



Instituto Universitário de Lisboa

**The Role of Industrial Clusters in Local Economic and Social
Development**

- The Case of Tourism Cluster in Guilin, China

WEI Anning

Thesis submitted as partial requirement for the conferral of the degree of

Doctor of Management

Supervisor:

Prof. Nelson, Professor, ISCTE-IUL, University Institute of Lisbon

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Prof. Xiao Wen, Professor, University of Electronic Science and Technology of
China

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Abstract

Since the 1990s, Guilin's tourism had made great progress during this period. However, the rapid development of tourism had put a significant impact on local industrial development, social and ecological environment. This had both positive effects such as generating huge economic benefits and promoting industrial upgrading and optimization, and negative impacts such as destroying the local ecological environment. How to further promote the sustainable development of tourism in Guilin, and reduce these negative effects while improving the competitiveness of Guilin's tourism?

This study focused on the following issues: How did the Guilin's tourism industry cluster evolve and what were the development stages? What were the positive social and economic benefits brought by the tourism industry cluster, and what were the negative impacts brought to the region? How to promote the development of Guilin's tourism industry cluster to solve the current contradiction between human and land relations? Under the framework of life cycle theory, diamond model, this study divided the evolution stage of Guilin's tourism industry cluster, and analyzed the influencing factors and stakeholders of each stage development. The purpose was to find a sustainable development path to promote the healthy and rapid development of local tourism economic, social and ecological benefits.

The study found that the Guilin's tourism industry cluster experienced a process from government initiation to multiple stakeholder drive. The interest orientation shifted from political interests to economic interests, and then from economic interests to the combination of economic interests, social interests and environmental interests. The experience of Guilin's tourism development could be summarized as follows: The government coordinated various resources, attached importance to human-land relations, strengthened the construction of various tourism systems, and launched innovative tourism products.

Keywords: Tourism industry cluster; Guilin; Economic society

JEL: H19; H43

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Resumo

Desde a década de 1990, a indústria do turismo de Guilin se desenvolveu rapidamente. No entanto, com o rápido desenvolvimento do turismo, o aumento de turistas e atividades turísticas exerceu um impacto tão significativo no desenvolvimento industrial local, no ambiente social e no ambiente ecológico, que não apenas gerará enormes benefícios econômicos e promoverá a modernização e otimização industrial, por um lado, mas também danificam o ambiente ecológico local e destroem a simplicidade local e os costumes populares. É urgente refletir sobre como promover ainda mais o desenvolvimento sustentável do turismo em Guilin através da construção do cluster da indústria do turismo de Guilin e reduzir ou até eliminar esses efeitos negativos, melhorando a competitividade do turismo de Guilin.

Este estudo se concentra nas seguintes perguntas: Como o cluster da indústria do turismo de Guilin evoluiu e em quais estágios de desenvolvimento ele passou? Quais são os benefícios sociais e econômicos trazidos pelo cluster da indústria do turismo em Guilin e quais são os impactos negativos trazidos para a região? Como promover o desenvolvimento do cluster da indústria do turismo para resolver a atual contradição entre humanos e terra, com um aumento contínuo da capacidade de carga da indústria do turismo de Guilin? Sob a estrutura da teoria do ciclo de vida, modelo de diamante e modelo 3P, este estudo divide o estágio de evolução do cluster da indústria de turismo de Guilin, analisa os fatores que influenciam o desenvolvimento de cada estágio e conduz análises aprofundadas das partes interessadas em cada estágio de desenvolvimento.

O estudo constatou que o cluster do setor de turismo de Guilin passou por um processo desde a iniciação do governo até a movimentação de várias partes interessadas. A orientação do interesse mudou de interesses políticos para interesses econômicos e, em seguida, de interesses econômicos para a combinação de interesses econômicos, sociais e ambientais. A experiência do desenvolvimento do turismo de Guilin pode ser resumida da seguinte forma: o

governo coordena vários recursos, atribui importância às relações terra-homem, fortalece a construção de vários sistemas turísticos e lança produtos turísticos inovadores.

Palavras-chave: cluster da indústria do turismo; Guilin; sociedade econômica

JEL: H19; H43

摘要

20 世纪 90 年代开始，桂林旅游业得到了长足发展。然而，随着旅游业的快速发展，游客大量增加和旅游活动强度增大也对当地的产业发展、社会环境和生态环境造成显著的影响，这既会产生巨大的经济利益、推动产业升级优化等积极的影响，也会破坏当地生态环境、干扰当地淳朴民风等负面的影响。如何通过桂林旅游产业集群的建设来进一步推动桂林旅游业的可持续发展，在提升桂林旅游业的竞争力的同时减少甚至消除这些负面影响。

本研究聚焦以下问题：桂林旅游产业集群如何演进，有哪些发展阶段？桂林旅游产业集群带来的社会效益有哪些，带给该地区的负面影响又是什么？在旅游产业承载力日益增大的情况下，如何推动桂林旅游产业集群的发展来解决当前人地关系之间的矛盾？本研究基于生命周期理论、钻石模型和 3P 模型的框架下，对桂林旅游产业集群的演进阶段进行划分、对各阶段发展的影响要素、各阶段发展过程中的利益相关者进行深入分析。

研究结果认为，桂林旅游产业集群经历了由政府启动到多方利益相关者驱动的历史，利益取向从以政治利益为主逐渐转移到经济利益上来，再从经济利益过渡到经济利益、社会利益、环境利益三者并重的阶段。桂林旅游发展的经验可以总结为：政府统筹各种资源、集中力量强势推进、重视人地关系、加强各种旅游制度建设、推出创新旅游产品

关键词：旅游产业集群；桂林；经济社会

JEL: H19; H43

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Chapter 1: Introduction

1.1 Research background

In 1840s, tourism industry first originated as a tertiary industry. After World War II, with the rapid spreading of tourism all over the globe, tourism industry has become one of the most promising and prosperous industry after the manufacturing industry. In the first World Tourism Development Conference held in Beijing, May 2016, Taleb D. Rifai, the secretary general of United Nations World Tourism Organization (UNWTO), said that tourism is one of the social economic areas with the most rapid increasing rate in the world, accounting for 10% of the total global GDP, creating 9.5% of the global employment. The situation is that the global economy recovery falters but the tourism industry still increases against this trend, and the global tourism economy has achieved strong growth for six consecutive years (UNWTO, 2016).

The tourism industry in China has a late start and weak basis, but with strong development momentum. According to the data of UNWTO, China has been the top in outbound tourism consumption since 2012. In 2017, the domestic tourism in China received 50.01 billion visits, 12.8% over the same period of last year; for inbound tourism, it was 2.7 billion visits, 3.7% over the same period of last year. With the development of China's economy, tourism is becoming a regular consumer behavior. Tourism has become a pillar industry in many regions and cities in China that can significantly boost economic growth. In 2017, China's total tourism revenue for the whole year was 0.72 trillion Euros. The tourism scale in China solely is expected to reach 6.8 billion visits in 2020, which means this industry could be the new economic driving force to stimulate economic growth and expand consumption supply (China National Tourism Administration, 2018).

