

Tourists' Activity of Travel Agencies: Based on Correspondence Analysis

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Abstract. Correspondence analysis reveals the connection between variables by analyzing the interaction summary table made up of qualitative variables. It can reveal the difference between the various categories of the same variable, as well as the corresponding relationship between the various variables of different categories. Through the frequency analysis and the reliability analysis, we screened the 19 kinds of activities with the proportion of 20% or more to carry on the factor analysis, and analyzed the data by using the SPSS software to analyze the data by the way of questionnaire survey. Factor classification sorting. Finally, the correspondence analysis is carried out to explore the characteristics of tourists' preference for tourism activities.

1. Introduction

The history of tourism development can be divided into three stages. Ancient tourism activities are limited to a small number of people within a certain social class, mainly to personal business travel, there is no professional service agencies and a short distance. Modern tourism began from the British Industrial Revolution in 1841, it has made great social and economic development and upgrading, and there for the general public of specialized tourism services and profit purposes. After the 1950s, the world began to stabilize and develop gradually, tourism has become a popular activity. Tourism is a comprehensive social and regional activities, which is an important part of human social activities, including economic, political and other activities, and also including sports, recuperation, exploration, religion and other aspects of regional activities. Tourism has attracted a great deal of participation in its rich form, and has become a popular, popular social activities.

Since the industrial revolution, although the modern economic growth has made the material wealth of human beings expand at an unprecedented speed, the large amount of greenhouse gases emitted by the production and consumption of this economic and social development mode has led to global climate change, which has led to climate warming, extreme weather, meteorological disasters and sea level rise, and will undoubtedly become increasingly unsuitable for the sustainable development demand of social economy.

With the development of the society, a variety of other new tourism modes have appeared gradually. According to the survey data, the domestic self-help tourism shows a trend of increasing. This kind of tourism is particularly popular among the young people. However, as one of the most traditional methods of tourism, group tourism still has its certain status by virtue of its unique advantages, and this kind of tourism is more popular among the organizes, the elderly and other groups. The main purpose of this paper is to do an exploratory research to study the characteristics of visitors' choice of activities and to explain why the tourists choose such activities.

Eco-Tourism refers to all nature-based forms of tourism in which the main motivation of visitors is the observation and appreciation of nature as well as the traditional cultures prevailing in natural areas. And tourism refers to people in addition to immigration and employment for other purposes, to leave their places of habitual travel and stay out of the activities. In 1995, the World Tourism Organization (WTO) gave the definition that tourism activities were a short-term history of leisure, business and other purposes for less than a year, leaving the country's usual environment, traveling to other countries and staying in the country activity. People's demand of travel usually



derives from the demand of activity. Types of tourism activities can truly reflect the characteristics of the crowd.

2. Literature Review

2.1 Characters of Tourism activities

From the historical development of tourism activities, Yang and Wu found that human tourism activity or behavior is always associated with a certain social and economic development[1], it is the inevitable outcome of the development of human society. Tourism is a high-spending activity. While the high consumption is closely related to the enjoyment nature of tourism. In general, tourism consumption is usually 5-10 times the consumption. Wang thought that tourism is the origin of all tourism phenomenon[2], and tourism is the core of the entire tourism phenomenon. The tourism phenomenon includes the economic phenomenon of tourism. Tourism has obvious driving effect on the economy, the tourism industry can stimulate people's consumption, expand effective demand, and stimulate economic growth.

Everything has its unique essential attributes, one of the essential attributes of tourism lies in its leisure pleasure. It is found that the relationship between leisure and tourism in people's daily life is actually very close[3]. Both the essence and purpose are of hedonism. The hedonism property appears in the performance of various activities and various forms of tourism.

In addition, the attributes of aesthetic knowledge and culture are considered to be part of the essential attributes of tourism, but also an essential attribute through the ancient travel and modern tourism. Based on the travel demand model systems, tourism activity can not be separated from the aesthetic[4]. Tourism without the aesthetic tourism is just a kind of hurried hurry to busy rush instead of tourism activities. It is not the freedom of its performance. Only the real aesthetic function, aesthetic role, aesthetic nature of the tourism activities is the true sense of the tourism activities. Barros, Butler and Correia also believes that aesthetic is the driving force for tourism based on the length of stay of golf tourism, but also the potential pursuit of tourists[5]. Wang believes that tourism is a kind of activities that tourists achieve to meet their spiritual needs activities through sight-seeing[2].

