

Research on the effectiveness of tourism information management platform in the new Era

Yuan He

Wanjiang University of Technology
hena_0813@naver.com

Abstract. In the development of modern society, information technology can not only improve the work efficiency and quality of enterprises, but also provide technical support for the innovation and development of enterprises. Especially after entering the era of big data, in the face of continuously improving economic level and science and technology, the tourism industry should, on the basis of transforming the traditional management mode, rely on information technology to collect rich tourism resources, scientifically and reasonably conclude and manage tourist information, and constantly improve the quality of tourism management. Therefore, on the basis of understanding the status quo of tourism information management in the new era, according to the practical significance of the development of tourism management information, this paper mainly explores the tourism information management platform with big data technology as the core, and verifies the application performance of the platform combined with practical cases, in order to provide technical support for the innovative development of the tourism industry in the new era.

Keywords: New era; Tourism industry; Information management; Big data; Function module.

1. Introduction

In the rapid development of social economy and science and technology, China's tourism industry has begun to move forward in the direction of information and intelligence. From the overall development perspective, in the face of continuously increasing industry data information, scientific research scholars should use artificial intelligence, big data, cloud architecture and so on to create a high-quality tourism information management platform, and truly realize the goal of information management. The tourism information management platform in the new era has the following significance: Firstly, it can improve the modernization level of the tourism industry. Nowadays, informatization, as a basic feature of the construction and development of The Times, determines the management level of the tourism industry to a certain extent and promotes the pace of innovation and development of the tourism industry. Therefore, the construction and promotion of the tourism management information system platform and the transformation of the traditional single-thinking management mode can not only improve the labor efficiency of the tourism industry, but also save a lot of human resources in the industry. Secondly, really meet the inevitable trend of the development of The Times. As an inevitable trend of the innovation and development of The Times, the technology level directly indicates the productivity level of the current industry. Therefore, the tourism industry should constantly innovate based on the information technology. Only in this way can the spiritual and cultural material needs of people be better met. Finally, continue to enrich the tourism industry market resources. Nowadays, the tourism industry is in an important stage of sustainable development, which can meet the increasing material and cultural needs of people to some extent. Therefore, actively promoting the information management mode, creating a standardized and perfect information market environment, and scientifically solving the problems faced by the storage and application of information in the traditional tourism industry can provide more technical resources for the innovation and development of enterprises in the new era.

From the perspective of information management innovation of tourism industry in recent years, the practice work and research are mainly reflected in professional personnel training, modern technology, innovation and other aspects, according to the preferential policies proposed by the government departments deep research, in order to provide tourists with high-quality information service function. The construction and application of the tourism information management platform

in the new era can ensure that tourists around the use of mobile devices to inquire tourism information, build a good communication bridge with local tourism service departments, and use sensors, GPS and other technologies to locate tourists and record tourists' tourism information throughout the whole process, which can not only ensure that tourists enjoy intelligent and diversified tourism services. It can also create a regulated and safe tourism market environment. Nowadays, China has established a relatively perfect geographic information system, which can integrate and analyze the image information, attribute information, description information, etc., in tourist areas, so as to facilitate tourists to query the required content anytime and anywhere, but also put forward the graphic database, which is mainly convenient for users to query geographic information according to the spatial situation, and comprehensively improve the service quality of the tourism industry. Therefore, after understanding the innovative development trend of the tourism industry in the new era, according to the design framework and main functions of the tourism information management platform, we use practical cases to discuss the effectiveness and practicability of the system design.[1-3]

