# Explore the Impact of Constraints on Tourists Visiting National Parks in China

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*Abstract:*In recent years, China is vigorously carrying out the construction and operation of national parks, and the number of tourists is also increasing. However, a series of constraints have influenced visits to national parks by the public. The empirical results show that, for the three different types of national parks, there are also significant differences in the perceived constraints of tourists. Therefore, this research will propose different improvement strategies for different tourists' perception of constraints. Moreover, management implications are provided to promote the sustainable development of national parks in China as well as desirable experiences for scientifically constructing national parks based on the principles of sustainable development, and improve the national park's infrastructure such as catering facilities.

*Keywords:* National Parks, Tourism Constraints, Costs, Perception, Spatial Accessibility

## Introduction

The National Park Initiative Program have officially begun in China in 2020 (Geng, 2020). The original goal of Chinese national parks is sustainable development, the three concepts of its construction are ecological protection first, national representativeness, and national public welfare (Yang, 2017). This means that national parks are responsible for ecological protection, the selection of the pilot area requires a complete and true display of China's image, and its purpose is to pass on this precious and rare natural heritage to future generation. Research shows that visits to national parks and protected areas in many countries/regions are increasing (Balmford et al., 2009). In 2015, the annual visits to the U.S. National Park System exceeded 300 million for the first time (Olson, 2016). This study will examine what factors can prevent visitors and non-visitors from making positive choices, including perception, space, and expense. In addition, this study divides national parks piloted in China into three main types, one is a culture-oriented park such as the Great Wall National Park, which based on cultural and historical landscapes, and biological species parks, such as Northeast China Tiger And Leopard National Park and Giant Panda National Park, with ecological animal populations as the main population, and natural landscape parks with unique natural landscapes as the mainstay. Then the research discusses whether there is a significant difference among visitors' perceptions of travel constraints, and compare their degree of recognition for each factor when they go to different types of national parks. Its purpose is to take different measures to publicize and attract tourists to visit these types of national parks by studying visitors' personal perception towards different types of international parks.

# 1. Methods

All residents in China are possible to be recruited as the survey respondents.

Convenient and snowball sample methods were used in this survey. And snowball sample method was mainly used to distribute questionnaires through social networking platforms. Potential respondents were invited to participate in the survey through the link and QR code to the online survey instruments. Part of the respondents was recruited through Questionnaire Star (a professional online questionnaire survey platform). And part of the respondents came into contact with the survey (including WeChat, Weibo, QQ, etc.) through the information released on social network platforms. In the end, a total of 1010 valid questionnaires were collected.

The Internet-based questionnaire instrument administered in this article can be affected by the subjective views of the respondents, so the reliability and validity of sample data need to be tested. In this survey, internal consistency was used for testing reliability. Constraints have 14 items, with α value 0.930>0.900, indicating high reliability. Cronbach alpha value of three sub-dimensions (Perception, Expense, Space) was re-detected, with 0.913>0.900, 0.861>0.800, 0.827>0.800, respectively, indicating all three sub-dimensions have good reliability.

Validity is verified by factor analysis (exploratory factor analysis), which can be analyzed through item factors in the internal structure. KMO and p-value of Bartlett's Test of Sphericity can be metric value. KMO of three sub-dimensions of constraint (Perception, Expense, Space) are 0.891>0.800,0.820>0.800, 0.846>0.800 (Table 1.2). And all pass the Bartlett Test (P value=0.000<0.05). Therefore, the variable validity of this study is very high, each item can express the corresponding variable information effectively, and the data of factors is valid and can be used for data analysis[1].

# 2. Results

In the preprocessing part of the data, none of the respondents have only visited the respondents of culture-oriented parks. Therefore, in this study, visitors who only visited culture-oriented parks were not studied as a separate group. It is included in the mixed user of the research structure. The research mainly uses analysis of variance (ANOVA) to analyze the degree of dispersion of data in the three groups of constraints. It is used to reflect the degree of difference between data to derive the perceived difference between visitors of different types of parks.