For leisure destinations, how to improve the revisit rate by increasing the tourist's revisit intention is very important for the development of leisure tourism destinations. Choosing a tourism destination is a process of decision making. Decision making is a key field of customer behavior[6].

2.2 Styles of Activities

Everything has its own essential attribute. One of the essential attributes of tourism is its leisure enjoyment. In real life, leisure and tourism are closely related[7]. The essence of tourism is leisure, and the purpose of tourism is also leisure. The hedonic attribute is reflected in various tourism activities. In addition to leisure and enjoyment, aesthetic knowledge seeking and cultural attributes are also essential attributes of tourism, which is also an essential attribute throughout ancient travel and modern tourism. Tourism can not be separated from aesthetics. Without aesthetic tourism, it is not tourism activities, but the busy rush on the way, which is not the free expression of its life [4]. Only the tourism activities with aesthetic function, aesthetic function and aesthetic essence are the real tourism activities. Therefore, beauty is not only the driving force of tourism, but also the potential pursuit of tourists[4]. Tourism activities are activities that tourists can meet their spiritual needs by traveling and sightseeing[2].

The classification of tourism activities can clearly show the views on the nature of activities. The classification of activities is reflected in some literature. Yuehui divided tourism activities into four types from the perspective of tourism behavior, which laid the foundation for later research[8]. On this basis, many scholars focus on the study of different attributes of tourism activities, including spatial attributes [3], objective attributes [9], functional attributes[10], utility attributes[11] and other attributes [12].



The classification of tourism activities appeared in some literature. Usually, tourism activities can be divided by field, distance, organization, etc[13]. The pointcut is "tourism". Meanwhile, tourism activities can also be divided into 4 kinds focusing on the "activities"[8]. These categories are all from the perspective of tourism behavior analysis. On this basis, many scholars have analyzed the types of activities. Hultsch classifies recreational activities into sports, collectives, handicrafts, passive activities, integrated activities, and novel and stimulating activities[14]. Jopp and Hertzog argued that leisure activities mainly include 11 activities, including activities between friends and family, group public activities, religious activities, sports activities, development activities, experiential activities, hand-type activities, play Games, watching TV, tourism and science and technology activities, etc.[12].

3. Research Planning

3.1 Questionnaire

Based on the above literature review, this paper conducts an investigation on the tourism activities, mainly on the team tourists in the tourism activities carried out during the analysis. During the questionnaire design, the research ensures the validity of the questionnaire because it is designed on the basis of literature[15]. Certainly, this research revised it on the reality of Chinese's group tourism. The questionnaire mainly includes two parts. The first part is demographic characteristics of the samples, mainly includes the basic information such as sex, age, consumption, occupation, educational level and so on. The second part is the main content of the questionnaire, mainly on the specific enumeration of tourism activities, the questionnaire presented in 51 kinds of activities.

This questionnaire is based on the travel team for the object, the questionnaire release time is from August to October, 2016, especially in late August to September to release the most. Questionnaires are distributed in the field of payment, mainly through the tour guide in the tour bus on the return trip, each tourism group issued 5-6 questionnaires even if the tourism group is very big. A total of 180 questionnaires were issued, 150 were recovered and the recovery rate was 83%. The valid questionnaires were 120 copies and the effective rate was 80%.

