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Discussion on the New Model of Smart Tourism Development under the Background of Big Data

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Abstract. With the rapid development of mobile Internet, smart tourism is developing day by day, effectively promoting the improvement of tourism services and comprehensive management. Then at this stage, the development of China's smart tourism is still in its infancy, and there are still problems such as uncoordinated resources and incomplete services. In order to promote the high-quality development of smart tourism industry and promote the steady improvement of economic benefits, this paper summarizes the basic theories of big data and smart tourism based on the research of predecessors and scholars on smart tourism. Then analyze the current problems in the development of smart tourism, and finally from the aspects of strengthening resource integration, strengthening information supervision and management, research and development of smart tourism and new technologies, put forward a new model construction strategy of smart tourism development in the context of big data.

Keywords: Smart tourism, Facing problems, Big data, New models, Construction strategies.

1. research background

1.1 Literature review

"Smart tourism" is a revolution that drives tourism development and investment. With the continuous advancement of smart tourism and big data technology, more and more scholars have begun to pay attention to this emerging tourism industry and form a series of literature bases. Yang Qun mainly analyzes the impact of big data on the development of smart tourism and proposes specific solutions to the problem of tourism big data (Yang, 2016). Based on the big data platform, Zhang Jiantao and Wang Yang built a service platform for smart tourism forecasting and feedback (Zhang and Wang, 2017).Shan Chen and Zhao Wenxia took Tianjin as an example, analyzed the opportunities and challenges of smart tourism development, and proposed four product management models and development suggestions for smart tourism in Tianjin in the future (Shan and Zhao, 2017). Lu Yi and others specifically analyzed the existing problems of the smart tourism industry in Guizhou, and proposed corresponding development strategies in terms of improving the construction of smart tourism terminals and strengthening the overall planning of smart tourism projects (Lu et al, 2017).). Zhang Jiantao and others analyzed the problems faced by smart tourism development in the context of big data, and then built a smart tourism application model with four sub-platforms (Zhang et al, 2017). Lv Xiaogang and Zhang Yan analyzed the inherent needs of smart tourism development (Lv and Zhang, 2018). In the process of analyzing the development of smart tourism in the era of big data, Wang Xue found that smart tourism can effectively improve the overall service quality of the tourism industry, improve the tourist experience of tourists and the benefits of tourism enterprises (Wang, 2018). Based on the above research results, this article further explores the new model of smart tourism development in the context of big data, with a view to further complementing the research foundation of related fields.

1.2 Purposes of research

With the in-depth application of "Internet +" in the tourism industry, "Internet + Tourism" has gradually developed and extended. In 2011, China formally proposed the concept of smart tourism, and stated that it will initially realize the comprehensive informationization of smart tourism by 2021. In order to encourage and support the development of smart tourism, the state, local

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governments at all levels, and tourism management departments have promulgated a number of policies, which have led to huge changes in the management and business development of the tourism industry (Hu, 2017). At present, smart tourism has become a new development direction of the tourism industry, but due to the economic form of smart tourism, it will continue to evolve with technological development. In addition, the current development of smart tourism is still in its infancy and lacks the organization and design of a comprehensive ecosystem. As a result, smart tourism is still incomplete in terms of the theoretical system, construction standards, and operating models, and various construction tasks in some areas have progressed slowly (Zhang, 2018). To this end, smart tourism can combine big data technology, explore emerging development models, and do a good job of top-level design based on actual conditions to achieve local conditions, overall planning, and system layout.

2. Overview of big data and smart tourism

2.1 Big data overview

With the in-depth development of the Internet, big data has a variety of understandings, and its content is rich and diverse. Among them, the definition of strong representativeness refers to large-scale, diverse, high-speed, and high-truth data. The generation of big data has gone through three stages. The characteristics and production methods of each stage are shown in Table 1. Since its development, big data has gradually developed into a data set that uses commonly used software tools to efficiently acquire, manage, and process data.

Table 1. Big Data Generation Stage

Stage	Data generation	Main feature
Operational phase	passive	Data is generated with certain operational activities and recorded in the database
User original stage	initiative	The development of new social platforms makes users more willing to actively share data, and new mobile devices increase the convenience of user originality
Perceptual system stage	automatic	Perceptual systems are widely used. They are extremely tiny, produced by sensors with processing functions, and widely distributed

2.2 Overview of Smart Tourism

Smart tourism refers to the use of new technologies such as cloud computing and the Internet of Things, and the use of the Internet and portable Internet access devices to actively sense and publish tourism resources and information, so as to timely arrange and adjust tourism plans and improve the quality of tourism services. "Smart tourism" belongs to a new proposition. The integration of communication and information technology is the basis for its creation. The interactive experience of tourists is its center. Its characteristics are to stimulate industrial innovation and promote the upgrading of the industrial structure. Its "wisdom" is mainly reflected in three aspects, as shown in the table. 2 shown. Smart tourism can integrate tourism and information resources in a highly and systematic way, enabling tourists to interact with the network in real time, thereby creating a new tourism form and culture. At present, this new concept is mainly applied to tourism experience, industrial development, administrative management, etc. It will improve the tourism business process, promote the transformation of tourism consumption from traditional to modern, and promote the overall development of the tourism industry (Dong, 2017).

