Under the Background of "Space-Time Compression" China's High-Speed Rail Tourism Development Path Innovation

Shuman Wang

College of Land and Tourism, Luoyang Normal University, Luoyang 471934, China.

Abstract

With the advent of the era of high-speed rail, the development pattern of China's tourism industry has been quietly changed, and high-speed rail tourism industry has emerged. And the tourism development of high-speed rail in China under the background of the current "time-space compression", is facing great opportunities and challenges, embodied in the rapid development of high-speed railway to improve the accessibility of tourist destination, along the integration of the tourism resources, but also there is a high iron tourist publicity and lack of innovation, the corridor effect and siphon effect and a series of problems. Therefore, in order to achieve sustainable development in the context of space-time compression, various tourism destinations, tourism enterprises and other stakeholders should take the initiative to integrate into the network transportation system and break through the path constraints of conventional development through path innovation. This paper mainly puts forward Suggestions from three aspects: intelligent transportation, tourism space and high-speed railway characteristic tourism, providing references for realizing the path innovation of high-speed railway tourism development in China.

Keywords
Space-Time Compression; Path Innovation; High-Speed Rail Tourism.

1. Introduction

China's first high-speed rail line, the Beijing-Tianjin Intercity Railway, officially opened on August 1, 2008. Today, China's high-speed rail operating mileage, coverage and annual passenger transport volume are still increasing, and the high-speed rail network continues to improve. According to data, in 2016, China's railways completed 2.77 billion passenger trips, including 1.443 billion trips by bullet trains. By the end of 2017, China's high-speed rail operating mileage will account for 66.3 percent of the world's total, reaching 25,000 kilometers. According to China's Medium - and long-term Railway Network Planning, the country will build a high-speed railway network with eight vertical and eight horizontal lines. It is estimated that by 2025, the planned scale of the railway network will reach 150,000 kilometers, including about 38,000 kilometers of high-speed railway. Relying on the comprehensive advantages of high speed rail, can obviously increase the elements along the city's traffic accessibility, improve liquidity, promote the production elements at sites along the high-speed rail to realize optimal allocation and agglomeration development, regional development pattern will be restore, the spread of the resources and offer more convenient, China will usher in a new era of a large area, the industrial revolution, with traffic as the basic elements of the tourism industry will also be fully usher in the new era of high-speed rail travel. High-speed rail travel embodied in a new era, the emergence of high-speed rail travel forms and become a hotspot and high-speed era of global tourism, namely, the rapid development of high-speed rail, enhance the transportation to reach the destination, time compression effect is obvious, which caused a series of changes, tourism and high iron formed by the combination of high-speed rail in
tourism and tourism development, have played an important role in the path of the transformation and upgrading of tourism innovation.

Space-time compression is an important concept put forward by David Harvey in the State of Postmodernism, and it is also an analytical theory. For tourism, as a result of the rapid development of communication technology and transportation, for the experience of space and time perception has changed, feel time passed quickly in the tourism activities, namely space narrowing, which not only show the various historical stages of development and time are compressed in the same space, but also makes the destination able to take advantage of this effect to create an attractive tourism products better. Transportation is an important "engine" to promote the development of tourism. As China enters the era of high-speed rail network, the "time-space compression" effect of high-speed rail has a significant impact on the regional accessible character bureau, thus causing changes in all aspects of China's tourism industry, among which the most obvious manifestation is the development and path innovation of high-speed rail tourism.

Path innovation is relative to path dependence. Path dependence means that once an economic, social, and technological system enters a certain path (whether "good" or "bad"), the system is constantly self-reinforcing due to the force of inertia, making the system lock on to this particular path. The main defect of path dependence theory lies in the negative understanding of the role of conscious behavior of economic subject in path generation and development. Therefore, in order to get rid of path dependence, it is necessary to pay attention to the economic subject's behavior of consciously deviating from the existing path, which is called path innovation.

As China enters into the era of high-speed rail network, the effect of "space-time compression" of high-speed rail has a significant impact on regional traffic accessibility. From the perspective of the national high-speed railway network, each provincial capital of the country will form a 1 - to 2-hour traffic circle, the provincial capital and surrounding cities will form a 0.5 - to 1-hour traffic circle, and Beijing will form a traffic circle within 8 hours to most provincial capitals of the country. That is, under the high-speed rail network, the entire "map" of China is reduced. In this case, the "time and space compression" effect in the era of high-speed rail network has brought new challenges and opportunities for the development of China's tourism industry, and also brought the path innovation of tourism industry.

2. The current background of space-time compression in China

The concept of space-time compression first came from sociological research. David Harvey once put forward that modernity has changed the expression form of time and space and profoundly affected and changed the way people experience and experience space and time. In the field of geography, Janelle (1968) proposed the concept of "fusion of time and space" to explain the drastic space contraction caused by the transformation of transportation technology in human society in the past two hundred years. With the continuous progress of transportation conditions and the application and development of information technology, people can get a larger range of activities in the same time, while the relative cost is decreasing, which provides powerful technical support for the space-time compression. At present, China is in such an environment of "space-time compression".