2. Methods

2.1 System Functions

The tourism information management system with big data technology as the core is to integrate and manage the information resources of the tourism industry. With the innovation and development of the tourism industry, enterprises are storing more and more data information resources, including more and more technical levels, and the difficulty of tourism information management is getting higher and higher. Especially after the popularization of computer technology platform, people began to use network technology to obtain information resources, and then according to their own needs to formulate suitable tourism plans, which can not only reduce the cost of resources, but also improve the efficiency of practical work. Normally, the tourism information management system, the design content is more extensive, in addition to the general tourism information, but also can query different areas of traffic, tourism, scenic spots and other basic content, can provide tourists with more convenient and effective service functions. As a typical information management system, the new era tourism information management platform system studied in this paper can provide technical support for the intelligent management of travel agencies around the country. The overall design is mainly divided into two parts, on the one hand refers to the database, on the other hand refers to the system module. The specific application functions are reflected in the following points: first, scenic spots and tourist management functions; Second, scenic spots and tour guide inquiry function; Third, scenic spots and tour guide configuration function; Fourth, the function of authority maintenance; Fifth, the traffic management function of scenic spots; Sixth, all local traffic query function. In addition to the design of the above functional modules of the system, other application functions have been developed, such as the number of participants, scenic spot data initialization, tour guide data initialization, etc.[4-6]

2.2 System Requirements

Integrated analysis of the needs of the tourism industry information management in recent years shows that in creating the tourism information management platform, we should ensure that it has the common problems of tourism, such as traffic, hotels, scenic spots, etc. System management personnel should effectively control information changes to ensure that the platform provides data information with accuracy and real-time performance, so as to facilitate system operation and management. In this research system, according to the overall functional requirements analysis, mainly reflected in the following points: First, the functional requirements of tourism information and bus information. After searching the relevant content of scenic spots, users can interactively query the bus information of scenic spots according to the bus route, and query the information of scenic spots according to the selected route in the bus information module; Secondly, the functional

services of the hotel. Hotel information as an essential basic content in the tourism industry, in the construction of the information management platform to provide query and management functions, according to the hotel level and relevant information to provide screening, comparison, order and other functions. It is important to note that the hotel information changes should be timely, in order to avoid unnecessary conflicts and disputes during the travel of tourists; Finally, functional requirements for information services. Since this system is an information management platform designed for a certain region, in order to facilitate information query, it is necessary to provide the corresponding festival, traffic information and other basic modules in the system, and specifically introduce train information, long-distance passenger transport, flight information and other content, so as to facilitate tourists to solve their travel questions in the platform.[7-9]

2.3 System Design

After clarifying the system requirements, the system is divided into several modules as shown in the following figure, which includes tourism information management, hotel information management, bus management, other traffic management, tourism service management, administrator management, exit system and other modules.



Figure 1 Module structure diagram of the system

First, system administrators. This module is designed to facilitate the system management personnel, the internal information and the effective maintenance of various functions, the specific operation includes information query, information addition, password modification, administrator deletion, etc. For example, information query is to browse the administrator information, according to the user name delete system user information; Second, tourism information management module. This module design includes information query, information addition, information modification, information deletion and other operations. For example, according to the name of the tourist attraction information or the type of the attraction to query, you can also directly query all the scenic spot information, clear the bus information of the corresponding scenic spot. When managers manage tourism information, they can quickly add the information to the system, adjust the search keywords of information according to the needs of users at different stages, connect the database and the system together, and comprehensively improve the accuracy of information search; Third, traffic information management module. The design of this module will add the information of the bus itself to the database, and effectively adjust it according to the changes of scenic spot information to ensure the dynamic connection between information and information. At the same time, it can also modify and delete relevant information according to its own changes. After the information changes, the bus information of scenic spots will also change. The overall design is shown in Figure 2 below:[10-12]

