

## Research on Service Innovation in Tianjin Smart Tourism System under the Background of New Era

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**Abstract:** In this internet information society, the traditional tourism information can't keep up with the pace of social development, and the personalized tourists and massive information processing can't be carried out smoothly, which has a great impact on the development of tourism industry. Under the background of "internet plus", the deep integration of information technology and traditional tourism forms a tourism innovation system, which promotes the in-depth development of smart tourism, not only realizes the intelligent and humanized tourism service, but also promotes the transformation and upgrading of tourism industry. Based on the theory of tourism service innovation, this paper constructs the service innovation mode of smart tourism system, and puts forward the countermeasures of smart tourism service innovation in Tianjin in the new era.

### 1. Introduction

With the continuous improvement of people's living standards, the development speed of tourism is accelerating, and the tourism industry has been given the title of sunrise industry. It can be seen that the development of tourism is highly anticipated. At the same time, with the deepening of the informatization level of society, smart tourism has emerged [1]. The information technology in the new era has been applied to all sectors of society, which not only makes progress with all sectors, but also promotes the development of all sectors. In the new era, people carry out tourism activities more and more frequently, but the traditional tourism format can no longer meet the needs of tourists in the information age. Therefore, it is a trend of the times to apply network information technology to the tourism industry [2].

Smart tourism is mainly based on meeting the needs of tourists from tourism experience to tourism development. It effectively collects and integrates the information of tourists in the process of tourism, processes and refines the collected data and information through emerging technologies, and then works out a scientific and reasonable service system based on this. Only in this way can we improve the service level of the tourism industry and provide a good guarantee foundation for the healthy and sustainable development of the tourism industry. At the same time, it also needs to meet the needs of tourists' spiritual and psychological sense of belonging in the new era. Service innovation in the smart tourism system is the inevitable result of the increasingly fierce competition in the tourism market, and it is also the development demand of the new era.

### 2. Intelligent tourism

#### 2.1. Concept of intelligent tourism

Smart tourism is a new format in the tourism industry. It uses the latest information technology to collect, analyze and sort out a large amount of information about tourism activities to meet the individualized needs of tourists, realize the intelligence of tourism service, management and marketing, and share resources in various directions, providing tourists with higher quality and faster and more convenient services. Tourists can learn the tourism information they need with the help of mobile terminals, tourism management departments can carry out intelligent management in all areas involved in tourism activities, and tourism enterprises can make personalized services and develop new tourism products according to users' needs.

## **2.2. Connotation of building smart tourism**

### **(1)Modernization of infrastructure**

Infrastructure includes network systems for data collection and transmission, such as information resource directory system and exchange system, and information security technology. Smart tourism actually realizes the benign docking of data and applications, such as using Internet of Things, RFID, GIS and other technologies to collect data, so that the data obtained is more accurate and complete; Then realize the transmission of data and information on the basis of the previous step, which requires the application of sensor network, mobile internet and unlimited broadband network facilities; Finally, we construct the omni-directional basic operating environment of the whole system to ensure the benign progress of various applications and the upgrade of services [3].

### **(2)Intelligent business management**

Smart tourism not only faces tourists, but also provides real-time tourism industry data for other users, such as government regulators and managers. These data can be effectively combined with expert system, data mining, statistical analysis, etc., to evaluate tourist credit, evaluate service enterprises, and realize intelligent supervision; Pre-test tourism resources protection, tourism product pricing or tourism industry policies to achieve scientific decision-making; It can improve the efficiency of resource allocation and improve the ability of quick response and emergency management. Under the promotion of this series of effects, the intelligent and refined management of the tourism industry is realized [4-5].

### **(3)Intensive industrial development**

The limitations and defects of traditional tourism industry are bound to be reformed and replaced by modern intelligent tourism. The rapid development of information technology will play a very important role in the improvement and innovation of traditional tourism, while smart tourism will play a very important role in the reorganization of tourism resources and industrial chain, thus making the traditional tourism rapidly transform into modern tourism. In the marketing mode, it will change from inefficient traditional mode to fast and efficient modern network marketing, optimize tourism brand and improve cultural value; In terms of tourism payment, with the help of a package of e-commerce services, we will build a perfect online payment, mobile payment and credit system to extend the value chain; In terms of industrial structure, the tourism enterprises will change to resource-saving and environment-friendly through information sharing and business collaboration.

### **(4)Ubiquitous information service**

Different from the passive reception of tourists' needs in traditional tourism systems, smart tourism systems need to actively sense tourists' needs and provide more complete service support. Provide tourists with ubiquitous services regardless of anyone, including the integration of tourism information platforms, including destination information websites, destination mobile portals, and tourism service hot lines; Improve the added value of tourists' satisfaction in food, housing, travel and entertainment to enhance tourists' satisfaction, create diversified and personalized tourism services, and make tourists experience beyond expectations when enjoying tourism services. All these will actively perceive the needs of tourists through the perception system.