2.1. Progress of transportation conditions

Since 1990s, private cars began to appear on a large scale in China. At the same time, the highway system is also developing and improving rapidly. Until now, private cars have become a common means of transportation, and the coverage of transportation infrastructure has become more and more extensive, thus greatly expanding the scope of people's travel and
leisure activities, making self-driving travel and self-guided travel become the trend. And according to the long-term plan of China’s railway construction, by 2020, China’s high-speed railway network will be basically formed, that is, the length of high-speed railway will reach more than 50,000 kilometers, connect all provincial capitals and cities with a population of more than 500,000, and cover more than 90 percent of the country’s population. The progress of this series of transportation conditions has greatly shortened the distance between time and space, which has a profound influence on the tourism activities in China. At the same time, affected by the rapid development of high-speed rail, airlines have also taken a variety of ways to compete for customers, such as selling discounted tickets for special periods, opening air express lines between major cities, and simplifying passenger procedures. Aviation service develops toward the direction of convenience and popularization to improve competitiveness. Therefore, tourists’ travel options are diverse and further promote the progress of transportation conditions.

2.2. Application and development of information technology

Since the reform and opening up, China’s Internet business has developed rapidly. For tourism, it is mainly reflected in the acquisition of destination information and online reservation system. In terms of destination information acquisition, the popularity of the Internet, GPS positioning function and the convenience of mobile Internet enable tourists to have a clear understanding of the specific situation of the destination before going to the destination, so as to make reasonable arrangements for travel activities. And in recent years, with the emergence of travel e-commerce platforms such as Ctrip, Qunar and Lvmama, the arrangement of travel itineraries has become increasingly simple and fast. In terms of online reservation system, accommodation, transportation, scenic spot tickets and other reservation systems are increasingly mature, which makes the destination information transparent and the information of both sides relatively symmetric, so as to reduce the tourists’ travel cost and reduce the uncertainty factors in the journey, and improve the comfort level of travel.

3. China’s high-speed rail tourism development path innovation

3.1. High-speed rail tourism has become a hot spot

In recent years, the effect of high-speed lines travel drive, “Gao Tietuan” product emerge in endlessly, high-speed rail travel rapid rise, increasingly become the main battlefield of tourism development, such as the beijing-tianjin high-speed become promote the success of “city effect”, hangzhou high-speed huang was regarded as the most beautiful tourist high-speed, high-speed rail travel in 2018 China's top ten tourist hot spots, etc. The “time and space compression” effect of high-speed rail has a great impact on the realization of fast and slow travel. High-speed rail tourism has become a travel choice for more and more tourists. With the continuous extension of high-speed rail network coverage, the tourism market pattern is also changing.

Due to its safety, comfort, speed, convenience and other characteristics, high-speed railway has a profound impact on tourism activities, which is embodied in spatial pattern, tourist behavior, tourism market, tourism format and other aspects of tourism urban agglomeration. First of all, the opening of high-speed rail has changed the tourism routes and patterns, high-speed rail shoes line has become a new tourist hot spot and gradually become a kind of daily tourism behavior. Secondly, the appearance of high-speed railway saves time, expands the travel radius of tourists and increases the travel frequency, thus changing the travel mode and travel time of tourists, causing the "urban effect", and achieving part of the tourism flow diversion to a certain extent to achieve the goal of "peak filling and valley filling". Thirdly, high-speed rail has changed the tourism market group. Many parent-child travel groups, business travel groups and elderly travel groups choose high-speed rail. Finally, the impact of high-speed rail on the tourism
industry prompts travel agencies, tourism e-commerce, scenic spots and other tourism service providers to innovate on the tourism industry and launch a series of high-speed rail tourism products, thus further expanding the market of high-speed rail tourism and ushering in a new era of high-speed rail tourism in China's tourism industry.

