the main factors of the level of tourists' risk cognition are age, education background and the number of travel mates, and the main factors of risk prediction are differences in major and travel mode. Peel and Steen (2007) have done research on the situations of both criminals and

victims who suffered robbery and burglary during their trip, and also the loss of those victims.

The researches on the safety and security of 'Lv You' tourism done by domestic and foreign scholars are still at the starting stage. And the researches concentrate in the definition of 'Lv You' tourism, the types and causes of accidents and the security control of 'Lv You' tourism. The research approaches are both qualitative and quantitative. And the qualitative study is about the analysis of those accidents, the statistics of the frequency and causes of those accidents. The early characteristics of 'Lv You' tourism have been concluded, but the essential disciplines have not been found out. By interviewing and collecting related data, this paper adopts using isotropy analysis method based on the Grounded Theory method and tries to explore the formation mechanism of accidents of this type of tourism.

3 The Research Method

3.1 The Substance and Reason of Using Grounded Theory

A reasonable data mining and analysis is the research difficulty of tourism security. The method was unreasonable, the conclusion was only suitable for a certain time by the case statistical analysis in (Glaser and Strauss 1967), and they can't make a description to the nature and law. In the section of formation of tourism security theoretical system, some suitable analytic methods are a must (Luo and Chen 2011).

The Grounded Theory is a scientific mold of qualitative research, which is put forward by sociologist Glaser and Strauss. There are no theory assumptions; the researchers need make field observation, sum up the primary database, and then get the concept, category, theory. It is used in a new research field, which is a research method in the form of from bottom to top.

Tourism security research need extract theory from cases and make the construction of theoretical system. The interview to the tour pal can collect full and accurate news; this lays a foundation to the construction of theoretical system. In recent years, as the network information spreads swiftly, widely and reliably, it has become a main channel of security cases. We can make data mining and qualitative research for getting nature and law.

3.2 Information Arrangement and Data Coding

This paper takes internet interviews and cases for date collection. Internet interview means to participate in network forum, interview with tour pals and organizers, and get primary data. Cases collection is made by main search engines and some websites about "tour pal" and "outdoor sports." The criterion include, time:

2009.01–2011.12, basic case coding information, such as time, place, process and reason. Following the criterion, this paper collects 111 cases in all, makes information arrangement and data coding.

4 Analysis of the Formation Mechanism of ‘Lv You’ Tourists Incidents

4.1 Data Analysis Methods

Open coding, spindle coding and selective coding are important data analysis methods of grounded theory. For a better validity, grounded theory emphasizes the importance of successive contrasts and sampling theorem in the application. Data collection to theory formation is an interactive process, such as data collection—theory formation—next data collection—perfecting the theory. The researchers should collect some new data to verify the problems, compare the existing data, distinguish the categories, and correct the theory, until the theory is in the state of saturation (Wang and Gao 2010). With the aid of the software Nvivo 8.0, the research process as follows.

4.1.1 Open Coding

Open coding is an operable process as information decomposition—supervision—comparison—conceptualization—categorization, in other words, you need break up the information and then recombinant it (Chen 2000). The purpose of open coding is to discover generic type, name it, and confirm the attribute and dimensionality. The paper takes the primary collected data as operational coding with the aid of software Nvivo 8.0, and gets 40 sentences after two-round comparison. Extracting the repeated conception, the researchers integrate the same and similar categories, and finally get 37 conceptual categories (as the Table 1), which lays a foundation to spindle coding.

4.1.2 Axial Coding

Axial coding aims to discover and establish the relationship, which show the inner link in every part. With the aid of software Nvivo 8.0, this paper classifies the inner relationships of 40 sentences, name them (as the Table 2), and get seven independent categories: physical quality, safety awareness deficiency, experience shortage, unforeseen accident, equipment lack, skills shortage, social security problems.