1.1.1 Theoretical background

The concept of industrial clusters was proposed by Professor Porter, a well-known management scientist at Harvard Business School. Industrial cluster was an industrial agglomeration phenomenon, which can bring significant agglomeration benefits and economies of scale and thus play an important role in the development of regional economies. Therefore, industrial clusters have been valued by regional and economic research scholars, and have become an important theoretical perspective for studying regional economic growth and regional competitiveness for a period of time. Many scholars from all over the world have conducted extensive and in-depth research on different regions and different types of industrial clusters. The initial research focused on the cluster phenomenon in manufacturing companies. Later, with the development of tourism, the eyes of researchers began to pay attention to the phenomenon of tourism industry agglomeration, and carried out many explorations of tourism industry clusters in various regions (Fong, Wong, & Hong, 2018a). Since the 1980s, with the gradual rise of industrial clusters in Jiangsu, Zhejiang, Fujian, and Guangdong, Chinese scholars' research on industrial cluster theory has gradually deepened. The research on China's industrial clusters and regional economic relations is currently focused on the following three points.

Firstly, there is some debate among Chinese scholars on the concept of industrial clusters, but there is consensus on industrial clusters to promote regional economic development. Wang Jici of Peking University was a scholar who started industrial cluster research earlier in China. Wang (2001) believed that industrial clusters were agglomerations formed by geographically close proximity of companies, enterprises and related institutions with common and complementary industries within the same industries. This agglomeration could produce strong positive externalities. Zhang (2003) believed that industrial clusters were a new form of spatial organization between the market and the hierarchy. It was a kind of organizational structure related to the development of different scale enterprises with different division of labor in a certain industry in a certain area. It was a spatial aggregate that was tightly integrated through complex network relationships. It played a very important role in the development of regional economy. Liu and Duan (2003) combined the research results of

various scholars and considered that industrial clusters were a region of knowledge and sharing, promoting innovation culture. In this region, various business groups interacted and interdependent to form a production social system, and the spatial overflow and sharing of various knowledge was very frequent, which could promote regional economic growth.

Secondly, the research on the formation conditions and mechanisms of industrial clusters is still improving, but they all emphasize the need to develop industrial clusters in a certain area. Xu (2001) thought that the formation and success of an industrial cluster required at least three indispensable conditions. First, there needed to be a free flow of free labor and expertise in a single area, and a large amount of capital could be quickly assembled in the area, thus achieving a free combination of the three factors. Second, there needed to be enough market to fully accept the large number of products produced in the region. Third, the government needed to introduce various policy systems to encourage this phenomenon. Jiang (2007) thought that the formation and development of industrial clusters required three major conditions. The first was the basic elemental conditions, including sufficient capital, abundant natural resources and eligible free-flowing labor, as well as a variety of good supporting local infrastructure. Second was the core element conditions, including a sound market system, good policy support, a large number of small and medium-sized enterprises, a relatively complete industrial chain, and a reasonable specialization of labor and cooperation. Third was high-end elemental conditions, including a unified cluster brand, active cultural innovation, and continuous technological innovation. Ma (2007) studied the formation of industrial clusters from the perspective of social division of labor. He believed that it was precisely because of the formation of social division of labor that the transaction efficiency was improved, which led to the increase of the network effect and the agglomeration benefits of social division of labor, which led to the accumulation of more enterprises to the region, and finally the formation and expansion of industrial clusters in certain areas.

Thirdly, the research on the advantages or competitiveness of industrial clusters is also constantly deepening. It is the advantage or competitiveness of industrial clusters that can better promote the development of regional economy. Wang (1998) believed that with the expansion of scale, industrial agglomeration itself could bring external economy. The

proximity between enterprises would also lead to an increase in communication, which could gradually establish a trust relationship between people. This relationship would lead to the spread of various professional knowledge in the agglomeration area, thus stimulating the application of new ideas and new methods, and making it easier to produce new products. Liang (2000) believed that in addition to enabling enterprises to obtain external economies of scale and enhance regional competitive advantages, industrial agglomeration could also achieve internal economies of scale to a greater extent. Due to the close relationship between the same industry chain, the division and cooperation of labor was easier to achieve, thus promoting the external expansion of the enterprise. Zhang (2006) was based on the existing research and concludes that the competitive advantage of industrial clusters consists of seven major advantages. It was composed of industrial organization advantage, innovation advantage, production cost advantage, domestic market competitive advantage, regional marketing advantage, credit advantage and international market competitive advantage. It was these seven competitive advantages that could more strongly promote the development of regional economy.

There are many departments in the tourism industry. Therefore, the tourism industry has a strong driving effect on related industries. Moreover, tourism is often based on certain natural or human tourism resources and is prone to agglomeration. Therefore, the theory and analysis methods of industrial clusters have strong applicability to the tourism industry.

1.1.2 Practical background

1.1.2.1 Development of world industrial clusters

With the outbreak of the first industrial revolution, various socialization and specialization divisions have developed to a large extent. The British industrial cluster, the birthplace of the industrial revolution, took the lead in development. However, the industrial clusters in this period still use family workshops as production units, and generally exist on a smaller scale. In the 1980s, with the rapid take-off of the global economy, in some developed countries, there has been a phenomenon in which similar industries gather in industrial clusters. And it involves different industries and gradually becomes the main settlement of

wealth in various countries (Julie & Peter, 2002; Feng & Lai, 2017).

In the 1990s, 60% of the US production value came from 380 industrial clusters. In particular, the four major industrial clusters have formed in the California region, including San Francisco Bay Area Region with multimedia and internet services as its main industries; Sacramento Region with high-tech manufacturing and computer services as its main industries; Central Valley Region with software and high-tech agriculture as its main industries; Southern California Region with aerospace manufacturing, entertainment and electronic communications as its main industries. These four major industrial clusters have their own characteristics, and the industry has a clear division of labor and a competitive advantage. In 2016, California's total economy reached 2.5 trillion US dollars, surpassing France to become the world's sixth largest economy. In the Silicon Valley region of California, there are more than 10 world-wide multinational IT companies, and there are large companies such as Cisco, Intel, Hewlett-Packard, Lucent, and Apple, integrating science, technology, and production. At present, there are more than 10,000 large and small electronics industry companies in Silicon Valley, and semiconductor integrated circuits and electronic computers are about 1/3 and 1/6 of the total. The industrial clusters in Silicon Valley have become the target of high-tech development in other countries and regions of the world (Tang & Yan, 2011a).

The Italian industrial cluster in Europe is more typical and is a model for the rejuvenation of traditional industrial clusters. Italy is known as the kingdom of small and medium-sized enterprises. The average industrial enterprise employs only 43 people, less than one quarter and one third of other developed countries. However, in such a small-scale country with few resources, Italy has created an economic miracle, and its per capita GDP is the highest in Europe. This is due to the advantages of Italy's industrial clusters. It is these industrial clusters that support Italy's economic strength and competitive advantage. According to statistics, there are less than 300 industrial clusters in Italy, mainly including clothing, leather, furniture, jewelry, decorative materials and musical instruments. These industrial clusters are distributed in 15 states across the country. Some of these industrial clusters' export even more than 60% of the country's export trade (Tang & Yan, 2011b).