3.2 Samples

We have a simple statistical analysis mainly from the gender, age, consumption, education, occupation and other five angles. The results are as follows:

Demographic variable	Item	Number	Percentage (%)	Demographic variable	Item	Number	Percentage (%)
Gender	Male	59	49.2%	Age	7-12	10	8.3%
	Female	61	50.8%		13-18	11	9.2%
Profession	Civil Servant	13	10.8%		19-25	20	16.7%
	Soldier	3	2.5%		26-40	33	27.5%
	White collar	17	14.2%		41-60	22	18.3%
	Worker	2	1.7%		61-75	19	15.8%
	Farmer	2	1.7%	Education	Junior School and below	43	35.8%
	Individual Household	4	3.3%		High School	26	21.7%
	Retiree	24	20.0%		Graduate	50	41.7%
	Student	31	25.8%		Postgraduate	1	0.8%
	Teacher	5	4.2%	Consume	0-1000	37	30.8%
	Salesman	4	3.3%		1000-2500	39	32.5%
	Padler	11	9.2%		2500-5000	35	29.2%
	Others	4	3.3%		5000-6500	7	5.8%
		•			6500-8000	2	1.7%

Table 1. Demographic characteristics of the sample



From the gender point of view, the ratio of male to female is 49:51 which basically tends to balance. From the perspective of age distribution, the overall balance of the distribution from the professional point of view, the highest proportion is of students and retired. From the education degree, the distribution is relatively uniform that the education degree of the samples is mainly of high school and junior high school and below the crowd, the college education level of the sample is less. From the consumption structure, people of the monthly consumption of 0-1000 and 1000-2500 tends to choose to travel with the group more. The above sample demographic characteristics of the basic data consistent with the current characteristics of Ningbo City tour group tourists structure. The survey data basically reflects the travel agencies' customers.

4. Data Analysis

4.1 Frequency

In this study, 51 kinds of activities listed in the questionnaires which were firstly used to calculate the proportion of tourists' participating in the activity, so as the frequency of the five activities participating in different activities is to be calculated. From the data analysis, the participation rate of the activities is more than 80% which mainly including leisure stroll, tasting food, shopping and photography. While the rate of visiting museums, ancient villages and other types of knowledge-seeking activities remained at around 50%. In addition, visitors' participation in spa-type and sports-type activities is only between 10% -20%, or even lower.

4.2 Reliability analysis

The Cronbach's Alpha coefficient was used to test the internal consistency of the scale, which was mainly used to eliminate some of the data affecting the reliability, and then analyze the remaining activities. First, the Cronbach alpha coefficient was 0.658, and the internal consistency of the data was not satisfactory.

But after the playground and sunbathe were removed, the Cronbach alpha coefficient increased to 0.742, greater than 0.7, and the internal consistency was better, so the final 19 events were left for further analysis. The details are as follows:

corrected Cronbach's squared Alpha Value if Scale mean if Scale variance item-total multiple item deleted if item deleted correlations correlation item deleted Leisure stroll 34.1417 63.618 .259 .746 .138 Tour the park 35.1417 57.871 .434 .398 .720 Coastal excursions 60.029 .359 .410 .727 35.7333 Flowers 36.0667 63.290 .247 .571 .736 Hiking 36.0417 61.755 .314 .718 .732 Mountaineering 58.798 .409 .670 35.6583 .723 <u>.6</u>30 36.1667 61.703 465 .725 Watch the performing arts 35.6000 59.217 .421 .491 .722 Visit the filming location 36.0917 64.319 .124 .501 .746 Visit the museum 35.6083 58.022 .475 .715 .717 .385 .751 .725 Visit the historical monuments 35.4250 58.734 .723 Visit the ancient village 35.5833 58.648 .402 .655 Visit the Ancestral Hall 65.079 .149 .531 .742 36.1167 Shopping .294 .390 34.7833 60.843 .733 Tasting food 34.3083 69.845 -.217 .362 .774 .569 .710 Photography 34.9083 56.151 .538 Chat online 35.3250 58.154 .343 .581 .730 36.1000 .336 Internet access 62.276 .578 .731 36.2000 62.430 Ornamental birds .410 .444 .728

Table. 2. Item Total Statistics



4.3 Factors Analysis

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity were first tested. The results showed that the KMO test value of the survey data was 0.654, which was close to 0.7, and Bartlett's sphericity test was less than 0.05, which indicated that the validity of the questionnaire was acceptable and could be further analyzed by factor analysis.

Principal Factor Analysis and Varimax was used in this study. After extraction of eigenvalues greater than 1 factor, the results showed that there are 5 eigenvalues greater than 1. It means that the 19 active options can be classified as 5 factors.