Table 1 Concept developing process

Raw data	Concept
Altitude sickness. Sudden severe altitude illness and exhaustion. The unfortunate death due to sudden pulmonary edema. Sudden illness, LV YOU fainted in the hillside	Altitude sickness; sudden illness
A female climber sudden slide into streams due to exhaustion Mr. Hu with LV YOU seriously injured, has been unable to move around	Lack of physical Seriously injured
To the top of the hill to see is a flat lawn, I would no vigilance Then she accidentally fell Too reckless to blame, I feel good to go this route, did not look carefully at the foot Now that I think particularly afraid, I did not expect the mountain road is so difficult to go, we want to give up several times	Lack of vigilance sense; negligence; afraid
Because of having outdoor experience, bring a compass, map, rope, lighter, and a small amount of food, and began crossing With their equipment and can not climb to the mountaintop The first climb "wild," due to lack of experience, not even light a fire tools are not carrying	Outdoor experience; lack of equipment; lack of experience
Often there is no road to the place, LV YOU favorite. The more dangerous road, LV YOU more love to go. This road almost nobody came 10 network 'LV YOU's get to know the people, through the QQ group appointment, walk through, ALICE did not know	Explore a new adventure; don't know each
The darkening sky down, they found they have been lost, tree, mountains and dense forests, walk through a very difficult, very anxious heart Could not find a route down the mountain after the summit despair Valley, fans in the valley Get lost due to darkness, trapped in the mountains	Get lost trapped; directions unknown; dark labyrinthine
Steep cliff, and fell to the valley from the cliff on. Play in the water next to the waterfall, stepped in smooth rock slid down from a 100 m altitude. Because the mountain roads are not familiar with, he reconnects accidentally injured Parties felt unable to uplink to occur immediately notify the team leader Climbing is dropped, and seriously injured his head against the rock The labyrinthine trapped mountain, falls, fell counterparts stumble over 200 m deep cliff The way in climbing accidentally slide into 100 m of the valley, is stuck in the 30 m	Cliff fall; high-altitude fall; falling off a cliff; slide; drop falls

(continued)

Table 1 (continued)

Raw data	Concept
<p>There is a climbing wall collapsed. A large area of the mountain rock fall. Landslides caused by land impassable. Slippery mountain road, I stumbled on a boulder. On the way, including a “LV YOU” hill rolling down a giant falling rock hit</p>	<p>Rock wall collapse; rock fall landslide; rolled boulders</p>
<p>With a loud clap of thunder, a flash of lightning, the bombing fell on the ground. Suddenly encountered a violent storm, flash floods swept away part of the team Peak the mist still very erratic Snow reduced visibility to less than 30 m due to bad weather conditions on the mountain, the wind whips up. Heaven drizzle temperatures plunged, had decided to backtrack, only to get lost in the way down the mountain trapped Extremely muggy weather, heat stroke signs. He died due to heat stroke in a long time. Rainstorm hit 3 times suffered wasp</p>	<p>Lightning storm; fog snow; heavy rains; hot heat stroke; animal attacks</p>
<p>Line of 4 people get lost in the scenic area, the call is not be connected is turned off Due to lack of preparation, they do not have communications equipment with the outside world to get in touch. Hill signal is not good</p>	<p>Information barrier; poor equipment</p>
<p>LV YOU covets stimulation; fun, in the ill-prepared action hastily with complete emergency tools under the premise Not familiar with mountain winter natural climate change, do not know the terrain is difficult to distinguish the mountain snow There are three companions ate the hill picking wild poisoning, one of whom has been shock</p>	<p>Lack of preparation; climate terrain; food poisoning</p>
<p>Because of dissatisfaction with the local villagers to receive the so-called “camp fee,” they suffered fight A LV YOU spend fourth time money and have a cheated feeling</p>	<p>Beaten theft; slaughtered cheated</p>
<p>Falling from the mountains in the cycling of the hillside, unconscious. Driver slipping out of control overturned seriously injured and died last We failed to control, but because of the big waves we are still unable to move forward</p>	<p>Road accident; traffic was disrupted</p>

