

Research on the Operation and Management of Smart Hotel Based on Low Carbon Tourism Background

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Abstract: With the improvement of economic level and the improvement of living standards of residents, tourism has gradually become the main way of leisure and entertainment, which has promoted the rise of intelligent hotels. The information age has gradually strengthened global links, and the concept of global village is becoming more and more widely known. Smart hotels in various countries have also ushered in more new opportunities and challenges. By improving the management mode and optimizing the operation mode, the hotel can achieve a good transformation and upgrading. And low-carbon tourism will further promote the transformation and upgrading of smart hotels, so as to better meet the needs of the market. Therefore, the article first elaborates the connotation of smart hotel and smart management, and according to the current main emerging technology, puts forward the perfect countermeasures of smart hotel operation and management.

1. Research background

1.1 Literature review

Since the rapid development of the world, tourism has become a strategic pillar industry of the national economy. As a pillar industry in China, hotel accommodation industry has formed a world-class scale effect after years of rapid development (Zhang, 2018). At present, China has many top brand hotel groups in the world, and the hotel industry has undergone tremendous changes with the changes of geographical environment and times. From star-rated hotels to limited service-oriented hotels, from economic chains to residential accommodation and other forms of business have developed rapidly. Since the 21st century, the rapid development of intellectualization has linked the whole world (Zhang et al, 2016). In the context of the big data era, the innovative research on data and intelligent hotel management has attracted the attention of many scholars and practitioners. At the same time, in the case of low-carbon tourism, how to effectively operate and manage intelligent hotels has become one of the hot spots. Intelligent operation of hotel industry is not only related to the effective execution of managers, but also directly affects the consumer experience of customers (Gong and Chen, 2017).

1.2 Research purposes

The rapid popularization of Internet of Things and AI technology has brought new opportunities and challenges to the development of hotel industry. Since the concept of intelligent earth was put forward in 2009, intelligent applications related to national strategic development, such as smart cities, smart tourism, and the current transformation of smart hotels, have been gradually derived. With the change of consumption characteristics of hotel consumer groups, the competition in hotel industry is becoming increasingly fierce, and the advantages of common competitive means in hotel industry are gradually weakened (Zhou and Quan, 2018). Therefore, improving the hotel's advantages in intelligence, informatization and individualization will enable the hotel to break through all kinds of resistance and develop vigorously. In addition, by combing the existing research literature, it is found that most scholars' research level is relatively limited, focusing only on the innovative application of a single technology, but less on the integrated application of a variety of new technologies. In this context, this paper combines the new development trend of low-carbon tourism, and explores the innovative ways of Intelligent Hotel management, in order to

improve the level of intelligent hotel management and ensure the experience of consumers. It will provide reference for further enriching the related research theory and the development of hotel management theory of intelligent hotels.

2. Interpretation of related concepts

2.1 Smart hotel

The smart hotel combines a set of perfect intelligent system, and realizes the digital information service technology of the hotel through digitization and networking. This is not only the innovation of information technology applied in Hotel management, but also an effective way to improve the utilization rate of hotel resources. It can also meet the consumption needs of hotel consumers with personalized, high-quality and diversified services. Intelligent Hotel formulates different marketing plans for different consumer groups, expands unlimited limited resources of the hotel, creates personalized services, improves the overall satisfaction, well-being and brand loyalty of the guests, and also provides a sustained impetus for the sustainable development of the hotel. Hotel intelligence is a rich area of continuous development, and will continue to do so (Zhang, 2019). From the rise of the Internet era to popularization, “Internet +” has become the focus of attention in many areas, and many products are benefited by various facilitation of the Internet era. With the emergence of the era of intelligence, “intelligence / wisdom +” has also begun to sweep across the world. As a result, intelligent hotels began to enter the society, and began to bring a new service experience for many consumers. In recent years, the brand-new pure wisdom hotel has realized intelligent service from check-in to start. Only a few employees are responsible for cleaning work and system maintenance. Therefore, intelligent hotel will become a new trend in Hotel industry.

2.2 Intelligent operation management

Like traditional hotels, smart hotels serve consumers. However, compared with traditional hotels, the advantage of smart hotels is that they can provide more convenient hotel services. Therefore, in the process of hotel operation and management, we should pay more attention to the physical and mental experience of customers, in order to achieve the upgrading and transformation of smart hotels. Generally speaking, the hotel staff need to meet the requirements of customers under reasonable conditions. Moreover, it can provide timely and reliable information according to customers' interests and hobbies. If it is a fully intelligent hotel, it is necessary to ensure the normal operation of the machine to provide customers with appropriate services in the process of operation. From the technical point of view, intelligent operation management, based on large data analysis, provides customers with a comprehensive solution from the perspective of intelligent operation and maintenance. The use of emerging scientific and technological means for the overall operation and management of hotels can bring new experience for customers different from traditional hotels. To a certain extent, it can significantly increase customer stickiness and user channels, thus bringing better economic benefits to hotels. In addition, the intelligent hotel operation management means that the training of internal staff is more informative and modern, which promotes employees to develop a good sense of consciously providing upgraded services to customers, so that more customers can enjoy the wisdom services generated by the hotel.