In multiple comparisons, the sigs of mixed users and natural landscape parks (0.000), for people who are not interested, mixed users and biological species parks (0.015) are all less than 0.05. This proves that there is a significant difference between the degree of the hindrance of the interesting factor to tourists of mixed users and the degree of the hindrance of tourists of natural landscape parks and biological species parks. Among them, the average value of mixed users is 0.579 smaller than that of natural landscape parks and 0.518 smaller than that of biological species parks. It proves that for tourists such as mixed users, the constraints caused by interest in national parks are smaller than tourists of natural landscape parks and biological species parks.

In terms of cost barriers, for high entrance fees and high food costs, the sigs of mixed users and natural landscape parks, mixed users and biological species parks are all less than 0.05. This proves that the factors of high entrance fees and high food costs have significant differences in tourists visiting national parks. Among them, the average values of mixed users are smaller than that of natural landscape parks and biological species parks. It proves that for tourists such as mixed users, the constraints imposed by the high admission fees and high food costs in national parks are less restrictive than those in natural landscape parks and biological species parks. For High lodging costs

and transportation costs, the sigs of mixed users and natural landscape parks is less than 0.05, which proves that there are significant differences between the cost of accommodation and transportation and those of mixed users and visitors to natural landscape parks. Among them, the average values of mixed users are all smaller than that of natural landscape parks. It proves that for tourists such as mixed users, the constraints brought by the high cost of accommodation and transportation are less restrictive than tourists in natural landscape parks [2].

Regarding the constraints caused by spatial accessibility to tourists visiting national parks, for those with disabilities who cannot reach, the sigs of mixed users and natural landscape parks, mixed users and biological species parks are all less than 0.05. This proves that there is a significant difference between the lack of barrier-free access for the disabled visitors and these three types of national parks. Among them, the average value of mixed users is 0.527 smaller than that of natural landscape parks and 0.626 smaller than that of biological species parks. It proves that for tourists such as mixed users, the constraints caused by the lack of barrier-free access for the disabled to national parks are smaller than tourists of natural landscape parks and biological species parks. For the reasons that the distance is too far, the number is too small, and it is difficult to find, the sigs of mixed users and natural landscape parks are less than 0.05. This proves that these three factors have significant differences in the degree of hindrance to mixed-user visitors and natural landscape park visitors. Among them, the average value of mixed users is smaller than that of natural landscape parks. It proves that for mixed users, the constraints imposed by long-distance to national parks, the scarcity of national parks and the difficulty for tourists to find the location of national parks, are less restrictive than tourists in natural landscape parks [3].

Regarding the ANOVE of the constraint, we divide it into three parts: perception, expense, and space. In general, in terms of perception, the perceptual constraints of mixed users are smaller than those of the other two groups. There are significant differences between mixed users and the other two groups. In terms of expense, mixed users have less constraints on entrance fees and food costs than the other two groups. In the cost of accommodation and transportation, mixed users are less constrained than tourists in natural landscapes. In terms of space, mixed users are less restrictive than natural landscape tourists. And there are significant differences between mixed tourists and natural landscape tourists [4].

## 3.Discussion

According to the constraining factors that affect tourists visiting national parks, it can be found from the research results that all constraint factors are significantly different between tourists who visit national parks with biological landscapes and those who only visit national parks with natural landscapes. This shows that in terms of constraint factors, there are significant differences in the degree of influence of the same factor among tourists visiting different types of national parks. For example, the research found that mixed users have fewer constraints in perception than other types of tourists. So, the government or the community organizes national park knowledge promotion activities to enhance people's education in national parks. In terms of space, mixed users are only less than natural landscape park tourists, which means natural landscape national parks are insufficient in spatial accessibility. So, the government can strengthen the infrastructure construction of it, such as setting up national park transportation lines. In terms of perception, mixed users' awareness of national parks is generally greater than that of tourists who have only visited one type of national park. Therefore, strengthening other tourists' awareness of various types of national parks can promote more tourists to visit different national parks. For example, put maps of all pilot

national parks on the brochures of different national parks and label them by category.

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