Research on Informatization Development of Minshuku in the Background of Big Data Era

Yinghui Wu
Shandong Xiehe University, Jinan, Shandong, 250109
Email: wyhscsd@vip.163.com

Abstract. With the popularization of intelligent mobile devices and the rise of tourism Internet platforms, tourism consumer behavior also shows strong information characteristics. The booming tourism industry has entered the era of big data. Under the trend of tourism big data, minshuku has become a noticeable growth point. This paper analyzes the characteristics of minshuku informatization under the background of big data era and the current situation of minshuku informatization development, and puts forward some countermeasures such as building big data, informatization system, efficiently utilizing multiple tourism Internet platforms, and combining big data analysis on the basis of the two, creating minshuku characteristic brands, etc. Fully mining big data can provide more comprehensive and accurate decision support for the future development of minshuku.

1. Introduction
With China's modernization and economic development, coupled with the arrival of the Internet and 5G era, people are more pursuing spiritual and cultural enjoyment, which has brought about a new upsurge in tourism and promoted tourism to become an important force in promoting the development of the national economy. While paying attention to tourism, people are more inclined to choose high-quality and guaranteed tourism platforms and accommodation platforms. Therefore, minshuku has become a new industry under the trend of tourism big data and is more and more loved by travelers from all over the world. Minshuku has become a green economy and a shared economy in the new era. It refers to providing personalized accommodation for tourists who go out for outings or long trips by using free rooms in their own houses and combining local cultural, natural landscape, ecology, environmental resources and agricultural, forestry, fishery and animal husbandry production activities, which is a very effective way of resource allocation. However, due to the scattered and unsystematic distribution of housing resources and the personalized needs of tourists, minshuku mode has extremely high requirements for information storage and transmission. In China, major Internet platforms have also added a large number of minshuku houses to build their own minshuku big data system. Minshuku has become a hot spot in the tourism economy, and more and more funds have been invested in it. Major Internet platforms have formed the minshuku industry chain by absorbing a large number of minshuku houses, so it is inevitable that a large number of minshuku will be passively integrated into the big data system. Its supporting management level and operation mode lag behind the demand of the industry, which is a great waste of resources. In today's increasingly fierce competition for tourist accommodation, it will have a negative impact on the further development of minshuku. Therefore, how individual minshuku holders match the development of minshuku with the pace of network big data informatization and find a suitable development path is an urgent problem to be solved by minshuku in our country.
2. Characteristics of Minshuku Informatization under the Background of Big Data Era

2.1. Quantization of Information
Tourism is essentially an intangible product that relies on services. Consumers learn information through media publicity, family and friends' transmission and active search, thus triggering travel decisions. In the process of traveling, tourists continuously collect and generate information. With the popularization of intelligent mobile devices, new information needs have been created, and many information generated in tourism has also been recorded and stored in real time. The so-called "big data" is the huge amount of information that has been saved. The four characteristics of big data proposed by Victor and Cook in 2012 are still applicable to the tourism industry. The first is the large amount of data. Not only tourists are generating information, but scenic spots, transportation departments and tourism Internet platforms are also generating unique data in their own ways. The second is the diversity of data types. The proportion of text information in tourism information is decreasing, and unstructured data such as pictures, audio, video, geographical location and even tourists' subjective wishes are emerging, which greatly increases the difficulty of data collation and use. The third is the fast data processing speed. Thanks to powerful hardware and reliable software, the input, output and calculation of data are very high speed to ensure real-time analysis results to help decision-making. The fourth is the low value density of data. Due to the huge amount and complexity of big data, mining valuable information is extremely difficult and precious. The collection and use of tourism big data in China are mainly concentrated in tourism giants and relevant government departments. The former carries out precise directional push (OBA) of tourism information and tourism products to users by means of tourism interest preference and tourism attitude experience mining of consumers. The latter monitors the passenger flow and traffic flow in the scenic spot through LBS technology or mobile communication signal positioning and scenic spot ticketing data, and then takes early warning, coordination and guidance measures according to natural conditions.

