Impact of Tourism Big Data on B&B Sharing Economy

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Abstract. In recent years, China's sharing economy continues to maintain a high-speed development trend, and new formats and new models continue to emerge. Among them, the B&B short-term rental industry is also developing rapidly, which is more in line with the characteristics of the sharing economy era. The emergence of B&B has made up for the market gap and met the personalized and emotional needs of modern consumers. Based on this, this paper analyzes the impact of tourism big data on the B&B sharing economy. In this paper, the mathematical statistics method is used to investigate the tourism accommodation data of a tourist attraction in our city. From the online and offline aspects, the public's satisfaction with the shared B&B in tourist attractions is analyzed. The results show that the evaluation of accommodation conditions and environment of common tourism accommodation and shared B&B are basically the same, and the evaluation score is 85 points. In addition, from the perspective of facilities and equipment, the gap between the two is relatively small, with 86 points for ordinary tourism accommodation and 83 points for shared B&B. In addition, the service quality scores of the two are basically similar, 86 points for ordinary tourism accommodation and 88 points for shared B&B. The obvious difference between the two is the accommodation price. The reasonable score of ordinary tourism accommodation price is 79 points, the reasonable score of shared B&B price is 91 points, and the catering conditions are also different. The score of ordinary tourism accommodation and shared B&B catering conditions is 86 points and 90 points respectively. In addition, there are still many problems in the development of China's national accommodation industry. Therefore, this paper puts forward a series of suggestions for the development of shared B&B based on Tourism big data to provide reference value for the development of shared B&B in the era of big data.

Keywords: Tourism Big Data, B&B Sharing Economy, Offline Experience, Online Service

1. Introduction
We know that at present, the sharing economy has covered various fields such as transportation, accommodation and health with strong influence. By 2017, the number of tourists in China has exceeded 5 billion [1-2]. In this context, the application of shared accommodation came into being.
Sharing accommodation can not only let house owners rent idle houses from others for rent, but also make tourists feel more grounded in local culture \[3-4\]. However, the development process of the B&B industry also produces various problems, which need to be continuously improved in the future development \[5-6\].

The current quality, hardware and service level of B&B in China are still uneven \[7\]. At present, our country's B&B basically adopts the C2C operation mode. The biggest disadvantage of this mode is that the supervision link is relatively weak, resulting in the uneven quality of B&B published on various platforms, and the lack of unified standards for hardware and service level. Many tourists find that the actual environment is far from the information on the platform after checking in, and even many tourists have experienced many security risks \[8\]. In addition, there is serious homogenization in the industry, the decoration and layout of B&B are copied from each other, and the positioning is vague, lack of personalization and innovation, some B&B lose human feelings and feelings at the same time of commercialization, and slow return of funds due to excessive investment in the initial stage is also a common situation in the industry, and the lack of sound financing channels leads to difficulties in B&B expansion \[9-10\]. Nowadays, the era of big data has come, tourism big data has a huge impact on the B&B sharing economy. It is of great significance for the development of B&B sharing economy in the era of big data.

In this paper, firstly, the sharing economy and tourism big data are elaborated, and on this basis, the impact of tourism big data on the B&B sharing economy is studied. This paper analyzes the public's satisfaction with the shared B&B in tourist attractions from both online and offline aspects, and puts forward some suggestions on the development of shared B&B in the era of tourism big data, so as to provide certain reference value for the development of shared B&B.

2. Sharing Economy and Tourism Big Data

2.1. Sharing Economy

Sharing economy is a hot word rising in recent years. Nowadays, the definition of sharing economy is mainly for the purpose of obtaining relevant returns. The owner of goods or property rights transfers their idle goods or property rights to provide users who need these goods and property rights, which is called sharing economy.