- Factor 1: Sports Activities: Running, Coastal Excursions, Tasting Food, Hiking, Mountaineering, Leisure Walk
- Factor 2: Knowledge-seeking Activities: Visit historical monuments, visit museums, visit ancient villages, visit ancestral temples
 - Factor 3: Cultural activities: flowers, visit the filming, photography
 - Factor 4: Viewing activities: viewing arts, ornamental birds, visit the park
 - Factor 5: Recreational activities: shopping, Internet access, Internet chat

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	Component								
	1	2	3	4	5				
Leisure stroll	.857								
Coastal excursions	.772								
Tasting food	.729								
Hiking	.591								
Mountaineering	.566								
Leisure stroll	.506								
Visit the historical monuments		.907							
Visit the museum		.884							
Visit the ancient village		.654							
Visit the Ancestral Hall		.576							
Flowers			.849						
Visit the filming location			.847						
Photography			.719						
Watch the performing arts				.663					
Ornamental birds				.633					
Tour the park				.602					
Shopping					.824				
Internet access					.803				
Chat online					.518				

Table.3: Rotated Component Matrixa

4.4 Correspondence analysis

In this paper, the demographic factors such as the use of control variables to the preceding five factors were used in corresponding analysis with the above 5 factors to find out the characteristics of tourists participating in such activities and activities.

Factor 1: Physical Activity. It can be seen from the corresponding analysis of the joint plan that such a group which characters are aged 7-18 years old, spending 0-1000 yuan for junior high school students or 61 years of age and older retirees is less participation in sports activities. Consumption levels of more than 5,000 yuan will be more involved in such activities; If we see it from the professional point of view, the group of soldiers, business managers, civil servants, sales, will mostly participate in such activities; And if we see it from the age point of view, the group has a large age span mainly maintained at 19-60 years of age.



Factor 2: Knowledge-seeking activity. From the corresponding analysis of the joint diagram, it can be seen that the group of 61 years of age and above, the level of education in the junior high school and below, the consumption level of 1000-2500 retirees tend to participate in such activities. In addition, teachers and factory workers who aged between 41 and 60 tend to participate in knowledge-based activities. The group of 7-18 year-old in junior high school and below or spending 0-1000 is rarely participating in such activities. In terms of age, older travelers will enjoy this type of activity overall, whereas younger visitors will rarely participate in such activities. From a professional point of view, such as teachers, retirees and other occupations will be more involved; and as students and so on relatively don't like such activities. From the consumption level, tourists with the overall level of consumption in the 1000-5000 yuan would have more participation.

Factor 3: Cultural Activity. According to the analysis of the corresponding joint figure, the overall data is relatively concentrated, from the professional point of view, found that students, housewives, teachers and other professional tourists, less participation in such activities, and self-employed, factory staff, clerks and other professional visitors, Participate in such activities more. From the age point of view, to participate in the activities of the age of 25-60 years of age-based tourists; from the consumption situation, to participate in such activities, tourists, spending concentrated in the 1000-5000. From the gender point of view, men participate in such activities than women. From the cultural point of view, junior high school education in the following sample participation is low.

Factor 4: Viewing Activity. It can be seen from the corresponding analysis of joint plans, we can find that 7-18 years of age and the consumption level in the 0-1000 students participate in such activities is relatively small. Overall, this activity is still more welcome by everyone, no matter from which point of view, the distribution is fairly uniform. Retirees over the age of 61 will be more involved in such activities. For example: from the consumption level, the basic maintenance at between 1000-5000, especially consumption levels of 1000-2500 visitors, will be more involved in such activities. From a professional point of view, retirees, clerks, teachers, factory staff, etc. are generally involved in such activities, especially retirees. From the age point of view, basically 40 years of age or more tourists. From the gender point of view, male participation in such activities than women.

Factor 5: Recreational Activity. From the corresponding analysis of joint plans it can be seen that the group of people of aged 7-18 years, spending 0-1000 yuan in the junior high school students will participate in the recreational activities. On the other hand, the group of more than 61 years old retired people also tend to participate in such activities. The thesis thinks that there may be due to the impact of the park tour the results. Overall, the consumption level is widely distributed, mainly maintained at between 1000-8000. From the point of view, the age span is still relatively large, mainly maintained at 19-75 years of age. From the gender point of view, woman's participation in such activities is generally higher than that of man.