## **3. Innovation and characteristics of smart tourism service**

### **3.1. Innovation of intelligent tourism service**

Smart tourism is the top-level design of the integration and development of information and communication technology and tourism, the application and integration innovation of information technology in tourism, and an important way to realize the sustainable development of tourism [6]. On the basis of changing the service mode of tourism, smart tourism has realized the integration, sharing and full and effective utilization of social, economic and other resources and tourism resources, maximizing the comprehensive value of society, economy, ecology, culture and other aspects, and making tourism truly sustainable.

### **3.2. Innovative characteristics of smart tourism service**

#### **(1) Multi-agent participation**

Because smart tourism is oriented to tourists, tourism enterprises, government and local residents, service innovation is a process of multi-stakeholders linking with tourism destination as the center. Tourists can fully express their own needs in the process of tourism, and actively participate in the development of new products or services. Tourism enterprises can put forward suggestions for tourists and improve service innovation.

#### **(2) Technology-oriented**

Compared with traditional tourism, smart tourism needs new information technology as service support, such as Internet technology, various software tools, database information and so on, which are widely used in tourist attractions. Technology-oriented innovative services tend to be comfortable and convenient, and at the same time greatly improve the service efficiency [7]. Therefore, it is the support of modern emerging information technology for service innovation that fully guarantees the timeliness of realizing smart tourism service innovation.

#### **(3) Guided by the needs of tourists**

The service innovation of smart tourism system stems from the demand of market tourists and the process of creating intelligent experience for tourists. After accumulating some experience in traditional tourism, tourists need deeper experience in spirit and emotion, so the tourist destination should fully combine the needs of tourists. Innovate service products and methods according to needs, invite tourists to make positive comments, and make continuous innovations and improvements according to experience effects.

## **4. Existing problems of smart tourism system in Tianjin under the background of new era**

### **4.1. The service capacity of smart scenic spots is insufficient**

With the development of smart tourism, tourists participate in information service, but there is a problem of single service form behind the timeliness of information service. From the aspect of intelligent reception service, intelligent ticket checking is easy to cause personnel jam. For example, if the ticket is damaged, it will affect smart authentication; From the perspective of intelligent interpretation service, every tourist has his own thoughts. In the case of live interpretation by tour guides, tourists and tour guides can communicate face to face on a certain question, but intelligent interpretation cannot answer it in time, thus affecting tourists' interest in scenic spots, which is not uncommon.

### **4.2. The information of smart travel platform is incomplete and scattered**

With the vigorous development of network information technology, smart tourism is widely implemented. Although many related information can be displayed in front of tourists, tourists still can't get the information they want when traveling, especially the personalized free travel and self-driving tour information. Therefore, there is no way to guarantee the reliability of tourists' access to information, which will lead to tourists' tourism activities falling short of expectations. In addition, the integrity of this information is not enough.

For example, for Tianjin tourism, searching for information related to Beijing tourism activities on the network platform will lead to various results, excluding the advertising part, and some information is not comprehensive enough. If tourists want a place to stay around a scenic spot, there will be many choices and different evaluations on the Internet, so tourists can't determine the information they need in a short time, and they need to screen for a long time.

### **4.3. Smart tourism talents are lacking**

Smart tourism in the new era needs all-round talents. Smart tourism has changed the traditional way of tourism activities, tourism management and tourism services. This change of tourism format has brought great changes to the work needs, work forms and work methods of tourism industry, and at the same time, it has put forward new standards for the development of tourism talents'

knowledge and ability. Nowadays, the talents in tourism industry are all trained according to the traditional way of tourism, which can no longer fully meet the needs of smart tourism industry. Modern service industry personnel need to master network information technology, and management personnel need to master intelligent management strategies.

## **5. The formation of tourism system innovation in Tianjin**

### **5.1. "Tourism+Internet" action plan**

In this era of rapid development of information technology, the era of "internet plus" has arrived, and the "internet plus" model has been widely used in various fields, which can effectively promote the rapid development of various fields. The application of "internet plus" in the tourism industry can effectively innovate and perfect the existing development model of the tourism industry.

The application of "internet plus" in the development of tourism industry can give full play to the comprehensive pull and integration of tourism industry, provide a safe and reliable tourism platform for industries related to tourism industry, do a good job of collecting and sharing various data, and provide a good guarantee foundation for the future development of various fields. Innovation is an important part of smart tourism, which is quite different from the traditional tourism industry. It can effectively improve the existing business development model and enhance the tourist experience. The application of "internet plus" in the development of tourism industry can bring about changes and developments in all aspects of tourism industry, including tourism management, tourism service and tourism marketing [8].