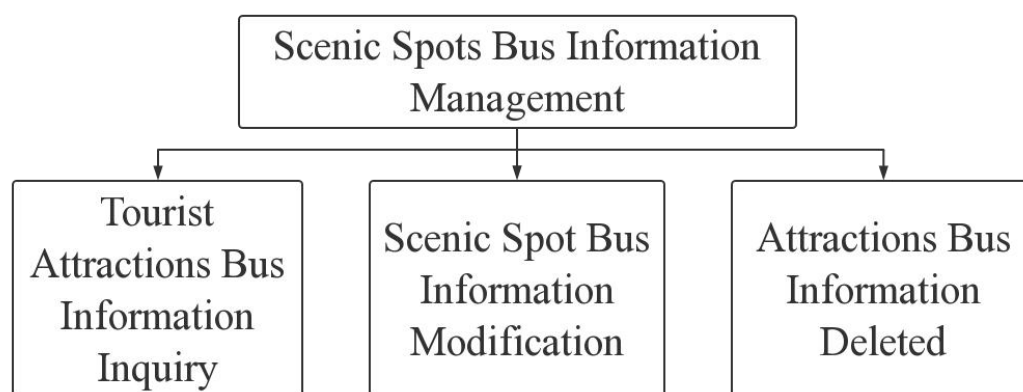


Figure 2 Structure of bus information management in scenic spots

The module design of the overall traffic condition of the region where the tourist attractions are located is shown in Figure 3 below:

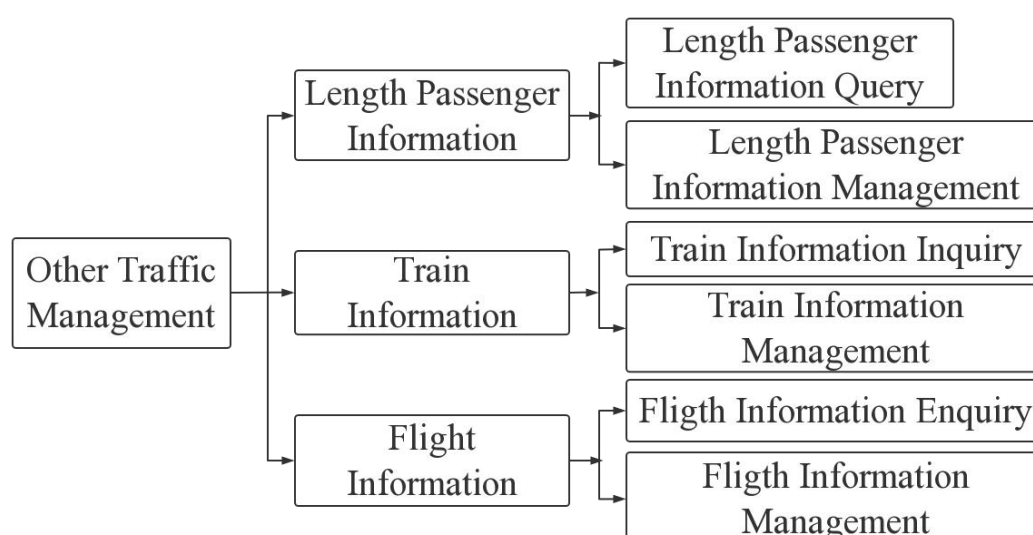


Figure 3 Functional modules of other traffic information

Based on the analysis of the figure above, we can see that the design of this module is mainly divided into three parts. The first part is the information of the length passenger station, the second part is the information of the railway station, and the last part is the information of the flight. From the perspective of practical application, this module design can meet the needs of users with different travel conditions, according to their travel plans to master a variety of transportation information, so as to avoid trouble during travel.[13-15]

