

Research on the Construction Mode of Information System in Scenic Spots

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ABSTRACT

Along with the rapid development and application of modern intelligent technology, people hope to use intelligent terminal to query related information of scenic spots before travelling, therefore, they hope intelligent technology and service can be provided in scenic spots, and accordingly, information construction in scenic spots has become particularly important.

Based on the current situation of information construction in scenic spots, this paper firstly points out the necessity of information construction in scenic spots and then puts forward the construction mode of information system in scenic spots. Finally, this paper proposes several suggestions on information construction and hopes to promote the construction and development of scenic spots practically and effectively.

Keywords: *Scenic spots, Information system, Mode.*

1. INTRODUCTION

With the advent of the high-tech and information age, information technology is applied in all walks of life to realize reform, business expansion and service quality improvement. And meanwhile, the tourism industry also needs to be integrated with information technology to gain new development space and opportunity, wherein scenic spots, as the core industry of tourism, are necessary to realize information construction.

The information system in scenic spots is established by relying on modern network and communication, database as well as modern information technologies such as geographic information, global navigation, mobile communication, e-commerce and artificial intelligence. Integrating information technology into the management and service work of scenic spots can improve the management efficiency of scenic spots and provide a convenient and fast service mode for tourists.

2. ANALYSIS ON THE NECESSITY OF INFORMATION CONSTRUCTION IN SCENIC SPOTS

2.1. Service demand change of tourists

With the development of internet technology and the popularization of intelligent terminal, more and more tourists use intelligent terminal devices to query the related information of scenic spots through the internet before going out, and make travel routes according to the information. Many jobs such as round-trip tickets, car

rentals, tickets, hotels and so on can be done in advance. When visiting scenic spots, many tourists hope to know the scenic spot through intelligent technologies such as QR code scanning, wireless voice explanation and panorama guidance instead of tour guide or related staff, therefore, the change of tourist demand prompts the scenic spots to establish an advanced information system.

2.2. Internal management demand of scenic spots

Scenic spot management involves multiple aspects: employee attendance, salary calculation and external recruitment; environment management such as the maintenance and watering of green plants, pruning arrangements, maintenance of scenic facilities; tourist management such as ticket checking and order maintenance, especially tourist safety which needs real-time monitoring and warning of administrative staff, who must adopt corresponding emergency plan to cope with various emergencies well.

The information platform can realize mutual coordination of all departments, office automation, resource sharing, real-time information transmitting and data updating, which will facilitate the administrative staff in scenic spots to adjust work strategy timely and reduce management difficulty.

2.3. Marketing and cooperation demands

The development and extra income of scenic spots are inseparable from marketing and strategic cooperation. Information construction in scenic spots can not only

realize ticket promotion, enlarge marketing of tourist products and souvenirs and increase consumption demand of tourists but also can allow the administrative department to conduct publicity, attract investment and realize cooperative development thus to build unique tourism brand and strengthen comprehensive competitiveness and popularity of scenic spots.

In short, information construction in scenic spots is an important means to promote sustainable development of scenic spots, an important channel to realize reasonable and effective management in scenic spots and an important way to promote the transformation and upgrading of tourism industry.

3. MAIN CONTENTS OF THE CONSTRUCTION MODE OF INFORMATION SYSTEM IN SCENIC SPOTS

In view of business type of scenic spots, four types of businesses are mainly considered in information system construction: business for tourists, business for scenic spot management, business for scenic spot operation and business for ecological protection. Different business needs are realized by corresponding subsystems, and can be completed step by step according to the needs.

At present, the rapid development of network communication technology, usage of all-round monitoring technology and innovation of software and hardware infrastructure all offer the technical basis and hardware condition for information construction in scenic spots. The main components of the information system mode are as follows.

3.1. Network platform

It is the central transmission system of the information system platform, which can undertake the office work, monitoring, commanding, dispatching and tourist management. In order to ensure these services do not interfere with each other and ensure information security, the network can be designed as an intranet and an extranet. The main business of the intranet is OA office in the scenic spot. According to the business needs, modular Megabit or Gigabit switches are deployed in the intranet data center. The external network mainly involves the business including video monitoring, official website and internet access of users. In the design process, three-layer network structure can be adopted to establish the external network integrating data, voice and video, namely access layer, convergence layer and core layer, equipped with corresponding security strategy and QOS according to different business type.

In the division of network coverage area, wireless network can be accessed in some important hot spot regions under the premise of guaranteeing wired network transmission.

3.2. Portal system

The scenic spot provides tourists with multi-faceted services through the portal platform, such as the detailed introduction of the scenic spot, tourist route recommendation, self-service travel arrangement, services available in scenic spot, network payment, bus route, multiple-language information service. The information about the routes around scenic spot, catering and accommodation should also be provided on the portal website. Moreover, the portal website needs to establish a message interaction channel for tourists to make complaints, give suggestions and leave messages thus to perfect the services of scenic spot.