Factor 6: Shopping and Tasting Gourmet Activities. Corresponding analysis from the joint map it can be seen that visitors will be involved in such activities, no matter from which point of view. It is surprised that the group of 7-18 year-old junior high school and below, the consumption level of 0-1000 students will be more involved in such activities. So, for this kind of activity, it is basically the first national travel will be selected activities.

Factor 7: Leisure Walking Activities. Corresponding analysis from the joint map it can be seen that in the distribution of visitors to participate in such activities are more concentrated. In addition to occasional several scattered, such as soldiers. From a professional point of view, such as sales, civil servants, business managers, students, retirees and other very few involved in such activities, and the group of housewives, factory staff, or prefer the kind of activities. From the age point of view, like 41-60,61 or more, are occasionally involved, and 26-40 years of age is not tending to participate in the basic. From the consumption situation, basically maintained at 1000-2500 visitors will be more involved.



5. Conclusion and suggestion

5.1 Conclusion

- (1)The activities of tourists have a greater similarity. This study investigated data on the participation of 51 activities, but the analysis found that the frequency of more than 20% only 21 species, only 30% of the 14 species, more than 40% in 11 species, a large number of activities concentrated in 19 kinds of activities, Indicating that tourists activities have greater similarity, this similarity in the end is due to the unity of the activities of travel agencies or other reasons, to be further study to prove.
- (2) The different characteristics of the crowd on the activities of the selective nature of clustering. From an age point of view, the elderly for the kind of museums, monuments and other activities of knowledge and knowledge showed great enthusiasm, and the young people for those shopping, tasting food, photography, etc. showed great enthusiasm. Retirees and teachers tend to seek knowledge-based activities. Students on shopping, tasting food and other activities, showing great enthusiasm. Men prefer the knowledge of class activities, while women for shopping, chat, take pictures and other activities to choose a higher proportion.
- (3) The influence of educational level on the type of activity choice is not obvious. From the cultural point of view, the results indicate that the impact of participation in activities is not obvious, for example, junior high school culture of retired people and students, their activities will be different, but the different cultural levels of various groups, Selection and did not show significant difference.

5.2 Suggestion

The result of the above analysis shows that there are some differences in the activities of tourists with different characteristics, and they also want to use the investigation and analysis of this paper to make an important reference to the design of travel routes and the perfection of scenic facilities. Therefore, the author mainly from the travel agencies and scenic spots of these two angles, give recommendations. Of course, the limitations of the author's own ability, given the proposal, there may be a big shortcomings.

(1) travel agencies can target different markets, design different lines, enhance personalization. From the actual situation of travel agencies, the current travel agency to sell the same line is too high, although there are private customized services, but the price is often high, few people will choose this service, so I hope the travel agency in the design of the line, Data analysis, design a personalized line products.

Firstly, for the elderly market, increasing knowledge-based activities is very important. It can be seen from the study of factors in the visit museum, historical memorial, ancient villages and other activities of the corresponding analysis, the elderly prefer this kind of knowledge-based activities, travel routes can be designed for the elderly Such attractions, but taking into account the physical condition of the elderly and more free time, travel can be elongated design, the moderate spots every day, not too much.

Secondly, for the young market, the travel agencies should pay attention to the influence of emotion. From this study can be seen that young people for shopping, photography, online chat, taste the food and other activities showed great enthusiasm, the attractions of the travel agency lines should be the main ornamental, with particular emphasis on the selection of beautiful scenery, suitable for tourists Pictures, at the same time, you can also design some of the more refined trip, but also with the practicality of the store.

Thirdly, focus on high-income market, focusing on customization. From this study can be seen that a lot of activities of the participants in the consumption level of basic maintenance of 5,000 yuan, up to 2500-5000 yuan between the tourists, which to some extent that high-income groups in the domestic tour in the Senate Tendency is not strong. If the travel agency in the design of lines, emphasizing the customization and personalization, will greatly increase the willingness to buy such people. This study found that high-income groups in the tourism process to participate in the



high degree of willingness to participate in shopping activities, so for high-income groups in the line can increase the number of high-quality shopping.

