Research on the countermeasures and problems in the development of information technology on China’s tourism industry

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ABSTRACT
Rapidly developed information technology makes us step in an information time. Informatization can not only increase our working efficiency but also can increase our profit when we are in business. Tourism industry is a highly information-depend industry. Tourism informatization is very important. This paper discusses the main problems China faces in the tourism informatization process. This paper also gives eight useful strategies to solve these problems. © 2013 Trade Science Inc. - INDIA

KEYWORDS
Tourism; 
Informatization; 
Strategies; 
China tourism; 
Information technology.

INTRODUCTION
The development of tourism today is under the background of a society transaction, which is from an industrial society to the information society. The high degree of economic informatization and economic globalization has already become an irreversible trend. Information technology revolution and construction of informatization is making the economy change from the capital economy to the information economy. It will also rapidly change the traditional processes and ways of doing economic activities. This trend demands the tourism industry to improve the channels of tourism system information flow and to improve both the deliver and consume of tourism information. This trend also demands the tourism industry to speed up the process of tourism informatization.

The planning and managing methods of tourism activities start to change fundamentally. Tourism economy is no longer be just as a combination of simple space which simply contains tour areas, tourism hotels, tourism traffic, but a complicated information system which beyond the space. This information system is under the control of computer technology, network technology and electronic intelligent technology. Therefore, accelerating the construction of tourism informatization, promoting the tourism sustainable, rapid and stable development has became an important research topic.

CONSTRAINTS AND PROBLEMS OF THE TOURISM INFORMATIZATION DEVELOPMENT

Lagging behind of laws and regulations construction
Market economy is a legal economy. To build a legal society, the first thing is to have a law. However, the construction of tourism informatization of our country is still in the initial stages now. Thus construction of laws can not help lagging behind. The traditional laws
and regulations can not adapt to the network model of economic development. It makes the development of network economy lack of appropriate standards and safeguards. Thus it restricted the development of network economy. In the absence of legal protection, the non-standard of network consumption makes consumers not trust online credit card account. The network companies also could not do anything with the consumers who make vicious online booking and malicious overdraft. So they could only return to the traditional mode of market transactions. As lagging behind and blank of related laws, the newly established network market faces many gaps and obstacles. Imperfect solutions of online transactions disputes also make the credibility of tourism e-commerce market difficult to establish. This greatly affected the tourism online consumption and the dissemination of tourism information. It also restricts the development of tourism informatization[1].

**Human resources shortages**

The development of tourism informatization requires both professional information technology human resources and the type of complex talents. But now the human resources who accepted tourism higher education in our country have only a general understanding of information technology. They only know some basic computer operations and word processing systems. In addition to the lack of high-level information technology human resources, staffs of both tourism enterprises and tourism management department get a poor level of information technology and computer skills. They can not meet the requirements both of tourism enterprise informatization and e-government development of related management departments.

Due to lack of complex human resources, who knows both network information technology and tourism businesses, to build the network information database, the design of tourism website could not collect information and data according to the tourists’ needs and also could not change the current status of the website is only of publicity function. It also fails to provide the information of flexible and free-combined tourism routes and tourist attractions. It is due to the lack of professionals that tourism information development has been greatly restricted.

**The limited development of tourism information resources**

Tourism industry is an information-dependent industry. There are abundant species of tourism information. The amount of information is very large. The space of developing information resources is extremely broad. Thus the value of tourism information resources development and utilization is also very high. Due to limitations of information technology utilization level, the developing degree of tourism information resources is very low in our country. Intensity, during the developed tourism information resources, most information is still rather than dynamic, outdated information rather than latest information. Conventional development methods are more used than the network methods. Dispersed information is more than the networking information which can be shared. In addition, repeated constructions, blind investments and waste of resources are existed in the tourism information development and utilization process[2].

**Lack of systematic mangement and use of tourism resources information**

Tourism resources information is multi-layered, multidimensional and integrated information. This kind of information has a large amount of data. The relationship between the data is complicated. The status of using tourism resources information in our country is that the informatization won’t be collected until they are needed, rather than everyone could share the information based on completed collection and systematic sorting of information. It is very difficult to make good use of the information due to the duplication and inconsistency of the information.

**The management of tourism resources information does not reflect the dynamic nature of information.**

Tourism resources exist in an open environment. It continually exchanges the matter, energy and information with the outside world. Thus the tourism resources information changes all the time. Tourism resources information management should reflect this change in time to ensure the highly degree of timeliness of tourism resources information. However, due to the technical limitations, the use of tourism resource information has the
problem of serious lagging behind. It largely weakens the using value of tourism resources information.

China’s Tourism Information Development Strategies and Suggestions

Leading role of the government in the construction of tourism informatization

As the tourism informatization in our country is still in the initial stage now, many non-manifested problems come out in the construction of tourism informatization. To solve these problems, the government should play a leading role from multiple perspectives and levels. It needs to establish a government-led tourism informatization framework. Especially, the National Tourism Administration should actively absorb the latest modern information technology to speed up the improvement of tourism network system and to realize the automation and network on the current basis[3].

Informatization development of tourism industry is a systematic project which involves many sectors and areas of society. It requires a lot of manpower, material, funds and also requires long time. Therefore, it needs government departments to play the role of “visible hand” to give the entire project planning and guidance. The government should also grasp the direction of the macro, make relevant policies and regulations, provide the necessary material or technical support and solve the key issues with global nature in the project. The government is in charge of provide the basic resources for the entire tourism industry informatization, build the development platform, standardize the market and promote the smooth construction of the tourism informatization.

