



Research on the Development and Regulation Strategy of Smart Tourism Public Information Service Platform

Kun-Shan Zhang¹, Chiu-Mei Chen¹(✉), Jie Li², and Hsuan Li³

¹ Department of Tourism Management, Zhao-Qing University,
Zhaoqing 526061, Guangdong, China
zhang_kun_shan@163.com

² Pingtung University, Pingtung City, Taiwan

³ Peking University, Beijing, China

Abstract. The construction of Smart tourism public information service platform has become an important direction to guide the development of tourism and an important factor to determine tourist satisfaction. Using the methods of literature research, field investigation, questionnaire and data analysis, this study takes Zhaoqing Qixingyan scenic spot as the research object, summarizes the current situation of the development of Zhaoqing Qixingyan public information service platform, analyzes its existing problems, and puts forward improvement countermeasures and suggestions through random sampling, questionnaire design, data collection and analysis and other steps. According to the investigation, Zhaoqing Qixingyan Scenic spot needs to be improved in three aspects: intelligent tourism facilities, intelligent tourism information platform and AI comprehensive application, so as to improve tourists' satisfaction with the intelligent scenic spot.

Keywords: Public information service platform · Smart tourism · Smart scenic spot

1 Introduction

Based on smart tourism and taking Qixingyan scenic spot as the object, this study deeply discusses the public information service platform of Qixingyan scenic spot. Zhaoqing Xinghu scenic spot was identified as a 5A scenic spot in 2020, which provides a good opportunity for the development of Zhaoqing Qixingyan scenic spot. However, the development of smart tourism and smart scenic spots in Zhaoqing is late, and the rich tourism resources development demand of Zhaoqing Qixingyan scenic spot has not been fully opened. Therefore, this paper takes Zhaoqing Seven Star Rock Scenic Spot as the research object, studies and integrates the development status of the intelligent scenic spot of Zhaoqing Seven Star Rock Scenic Spot, grasps the development status of Zhaoqing Seven Star Rock public information service platform, surveys tourists' satisfaction with the Seven Star Rock public information service platform.

2 Literature Review

2.1 Relevant Documents of Smart Scenic Spots

Zhang Bin [1] (2021) achieved the goal of common development and sustainable development of intellectualization and green ecology through the combination of ecological aspects. Liang Qian and Zhang Hongmei [2] (2013) believe that smart scenic spots are the application of new information technology to meet tourists' personalized service needs and improve tourists' sense of experience. Huang Liying [3] (2019) believes that smart tourist attractions are the effective use of Internet of things, cloud computing, artificial intelligence and other information technologies to achieve intelligent management and resource protection of scenic spots, while achieving the sustainable development of tourist attractions.

2.2 Documents Related to Smart Tourism

Li Shuxin [4] (2020) believes that smart tourism is a new tourism concept and form through information technology and terminal equipment transmission to achieve the goal of improving tourists' tourism experience and satisfaction, and finally realize the efficient utilization of tourism resources and tourism information sharing.

According to foreign studies, Gordon Phillips [5] (2000) believes that smart tourism is the process of designing, developing and marketing tourism products and businesses.

2.3 Development Status of Smart Tourism in Zhaoqing

On April 19, 2018, the construction of Zhaoqing global smart Tourism Internet public information service platform project was completed, and the smart tourism information platform - "Weixing Lake" WeChat official account was promoted [6, 7].

3 Empirical Results

3.1 Demographic Analysis

This study refers to Lu Shangyu [8] (2021) scholars' formulation of questionnaire measurement items based on the framework of level construction in the Urban Smart tourism evaluation system, classifies the functions of the public information service platform of Zhaoqing Qixingyan scenic spot, and divides the secondary indicators into three parts: smart infrastructure, smart tourism information platform and AI comprehensive application. Among the tourists interviewed, the gender ratio of men and women was 49% and 51% respectively, and the ratio of the two was close. The occupation structure, accounting for the largest proportion of ordinary enterprise employees, accounting for 25.74%, followed by college students, accounting for 19.80%, while the proportion of retirees is relatively small, only 2.97%.

3.2 Analysis of the Basic Tourism Situation of Qixingyan Scenic Spot

Among the times of visiting Qixingyan scenic spot, most of the tourists visited Qixingyan scenic spot for the first time, accounting for 41.6%. Other tourists visited Qixingyan scenic spot more than twice, accounting for 22.3%, three times, accounting for 8.4%, and more than three times, accounting for 27.7%. The reason for traveling to Qixingyan scenic area is to experience different natural scenery, accounting for 45%, followed by relaxing in Qixingyan scenic area, accounting for 35.1%, followed by photography and sketching, accounting for 8.9%, increasing knowledge, accounting for 7.4%, and others, accounting for 3.5%. In the questionnaire statistics, the reason for choosing the “other” item is mostly research. The ways to understand the tourism information of Qixingyan scenic spot are through official websites, WeChat, Weibo, TikTok and other media, accounting for 46.0%, other channels include travel agencies, accounting for 16.3%, radio and television, accounting for 11.9%, newspapers and magazines, accounting for 6.9%, relatives and friends, accounting for 18.8%. In the way of ticket purchase, online travel agent platform accounted for 45%, followed by official website WeChat official account accounting for 34.7%, on-site purchase accounting for 16.8%, and travel agency purchase accounting for 3.5%. The main consumption mode of Qixingyan scenic spot is mobile payment, accounting for 74.3%, while cash and bank card payment are less, accounting for 13.4% and 12.4% respectively. It can be seen that in the scenic spot, mobile payment can bring more convenient services to tourists.

