A Study of Rural Tourism Promotion Based on Intelligent Tourism Platform

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Abstract. Rural tourism depends on the environmental natural resources in suburb, using the difference between countryside and city to provide leisure service and rural experience for urban residents. Since traditional form of rural tourism cannot meet the needs of the current tourism market, it is necessary to build an intelligent tourism platform with the new information technology as the support, so as to boost the transformation and upgrading of rural tourism development in countryside and promote the comprehensive, coordinated and sustainable development of rural tourism.

Keywords: Rural Tourism, Intelligent Tourism, Tourists, Tourism Marketing, Tourism Information

1. Introduction

With the development of the Internet, 5G, cloud computing and other new generation of information technology, smart phones, information technology is affecting every aspect of social economy [1]. Tourism as an information intensive industry, is a gather of food, housing, travel, shopping and entertainment. Effective circulation and transmission are the main source of its vitality. And there is no doubt that the promotion of cloud computing, mobile communication technology will bring about comprehensive changes in the tourism industry. Smart tourism is the deep combination of art and tourism, relying on new technology, actively perceives tourists’ needs. This research focus on the current situation and problems of village tourism development based on the basic theory of tourism and provides the advice of promoting rural tourism.

2. Basic theory

The tourism system is considered as a collection of interrelated elements, which considers all systems as an organic combination of the whole system rather than simple parts by Hu [2]. One of the typical system models is Gunn model, which emphasizes the function of tourism system. In order to meet the
demand of tourists, country, region or community, a series of products and service are provided and the supply part can be divided into five subsystems, including attractor, promotion, transportation, information and service, etc. (Figure 1).

![Diagram of the Gunn tourism system]

**Figure 1.** The Gunn tourism system

Gunn argues that the five subsystems are not independent, but are interconnected and mutually have influence on each other, such as the needs of tourists, travel preferences change or travel patterns change. It will affect the effective provision of tourism products and services and promote the transformation of tourism marketing.

3. **Basic analyze of smart rural tourism**

In order to keep pace with the trend of tourism development, China has started the creation of smart tourism in recent years. In 2012 and 2013, the national tourism administration deployed two batches of pilot construction of 33 “smart tourism pilot cities”, and announced 22 “national smart tourism pilot units”, striving to basically realize “smart tourism” based on information technology within 10 years \(^3\). Since 2010, the major tourist destination cities in China have successively put forward the development strategy of building “smart tourism cities”, formulated smart tourism plans in 18 provinces and cities, and implemented smart tourism construction projects in many places. However, there are still some problems existing in the countryside like the ecological resources were destroyed, inadequate protection of human resource. Besides, the development of tourism industry is still unbalanced and lack of intelligent management in some places. And the low level of tourism informatization and lack of smart marketing affect the sustainable development of rural tourism \(^4\). Although there are some problems about smart tourism, smart rural tourism developed very fast and took place more and more tourism market in recently years, for instance, in a country called Wuyuan in Anhui province, its overall tourism income kelp in growing as shown in Figure 2.
Figure 2. The growth of tourism income in Wuyuan country from 2007 to 2014

4. The route of promoting rural tourism by smart tourism

In order to improve rural tourism management system, the smart system before travel can be created. Visitors can log on the smart rural tourism website before their trip to access to comprehensive information of rural tourism, having virtual tourism experience of place of interest in the countryside. At the same time, ticket, catering accommodation, entertainment transportation and other related reservations for rural tourism sites can be also achieved on the network.

With the help of smart tourism platform, tourism enterprises can be dug deeper and the information data of tourists in the travel itinerary can be used to study the composition of tourist market more comprehensively. According to the consumption level, consumption characteristics and tourism preference of tourist groups can be subdivided into tourist market and targeted at tourism.

To meet the needs of tourists, diversified, personalized and differentiated tourism products should be provided and personalized recommendation can be made to meet the diversified needs of tourists. Construction of a smart scenic spot depends on the characteristics of tourism resource and the self-visiting system can be established as follows in Figure 3.
Smart tourism involves the integration of the whole tourism industry chain, and its construction should be based on integrated industrial information management. And the basic rules for constructing smart rural tourism platform should include integrated development, putting people first, appropriate measures to local conditions and progress step by step. Public service platform of smart tourism is the foundation of the construction of smart tourism. The overall tourism public service level of the village tourism destination improves the competitiveness of tourism enterprises and promotes the tourism industry\textsuperscript{5}.

The construction of the public service platform is to make full use of the existing information technology, Internet, cloud computing and other new intelligent technology, according to the current situation of tourism development and information construction. To meet the needs of resource utilization and protection, the overall smart system structure can be shown in Figure 4.

The smart tourism platform can be divided into four part: fundamental pattern, data pattern, allocation pattern and service pattern. Among them, the basic layer includes 4G wireless communication network, video acquisition terminal, sensor and other information infrastructure construction. Through the integration of Internet of things, Internet and mobile communication network, the acquisition of tourism information and resources can be realized. The data layer usually consists of data warehouse and unified data access platform. Data warehouse supports structured and unstructured data. The application layer is mainly oriented to resource protection, business management, tourism management and public services\textsuperscript{6} to promote the reasonable protection. In service pattern, each subject forms an instant information exchange platform again in tourism activities.

Figure 3. Self-visiting tourism system

5. Construction of public service platform for smart rural tourism

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6. Conclusion

Based on the perspective of smart tourism, this paper analyzes the development status and existing problems of rural tourism in countryside. The dynamic system and restricting factors of the development smart tourism include economic development and tourism resources. The construction of the platform has promoted the transformation and development of the tourism industry. The development of rural construction and the integration of urban and rural areas has a certain driving effect. Of course, the construction of rural smart tourism platform needs further innovation and improvement.

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Research on curriculum reform of tourism management based on the needs of children growth (JG2015201).

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