2.2. Widening of Internet Platforms
China's tourism Internet platform enterprises started at the turn of the century. After 10 years of gradual development, they entered the outbreak period around 2010 with the popularization of intelligent mobile devices. According to data from iResearch mUserTracker, in 2017, the number of monthly active devices for online travel APP in China was 100 million, approaching 200 million. Consumers are increasingly accepting and accustomed to using online travel APP and enjoying convenient and fast travel services. The strong user base has laid the foundation of big data for tourism Internet platform enterprises. These enterprises have used their own information advantages to form synergy and scale effects and become pioneers of tourism big data. Then, according to big data analysis, tourism product forecasts are made and targeted to target customers to meet the needs of tourists and tourism merchants. The capabilities and businesses of tourism platform enterprises will become stronger and stronger, the scope will become wider and wider, and more technological advantages and strategic resources will be accumulated. With the platform as the core and big data as the cornerstone, an increasingly closely linked platform ecosystem will be formed.

2.3. Individualization of Consumer Behavior
Tourists are in a fundamental position in the tourism industry. With entering the era of global tourism, the consumption behaviors and habits of tourism consumers impacted by the big data trend are showing new trends. This is the pursuit of high quality and personalized service. The vigorous development of the tourism industry has intensified competition and made consumers more picky. They are willing to spend money on high-quality services, while the post-80s and post-90s generation, whose incomes are increasing, are eager for experiential and casual in-depth tours. It has formed the characteristics of convenience and quickness, spiritual pursuit of travel, fragmentation of travel time, participation in the tourism platform ecosystem, etc.

3. Development Status of Minshuku under the Background of Big Data Era
With the rapid development of economy at this stage, people's living standard has been greatly
improved, and the appearance of minshuku just meets the needs of people's material life at this stage. The trend of informatization and big data has cleared the way for the rapid matching of minshuku landlords and residents, and released the suppressed minshuku economy rapidly. From the perspective of demand, in the development of minshuku industry, users pay more and more attention to personalized services. In this process, the middle class has the largest number of users and has become the main customer in the development of minshuku industry at this stage. From the perspective of economic development, the rapid development of urbanization in our country has led to a large number of vacant houses in many cities, and the migration of rural population to cities has led to a large number of vacant houses, which can provide a lot of convenience for minshuku's local development. From the perspective of development policies, relevant departments are actively promoting the development of minshuku and standardizing the development of minshuku industry. We hope to urge the healthy and stable development of minshuku industry through relevant provisions. The development of minshuku industry can effectively utilize idle resources and carry out regional characteristic development. The government has provided strong support for the development of minshuku. Judging from the development trend of the capital market, minshuku industry has a large-scale capital inflow. Only at the beginning of the development of minshuku industry, there were more than 40,000 minshuku, large and small, in our country. Minshuku is cheaper than hotels of the same grade, with its own characteristics and leisure, and can provide different humanistic care for users. The initial development of minshuku only stayed in first-tier cities, but now it has spread to all parts of the country. According to the data provided by relevant statistical agencies, the probability of users choosing minshuku at this stage is far higher than that of express hotels and star hotels. However, with the rapid development of minshuku at this stage, there are still some problems in the minshuku industry. For example, the degree of information management is relatively weak, there is no perfect Internet marketing system, and there is no awareness of its own brand value. Minshuku's construction is similar and there is no highlight. In the actual operation process, the above contents will become obstacles to the development of minshuku, so it is necessary to analyze and study these problems with targeted strategies.

4. Minshuku Information Promotion Means under the Background of Big Data Era

The development of tourism has entered the era of networking and informatization, and a large amount of funds have already flowed to the tourism industry in the market. The government has also put forward relatively preferential policies for the development of tourism. Big data has become one of the benchmarks for tourism development, and tourists' travel habits have changed with the emergence of network information technology. If it cannot make positive changes to its own development, minshuku will no longer have stronger competitiveness. Therefore, the construction of informatization is one of the conditions to promote the development of minshuku.

