

Challenges, Function Changing of Government and Enterprises in Chinese Smart Tourism

Wei Zhu, Lingyun Zhang and Nao Li

Institute of Tourism
Beijing Union University, China
wzhu83@163.com

Abstract

Information Communication Technology (ICT) has led to an irreversible trend to change the industry structure and business strategy in travel and tourism in the past decades. In China, smart tourism has been one of the most important issues of the travel and tourism industry. In this paper, we firstly introduce the structure and technologies of the smart tourism system, and then discuss government and enterprise, which are the two main objects participated in the system and their function changing in different stages of developing smart tourism, the challenges which may occur or have occurred in the implementation of current smart tourism are finally discussed.

Keywords: smart tourism; function changing; challenges.

1 Introduction

Smart tourism, which is inherited from “smart city”, has been currently one of the most important issues in the Chinese travel and tourism industry since 2011. In the previous publications, smart tourism (Wang, Li, & Li, 2013; Zhang, Li, & Liu, 2012) is defined as an ICT-integrated urban tourism platform, which integrates tourism sources and information technologies such as Artificial Intelligence, cloud computing and Internet of things to provide explicit information and efficient services to tourists in certain cities based on the development of innovative mobile technology. The smart tourism benefits the tourism and travel industry in three aspects. Firstly, fragmented tourism information of urban can be integrated and centralized managed, which provides convenience to tourists with required information and services. Secondly, the use of monitoring devices in scenic zones can improve the real-time tracking for the tourists and analyzing their demands. Lastly, a smart tourism system should be established to provide an information exchange center (IEC), which can enormously improve the response time of information handling enormously.

2 Structure of smart tourism

As seen in Figure 1, the smart tourism system includes five elements: IEC, tourists, government, scenic zones and business. In general, tourists send requests such as searching, buying tickets, booking, social communication etc. to IEC, IEC then responds with the demanded information or processed results. IEC also has the responsibility to real-time monitor the resources of scenic zones. The statistics of everyday visiting data should be reported to IEC for analyzing and archiving management. On the other hand, the statistical data can be returned to government officials in tourism administration as a basis to determine the next-step policy. For business such as tourism enterprise, hotel, restaurant and entertainments, they can

request IEC to send advertisement or promotions to tourists. Meanwhile, the processing results of tourist requests are also returned to business for further arrangement.

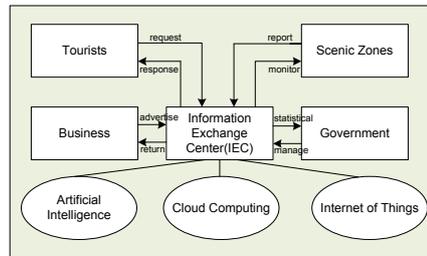


Fig.1. Structure of smart tourism

3 The functions of government and enterprises in smart tourism

Chinese smart tourism is a government-oriented system, which may differ from other areas in the world. This situation results from the following three reasons. Firstly, a mature smart tourism system is a huge project, both in aspects of time and funding. Enterprises are not possibly to invest enormous upfront cost into a project that cannot bring benefits in a short time. Secondly, except the e-commerce part, smart tourism system is more served as a public resource to benefit tourists travelled from other areas and in turn promote urban brand, which is the responsibility of government functions. Thirdly, the construction of smart tourism system involves integration of multiple resources and departments, e.g., transport, telecom. Undoubtedly, government has the greatest advantage to mobilize those resources. Based on above reasons, government plays important roles in constructing smart tourism system, which concretely manifests as guider and coordinator.

Government in smart tourism can serve as guider on tourism informatisation in the designing stage (see Figure 2). In macro level, government not only needs to encourage the construction of tourism informatisation in the form of policies and regulations, but also needs to concretely standardize the framework of smart tourism in a national scale. Obviously, independent development of urban smart tourism system will be unavoidably resulted in the waste of resource and low efficiency, e.g. redundant or inconsistent project. In micro level, government can lead the enterprises to fulfil the integration of technology and tourism and travel industry during the procedure of smart tourism system construction. For example, public tender of IEC allows government to select proper solutions provided by technology-based firms. However, it also needs to note that the role of government is better performed as guider rather than a controller, although in the early stage, government organizes nearly all the process to build smart tourism system. The participation of tourism firms, industry associations and investors is necessary to construct a healthy and stable structure of tourism and travel industry chain when smart tourism system is in operating stage.