4.1.3 Selective Coding

Selective coding indicates a process that the researchers select core categories, contact the categories and perfect the un-mature categories (Strauss et al. 2000). The process include: identifying the core category, making use of the data, category and

relation explaining the phenomenon. The essence of selective coding is selecting a core category after the system analysis and integration (Li and Li 2006). On the basis of open coding and spindle coding, this paper extracts the category of notion, and finally reduces to four core categories; they are personal factors, environment factors, management factors, and institutional factors. The category development and Coding processes of qualitative analysis as the Table 2 shows.

Grounded theory research paradigm eventually constructed a theory foundation by extracting the core category of the analysis process from open coding, spindle type coding and selection type code, however, in order to promote the conclusion, the use of grounded theory research paradigm in qualitative analysis requires should take consideration of reliability, validity research category. This paper continues to adopt the network interview and case analysis, to test the reliability and validity, in the testing process, the concept, core category always remains the same with the previous research results, the core category is same to the preliminary research category, proved that qualitative analysis of the category had achieved theoretical saturation, and it indicate that the study of extraction of category is credible and effective.

Table 2 Category developing processes and results of qualitative coding

Concept	Open coding	Axial coding	Selective coding
Altitude sickness, sudden illness, physically frail, seriously	Physical illness Lack of physical	Physical fitness	Personal factors
Reduce vigilance, negligence, fear, outdoor experience, lack of equipment, lack of experience, to explore the divergent, adventure, do not know each other, getting lost trapped unknown route, the dark labyrinth	Relax their vigilance Lack of experience Explore a new adventure Get lost	Lack of safety awareness and experience	
Cliff fall, high-altitude fall, drop falls, rock wall collapsed mountain rock fall, landslides, rolled boulders	Accidents, disasters	Unexpected incidents	Environmental factors
Lightning, heavy rain flash floods, heavy fog, snow, storms, hot, heat stroke, animal attacks	Natural disasters		
Information sharing, poor communications equipment, the signal is bad, the lack of preparation, the climate unfamiliar terrain, food poisoning	Inadequate preparation of communication technology	Lack of equipment and technology	Management factors
Suffered beatings, theft, slaughtered deceived, car accident, storms ship blocked	Social security event Traffic accidents	Poor public order	Institutional factors

4.2 *Discovery of Research*

4.2.1 **Factors of Tourism Security Incidents of ‘Lv You’**

With the qualitative analysis of Grounded Theory above, we can conclude four core categories from all the factors of tourism security accidents of ‘Lv You’—individual factor, environmental factor, management factor, institutional factor.

Individual factor means such safety incident caused by ‘Lv You’ themselves as physical illness, short of energy, insufficient safety consciousness, poor experience of outdoor activities, distinctive expectations of safety, relaxation of safety vigilance and risks of adventure.

He was very strong and not found any physically injury when examined. His friends also said noting wrong was found when examined before. I thought it might be cardiovascular disease that causes him dead, which sometimes hid deeply and couldn’t be found by simple examination. But the real cause depends on the postmortem examination—Number 2.

It was their first time to climb wild mountains. They even did not carry any fire tool because of lacking experience. They also lost contact with the boy sent to discovery the track. At last, they had to call police for help when it got dark and cold—Number 12.

Environmental factor mainly means the safety incidents caused by irresistible sudden natural disasters and emergency. It’s too hard to avoid that environmental factor is pro and almost unpredictable.

When the troops went through the deep valley, rainstorm and flood suddenly broke out. Members hurried to the high places for shelter. But a part of members were still swept away because they were in the deep valley—Number 26.

It began to rain from some time, but they continued moving forward. It became foggy in the mountain and the hillside was very wet and slippery. When reaching a strategic place, Mr. Liu slipped and fell off. He rolled tens of meters along the hillside and his head stroke heavily to a rock—Number 23.