4.1. Building a Big Data and Information System

If we want to carry out information construction on minshuku, we need to establish a concept of networking and information development from the overall situation, and on this basis, we need to establish an information management system suitable for the development of the times. As far as the current technological development is concerned, the application of big data system has become a common thing in the actual operation process, and the selection of related technical software is extremely rich. In addition to learning Oracle, SQL Server and other software to establish and maintain the database, you can also use eucalyptus software to build a cloud computing platform. Minshuku tourists do not need to worry about the quality of data storage or the maintenance and use of the system during use, but only need to input relevant data during use. The system will systematically analyze the data provided by the user, and convert the analyzed data into a more intuitive way to present to the user, which is convenient for the planning and design of the next stage of development based on the analyzed data of minshuku users. After that, minshuku operators should use customer management systems (CRM) such as Microsoft Dynamics to establish passenger files and passenger databases, register relevant information of passengers, and do a good job in the docking procedures between the occupancy information and the scheduled information, so as to facilitate users to verify
various information when checking in. This will further realize fast check-in, take actual data and information as the basis for its own development, establish good relations with tourists, form a good word-of-mouth effect, and build its own brand. At the same time, it will also lays a good foundation for minshuku's internet marketing.

4.2. Efficient Use of Multiple Tourism Internet Platforms
Minshuku cannot form a large scale in the process of operation due to its own characteristics. The minshuku in the urban area is often a small building or even just a few rooms in the building, while the minshuku in the rural area is generally only a small manor model. The vast majority of minshuku did not operate their own brands in the process of operation. However, in the large-scale development of the network economy at this stage, the business operations of merchants are becoming more and more transparent, and in the actual business process, tourists believe more in the brand minshuku recommended by the platform. In the actual process of minshuku operation, it can combine the corresponding platforms to create its own brand value. In the strategic process of brand building, the tourism platform can make minshuku recommendations according to users' usual data accumulation. In this process, minshuku can rely on its own brand to create a large number of economic benefits, so as to analyze and study its own business data and design and plan the next stage of development in combination with the actual situation. In the actual operation process, minshuku operators will not choose only one platform to enter, and the entry of multiple Internet travel platforms is more in line with the development of minshuku. Minshuku operators can make statistics from the number of hits and actual occupancy of multiple platforms to further enrich the data accumulation in the actual operation process, thus realizing accurate analysis and push.

4.3. Combining the Results of Big Data Analysis, Create Minshuku's Characteristic Brand
Under the background of the big data era, through the big data processing system, products can be pushed according to customers' interests and hobbies. This requires minshuku to create its own brand characteristics, further accurately locate the sources of customers, maintain its core competitiveness in the fierce market competition, maintain a good occupancy experience in the actual occupancy experience of users, and carry out large-scale operation. In the actual brand building process, we should pay attention to the analysis results of the big data system, establish a good relationship with customers, further create a better evaluation direction, and realize the construction of our own reputation and brand. On the one hand, minshuku merchants can create their own minshuku stories and brand connotations according to their own characteristics, define minshuku's tenant positioning, meet the needs of different tourists, and create the soft requirements of minshuku's competitiveness; On the other hand, minshuku's hard strength is built from the characteristics, quality and safety of decoration.

5. Concluding Remarks
The quantitative, diversified and high requirements for information technology of big data have brought opportunities and challenges to the development of minshuku. In order to improve the competitiveness in an all-round way, minshuku operators should establish the awareness of information technology and make good use of social and economic shared resources and platform resources, so that they can occupy a position under the trend of big data, otherwise they will run the risk of being eliminated quickly. I believe that with the improvement of big data research, the development of minshuku in the future can fully explore the great wisdom brought by big data and provide more comprehensive and accurate decision support for creating a unique and long-term characteristic minshuku.

6. References
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