From the information prospective, smart tourism is a procedure to integrate the resources of tourism information, web marketing and new technologies. At this stage,

government participates in the procedure as a resource coordinator. With the influence of power, government has the advantage to allocate the resource in an efficient and effective way, which can avoid redundant information and technology barrier in an extent.

Since smart tourism will finally be pushed into marketization, government functions should gradually release to satisfy the market requirements. As shown in Figure 2, government mainly functions in data collection, monitor and adjust in operation stage. Obviously, this kind of function changing is beneficial. In one side, government monitoring and adjusting could substantially optimize the smart tourism system, and in turn provide better service to tourists. On the other hand, the way of new technologies embedding in data collection can improve the efficiency of current government executive capability.

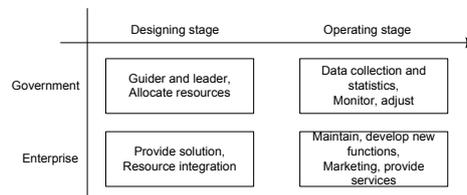


Fig.2. Function changing of government and enterprise participated in smart tourism in different stages.

Enterprises involved in smart tourism, mainly include IT enterprises, tourism enterprises and other investors. Although technology advances has brought theory support for smart tourism, the solutions are different in destinations according to various nature and culture resources. When provide solutions for smart tourism, IT enterprises should not only consider the technical implementation, but also take actual factors of urban economic, transport, ecology and culture to into account to satisfy tourist requirements. In operating stage, IT enterprises also need to maintain and improve the system by developing new functions according to the feedbacks from tourists. Tourism enterprises on the one hand need to cooperate with IT firms with information integration in earlier stage, and on the other hand need to establish new marketing strategy adapting to the new industry restructuring brought by smart tourism in operating stage. Smart tourism holds tremendous commercial value and broad prospects in the future; however, how to effectively manage the system is still a problem. In this situation, investors need to cooperate with government to explore the art of management in smart tourism adapting to the market changing.

4 Challenges in implementing smart tourism

It has been two years since Chinese government started the construction of smart tourism system (Yang, Ryan, & Zhang, 2012). During this time, achievements were gained, e.g. the concept of “smart tourism” is widely accepted by common residents, projects have been launched in several pilot cities, and however, current performance is still far away from goals. In our opinion, there are several challenges existing in the implementation of smart tourism.

Firstly, there are misunderstandings of constructing smart tourism system. Actually, constructing smart tourism system is not only a task to design an information technology project but also need to implement the project and consequently promote the travel and tourism industry both in economics and informatisation level. Therefore, it is the tasks of government to consider the future implementation in designing stage and keep updating in operating stage, e.g. encourage the participation of business enterprise and investors; keep up-to-date on the application of tourists; update and adjust the system to meet tourist requirements.

Secondly, shortage of unified standards brings hurdles in manage smart tourism systems. At the highest level, there are currently no unified standards to measure or evaluate the construction of smart tourism. Most of the pilot cities use the way of public tender to determine smart tourism solutions, however, the development mode of accepted solutions vary from different firms, which resulted in difficulties to evaluate the smart tourism system with unified standards. On the level of details, the establishment of unified standards on data exchanging can provide convenience for the communication of smart tourism systems in different cities, e.g. unified data format and unified payment and settlement system. The shortage of unified standards consequently results in hurdles in management.

Finally, government is the main investor of current smart tourism system. This situation may lead to two obviously results, one is that government cannot afford the huge funds to support smart tourism project which consequently leads to the interruption or termination; another is that government undertakes too much responsibility which may restraint smart tourism turning from government-oriented towards marketization, if profits making cannot support the system, the project will unavoidably be reduced to be “ornaments”. Apparently, both of the results indicate the failure of the smart tourism project. In this case, investment attraction is therefore a significant task in the development stage of smart tourism.

5 Conclusion

Undoubtedly, successfully constructing smart tourism system in a national wide is a long term and difficult task, which involves technology innovation, corporation of government and enterprises and other challenges in both designing and operating stages. As far as we see, clarifying the functions of government and enterprises and acknowledging how the functions changing in smart tourism are significant to gradually find and solve the difficulties in a macro level. Other challenges such as unified standards, qualified talents training, etc. are also need to be put in schedule.

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