In terms of tourism formats, travel agencies, tourism e-commerce, scenic spots and other tourism service providers seize the market opportunity and take advantage of their own advantages to launch "high-speed rail tourism +" series of products to promote the development of high-speed rail tourism to occupy a larger market share. For travel agents, for example, make full use of tourist destination surrounding traffic advantages, creating a series of "Gao Tietuan", it mainly has two forms, one is on the original circuit into high-speed rail travel, 2 it is for the sake of convenience of high iron, integrating high speed railway along the route to destination, create new tourist route. For tourism e-commerce, all the mainstream tourism e-commerce companies in China have launched "high-speed rail tour" projects. For example, Tuniu has launched five popular routes, including high-speed rail to Zhejiang and high-speed rail to Anhui. Qunar launched "high-speed rail radar", which intelligently displays the arrival time, distance and scenic spots of high-speed rail cities in units of hours, and helps tourists make decisions within 10 minutes. Ctrip launched the "high-speed Rail Travel" channel, integrating travel strategies, tourism products and other resources into one, seamlessly addressing consumers' travel consumption needs in destinations. For scenic spots, most of the tourist destinations along the high-speed railway seize the opportunity to launch activities such as enjoying scenic spot discounts with high-speed railway tickets to attract tourists' consumption and expand the market. During the seven-day Spring Festival holiday in 2019 (February 04, 2019.02.10, 2019.02.10), citizens' favorite Spring Festival travel activities include "bullet train tour", preferential treatment for 10 scenic spots in Sanming with nanlong railway ticket, 20% discount for some scenic spots in Shanxi Province with high-speed railway ticket, etc. News is emerging in an endless stream.

3.2. Regional tourism in the era of high-speed rail
The advent of high-speed rail has changed the pattern of tourism transportation in China, thus accelerating the advent of the era of regional tourism. The concept of regional tourism proposed by Mr. Li Jinzao emphasizes the integration of the whole resources, the integration of the whole industry, the all-round service, the participation of the whole society and the guarantee of the whole process. It aims at promoting and driving the coordinated development of economy and society by tourism in a certain region, which is a new regional coordinated development concept and model. Due to the rapid development of high-speed rail in China, regional tourism has been endowed with new significance. The original whole area may be at most one county and one urban area, but due to the space-time compression effect of high-speed rail, the whole area tourism scope in the era of high-speed rail can be extended to the whole high-speed rail line. For example, from the previous "Luanchuan model" to the current model of strengthening regional linkage, the high-speed rail era of regional tourism coverage and involving more and more cities, the system is becoming more and more complex.

Before the advent of the era of high-speed rail, generally speaking, the mode of tourism depends on the mode of transportation, in other words, traffic restricts tourism. However, with the advent of the era of high-speed rail, space distance is replaced by time distance, and the space-time compression effect is obvious, which makes tourism show three prominent features, namely, the townization effect, the realization of fast travel roaming, and the formation of the mechanism of force reversal.

The urban integration effect is reflected in the fact that the opening of high-speed rail makes the cities along the line become "urban integration" or "urban proximity", and more and more cities have the opportunity to develop into tourist destinations. In order to enhance the
accessibility, high-speed rail "bus transport" will be gradually implemented in the future. Swim fast brigade slow reflect in implementation, the opening of the high-speed rail to save travel costs, shorten the journey time, to arouse less or low-income groups in the leisure travel, enhance penetration and ChuYouLv masses, tourist group significantly expanded the radiation radius, the tourism market scale and the customers flow will increase, swim fast brigade slow gradually become a reality. Reflected in the formation of reversed transmission mechanism, the opening of the high-speed rail directly into a large number of tourists, tourism destination cities along the coupled with the secondary distribution of inbound tourist destination, reversed transmission along the high iron tourist destination cities accelerate the construction of tourist facilities, especially strengthening regional linkage, seeking characteristic development, otherwise will advantage disadvantage, into a "transit does not enter the" or just visitors center. The three prominent features of tourism caused by the space-time compression effect of high-speed rail also meet the requirements of the construction of regional tourism, which is the general trend of the development of "high-speed rail + tourism", namely the regional tourism in the era of high-speed rail.

4. Thinking and Suggestions

The construction and development of high-speed railway network has accelerated the fast rhythm of the circulation and redistribution of various elements among regions. There is also a wider range of competition and challenges for tourist destinations along the high-speed rail route. For low levels of tourism destination, may face the market and the impact of the loss of production factors, tourism is likely to have larger "siphon effect" and "corridor effect", these stakeholders such as for tourism industry and traffic management department of tourism, tourist enterprises has brought opportunities and challenges, and so far there are still many questions worth thinking, this article mainly from the intelligence transportation, tourism space, high iron characteristic three aspects put forward relevant Suggestions.

4.1. Combine smart transportation with high-speed rail tourism

Intelligent transportation is an energy saving, efficient, comfortable, environmentally friendly and safe comprehensive transportation system. High-speed rail tourism is one of the branches, which can make full use of cloud computing, Internet of things, big data, artificial intelligence and other technologies in the field of transportation to better deal with the relationship between people, people and things, and things to things, improve the transport rate of tourists and goods, so as to achieve comprehensive benefits of high-speed rail tourism. Combining smart transportation with high-speed railway tourism can improve the traffic connection rate and monitor the number of tourists.