In India, an emerging economy, industrial clusters are also developing in full swing. In particular, India's software industry ranks second in the world and has the strength to challenge Silicon Valley in the United States. This area is the triangular region of the IT industry cluster centered on Bangalore, India. Driven by Bangalore, the software industry is developing rapidly in the southern cities of Madras and Hyderabad. Some of world-renowned IT companies have entered into these regions. Only Bangalore's software exports account for more than half of India's total software exports, making it the fifth largest IT center in the world (Tang & Yan, 2011c).

1.1.2.2 The development of China's industrial clusters

After the reform and opening up, China's coastal areas have formed many "blocky economies" with the characteristics of industrial clusters, and have been rapidly developed. A large number of professional towns, professional villages rise rapidly, including the information industrial cluster in Zhongguancun, Beijing; the household appliance industrial cluster in Shunde, Guangdong; the footwear industrial cluster in Jinjiang City, Fujian Province; the cashmere industrial cluster in Qinghe, Hebei; the vegetable industrial cluster in Shouguang, Shandong; the electronic Information Industrial cluster in Chengdu, Sichuan; the rail transit industrial in Changchun, Jilin; the machinery manufacturing industrial in Changsha, Hunan; the food processing industry in Zhengzhou, Henan; the IT industrial in southern Jiangsu, The industrial clusters in Zhejiang Province are particularly obvious. The province has formed thousands of professional towns and villages. Of course, most industrial clusters only have industrial agglomeration and are in the initial stage of industrial cluster development. They can be called "quasi-cluster". It can be seen that industrial clusters are not an individual phenomenon in China. It has become an important model for promoting China's regional economic and social rapid development and industrial layout, and has gradually become a development trend. More and more regional industries have a clustering trend (Qin, 2007; Wu & Wei, 2009).

1.1.2.3 Typical tourism industry clusters

Montana Tourism Industry Cluster in America. Montana is located in the western United States, with many wild animals and plants. There is a unique cowboy culture and American

native culture. In 2002, the state regarded the development of the tourism industry as the focus of the state's economic development. After years of development, six tourist areas with distinctive features have been formed here: forest tour in the western region, coastal tour in the southwest, park tour in the central south, agricultural tour in the north central, canyon tour in the northeast, cultural tour in the southeast. The cultural corridors were established in different areas to attract new visitors and retain repeat customers with special resources (Fang, Qiang, & Law, 2016). By 2012, the state's tourism industry clusters were effect. Its tourism revenue reached 1.2 billion US dollars.

Yangtze River Delta Tourism Industry Cluster. The region includes Shanghai, Jiangsu Province, Zhejiang Province and Anhui Province. The region has rich tourism resources and has formed four major tourism products: "famous cities, famous mountains, famous lakes and famous rivers". In 1992, the Yangtze River Delta implemented an inter-city tourism cooperation development strategy to promote the flow of production factors within the region. The Yangtze River Delta Urban Economic Coordination Committee, established in 1997, took the topic of tourism as the first research object. Since 2008, the Yangtze River Delta Region has uniformly implemented the "Regulations on the Setting of Road Traffic Guidance Signs for Tourist Scenic Spots (Points)". In March 2014, the Tourism Commission of the Yangtze River Delta Urban Economic Coordination Committee was established. In 2017, the total tourism revenue of the Yangtze River Delta region was 0.42 trillion Euros, accounting for 8.77% of the world, up 16.6% year-on-year. The total number of domestic and foreign tourists in the Yangtze River Delta region was 2.347 billion, an increase of 11.98% year-on-year. In 2018, the regional integration development of the Yangtze River Delta has risen to a national strategy, which provides policy support for the development of tourism industry clusters in the region (Fong, Wong, & Hong, 2018b).

1.1.2.4 Regional characteristics and industrial cluster status of Guilin, Guangxi

Guilin is a famous international tourist city and a famous historical and cultural city in China. It is the first batch of excellent tourist cities in China. It is also one of the top four tourist destination cities in China by the World Tourism Organization. Guilin is located at the junction of the Pan-Pearl River Delta, Southwest China and ASEAN economic circles. It is a

bridge connecting the economy of the southwest and south China. Guilin is also an important transportation hub connecting China and ASEAN. Guilin's railways can directly reach major domestic cities, and the high-speed rail operation mileage reaches 420 kilometers. Xianggui High-speed Railway and Guiguang High-speed Railway meet in Guilin. Guilin is the first prefecture-level city in China with "one city, nine stations and two high-speed railways". Guilin Port also has the qualification for landing visa. Guilin has been approved to implement the 72-hour transit visa exemption for 51 foreigners, the 6-day visa exemption for the 10 member countries of the ASEAN, and the pilot policy for individual travel of Guilin residents to Taiwan.