From the definition of sharing economy, we can find that the sharing economy is similar to leasing to a certain extent, but there are obvious differences between sharing economy and leasing. Firstly, sharing economy needs to go through the information sharing platform in the middle, and through the third-party platform of sharing economy, it can provide information bridging and communication channels for lenders and borrowers to realize the communication between the two sides. Secondly, the core of sharing economy lies in the sharing transaction between users. The purpose of the establishment of the sharing economic system is to make full use of social resources and avoid idle resources. Finally, the sharing economy does not need to involve large-scale asset purchase and investment because all the participants are individual citizens. Sharing economy is an economic mode of sharing the right of use based on Internet information technology. It integrates scattered resources to meet the needs of different users.

In a word, the sharing economy is essentially a new economic form based on the Internet. It is a more optimized resource allocation mode that integrates scattered resources, accurately matches supply and demand sides, and improves utilization efficiency.

2.2. Tourism Big Data

In recent years, with the rapid development of China's economy, tourism has become an entertainment choice for people's holidays and leisure days. With the increasing number of tourists in the tourism industry and the increasing number of tourist destinations, various security problems in the process of tourism are becoming more and more complex. Tourism safety accidents occur from time to time, and the impact on the safety of tourists' lives and properties can not be ignored.
In this era of big data, the tourism industry, a big industry that covers basic necessities of life, also produces a large amount of data every day, such as passenger flow data, tourist review data, tourist positioning data, and scenic spot video data. Using machine learning and natural language processing technology to identify and detect tourism abnormal events under the tourism big data will contribute to the intelligent supervision of the tourism market, to help consumers avoid risks, improve tourism experience, save manpower and material resources, but also more accurate and efficient.

3. Ideas and Evaluation Indicators
(1) Research ideas
In this paper, the mathematical statistics method is used to investigate the data of tourism accommodation of a tourist attraction in our city. Due to the influence of the sharing economy on the B&B industry, through the sharing platform, consumers have a new way to book B&B rooms, and the experience has also changed. Therefore, the influencing factors of B&B consumer satisfaction under the sharing economy have also changed. It is generally believed that consumer satisfaction is the degree of pleasure formed by the comparison of actual perceived service and results with consumer expectations. Therefore, this paper investigates the accommodation of a tourist attraction in our city. The survey includes two parts: online and offline.

(2) Evaluation index
1) Offline B&B
We know that the factors of consumer satisfaction of off-line B&B experience start from perception, among which environmental conditions, facilities and equipment, service quality, reasonable price and catering conditions are all the factors that consumers value. Therefore, we take environmental conditions, facilities and equipment, service quality, reasonable price and catering conditions as the evaluation indicators of off-line B&B.

2) Online B&B
The consumer satisfaction survey of online B&B sharing platform mainly includes website design, convenience, brand image, responsiveness and after-sales service. We take it as the evaluation index of online B&B satisfaction.

4. Impact of Tourism Big Data on B&B Sharing Economy

4.1. Survey and Analysis of B&B Satisfaction Based on Tourism Big Data
(1) Consumer satisfaction of offline B&B experience
This paper investigates and analyzes the consumer satisfaction of off-line B&B experience in a tourist attraction in our city. The survey results are shown in Table 1 and Figure 1.

| Consumer satisfaction of offline B&B experience | Environment condition | Facilities and equipment | Service quality | The price is reasonable | Catering conditions |
|-----------------------------------------------|-----------------------|--------------------------|-----------------|------------------------|---------------------|
| General tourist accommodation                 | 85                    | 86                       | 86              | 79                     | 86                  |
| Shared B&B                                   | 85                    | 83                       | 88              | 91                     | 90                  |
Figure 1. Consumer satisfaction of offline B & B experience