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Table 2. Main Manifestations of Smart Tourism

Main manifestation	Channel	Effect
Service Wisdom	information Technology	Improve tourist experience and quality in terms of obtaining travel information, booking and paying for travel products, arranging travel plans, and reviewing evaluations
	Internet of Things technology, positioning technology, etc.	Improve tourist safety and security, enhance tourist satisfaction and comfort
Management wisdom	Tourist data accumulation and analysis system	Timely and accurately grasp the information of tourism activities, from traditional passive and after-the-fact processing to active and real-time supervision
	System early warning mechanism	Maintaining Smart Tourism Market Order
Marketing wisdom	Public opinion monitoring	Unearthing Tourists' Interest Points, Promoting Tourism Product and Marketing Innovation
	Quantitative analysis and judgment	Screen out valuable and long-term marketing channels
	From media platform	Attract tourists to actively spread and spread tourism products

3. Problems facing the development of smart tourism

3.1 Incomplete travel service information

In recent years, domestic smart tourism has continued to develop, but there are still problems with incomplete, incomplete and irregular tourism information. Specifically, at this stage, the construction of domestic tourism informatization is still incomplete, lacks systematic theoretical support and technical guidance, and the standards for the publication of smart tourism information in different regions are not uniform. , And the authenticity of the information is not high. In addition to this, another reason for incomplete travel service information is the lack of professional talent. In many tourist attractions, the cultural level of most of the staff who collect, organize, and distribute information is not high, and they lack professional personnel who truly master tourism information systems and information management skills. This makes tourism information development unprofessional, data is scarce, and there is a certain bias. Therefore, it often happens in domestic scenic spots. After tourists arrive at the scenic spots, they can’t get all kinds of information such as meals and parking in a timely manner, and they will waste a lot of time and energy.

3.2 Smart tourism technology and resources imbalance

At this stage, domestic smart tourism technology and resources are unevenly distributed, mainly reflected in the eastern coastal areas with sufficient technology and resources, and the western and inland areas are in short supply. Compared with ordinary tourist attractions or those that have not been developed, tourist attractions need rich and perfect technology and resources to promote their own development. Once the lack of technology and resources in the scenic area, it is impossible for tourists to provide relatively high-quality guidance and services, thereby reducing the attractiveness of tourists. This further reduces the competitiveness of the scenic spot in the industry and reduces economic benefits, thereby inhibiting the infrastructure construction and technological upgrade of the scenic spot, and falling into an endless loop of slow development.

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3.3 Chaos in the tourism industry

At this stage, as the promotion of smart tourism is not comprehensive and relevant regulations are not in place, the chaos in the tourism industry is still serious, and negative news about tourism continues. Specifically, although smart tourism has started to focus on management, it has neglected the service needs of tourists. The platform's content is slow to update and it cannot interact with tourists in a timely manner, making it impossible for tourists to accurately obtain information about various services and project costs. In this situation, there are many industrial chaos in some scenic spots, such as random charging of scenic spots, bundled sales of mobile terminal platforms, partnerships between locals and tour guides, and non-reciprocal services. Among them, the more chaotic areas in the tourism industry are Yunnan, Heilongjiang and other provinces. As tourists are often forced to spend money on domestic tourism and do not enjoy good services, the tourism experience is poor. As a last resort, more and more Chinese citizens are choosing to travel abroad.

3.4 Uncoordinated construction of smart tourism cities

With the promotion of smart tourism, all parts of the country have begun to build smart tourism cities with urban environment and service quality as the core. Although some results have been achieved, the overall problem of regional construction is still uncoordinated. Specifically, in order to promote the development of the local economy, some domestic tourist cities with underdeveloped economies and inadequate development characteristics have begun to vigorously build smart tourism cities and develop in the direction of smart tourism. However, at present, the central and western regions are still unable to fully realize informatization, so it is difficult to vigorously develop smart tourism. The pilot projects of China's smart tourism cities are mainly concentrated in developed coastal cities. The overall construction of smart tourism cities is still in its infancy. In addition, within the smart tourism city, there are also repeated construction and information islands, which cannot help tourists accurately capture the highlights of the scenic spot and choose a destination.