### **5.2. Building a smart tourism business system**

Develop e-commerce, actively promote the construction and promotion of barrier-free payment of travel cards and credit cards in Tianjin. Strengthen the credit system construction of tourism e-commerce, including the credit construction of individual consumers, tourism enterprises, social institutions, industry self-discipline, and disciplinary mechanism for dishonesty. Improve the payment system of tourism e-commerce, including strengthening the construction of credit system, adopting diversified electronic payment means, vigorously developing third-party payment and paying attention to mobile payment.

Tourism information needs a large caliber and a wide range of transmission paths. In order to facilitate the diversified development of information dissemination, especially the information dissemination of traditional tourism formats, the construction standards of tourism information display terminals are compiled. In order to promote the coverage of wireless broadband network, it can encourage the construction of tourism enterprises. In the smart tourism service system, the service portal for international tourists is not perfect, the self-help escort service is basically blank, and the virtual tourism service is not comprehensive enough, that is to say, there is still some deficiency in the smart tourism service system.

### **5.3. Service process innovation**

Service process innovation refers to the new way of service process adopted under the new information technology. From the perspective of tourists, smart tourism services generally need to be embodied in three aspects: before, during and after tourism. Visitors can use the client of relevant technical programs to know the scenic spots in advance, and obtain relevant information of scenic spots such as product conditions, weather conditions and people flow. Then, according to their own preferences, they can experience virtual tourism in advance and make a good budget for tourism costs.

During the tour, you can also visit the scenic spot freely by using the self-guided tour system of the scenic spot. After the tour, you can use the social platform of the scenic spot to share the tour experience and evaluate the service of the scenic spot. In this way, the service process under the smart tourism system has also achieved innovation.

### **5.4. Enhance the personalized service ability of scenic spots**

In the new era, the personalized service system for tourists in smart scenic spots can be divided into three levels: the first level is the integration and management of information and data, mainly including information base and information mining; The second layer is the foundation of the whole system, mainly the tourism network information platform; The third layer is the application layer, which is mainly the functional module used by the front-end customers, so it is necessary to enhance the personalized service of scenic spots from these three aspects.

Smart tour guides provide convenience for individual travelers, so that individual travelers can enjoy the tour guide service at any time. This will play a great role in improving the public service of urban tourism and the promotion level of urban tourism. The wisdom structure of multi-stakeholder wisdom scenic spot is shown in Figure 1.

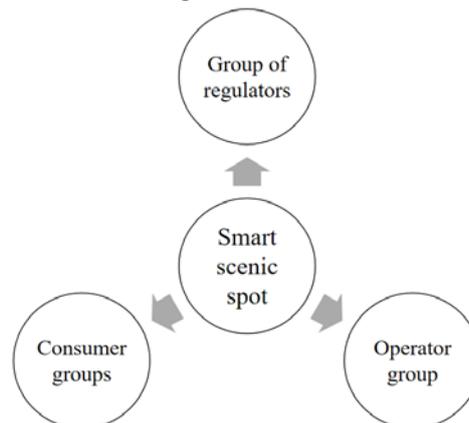


Figure 1 Structure diagram of intelligent system of intelligent scenic spots with multiple stakeholders

To the extent of integrated management of information and data, the data and information of application systems are shared in cloud computing services. The information of potential tourists is extracted from the information of different business systems from different sources, mined, and then integrated into a platform through conversion and loading. Then, the personal interests and hobbies of tourists are analyzed by means of information analysis tools, and the most suitable tourism activities and destinations are integrated and elected according to the actual situation, so as to meet the personalized service of tourists as much as possible.

### 5.5. Focus on training tourism informatization people

We should not only train talents who study tourism and management, but also learn the corresponding information and e-commerce knowledge. While fully absorbing theoretical knowledge, we should cultivate students' practical ability and practical ability, and learn more about the practical operation ability. Tianjin tourism colleges should introduce various market-oriented tourism management information systems, and complete the corresponding operations by playing different roles, so that students can meet the needs of smart tourism market after graduating with information technology skills.

## 6. Conclusion

The application of information technology in smart tourism has formed a tourism pyramid selling system, which has improved the scientific and technological content of tourism to a certain extent, formed a powerful information processing platform, strengthened the connection and interaction among various elements in time and space, and thus strengthened the cooperation between them, enabling them to form a whole service for tourists. Smart tourism has changed the traditional mode of tourists' access to information, the management mode of tourism enterprises and the working form of government supervision departments, and realized the customization and digitalization of tourism activities. Under the background of the new era, the innovation of smart tourism service should be comprehensively promoted in the service construction of smart tourism

system in Tianjin to meet the individualized needs of increasingly mature consumers and provide them with innovative services; Using modern information means to improve the overall competitiveness of urban tourism industry, seize the ever-changing opportunity of international tourism development, and promote the orderly, healthy and stable development of Tianjin's overall tourism industry.

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