3. Result analysis

After defining the functional modules and technical architecture of the tourism information management platform, the effectiveness of its application should be tested and analyzed, and the hidden application defects of the system software should be found with the least amount of time and manpower. Since system testing is a relatively complex task, although we have mastered a variety of testing methods, there are still many problems in practical application, so rich experience and effective technology are still needed during system testing. In this study, two testing methods are selected. One is black box testing, also known as data-driven testing. Based on known product and application functions, staff should test and analyze whether all functions can be applied normally. This test method is mainly to explore the external structure of the technical program, such as false

speculation, causal diagram, boundary value analysis, etc. The other is white box testing, also known as logic-driven testing. After mastering the internal work flow of the product, the staff should detect and analyze whether the internal actions of the product run normally according to the specified requirements, such as basic path testing, logic-driven testing, etc. According to the system process shown in Figure 4 below, the test and analysis were carried out. The final experimental results showed that the following problems should be paid attention to during system use and maintenance: First, the accuracy of system operation should be guaranteed. Many system operations have sequential problems, if there is a problem during the operation, it is easy to cause data loss; Second, back up your database regularly. Take the information of tourist attraction module as an example, backup processing is carried out according to the database architecture as shown in Figure 5 below, which can ensure the integrity and authenticity of data information during the system operation and will not affect the normal travel of users. Finally, periodically clear invalid data. If the database stores too much invalid data, it will affect the memory efficiency and quality of the computer system, unable to provide users with high-quality service functions.