Fourthly, the general public to increase food elements. According to the corresponding analysis of food and found that tasting food is the people travel in the process most like to do an activity, in all ages and occupations are involved. This study suggests that the route design of travel agencies should be fully incorporated into the elements of food, and even those who are famous for food areas or countries, specifically the design of food lines.

(2) scenic areas should strive to improve internal management, mainly in the following two points.

First of all, pay attention to individuality and quality, rich scenic shopping and restaurants. At present, the tourism area of goods and food is high similarity, lack of personalized, so the store visibility and appearance of the visible display of the adjustment is very important, in this context, efforts to achieve the tourism goods and food personality.

Secondly, constantly enrich the scenic spots within the design, increase attractiveness. Different characteristics of the crowd tend to different types of activities, so you can enrich the scenic spots within the attractions to meet the needs of different tourists. For example, for teachers and retirees, there may be some antique buildings, the best some historical background. For students, you can arrange food experience and interactive experience programs.

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References

- [1] Yang Gengsheng and Wu Chunyuan, Brief Analysis of Human Tourist Activities, *Journal of Xinjiang Education Institute*, vol. 19,pp. 133-136, 2003.
- [2] Wang Zhonghua, Philosophical Vision and Essence of Tourism, *Journal of Ningxia University* (Humanities & Social Sciences Edition), vol. 33,pp. 84-88+138, 2011.
- [3] LIU Zhi lin, The Leisure Spatial Structure of Shenzhen Citizens on Werkends, *Economy Geography*, vol. 21, pp. 504-508,2001.
- [4] Ben-Akiva M E and Bowman J L, Activity based travel demand model systems, Equilibrium and advanced transportation modelling, Springer US, pp. 27-46, 1998.
- [5] Barros C P, Butler R and Correia A, The length of stay of golf tourism: A survival analysis. *Tourism Management*, vol. 31,pp. 13-21, 2010.
- [6] LI Huamin, et al, How Does Work Pressure Moderate the Formation Mechanism of Revisit Intention of Leisure Tourism Destinations: A Test of Moderating Effect, *Economics and Management*, vol. 22,pp. 154-167, 2019.
- [7] Liu Jialong, Analysis of transformed Holiday Tourism into Leisure Tourism, *Special Zone Economy*, vol. 5,pp. 181-182, 2007.
- [8] Yue Hui, Jasper National Park, Alberta, Canada, and Management of the Canadian Rocky Mountain Tourism Space. *Geography translation*, vol. 3,pp. 46-49, 1992.



- [9] Yang Guoliang, A Study on the Features of Leisure Behaviors of Urban Residents- Taking Chengdu as An Example, *Tourism Tribune*, vol. 02,pp. 52-56, 2002.
- [10] Lu Changhuai and Shi Ji Qiao, Leisure View of Contemporary Chinese, vol. 10,pp. 32-34,2007.
- [11]Sun Kun, Zhong Linsheng, Zhang Aiping and Zhang Guoping, Comparative analysis on the leisure values of urban ecological recreation spaces: Acase study of Changshu city. *Geographical Research*, vol. 35,pp. 256-270, 2016.
- [12] Paggi, Michelle E, Daniela Jopp and Christopher Hertzog, The importance of leisure activities in the relationship between physical health and well-being in a life span sample, *Gerontology*, vol. 62, pp. 450-458, 2016.
- [13] Bowman J L and Ben-Akiva M E, Activity-based disaggregate travel demand model system with activity schedules, *Transportation Research Part A: Policy and Practice*, vol. 35, pp. 1-28, 2001.
- [14] Hultsch, Hertzog, Small, Dixon, Use it or lose it: Engaged lifestyle as a buffer of cognitive decline in aging, Psychology and Aging, vol. 14, pp. 245–263, 1999.
- [15] Lehto X, Kirillova K and Li H, et al, A Cross-cultural Validation of the Perceived Destination Restorative Qualities Scale: the Chinese Perspective. *Asia Pacific Journal of Tourism Research*, vol. 22, pp. 329-343, 2017.