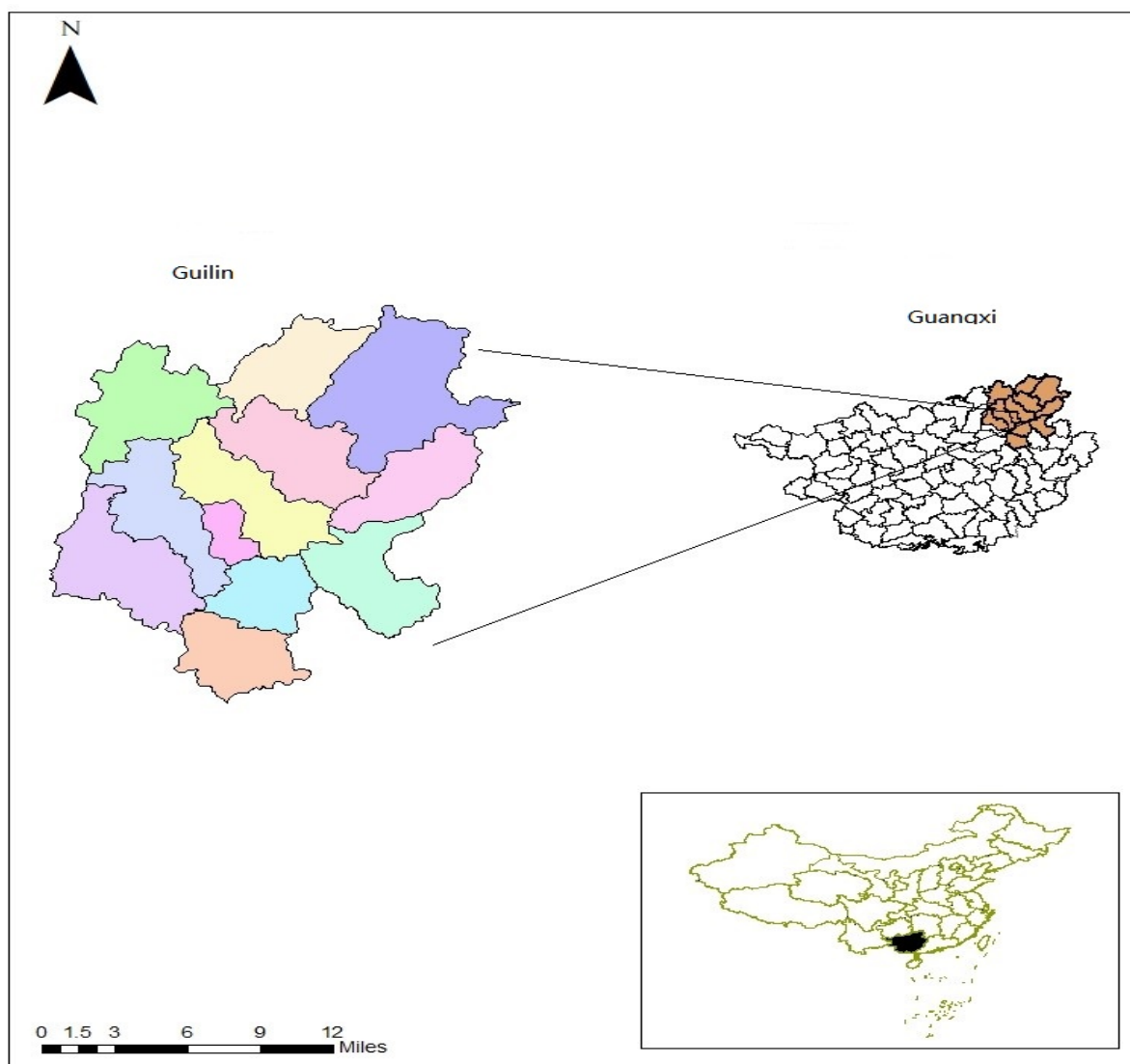


Figure 1-1 location of Guilin in China and Guangxi

Guilin, a world-famous tourist city, has developed prosperously in the past 40 years after

the reform and opening-up in China. In November 2012, the Chinese government officially approved “the Outline of the Guilin International Tourism Resort Construction and Development Plan”. This marked the rise of Guilin’s international tourist attraction as a national strategy. The development plan of a prefecture-level city could be included in the “national vision”, which indicated that Guilin had taken the lead in the development of tourism in the country. Since 2014, Guilin’s tourism has achieved remarkable results in the context of the downward pressure on the domestic economy. Guilin’s tourism quality and efficiency have achieved new upgrades. The construction of tourism industry clusters was also steadily advancing, but there were still problems such as short tourism industry chain, obvious seasonality, low public participation, and irregular construction of related systems. In 2017, the number of tourist in Guilin exceeded 80 million for the first time, achieving a total tourism expenditure of 97.176 billion Yuan, and was selected as one of the “Top Ten Tourist Cities in the Spring Festival” (lin, 2017). Figure 1-1 shows the location of Guilin in China and Guangxi.

1.2 Research content

1.2.1 Research problem

Since the 1990s, along with the national policy in favor of the tourism, tourism industry has become a critical component of the national economy and the key to the future development, and consequently Guilin’s tourism has achieved a considerable development during this time with its tourism income accounting for more than 20% of GDP (liu, 2018a). However, A problem that could not be ignored was that Guilin tourism brought negative externalities, especially for Guilin as a weak ecological area based on its Karst landforms. With the rapid development of tourism, tourists had increased, the intensity of tourism activity was increasing. This brought huge pressure to local industrial development as well as ecological environment, and therefore, it has become an urgent and important task to solve all these problems and further promote sustainable development based on the construction of industrial cluster of Guilin tourism (Lafferty & Fossen, 2015; Feng & Teng, 2017; Paraskevas

& Brookes, 2018).

1.2.2 Research questions

Based on the above purpose, this research will attempt to address following questions:

- (1) How to develop the Guilin tourism industry cluster, what are the development stages?
- (2) What are the social and economic benefits brought by the tourism industry cluster in Guilin? What is the negative externality of the region?
- (3) Is there a “Guilin model”, what characteristics does it have? How to evaluate the role of the Guilin tourism industry cluster in local economic and social development?
- (4) In the case of increasing tourism industry carrying capacity, how to promote the development of Guilin tourism industry cluster to solve the current contradiction between human and land relations?

This study attempts to analyze the development of tourism industry in Guilin and the negative externalities brought about by tourism based on the formation mechanism of tourism industry clusters. This study explores how the Guilin tourism industry can solve these problems through clustering, so as to continuously improve the competitiveness of Guilin’s tourism industry cluster. This study also analyzes the key factors affecting the development of Guilin tourism industry cluster, and proposes the development countermeasures of Guilin tourism industry cluster in the future.

1.3 Research purpose

In December 2009, Chinese State Council announces a grand plan that officially proposes to set off “Guilin national tourism comprehensive reform pilot area”. This plan makes Guilin the only prefecture level city in the structure of the national tourism development scheme: “one province, one island and one city”. In the spring of 2010, “Guilin national service comprehensive reform pilot program” has also got approved. Many believe that these two national level projects will inevitably promote the development of the Guilin Tourism Industry. However, Guilin tourism development is under great challenges while

facing the negative externalities and ecological threat. To achieve sustainable development, natural resources, social culture and ecological environment must be comprehensively considered. The purpose of this thesis is to find a path, with all those elements mentioned above being taken into full consideration, to achieve sustainable development for Guilin tourism which is beneficial to Guilin tourism, local industry, governmental innovation and human development. In other words, it aims at unraveling a “Guilin model” which enables the rapid and healthy development of Guilin tourism industrial cluster.

1.4 Expected contribution

It is necessary to give full play to Guilin’s unique natural scenery and historical and cultural resources, build tourism boutiques, continuously enhance Guilin’s international reputation and reputation, and promote the transformation and upgrading of Guilin’s tourism industry, and build Guilin into a world-class landscape sightseeing and leisure destination. Studying the development of Guilin tourism cluster can also provide valuable reference for the development of tourism industry and transformation and upgrading of other similar cities in China.

Theoretically, this research will broaden our interpretation on theories of industrial cluster, agglomeration and network. The process of the tourism clustering in Guilin and how it shapes the local economy and society will be unraveled. This will enable to explore the synergies and the complementarities of each player in the macro level that has been barely done in the literature. The research is also expected to deepen our understanding on the “Guilin Model”.

Practically, this research is expected to provide several policy recommendations to policy makers. The results will first shed some light on the tourism cluster strategy. How to integrate the different parts of the whole industrial chain? Vertical integration versus horizontal clustering, which one is better and why? What are the benefits of tourism clusters in Guilin and what are the negative externalities in the region? This research will attempt to tangle these puzzled questions to every policy maker.