It can be seen from Table 1 and Figure 1 that the evaluation of accommodation conditions and environment of ordinary tourism accommodation and shared B & B is basically the same, with the evaluation score of 85 points. Secondly, from the perspective of facilities and equipment, etc, the difference between the two is relatively small. The score of ordinary tourism accommodation is 86 points, and that of shared B & B is 83 points. The service quality scores of the two are basically similar. The service quality score of ordinary tourism accommodation is 86 points, the service quality score of shared B & B is 88 points, and the obvious difference between the two is the accommodation price. The reasonable score of ordinary tourism accommodation price is 79 points, the reasonable score of shared B & B price is 91 points, and the catering conditions are also different, with 86 points for ordinary Tourism accommodation and 90 points for shared B & B. From the results of this group of data, we can see that in terms of environmental conditions, facilities and equipment, service quality and other aspects, the general tourism accommodation and shared B & B are basically similar, while the shared B & B has more advantages in terms of price.

(2) Consumer satisfaction of online B & B sharing platform

This paper not only investigates the consumer satisfaction of offline B & B experience, but also investigates and analyzes the consumer satisfaction of online B & B sharing platform. The survey results are shown in Table 2 and Figure 2.

Table 2. Consumer satisfaction of online B & B sharing platform

| Consumer satisfaction of offline B & B experience | Website design | Convenience | Brand image | Responsiveness | After-sale service |
|--------------------------------------------------|----------------|-------------|-------------|----------------|-------------------|
| General tourist accommodation                    | 81             | 82          | 84          | 80             | 83                |
| Shared B & B                                     | 90             | 93          | 85          | 93             | 90                |
From Table 2 and Figure 2, it can be seen that the consumer satisfaction of online B & B sharing platform is different from that of offline B & B experience. In terms of website design, the score of ordinary tourism accommodation is 81 points, that of shared B & B is 90 points, that of ordinary tourism accommodation is 82 points, and that of shared B & B is 82 points. In terms of online brand image, the score of ordinary tourism accommodation is 84, that of shared B & B is 85; in terms of responsiveness, the score of ordinary tourism accommodation is 80, that of shared B & B is 93, that of after-sales service is 83, and that of shared B & B is 90. From the results of consumer satisfaction of online B & B sharing platform, people prefer to share B & B.

4.2. Suggestions on the Development of Shared B & B Based on Tourism Big Data

Through the research, we found that tourism big data has a great impact on the B & B sharing economy. Therefore, we put forward some suggestions for the development of B & B sharing.

(1) Develop diversified promotion channels and change traditional marketing methods

At present, the hotel industry still uses the traditional marketing methods, through the television media, leaflets and other publicity, the publicity effect has not reached the expectation. With the development of network media, we should change marketing ideas, use network platform to integrate resources, use big data to upgrade the B & B industry and keep pace with the times; establish our own B & B website and regularly maintain it; use the current mainstream media to promote advertising, shoot publicity videos, record experience and feelings, and use multiple platforms for publicity, so as to increase the exposure rate.

(2) Perfect supporting facilities and create characteristic service projects

For the suburban and mountainous areas near the scenic area and remote areas, improve the infrastructure construction and improve the quality of life, and refuse to use inferior decoration materials and daily necessities. We should strengthen the management of the price of B & B; avoid the occurrence of starting prices and asking exorbitant prices, ensure the safety and health of shared B & B; pay attention to the privacy protection of consumers, and continuously improve the service quality and housing source quality. To verify the authenticity of the operators and housing resources, and to enhance the service awareness of B & B operators. Combined with the culture of various regions, the unique cultural customs are integrated to make tourists more truly experience the local customs and appreciate the natural landscape. Reduce the consistency of the decoration style between the B & B rooms, so that the B & B in each area has its own characteristics.

(3) Determine the cultural connotation of B & B and create characteristic B & B

At present, most of the B & B in mainland China are mainly provided accommodation, and there is a relative lack of humanistic infection. In contrast, the B & B in Taiwan pays attention to the cultivation of humanistic feelings, and they make full use of the local "green waters and green mountains" to build their own B & B Hotels with their own characteristics. Not only will the decoration layout of B & B fully reflect the different cultural characteristics, but also pay more
attention to the feelings of the tenants for B &amp; B. through the actual experience and appreciation of the tenants, the tenants can experience different local conditions and customs. Therefore, the room layout of B &amp; B should consider the situation and psychological needs of different tenants, and provide exclusive personalized and efficient service. Only by enhancing the sense of participation and demand of customers and paying attention to the creation of experiential environment can we embody the individuation and better show the shared value of the house.