Management factor refers to the safety incidents caused by imperfect management of outdoor activity leagues or organizations and tourism destinations. It includes unfamiliarity with the condition of weather and topography, lack of basic knowledge of food safety, insufficient outdoor equipment and poor preparation, which bring out many incidents during ‘Lv You’ outdoor activities.

Some ‘Lv You’ are professional compared with others. They carry such protective equipment as helmets and knee pads and care much about their safety. But some ‘Lv You’s are lacking self-protection awareness. When coming into emergency, they don’t know how handle it and are always trouble in danger—Number 10.

These are six ‘Lv You’ to choose the wrong way after into the deep valley because of unfamiliarity with topography. They went directly to Baiyunyuan along the right road. But they couldn’t pass the mountaintop with their own equipment and ability. They just went around much further and more and more precipitous. At last, they even couldn’t find the way back—Number 11.

In addition, imperfect equipment in tourism destination is also another cause, although not the main one. As known to all, ‘Lv You’s like to discovery a new tourist track instead of the old and common one. But the signal can’t cover the entire region, especially the remote region where ‘Lv You’ would like to go. Once the emergency happens, rescuing work will have many difficulties because of the bad signal condition and unstable information transmission. It will always cost a more loss than ever.

Those ‘Lv You’ who are fond of adventure always choose the way of no way. Where there is no way, there are ‘Lv You’s. More difficult the way is, much happier ‘Lv You’ will be. Even though, ‘Lv You’ should care self-safety most and never travel away from the troops. 12 ‘Lv You’s get together by QQ, even though they didn’t know each other before—Number 13 and 14.

Signal condition in the mountain is not good enough, so everyone took a mobile phone to keep contact with those lost ‘Lv You’ and other succor. But signal isn’t stable and police had to climb the mountain to search it. He also had to communicate with ‘Lv You’ to locate them when the signal was available—Number 34.

Institutional factor means the safety incidents caused by the institutional problems. It includes contemporary deficient certification mechanism of outdoor sports organizations and imperfect management institution of outdoor safety, which put ‘Lv You’ in the place full of potential risks. Problematic security condition of tourism destination and lack of legal rigor also belong to the institutional factor, which cause ‘Lv You’ often beaten, robbed and cheated during their tourism.

‘Lv You’ from urban district of Chongqing were beaten heavily by local villagers when camping in Xiangmahe Scenic Spot, Qijiang County, just because of dissatisfaction of so-called ‘camping fee’—Number 38.

4.2.2 The Formation Mechanism of Tourism Security Incidents of ‘Lv You’

With the qualitative analysis of influential factors of ‘Lv You’ tourism security, it shows there’re many elements, including four core strategies—individual factor, environmental factor, management factor, institutional factor, which each have many formation factors. And with deep analysis of interview date from ‘Lv You’ and accident date about ‘Lv You’, the tourism security incidents follow the unique spatial and temporal regularity. This research follows the main line of ‘Lv You’ traveling time course and analyzes the formation mechanism of tourism security incidents from the preparatory stage, the experiencing stage, to the rescuing stage, considering the incidental factors on each stage as the Fig. 1.

The analysis reveals that the formation mechanism of tourism security incidents of ‘Lv You’ has these characters as followed:

On the preparatory stage, ‘Lv You’ keeps company to take outdoor activities by outdoor sports leagues or organizations. But on one hand, because of contemporary imperfect certification mechanism of outdoor sports organizations and lack of