3.3 Development Analysis of Zhaoqing Qixingyan Public Information Service Platform

3.3.1 Reliability and Validity Test

The reliability of this study is 0.856, Cronbach α the coefficient is greater than 0.7, and the validity KMO value of this study is 0.911, Bartlett is $0.000 < 0.001$, indicating that the indicators in the questionnaire are related, with high reliability and validity.

3.3.2 Investigation on the Regulation Strategy of Zhaoqing Qixingyan Public Information Service Platform

The index satisfaction results of Zhaoqing Qixingyan scenic spot public information service platform survey is shown in Table 1. The top three indicators of Zhaoqing Qixingyan public information service platform survey satisfaction score are Douer drink robot score of 4.02, self-service ticket machine score of 4.07, and panda shared telescope score of 4.07, which are the three indicators with the lowest scores in this public satisfaction questionnaire, with a certain gap from the average score of 4.11, It reflects that there are obvious problems in the comprehensive application of AI in Zhaoqing Qixingyan scenic spot in the public information service platform. It is necessary to strengthen the application efficiency of self-service vending machines in the scenic spot, and the popularity and utilization rate of facilities for comprehensive application of AI.

From Table 1, it reflects that there are major problems in Zhaoqing Qixingyan public information service platform, and the satisfaction of tourists needs to be improved.

Table 1. Average satisfaction of Zhaoqing Qixingyan public information service platform

index	mean value	index	mean value
Applet “Guangdong Province” function	4.19	The role of LED screen in understanding scenic spot information	4.08
Official account “Weixing Lake” platform function	4.19	Language explanation function	4.08
Park entry system	4.15	Self-service ticket machine	4.07
Mobile power bank	4.13	Panda sharing telescope	4.07
Language selection function of scenic spots	4.13	Douer beverage robot	4.02
Wi-Fi signal and connection convenience	4.10	The total score of satisfaction is 5 points, with an average score	4.11
mobile payment	4.10		

4 Conclusions

4.1 Improve the Supporting Facilities of Public Information Service Platform

The wireless network of Zhaoqing Qixingyan scenic area is basically covered. LED screens and electronic screens can be added to the scenic area to display the weather, precipitation, etc. at the same time, tourists can also browse the scenic area information, in order to provide tourists with more convenient and fast services.

4.2 Optimize the Functions of Public Information Service Platform

First, establish the function of smart service platform, and realize the electronation and informatization of tourism products, marketing channels and other links through modern technologies such as Internet technology and Internet of things, so as to realize the intellectualization of tourist experience. Second, strengthen the management of smart tourism information platform, update tourism resources in time, and prevent the formalization of platform functions. Third, update the application technology of smart tourism and create new smart products. Strengthening the introduction of Qixingyan scenic spot-on various tourism platforms can improve tourists’ visual experience and tourism motivation by introducing innovative technologies such as VR, 3D and gyroscope, and stimulate the tourism needs of target tourists.

4.3 Strengthen the Publicity of AI’S Comprehensive Use of Intelligent Functions

Douer drink robot and panda sharing telescope are both features of the smart scenic spot, but they are not publicized in the scenic spot, and tourists do not know or even know that they are set up in the scenic spot, resulting in their poor use. The publicity of smart functions can be carried out with the help of new media technology.

Acknowledgments. Fund Project: the humanities and Social Sciences project of Zhaoqing University “applied economic management” Research on the development impact and regulation of smart tourism public information service platform to serve the local economic and social development plan project.

References

1. Zhang Bin. Thoughts on formulating public information service platforms and evaluation standards [J]. China standardization, 2021 (19): 142-146.
2. Liang Qian, Zhang Hongmei. Summary of research on the development of smart scenic spots [J]. Journal of Xi'an University of Petroleum (SOCIAL SCIENCE EDITION), 2013, 22 (05): 52-56.
3. Huang Liying. Empirical Study on tourist experience in smart tourist attractions -- Taking Guangzhou Chime long tourist resort as an example [J]. Journal of Shunned Vocational and technical college, 2019, 17 (04): 79-84+90.
4. Li Shuxin. Research on the willingness of scenic spots to use smart tourism system from the perspective of perceived value [D]. Henan: Zhengzhou University, 2020.
5. Phillips S G. The tourism industry association of Canada [EB/OL]. www.slideshare.com,2000-12-05.
6. Yang Wen. Research on the development status and influencing factors of smart tourism in Zhaoqing [J]. foreign trade and economic cooperation, 2020 (12): 89-91.
7. Yang Wen. Research on the development path of smart tourism in Zhaoqing City [J]. northern economy and trade, 2021 (04): 158-160.
8. Lu Shangyu. Research on the construction of Urban Smart tourism evaluation system from the perspective of public services [D]. Guangdong: South China University of technology, 2020.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