3.3. Security system

The safety of tourists is the most difficult part of scenic spot management, so it is necessary to establish a set of security system which is mainly composed of video monitoring and early warning system, intrusion alarm and intelligent image processing system. All kinds of technologies can be combined organically based on the actual needs, and each subsystem is independent and complementary to form the united prevention and guarantee the security of tourists and facilities.

The video monitoring and warning system mainly aims at conducting all-weather and all-around monitoring on the main roads, enclosures, entrances and exits of gates and areas with large passenger flow of scenic spots. The front-end cameras in key areas must realize 24-hour continuous monitoring so that the administrative staff can remotely master and control the situation of scenic spot in real time. Owing to high tourist density, strong liquidity and more hidden emergencies in public areas, High Speed Dome or ball video cameras can be adopted, if necessary, console control can be conducted on surveillance cameras while intelligent identification technology can be used to abstract the characteristics of collected audio and video signals and find out hidden security hazards thus to ensure the command center to get warning timely, command to evacuate the crowd and guarantee life and property security of tourists to the largest extent in face of emergencies.

The intrusion alarm and intelligent image processing subsystem mainly aims at conducting intrusion detection on caution areas and conducting security detection to avoid articles being stolen, removed or left. The intelligent image processing subsystem is mainly used to detect the moving or left objects in the caution areas automatically, which should trigger the alarm to identify and track the moving objects in the caution areas for analysis. Moreover, this subsystem can also monitor the crowd density in real time according to group moving characteristics thus to guarantee scenic spot security.

3.4. Ticketing system

The E-ticketing system has multiple functions including ticket pricing, sales and checking, mobile payment, ticket charging, inquiry and statistics.

The ticket pricing function can help to inquire the prices of different ticket types and integrate several services together to form different payment schemes and realize ticket discount. The ticketing system can allow tourists to realize remote ticket booking, ticket exchange and refund, wherein the e-ticket purchasing should support mobile payment or online financial payment.

The system should also provide accounting function such as daily clearing and settlement of tickets, generate the daily ticketing sheet and offer detailed statement of marketing expenses of sales institutions, outlets and ticket windows thus to realize real-time inquiry on ticket data such as tickets sold and number of tourists, and control the passenger flow volume and ticket sales through data classification and summary.

3.5. Parking management system

With the increase of self-drive travelling, parking management service should be provided in scenic spots. The parking management system can integrate inductive IC/RFID technology, single-chip automatic control technology and computer image processing technology to conduct unified management on the parking lots, charging standard and toll collectors.

Integrating with the video monitoring system, this system can realize real-time monitoring on the edges and inside of parking lots, which can monitor all passing vehicles through computer and realize the functions including electronic toll collection, empty parking space hint, inquiry on passing cars, image contrast and picking card information retrieval.

3.6. Operations management system

This system mainly involves the contents such as staff information maintenance, financial management, announcement, news, notice and attendance management, which can be helpful to enhance scenic spot management and service level and improve tourist satisfaction.

The information system construction in scenic spots cannot be a one-time effort but involves multiple aspects including logistics management, scenic spot environment protection and monitoring and intelligent traffic dispersion, which can be further perfected in later-period information construction process.

4. SUGGESTIONS ON SYSTEM

4.1. Suggestions on information system construction

In order to strengthen scenic spot services through the information system, the following matters should be emphasized in the information system construction process:

4.2. Suggestions on network security

The information system construction relies on Network platform, therefore, network security is particularly important. The following measures can be adopted: use firewall to realize isolation and access control between the internal and external networks and distrusted domains in the network, host computer and application layer thus to protect portal network from being attacked by hackers and being tampered by web-pages; monitor all network accesses comprehensively and refuse unsafe network operation; use anti-virus software to conduct security scanning regularly and inspect the network security holes; establish disaster recovery backup system to guarantee network data security.

4.3 Suggestions on operating guarantee and construction implementation

The construction and operation of information system cannot leave from the guarantee of policy, capital and administrative staff. Information construction has high requirements on human resource, and accordingly, training and further education can be conducted to enhance the level and quality of administrative staff.

Information system construction involves a wide range and is applied widely, therefore, it is needed to establish perfect project coordination and management mechanism, complete the planning scheme of decision-making stage and conduct comprehensive quality control.

5. CONCLUSION

The development of network and information technology causes revolutionary change of tourism management means and service modes. In addition, the information construction in national scenic spots has achieved considerable development while fresh industry chain will be formed in scenic spots through information construction.

In the future, gradual improvement of information construction in scenic spots will become the focus of tourism management, therefore, the administrative department in scenic spot should take initiative to make full use of information technology resources, provide high-

quality service for tourists and standardize scenic spot management in order to occupy an absolute advantage in the tourism industry.

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