3. Technical analysis of smart hotel operation

3.1 Big data technology

The flourishing development of hotel industry ecology has stimulated the rise of many hotel brands and types. This situation also makes the competition in the hotel industry more and more fierce. Many hotels are upgrading and transforming their operation management, trying to solve the pain points in traditional operation. Big data technology will provide a more thorough analysis and interpretation of time, people and things. It can interpret all information under any conditions, and recommend the relevant content information behind it. Therefore, to a certain extent, big data

technology can help intelligent hotels to comprehensively analyze customer information, and then formulate detailed housing plans, to achieve reasonable planning and design of guest itinerary, so as to perfect the upgrading of hotel services.

3.2 Internet of things technology

The simplest explanation of the Internet of Things is to make use of information media such as the Internet and telecommunication networks to form an interconnection network for all common physical objects that can be independently addressed. In other words, the Internet of Things makes our lives more convenient and abundant, transforming the various information we get into the form of data or physical objects. Therefore, the emergence of the Internet of Things has indeed turned the world into a global village. Sometimes it may feel like the world is big, but for a moment, because the Internet of Things is in the hands of Jude World. Therefore, for smart hotels, guests' room preview and reservation can use the Internet of Things to realize the interconnection of different time, different places and different things. And with the help of customer's experience feedback, provide customers with the most needed service information, and push all kinds of housing information in detail according to customer's interest.

4. Operational and management strategies of intelligent hotels under the background of low carbon tourism

4.1 Improving the management model of intelligent hotels and promoting upgrading and renovation

Traditional hotel equipment has been aging for a long time, and service has gradually escaped from the requirements of modernization. If the local hotels do not receive local people, if they continue to adhere to the old marketing concept, they will be eliminated by the market and society. Upgrading and renovation of hotels, updating of non-intelligent to fully intelligent equipment, and updating of service systems are all the requirements of current hotel upgrading and renovation. Especially in the aspect of operating system and equipment, the intelligent management mode can improve the intelligence of equipment. At the same time, the number of accidents occurred during the period of customer housing is significantly reduced. In terms of operating system, a good intelligent operating system can help hotels play a vital role in the operation, including staff retention, increase in hotel customers and so on.

4.2 Upgrade all kinds of hotel systems and improve the level of intelligent management

The good development of the hotel is closely related to the optimization and upgrading of various systems, so that the hotel can maintain the service ability to meet customer needs. The first is information system. Information such as occupancy information, consumption preferences and travel demand is very important for hotel consumers. For example, the recommendation of higher-level hotels, the choice of travel routes and traffic choices, map queries and various APP recommendations can improve the brand image of hotels. Secondly, multimedia service system, hotel design online official website, so that customers can view the various content information pushed on the hotel website, timely check-in information, message information, ordering and other related information, in order to improve consumer satisfaction. Finally, the intelligent parking system provides intelligent services for customers who need useful cars. By reading the pre-scheduled vehicle information, we can provide parking information, vehicle storage and other services.

4.3 Improving the service system of smart energy hotel and increasing the viscosity of customers

As a service industry, a perfect service system can help the hotel significantly improve the user stickiness, thereby increasing revenue. To improve the hotel service system, we can start from the following aspects. First, improve the quality of service personnel. As an important link between the hotel and customers, the service staff's smile and friendly greetings will make the guests feel the

enthusiasm of the hotel, thereby beautifying the brand image of the hotel. Secondly, intelligent service is realized by using intelligent robot equipment. At present, the number of hotels that can provide comprehensive intelligent services in China is not very large, but they have been well evaluated in terms of user experience. The key to improve the service system of intelligent hotels lies in whether customers can get better spiritual enjoyment. Intelligent hotels can provide all-purpose intelligent services from booking to leaving, so that consumers can better enjoy hotel services.

4.4 Extend the hotel industry chain and drive the iteration of supporting services

The hotel industry reform under the background of low-carbon tourism is not a separate study of hotel service itself, but a challenge to the whole hotel industry chain. In this regard, we should actively extend the intelligent reform of the hotel industry chain and promote the iteration and upgrading of supporting services. While realizing the steady growth of hotel revenue, we will expand new profitable projects with the development of supporting industry chain. For example, Smart Hotels can cooperate with car rental companies to provide car service for customers, and that one can bring good experience to customers.

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