1.5 Research framework

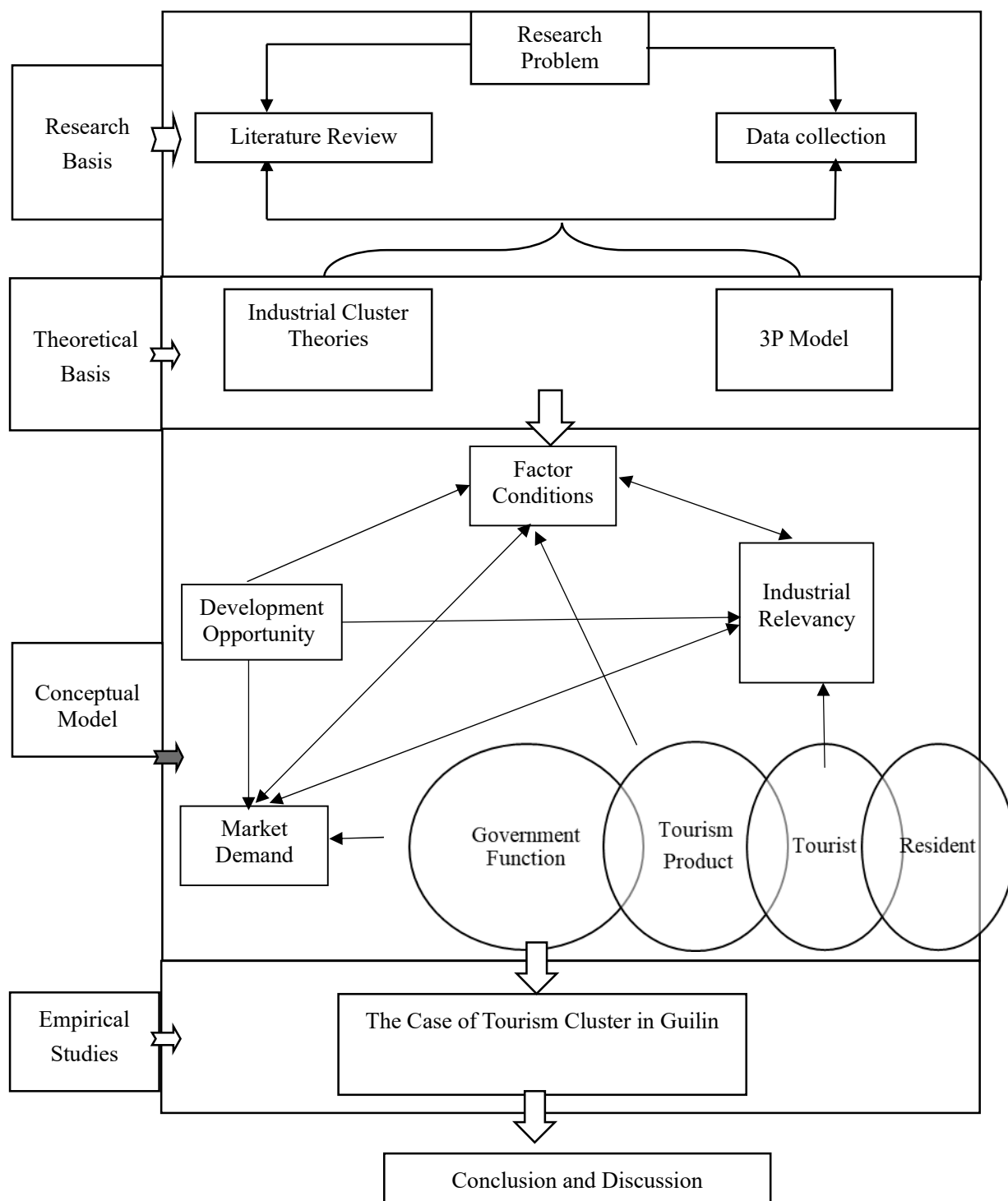


Figure 1-2 Research framework

This research will take qualitative and quantitative research protocol. The analysis will be based on the in-depth interview data and statistical data collected by our project team. The

research framework of this thesis is shown in Figure 1-2.

The introduction will be followed by a literature review which contains three major sections: theories and research on regional economy, Porter's diamond model and on tourism industrial clusters. The third chapter will focus on research method and design. Then the thesis analyze the interview content and statistics. The fourth chapter will report the field work, which is the key point of this thesis. The thesis will construct the theoretical analysis framework of this thesis based on Porter's diamond model and "3P" (profit, planet, people) model, and analyze the evolution of Guilin tourism industry cluster in this study. The fifth chapter is the conclusion and discussion part and it will be followed by policy recommendation chapter at the end.

Chapter 2: Literature Review

The research literature on industrial clusters or regional economic development is relatively rich. Some scholars have also begun to study the relationship between relevant industrial clusters and local regional economic development. However, the impact of tourism industrial clusters on regional economic development has not been thoroughly studied. Therefore, in the second chapter, this thesis firstly sorts out the literature on industrial clusters and regional economic development, paving the way for the in-depth study on the impact of tourism industrial clusters and regional economic and social development.

2.1 Regional economy

2.1.1 Concept of regional economy

Regional economy is gradually evolved from economic geography. It is based on the rationality of spatial resource allocation and is a geographical concept of comprehensive economic development. It can reflect the interrelationship of the connotation and extension of economic development and the objective law in different regions (Li, 1999). Isard pointed out that the regional economy is a country's economic space subsystem which has three distinct characteristics: regional, meso-level and relatively open. The factors affecting regional economic development are natural factors, location factors, population factors, political factors, economic factors, scientific and technological factors and cultural factors (Song, 2000). Among them, natural factors, location factors and economic factors are the foundation of regional economic development; population factors and scientific and technological factors are the key to regional economic development; political and cultural factors are the guarantee for regional economic development (Li & Li, 1999; Krugman, 2000).

2.1.2 Review of regional economic theory

2.1.2.1 Classical location theory

The location theory of the 19th century is the origin of regional economic theory. The subject basis of regional economic theory was firstly proposed by German economist Thunen. In 1826, Thunen completed the book “The Relationship between the State of Agriculture and the National Economy”. The purpose of the book is to explore the maximum net income that land use can achieve, which is the best agricultural location. He thought that due to the restriction of freight on agricultural costs, the land use pattern and agricultural production layout of “Isolated Country” are determined by the distance from the city. Around the urban consumer market, a concentric circle of different agriculture will be formed. The higher the value-added, not easy to store, the higher the freight, the closer the agricultural production will be to the city; the more low-value, easy-to-storage, low-cost agricultural products will tend to the periphery (Zhu, 1999).

Following Thunen’s agricultural location theory, German economist Weber proposed industrial location theory in the book “Industrial Location Theory” in 1909 through long-term research. Weber believes that in industrial areas, a large of manufactures concentrated in a certain place, not elsewhere, are mainly affected by agglomeration factors. The location factor determines the production location. The place with the lowest production cost and the most economic benefit is the result of the interaction between the concentration and dispersion factors until equilibrium. With the goal of minimizing cost, Weber studied the phenomenon that costs were reduced due to industrial concentration from three aspects: transportation direction, labor direction and agglomeration.

Influenced by Weber’s industrial location theory of cost-benefit analysis, German geographer Kristal proposed the central theory in his book “The Center of Southern Germany” in 1933, revealing the spatial structure characteristics of urban business, administration and other things. Through a survey of all cities in southern Germany, Kristal systematically elaborated the laws and patterns of the number, size and spatial distribution of central areas (commercial centers within cities or cities) in certain regions or countries. He

proposed that the centers of different sizes basically present a certain hierarchy in certain areas or in a country. The higher the level, the larger the scale, the more functions, the larger the market area of the service, the smaller is the number of centers. The central areas theory has been widely used in business planning, urban system planning and other fields (Zhang & Zhang, 1999).