4. Strategies for Building a New Model of Smart Tourism Development in the Context of Big Data

4.1 Strengthen the integration of tourism resources and enrich the types of smart tourism

At this stage, domestic tourist attractions have realized the importance of smart tourism, and have begun to try to develop smart tourism. However, due to the uncoordinated resources and technology, the current effect is not good. Therefore, domestic tourist attractions should cooperate with each other and use big data mining and analysis technology to strengthen the integration of cross-regional tourism resources in order to continuously enrich and increase the types of smart tourism. In this process, we need to use big data technology to analyze the supply and demand of smart travel agents, including consumers, travel agencies, and regulatory agencies. On the basis of meeting the needs of all parties, we must promote their own coordination and cooperation. Specifically, tourist attractions can use big data technology to help tourists optimize the tour route and enhance the tourist service experience, so as to introduce more abundant types of tourism, help tourist attractions to realize digital operations, and help tourism management departments to conduct tourist analysis and passenger flow monitoring. And resource optimization layout.

4.2 Develop core technologies for smart tourism and improve the database of tourism resources

Inside the tourist area, there is still a need for continuous investment in research and development of core technologies for smart tourism and improvement of the tourism resource database. Therefore, local governments should focus on improving the level of technological innovation and research and development of core technologies for smart tourism in the city,

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including accurate screening of tourist needs, rapid matching of tourism resources, and real-time follow-up of scenic spots. On the one hand, local governments should increase support and guidance for college tourism and technical talent training, so that colleges and universities have sufficient time and energy to cultivate relevant outstanding talents to help the development of core tourism technology in the future. On the other hand, government departments should cooperate with enterprises to dig out some available talents from major enterprises to form a smart tourism technology research and development team, committed to continuously optimize and improve related technologies, and enrich and fill the tourism resource database. In addition, the government can launch some key support projects, continuously carry out tourism data statistics, visitor source and tourist analysis, and promote the networked and data-based development of smart tourism.

4.3 Effectively use evaluation feedback data to improve the quality of smart tourism services

Facing the problem of poor tourism service quality caused by the chaos in the tourism industry, relevant entities should use big data technology to adjust the focus of smart tourism services based on the feedback data obtained from evaluations and improve the quality of smart tourism services accordingly. Specifically, in the era of big data, tourist attractions should use big data data mining and analysis techniques to quickly and accurately extract the information tourists need to achieve "visual" management and service provision of consumer demand. Therefore, tourist attractions should effectively use the big data evaluation and feedback function to follow up the information browsing of tourists on the online platform in a timely manner, and provide professional guidance and services to tourists based on the comprehensive evaluation results. Here, we can learn from the domestic experience of the region to speed up the establishment of tourism big data collection mechanism, through mobile phone applications or small programs, to allow tourists to provide feedback and evaluation of tourism services such as map navigation, play strategy, meals, etc. Finally, relying on big data, we will build a smart tourism service system to provide tourists with targeted and high-quality tourism services.

4.4 Strengthen information supervision and management and standardize the smart tourism market

In the era of big data, it is extremely convenient to publish and obtain smart travel information. In order to effectively find high-quality tourism resources in massive Internet information, relevant departments need to supervise and manage network information data. Specifically, relevant departments should formulate normative anti-standards for online tourism information, track, delete or remove shelves of online incorrect, unreasonable, and irregular tourism resources bundled with the platform, and retain high-quality and useful information. Travel Information. At the same time, the staff of the tourist attractions need to understand and check the relevant online related travel strategies in advance, pay attention to the consistency of the content of the videos and articles and the service of the tourists, and pay attention to whether the relevant travel service prices and required information are consistent with the actual situation, so as to truly Regulate the smart tourism market.

5. Conclusion

With the rapid development of society and technology, people's demand for high-quality and convenient services has gradually increased. Driven by the Internet + and mobile Internet, various industries and industries have intensified their innovation efforts, and smart tourism has emerged, and has gradually become the development trend of the tourism industry through personalized experience, information management and human interaction. However, at this stage, the development of China's smart tourism still faces many problems, including incomplete tourism information, imbalance of technology and resources, and chaos in the industry. To this end, big data technologies can be used to strengthen the integration of tourism resources and enrich the types of

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smart tourism; develop core technologies for smart tourism and improve the database of tourism resources; effectively use evaluation feedback data to improve the quality of smart tourism services; strengthen information supervision and management and standardize wisdom The tourism market really promotes the steady and sustainable development of smart tourism.

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