Speed up the personnel training in the process of tourism informatization

Human resources are the fundamental assurance of tourism informatization development. Tourism informatization needs two types of people. One is the professionals who know very well of the information technology. Another one is complex human resources who is not only skilled in using information technology, but also have a rich knowledge of tourism industry. The first type of human resources can be easily trained by the higher institutions. At present, the second type of human resources is seriously short. This type of human resource is the backbone of the tourism informatization development. What’s more, due to the lack of a large number of complex human resources, the level and speed of tourism information have been affected to varying degrees[4]. Therefore, we should take a lot of measures to improve the personnel training for the tourism informatization such as we could take measures to improve the social education system and the qualification assessment system. By these ways can we provide a better human resources environment for the tourism industry.

Building credit platform to breakthrough the payment bottleneck

E-commerce belongs to the virtual economy. E-commerce is operated by using the internet and the transaction is on a reputation basic. However, serious reputation crisis problems exist in the current business environment, especially in e-commerce field. Therefore, during the process of tourism informatization, the establishment of a social credit system is essential. Sound social credit system can become an important reference information database of the tourism information system. Establishing the credit files and credit levels qualifications of both enterprises and the individuals can assure the e-commerce transaction security. Thus enterprises can maximum avoid risk in the e-commerce. Although in the initial stage, people are forced to do so, once the system is widely accepted, it is believed that both enterprises and the public will take this behavior as a habit. At that time, people will join in e-commerce with a good cruddy. From a long term view, the establishment of social credit system can greatly improve the social and cultural awareness environment.

Environment construction of tourism informatization development

During the process of tourism informatization, many macro-environmental factors are act as important catalyst. These factors are of significant functions to improve the macro environment. Among them, laws and regulations, technical environment are the two factors which are most close to the construction of tourism informatization. Therefore, the relevant laws and regulations should be developed and improved as soon as possible[5]. Once established a relatively sound and completed law system, it is believed that the tourism informatization level will be rapidly raised and the tour-
isim information system will be better improved. Meanwhile, the technical environment construction will take geographic information system (GIS) as a platform. We should focus on the construction of the database and improve the conditions of both hardware and software during the process of tourism informatization. We should also establish a tourism information net and improve the infrastructure of tourism informatization.

Establishing and improving a three-dimensional tourism information system

Tourism information system is not an isolated and plane system, but a three-dimensional interactive system. Therefore, during the tourism informatization construction, in addition to constantly improve the e-government systems, e-commerce systems, databases and other existing Golden Travel engineering systems, we should also establish and improve the following information systems. We established of tourists feedback information system, tourism informatization evaluation system. We improved tourism destination marketing system, the human services level of the tourism information system. We could also raise the intelligent level of tourism information system.

Strengthening the informatization construction of tourism enterprises

Tourism enterprise is an important force to promote the development of tourism informatization. Tourism enterprise is one of the main bodies of tourism information system construction. It is the most important component of e-commerce system. It is also one of the main service objects and participants of the tourism e-government system. Informatization degree of tourism enterprises directly determines and reflects the informatization level of the whole tourism industry. Therefore, to accelerate and improve the tourism enterprise informatization process is imperative. It is also very important to strengthen tourism enterprises’ awareness of participating in the process of tourism informatization. To solve the problems of lacking funds is also very important for the tourism enterprises.

Accurate market positioning in tourism e-commerce

Accurate positioning is often the assurance of success for an enterprise do business in the market. This point is also fit to the tourism e-commerce. However, many domestic tourism enterprises are lack of market positioning either in the regular market or in the tourism e-commerce. To a large extent, it hindered the healthy development of tourism e-commerce. In such a situation, tourism enterprises can hardly get good operating results from the tourism e-commerce. In contrarily, the tourism enterprises will loose the interest of involving in tourism e-commerce. This forms a vicious circle. Therefore, from the enterprise perspective, accurate market positioning is the first step of the development of tourism e-commerce system. Only by selecting your own target market can you doing network marketing efficiently. Only by this way can you make the informatization play greater role in the development of enterprises.

Meanwhile, during a series of process which are market segmentation, target market selection, the network market positioning, tourism enterprises often have more opportunities to find a special segmenting market. They could provide special professional services to the market which is not being developed or immaturely developed. This will help enterprises realize the professional operations in tourism e-commerce.

Focusing on the development of informatization tourism products

At present, low level of informatization tourism products development is a common problem existing in the tourism e-commerce of our country. The current tourism products are simple designed and easy to be copied. The integration ability of the products is very weak. This issue directly affects the attractiveness of tourism informatization products. Thus it limits the scale of tourism source markets and the development of tourism enterprises. To solve this problem, tourism enterprises can take actions from the following two aspects. First, they can use new technology to raise the level of informatization products development. Second, they can provide personal product design service. This will help the tourism consumers to develop the informatization tourism products by themselves.

CONCLUSION

Above all, the degree of tourism informatization in China will be greatly raised with the continuous devel-
opment of our economy, the continuous strength of information technology, the generally improvement of the management system and regulations and the effective management and technical measures. Thus it will finally promote the rapid development of China’s tourism industry.

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REFERENCES