2.1.2.2 Traditional location theory

After the Second World War, with the spatial role and planning model, network diffusion theory, system theory, mathematical analysis, operations research and other ideas gradually introduced into the regional analysis framework, the location theory has been greatly developed. Professor Isard of the United States is considered the founder of regional economics. His representative paper, *the Method of Regional Analysis*, systematically elaborated the theory and methods of regional development, focusing on the research of comprehensive methods of regional economic development. His research laid an important theoretical foundation for the formation of the regional economics discipline, making the gradual transformation of regional economic theory from a single location study to the development of the entire regional economy. The contribution of Isard was to make the study of the location was transferred from theoretical analysis to mathematical model quantification, and realized the expansion from the location choice of a single manufacturer to the economic complex. However, due to the influence of the neoclassical economic tradition, the hypothesis of his analysis was still the complete competition and the same scale return.

From the late 1940s to the 1970s, traditional regional development theories were gradually emerging. These theories emphasized the growth of gross national product, capital accumulation and industrialization. In the 1950s, the economist Perroux put forward the theory of “growth pole”. He believed that it was impossible for a country to achieve balanced economic growth in reality. In some places with good location conditions, there would be some growth points or growth poles of rapid economic development, which would lead to the development of its surrounding areas. In 1957, Myrdal proposed the “cumulative causal theory”. He believes that once a region’s development speed exceeds the average development speed, this region will continue to move forward by accumulating favorable

factors through the accumulation of causal processes, and will gain more and more in development. At the same time, however, the development of backward areas will be further curbed, and the factors that are not conducive to development in underdeveloped areas will accumulate more and more. In the 1960s, Williamson proposed the “inverted U-shaped” hypothesis. He pointed out that in the initial stage of national economic development, regional growth is uneven, and the gap in inter-regional per capita income is widening. However, when the economy develops to a certain level, regional economic growth and per capita income tend to be balanced, and regional differences will gradually shrink (Shi, 2004).

2.1.2.3 Modern regional economics

Since the 1980s, with the introduction of modern information technology and mathematical methods into regional analysis, various variables that have not been considered before can be incorporated into the framework model of regional economic research. Economists have begun to pay attention to regional space issues when studying economic growth. Regional research has gradually been introduced into the development of mainstream economics, forming the new theories of regional economic development.

In the 1990s, the new economic geography school began to form. The regional economists represented by Krugman and Fujita are committed to bringing economic geography, regional economics, into the halls of mainstream economics. The school introduced the imperfect competition model and the increasing returns to scale into the analytical framework of regional economy (Zhang, 2003). They have begun to notice the phenomenon of industrial agglomeration in economic activities, and believe that the agglomeration of economic can produce economies of scale, which can lead to an increase in returns. The theoretical foundation of the economic geography school was based on the following three propositions: increasing returns, imperfect competition, and transportation costs. They used the method of economics to explain and analyze these phenomena in industrial clusters and economic agglomeration in the perspective of economics (Su, 2003; Wei, 1998).

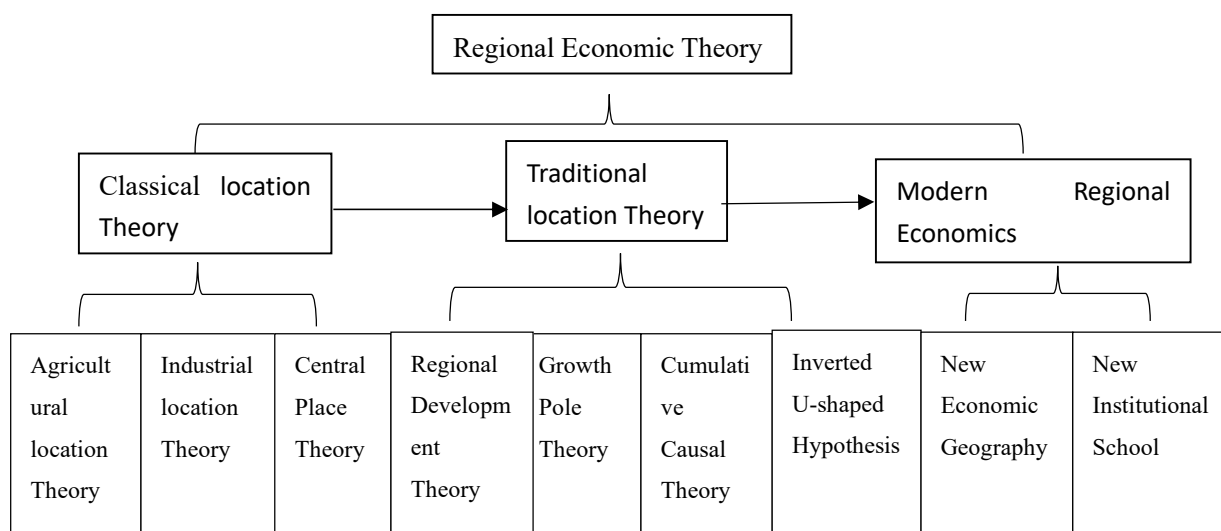


Figure 2-1 Review of regional economic theory

The new institutional school emerged in the 1990s. They mainly focus on the impact of government policies and institutions on regional economy and social development. The school is represented by Friedman. They stressed that only by manipulating national policy variables could regional development be promoted and regional interests be coordinated. Review of regional economic theory is shown in Figure 2-1.

2.2 Porter’s diamond model: national competitive advantage

In 1990, Professor Porter of Harvard University proposed the competitive advantage theory through competition research between countries. He studied and analyzed the phenomenon of industrial clusters from the perspective of competitiveness, and proposed the famous “diamond model” in management science.

2.2.1 Industrial cluster theories

In 1990, Michael Porter firstly proposed the concept of industrial clusters in his article “On the Competitive Advantage of the Country”. Later, Porter (2002a) supplemented and improved the research on industrial clusters. According to his definition, “An industrial cluster is a group of interconnected companies and associated institutions that have a competitive and cooperative relationship and are geographically concentrated. They are co-located or revolved around a specific industrial sector, and are geographically close

because of their competitiveness and complementary”. Industrial clusters are not a simple aggregation of a large number of enterprises in a specific area. Instead, they form a network of enterprises with close links, frequent interactions and close proximity through certain production chains or value chains (Stuart, 1997).