(4) Establish the management system of B &amp; B and improve the laws and regulations

In view of the lack of management of B &amp; B in China, we can learn from the experience of B &amp; B development in Japan. The Japanese government encourages and supports the development of B &amp; B, actively formulates B &amp; B management measures, and strictly enforces the admission of B &amp; B. The owners of B &amp; B in Japan spontaneously set up relevant organizations and associations, formed industry standards internally to ensure the service quality of B &amp; B, actively publicized and applied for preferential policies to promote the development of B &amp; B industry. For our country, the government public security organs should strengthen the control of the security of B &amp; B, and strengthen the management of B &amp; B system by formulating relevant policy documents, such as real name registration system, fire safety management system, etc. Through the establishment of B &amp; B Management Association, we can improve the threshold of B &amp; B, improve the general moral quality of homeowners, cultivate the owners' professional management concept, improve their professional quality, and conduct publicity, education and assessment for the B &amp; B owners on schedule.

(5) Improve credit system and increase Internet publicity

Only on the basis of establishing trust can the sharing economy in our country play the greatest role. There are both trust crisis and moral hazard between the tenant and the homeowner. In order to ensure the healthy and sustainable development of the B &amp; B platform, there must be credit protection. Under the guidance of the government, we should comprehensively improve the personal information and credit records of consumers, and give appropriate encouragement to users with good credit. For example, consumers with good credit can get the privilege of free admission. In addition, B &amp; B must pay attention to the convenience and spread of the network platform. Through the communication between the network platform and the tenants, the relationship between them can be narrowed, and the reputation and word-of-mouth effect of the B &amp; B should be improved through the evaluation of the tenants, so that more people can understand the B &amp; B and strengthen the trust between the two sides.

(6) Carry out multi-party supervision to promote platform enterprises to actively fulfill their social responsibilities

Although the contradiction between the sharing platform and the nationwide business scope is more prominent, the current strict service access permit may lead to the illegal and non-compliance of a large number of B &amp; B operators. Therefore, it is necessary for the founders of the shared B &amp; B platform to exert strict control when building the platform. On the one hand, it is required that the operators of the shared B &amp; B platform can act according to the plan. On the other hand, it is also necessary to closely monitor the operators of B &amp; B, improve the platform mechanism of B &amp; B sharing, and know how to carry out their work. Of course, due to the complexity of admission permission, it is impossible to give full play to the advantages of sharing B &amp; B. The data sharing and emergency handling mechanism between government agencies and the shared B &amp; B platform are also problems to be solved. At the same time, social welfare and sustainable development are also the problems that need to be paid attention to. Rational use of excess assets is also a way of sustainable development of resources.

5. Conclusions
With the development of science and technology, we have entered the era of big data, big data has a huge impact on people's lives, tourism industry is no exception. This paper studies the impact of tourism big data on B &amp; B sharing economy. In the research, we analyzed the public's satisfaction
with the shared B & B in tourist attractions from both online and offline aspects, and put forward some suggestions on the development of shared B & B in the era of tourism big data, so as to provide certain reference value for the development of shared B & B. On the basis of tourism big data, the development of shared B & B should first develop diversified promotion channels, change traditional marketing methods, improve supporting facilities and create characteristic service projects. Secondly, it is necessary to determine the cultural connotation of B & B, create characteristic B & B, improve the information system and increase Internet publicity. Not only that, the relevant parts should also establish the B & B management system, improve the laws and regulations, carry out multi-party supervision, and promote the platform enterprises to actively fulfill their social responsibilities.

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