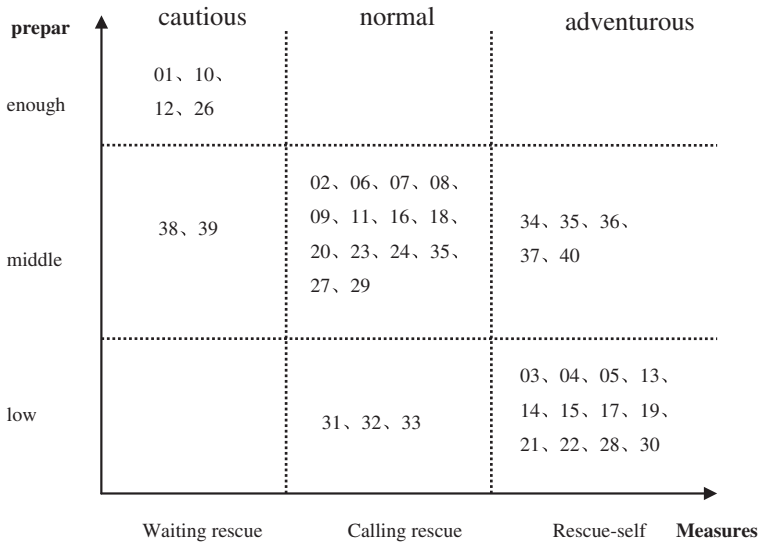


Fig. 1 The types of the “LV YOU” tourists

scientific qualification certification on the contents of sports events, there exist several accident risks. On the other hand, before traveling, the majority of ‘Lv You’ volunteers together by internet. This situation that they don’t know each other before hide some security risks for accident rescuing. Some are still not preparing well and lack of basic equipment and knowledge of the basic condition of destination. They even don’t take any safety precaution such as buying an insurance policy. The emergency is often based on all the problems.

On the experiencing stage, according to the types of activity, the factors of accidents are always very complex, such as altitude stress, sudden illness, energy loss, flood disasters and mudslide, most of which are irresistible sudden natural disasters. Although the safety condition of tourism destination can be grasped by weather forecast, ‘Lv You’ tends to experience any adventure they meet because of their unique mental characters, which often cause them trouble in danger. So the emergency on this stage is mainly caused by the combined factors of individual, environment and management.

On the rescuing stage, after emergency, tourism security incidents happen because of such factors as delayed transportation, unsmooth information, weather changes and lack of emergency skills, which are influenced by the comprehensive factors of environment, individual, management and institution.

In conclusion, the tourism security accidents of ‘Lv You’ run a potential risk on the preparatory stage and go with emergency events on the experiencing and rescuing stage, which is brought out by the predictable and unpredictable factors.

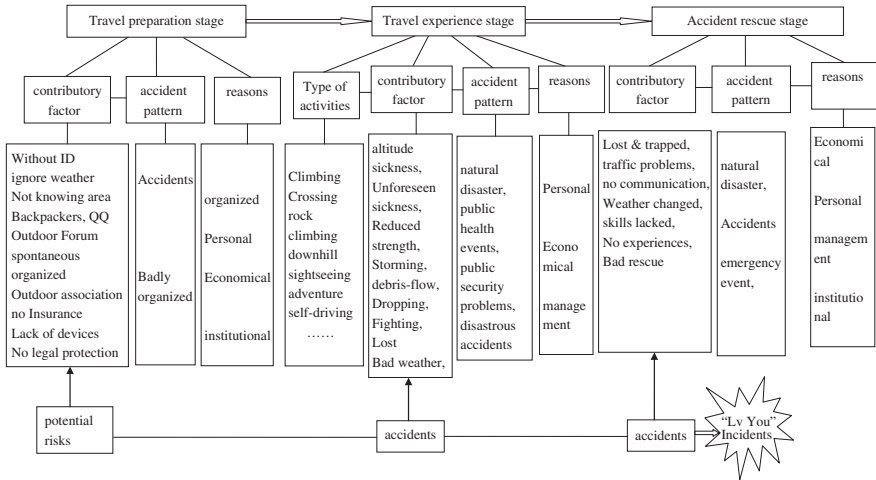


Fig. 2 The logical mechanism of the ‘LV YOU’ tourist accidents

4.2.3 Division of ‘Lv You’ Based on the Incidental Formation Factors

The incidental formation factors make an important effect on tourism safety of ‘Lv You’ and reflect their knowledge and awareness of safety. Considering division of tourists based on the influential factor of tourist’s sense of security, this research divides ‘Lv You’ into three types—cautious type, normal type and adventurous type as Fig. 2, based on the incidental formation factors and the formation mechanism of tourism security incidents of ‘Lv You’.