Based on Porter’s conception of industrial clusters, many scholars have given some different understandings and opinions based on their own research fields and academic background. After studying Porter’s theory of horizontal clustering and vertical clustering, Jacobs and Deman (1996) believe that clusters will exhibit different characteristics from different perspectives. Therefore, the definition of a cluster needs to consider the key elements it contains, such as the horizontal and vertical linkages of the industrial sector, the degree of geographical and spatial agglomeration of economic activities, the common technologies adopted by the enterprises within the cluster, the closeness of the network or cooperation among enterprises within the cluster, and the behavior of the central “activities” (such as large enterprises, research centers) within the cluster. Rosenfeld (1997) argues that an industrial cluster is a collection of geographically concentrated, interrelated, and complementary firms. The aim is to share a well-developed labor market, services and urban infrastructure, to face the opportunities and challenges of development, and to build diversified trade flows and trading channels through clusters so as to benefit all businesses in the cluster. In the same industrial cluster, the mutual cooperation between enterprises and the interaction between society and enterprises determine the dynamic development trend of the cluster. Hui (2017) believe that industrial clusters refer to some form of network formed by interdependent enterprises, knowledge production institution (university, research institution), intermediaries (broker, consultant) and customers in a certain geographical area in order to acquire new complementary technologies, reduce transaction costs, and obtain collaborative economic benefits.

According to various definitions, although different scholars have different conceptual expressions, scholars still reach some consensus on industrial clusters. Firstly, these concepts emphasize that industrial clusters are the aggregation of related companies in specific geographic spaces. Secondly, the emphasis is on the interrelationships between firms

(complementary or competition) and the interactions between firms and relevant institutions (such as universities, research institutions, intermediaries). Industrial cluster is a geopolitical phenomenon in the process of industrial development. Its core lies in the interaction between enterprises and other institutions in society and the complementary or competitive relationship among enterprises. This relationship can achieve the integration of corporate and social forces within a geopolitical space, not only for economies of scale, but also for greater flexibility and incentives for innovation. Through interactive learning and competitive elimination crisis, innovation becomes a necessary and normal state to the survival and development of the cluster, thus promoting the innovation and development of the entire regional space. The most important feature of industrial clusters is the concentration of enterprises and related institutions in a certain geographical space (Ao & Mu, 2010). Based on the object and purpose of research in this paper, this study thinks that enterprises aggregates that do not have this feature cannot be called industrial clusters.

2.2.2 National competitive advantage model: diamond model

In 1990, Professor Michael Porter of Harvard University proposed a theory of competitive advantage through competition research among countries. He re-understands the formation mechanism of industrial clusters from the perspective of competitive advantage, and puts forward the “diamond model”, which raise the height of industrial cluster theory. Porter thinks that the key to evaluating the industrial competitiveness of a country or region depends on whether the country has the system and the ability to form a competitive and innovative environment. The “diamond model” was composed of four key factors and two auxiliary factors. The four key factors are the status of production factors, market demand, related industries and supporting industries, and corporate strategies. The two auxiliary factors are opportunity and government. Geographic concentration is a necessary condition for these elements to interact and have a positive impact. Because geographical concentration is the spatial premise that allows these four key elements and two auxiliary elements to interact to realize the integration of various elements. The agglomeration in space provides convenience for the interaction and coordination within the industry, and also facilitates the dissemination of tacit knowledge within the industry. Therefore, clusters can improve the degree of internal

coordination within the industry and stimulate the ability of industrial innovation, thereby improving the competitiveness of the industry and thus forming a national competitive advantage. Porter's theory of competitive advantage summarizes complex economic activity factors into four key elements and two auxiliary elements. This provided a theoretical analysis framework for studying the formation mechanism and development dynamics of industrial clusters. Therefore, it had important milestones in the formation and development of industrial cluster theory. Porter's diamond model is shown in Figure 2-2.

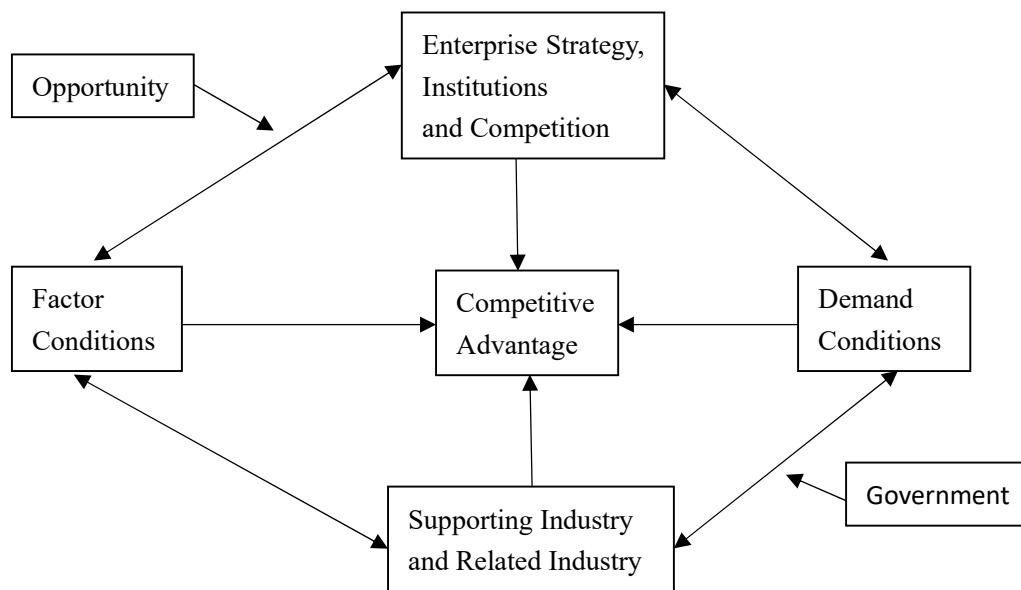


Figure 2-2 Porter's diamond model

Source: Michael (2002b)

2.2.2.1 Production factors

When studying the industrial competitive advantage in a specific region, the production factors usually include four resources and infrastructures: natural resources, human resources, capital resources, and knowledge resources. There are mutual influences and mutual constraints between these factors of production. Human resources usually include the number of labor, labor prices, technical capabilities, labor costs, as well as standard working hours and labor ethics. Natural resources include the variety, quantity, quality of natural resources, land price, as well as local climatic conditions and geographical locations. Knowledge resources refer to professional science and technology that are compatible with current productivity

levels. This mainly comes from various universities, research institutions and various statistical consulting agencies. Capital resources refer to the total amount of funds that can be applied in the region and the capital cost of the financial industry. Capital resources can operate through credit, mortgages, bonds and venture capital. Infrastructure includes transportation systems, postal communication systems, health care and basic education. The form, quality and cost of these elements can affect a company's competitiveness.

According to the importance of competitive advantage, production factors can be divided into primary production factors and advanced production factors/professional production factors. Primary factors of production are generally ubiquitous and can be owned by simple private and social investments. Advanced production factors often require more specialized, riskier private or social capital to make large, sustained investments. With the development of economy and the level of science and technology, the demand for primary production factors is decreasing. The competitive advantage of a company or industry comes more from the advanced production factors that are difficult to obtain.

2.2.2.2 Demand condition

Market demand refers to the demand for products or services provided by enterprises or industries in the consumer market. It generally includes domestic market demand and international market demand. The impact of the domestic market is mainly through how the company understands and responds to customer needs. If the domestic market demand for a certain product is large, it can bring huge scale benefits to the enterprise or industry that produces the product. This can effectively reduce the production costs of enterprises or industries, so that enterprises are more competitive in the international market.