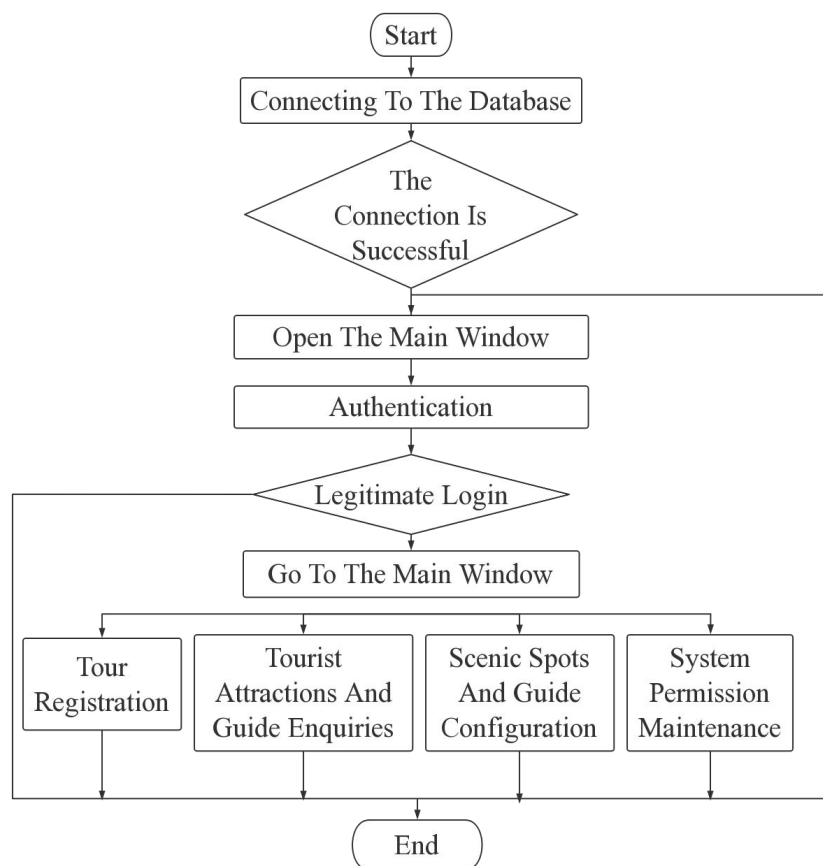


Figure 4 System flow chart

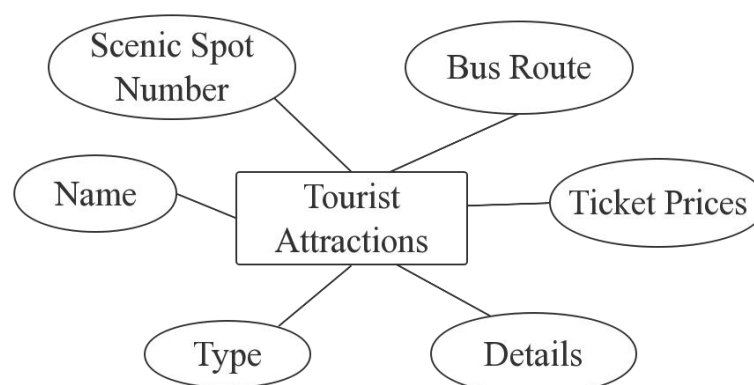


Figure 5 Database architecture of tourist attraction module

4. Conclusion

To sum up, the tourism industry as a foundation component of the current social and economic construction development, plays an important role in the promotion of the steady improvement of economic development of our country. Therefore, in order to adapt to the development trend of economic globalization more quickly, the tourism enterprises should combine their own advantages and modern technology, gradually complete the information-based tourism management innovation, and comprehensively improve the tourism industry management level to promote the tourism industry. It develops steadily towards the direction of intelligence and modernization.

References

- [1] Qinqin Fu. Study on "Five Platforms" Collaborative Education Model for Tourism Management Major in Higher Vocational Colleges [J]. Mechanical Vocational Education, 2021(10):4.
- [2] Jiangzhi Long, He Zhu, Fangxin Zhang. Research on innovation path of tourism resources development from the perspective of territorial space strategy in the new era [J]. Tourism Guide, 2022, 6(3):19-41.
- [3] Jing Liang. Research on Accounting Information Management and Application of Scientific Research Institutions under the New Government Accounting System [J]. Chinese Management Information Technology, 2023, 26(3):4.
- [4] Xueting Zhang, Shimei Zhang. Research on the Construction of practical teaching platform of new Business Science -- Taking Tourism Management Major of H College as an example [J]. Education and Teaching Forum, 2023(4):4.
- [5] Rui Wang, Xing Ni. Mass supervision and Government Response Driven by digital Platform: A Case study of A Province's Livelihood Supervision Information Platform [J]. Governance Research, 2023, 39(2):16.
- [6] Jing Wang. Research on the Development of Live Tourism in the New Era [J]. News Culture Construction, 2022(16):65-67.
- [7] Jingjing Xia. Design of agricultural machinery equipment management platform oriented to data security [J]. Agricultural Mechanization Research, 2023, 45(10):5.
- [8] Linxia Shi. Research on Innovation of practical Teaching Model of Tourism Management Specialty in the Information Age [J]. China New Communications, 2021, 23(12):3.
- [9] Xueyu Wei. Path to improve Rural Tourism Safety Management Level Based on Information technology -- Review on the Impact of Tourism Safety Communication Signals on Tourist Safety Behavior [J]. Journal of Safety and Environment, 2021, 21(6):1.
- [10] Ruiping Shen. Research on Improving the effectiveness of tourism management teaching in secondary vocational schools [J]. Chinese Science and Technology Journal Database (full-text Edition) Social Sciences, 2021(1):1.

- [11] Xiaoming Wang. Study on Tourist Satisfaction of Leisure and Sightseeing Agricultural Park under resource and environment constraints: A case study of Jifa Agricultural Park in Beidaihe [J]. 2021(2016-10):51-54.
- [12] Chengzhao Wu,Weiqi Pan,Yufai Leung. International Agreement on Antarctic Tourism Development and Management [J]. Marine Development and Management, 2022, 39(10):7.
- [13] Wenjun Shan,Wanfei Wang. Research on the Effectiveness of rural tourism industry organization Model -- Based on the perspective of Transaction cost theory [J]. 2021(2013-4):32-37.
- [14] Ting Yao. Research on teaching design of practical training courses for Tourism management major under the background of informatization [J]. Development of Education Science, 2021, 3(12):50-52.
- [15] Rulian Wu,Xiong Gu,Hongyi Li. Discussion on Teaching reform of Geographic Information System for graduate students majoring in Tourism Management [J]. Journal of Hunan Polytechnic of Industry, 2021, 021(002):P.96-99,144.