In terms of improving the traffic connection rate. Although the opening of high-speed railway enhances the accessibility of tourist cities, it does not mean the improvement of the accessibility of scenic spots. For China's current tourism environment with scenic spots as the main destination, high-speed railway trips and destination cities to scenic spots are the sum of tourists' transportation experience. However, in China, some high-speed railway stations are far away from the main urban areas and scenic spots (especially natural scenic spots), and the surrounding public transportation system coverage is low, which means high transfer costs. Therefore, it is very important to improve the traffic connection rate within the radiation range of high-speed railway stations. It is suggested to fully connect high-speed rail with other modes of transportation, such as subway, car, train and aviation, etc, so as to improve the coverage of public transportation system around high-speed rail stations and enhance tourists' satisfaction with tourism transportation.

In monitoring the number of high-speed rail visitors. Railway departments and tourism related departments can use big data, such as artificial intelligence technology, visitors according to the
industry to provide more data, such as mobile data, scenic spot data, traffic data, the network data, such as portraits depicting the tourists, carrying out data mining work, thereby creating intelligent high iron tourist quantity prediction mechanism, make the destination in the tourist season better drainage or shunt decisions, better improve high-speed railway transport rate and comprehensive benefits.

4.2. **Construct the network space system**

The connection of high-speed railway will make the spatial structure of tourism industry of surrounding destinations along the line present a "core-edge" mode, and some destination cities may be trapped in the dilemma that tourists do not want to enter. Therefore, we can start from strengthening regional tourism cooperation and cross-departmental cooperative marketing, and promote regional joint development by building a network space system.

In strengthening regional cooperation in tourism. The opening of the high-speed railway makes the relationship between destination cities along the high-speed railway become more complicated, which not only expands the scope of the tourism market, but also strengthens the competition and challenge in the tourism market. Therefore, relevant departments of tourism should seize the opportunity of regional tourism development in the era of high-speed rail to create differentiated tourism products. Regional cooperation in tourism can be strengthened through innovation of operation mode, realization of resource complementation and creation of benign cooperation and competition mechanism. As for the spatial structure of the tourism industry in the "core-edge" mode, measures such as strengthening intergovernmental cooperation, reasonably constructing tourism routes and integrating tourism resources of various destinations along the route can be taken to drive the edge with the core and take the line with the point to form the high-speed railway economic circle.

In cross-functional cooperative marketing. Taking Luanchuan County in Henan province as an example, it regards the entire Luanchuan County as a big scenic spot to plan, build, manage and market, realizing the urban and rural tourism style of "everywhere and always seeing the scenery" and creating the "Luanchuan model" of the tourism industry. In 2017, relying on its rich tourism resources, Luanchuan county took the lead in creating the mode of "tourism + transportation + poverty alleviation" and held high-speed free activities. This event is the first of its kind among county tourism cities in China. Within 20 days of the event, Luanchuan county welcomed 200,000 free vehicles, a total of 1.11 million tourists, with a comprehensive income of 757 million yuan. In 2018, the campaign continued and became the focus of attention from all walks of life. High-speed rail in China tourism industry can also refer to this kind of form, through cooperation with state or local railways, wide range of cross-sectoral cooperation marketing, through a series of preferential card or more than one service measures to promote inbound tourists take the high-speed rail, more influence the choice of transport mode, promote the high iron in facilities and border travel's role. For example, "high-speed rail passes for inbound tourists" will be adopted in the Yangtze River Delta, Pearl River Delta, Beijing-Tianjin-Hebei and other popular tourist areas, or along the high-speed rail lines in border areas such as Yunnan.

4.3. **Create characteristic high-speed railway tourism**

For the tourism industry, high-speed rail has a high added value. It is not only a means of transportation connecting the source and destination of tourists, but also plays a role in promoting the destination and promoting the perfection of tourism service supporting facilities. Therefore, it is necessary to create characteristic high-speed rail tourism for the development of high-speed rail tourism.

In terms of destination promotion, we can make use of the optimization of high-speed railway interior advertisement video and characteristic catering and other bus experience to transform
high-speed railway into a powerful publicity tool for tourist cities along the route. For high-speed rail travel, especially in the travel on the train to segmentation of tourist market and tourism preferences, by creating distinctive theme, a full cultural propaganda, releasing the high-speed rail tickets to the scenic spots in preferential activities, foil the atmosphere that gives along the scenic area, so as to improve the traffic of tourist satisfaction.

In promoting the tourism service facilities to improve the supporting aspects. High-speed rail travel brings a lot of the individual, in order to make high-speed rail travelers have a better experience, high-speed along the city should actively promote high-speed radiation within the scope of urban public transport integration, service facilities and travel related tourism enterprises according to the needs of tourists and tourist hot spots, such as: parent-child swimming, rural tourism, business travel, road trips, etc., to provide personalized custom services, so as to solve the high speed rail travel in "high-speed fast, slow city of tourism, and other issues. At the same time, guided by the idea of "all-area tourism", it promotes the perfection of tourism service supporting facilities.

References