The caution-type tourists are very cautious about the security of tourism destination during the whole travel. They prepare well before travel, such as preparing outdoor equipment, paying attention to the weather and topography of destination. Even the tourists with little outdoor experience will do some preparation. They may not prepare well, but they will definitely be aware of security. The typical character of these tourists is weak in dealing with outdoor emergency. Once emergency happens, because of lacking the emergency skills, they tend to be frightened and just have to wait for external help.

The normal type of tourists reflects the balanced state of mind on considering all the security factors. They seldom prepare for tourism or prepare deficiently even they do. Many ‘Lv You’ are unfamiliar with their own physical condition. Once climbing high-land, they are easy to have altitude stress or serious altitude diseases without any available emergency equipment. They aren’t cautious about security and tend to neglect unsafe factors during the outdoor activities. It reflects the state of mind of normal tourists. Besides, once emergency happen, this type of ‘Lv You’ would like to call for help but the rescue is often delayed because of unstable communication system of travel destination.

The adventure-type tourists don't care much about security factors of destination, which is related with the motivation and purpose of their adventure. They don't have adventurous activities, but just look for more exciting and unusual experience based on their previous experience of outdoor activities. The adventure-type tourists prepare for tourism but not sufficiently. It means they don't pay much attention to the security and weather condition of tourism destination, but they still have a set of equipment. So once emergency happens, they can independently help each other with high-qualitative emergency skills and survive finally. Even they have terrible emergency, they can reduce the loss with help of rescuer.

5 Conclusion and Discussion

The tourism security incidents of 'Lv You' often happen with the tourist activities of 'Lv You' increasingly becoming one of the main types of outdoor activity. The problem of tourism security of 'Lv You' is always the core problem which is scholars, local government and 'Lv You' tourists greatly concerned about. This study takes two research methods (internet interview and case collecting), collects data related with security of 'Lv You' widely and sorting out information and data got from research. It uses qualitative analysis of Grounded Theory with the software of Nvivo 8.0. By Open coding, Axial coding and Selective coding, this study sums up four core categories, that is four factors of tourism security incidents of 'Lv You'—individual factor, environmental factor, management factor, institutional factor. The deep analysis also reveals the fact that the tourism security incidents follow the unique spatial and temporal regularity. This study treats the whole temporal process of 'Lv You' tourism as the main line, combines the incidental formation factor on different stages, and analyzes the formation mechanism of tourism security incidents of 'Lv You', from the preparatory stage, the experiencing stage, to the rescuing stage.

Based on the incidental formation factors, this study divides 'Lv You' into three types—cautious type, normal type and adventurous type. The caution-type tourists are very cautious about the security of tourism destination during the whole travel. They prepare well before travel, such as preparing outdoor equipment, paying attention to the weather and topography of destination. Once emergency happens, because of lacking the emergency skills, they tend to be frightened and just have to wait for help. They seldom prepare for tourism or prepare deficiently even they do. Once emergency happens, this type of 'Lv You' would like to call for help. The adventure-type tourists don't care much about security factors of destination. They don't have adventurous activities, but just look for more exciting and unusual experience based on their previous experience of outdoor activities. Once emergency happens, they can independently help each other with high-qualitative emergency skills and survive finally.

This study still has some problems. Firstly, there still exists subjectivity partly in concluding the four influential factors of tourism of 'Lv You', and the logical

relation between the factors of tourism security of 'Lv You' needs to analyze deeply. Secondly, the four core categories have to be examined by the quantitative study. All these problems need to be figured out by follow-up work.

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