Large domestic markets are very beneficial to the development of the industry, mainly because large markets can encourage large-scale investments in production equipment, technology development and productivity. The more companies in the domestic market, the greater the help for industrial competitiveness. If the domestic market is monopolized by one or two large enterprises, it is not conducive to the improvement of the competitiveness of the entire industry. When there are many competitions, the company often feels huge external pressure. This will force companies to continuously develop new products or improve the

performance of existing products, and pay more attention to the attractiveness of products to customers. The discerning customers in the domestic market and fierce competition will continue to improve the quality and competitiveness of products. This can guarantee the competitive advantage of enterprises in the international market after the domestic market is saturated.

2.2.2.3 Related and supporting industries

For the formation of national competitive advantage, the relevant supporting industries and advantageous industries are closely related. Michael Porter's research shows that the dominant advantage industry will not exist alone, it will appear together with the relevant upstream and downstream advantageous industries, forming an industrial competitive advantage. Especially the high-level upstream and downstream industries are always essential for the industry to continuously innovate and upgrade to maintain its industrial advantages. Competitive domestic industries will also promote the overall competitiveness of upstream and downstream related industries. Because these industries have similar industry values, they can collaborate and share information resources. Therefore, several related competitive industries usually appear in one country at the same time. This is also the reason why some economists criticize the industrial development policies of developing countries. Developing countries usually adopt policies that focus resources on prioritizing the development of an industry. But this is often at the expense of other industries, so the industries that give priority to development cannot maintain the momentum of sustainable development. At the same time, according to Porter's theory, domestic suppliers are an indispensable factor in the process of industrial innovation and upgrading. Because if a industry wants to form its own competitive advantage, it cannot lack a world-class supplier. At the same time, there is no shortage of close cooperation with upstream and downstream industries.

2.2.2.4 Corporate strategy, structure and horizontal competition

In the relationship between national competitive advantage and industry, the fourth key factor is the enterprise. This includes how companies are created, organized, and managed, as well as the status of competitors. The situation of domestic competitors plays an important role in promoting corporate innovation and international competitive advantage.

The company's strategy and structure are important. The factors affecting corporate development goals include entrepreneurial enthusiasm, shareholder structure, debtor attitude, internal management model, and progressive motivation of senior management. The entrepreneurial spirit of self-employment will also have an important impact on the development of the industry. Industrial competitiveness is inseparable from personal efforts and work attitudes. National glory and sense of mission will also influence the direction of industry elites, shareholders and funds, thus driving the development of specific industries. Continuous loyalty is also very important. The research on successful industries in various countries has found that if investors or employees are more loyal to the company or industry, their competitive advantage will be even greater.

Industry competition is crucial. The biggest factor in industrial creativity and sustainable competitive advantage is the existence of strong competitors in the domestic market. The importance of domestic market competitors is that it allows companies to maintain a sense of pressure at all times. In order to avoid the fate of being eliminated, companies continue to improve their products or services, thereby providing incentives for innovation. The fiercer competition among domestic enterprises, the more prominent the country's international competitive advantage in related industries. The stronger the competitors in the domestic market, the greater the chances of successful internationalization.

2.2.2.5 Supportive factors: opportunities and government

Opportunities include technological breakthroughs, important inventions, factors of production and major changes in supply and demand, and other events. These emergencies will provide an opportunity for the industry or company to adjust its industrial structure. There are about seven possibilities for opportunities: traditional technology faulting, the invention and creation of basic technology, the significant changes in financial markets or exchange rates, external factors leading to a sudden increase in production costs, sharp increase in market demand, important government decision, war. Opportunities are often two-way. Some new competitors can take advantage of these chances. But some existing competitors may also lose their advantage. Only those companies that can continue to meet new demands can gain development opportunities.

The role of the government is mainly to provide the resources needed by enterprises to create an environment for industrial development. As Porter pointed out, it is the enterprise, not the government, that participates in industry competition. Only by playing a good role can the government become a force to strengthen the diamond system. Governments can create new opportunities by developing sound policies. The government should be involved in areas where companies are not comfortable intervening, namely external costs, such as open capital channels, developing infrastructure and developing information integration capabilities. From the impact of the government on the four major factors, the government's impact on demand is mainly government procurement. The government should act as a discerning customer. In the formation of industrial clusters, the government cannot generate from nothing, but it can create positive conditions for the formation of industrial clusters. Porter believes that the government's protective policies will delay the formation of industrial competitive advantages, leaving enterprises in a state of lack of competition.

Porter pointed out that the above six factors interact and promote each other to form a dynamic and innovative competitive environment. This competitive environment can produce some star industries that are competitive in the international market. The diamond model is a dynamic open competition model. It not only analyzes the role of macro factors in competitiveness, but also emphasizes the impact of various micro-subjects on competitiveness. In a changing environment, the interaction and strengthening of various micro-subjects gradually form the competitiveness of regions or industries. At the same time, government policies, cultural factors and leadership will have a major impact on various factors. The benign interaction of these influencing factors will determine the competitive advantage of the country or region.

2.2.3 Industrial cluster innovation and network

The most essential problem in the development of industrial clusters is the improvement of the innovation ability of cluster enterprises. Only by forming an innovative network can help cluster enterprises to enhance the competitive advantage of the cluster. Freeman introduced the concept of innovative networks in 1991. He believed that innovation network

was a new mechanism to deal with system innovation. Cai (1998) believed that the industrial cluster innovation network had the power law distribution feature according to the characteristics of the innovation cluster network. Fletcher (2011) had taken a different approach. He started with a complex network model and believed that the industrial cluster innovation network derived from key enterprises had heterogeneous characteristics. Based on this, Zhou (1999) further found that the industrial cluster innovation network was the driving force for the innovation and development of the cluster, which could control various heterogeneous resources. Li (1999) believed that the power source of the industrial cluster innovation network was to achieve collaborative innovation, and to update and exchange knowledge through various means to balance the knowledge distribution in the industrial cluster innovation network. Munjal (2013) believed that it was necessary to improve the ability of enterprises to resist potential risks in the industrial cluster innovation network, otherwise it would affect the cultivation of enterprises. According to empirical analysis, Zhu (1999) believed that the innovation performance of tourism enterprise cluster innovation network and enterprises had a mediating effect, which would have a positive effect on different tourism enterprises. Tsai (2017) took the famous tourist city Pingyao Ancient City as an example. He found that the innovation network center of the tourism industry cluster was obviously different from the manufacturing cluster, and had nothing to do with innovation performance. This was a unique feature of the tourism industry cluster innovation network.

2.3 Tourism industry carrying capacity and 3P model

2.3.1 3P model

At present, the research on the sustainable development of the tourism industry's carrying capacity is the focus of tourism industrial cluster research. A large number of literature have found that the three major factors of people, planet and profit are important factors influencing the sustainable development of tourism industry clusters. Learning from the results of research on tourism industry clusters such as Wang (2009), Zhao and Yu (2016), Zhou (2016), this dissertation constructs the "3P" model. See Figure 2-3 for details. These

three elements are always running through the development of tourism industry clusters.

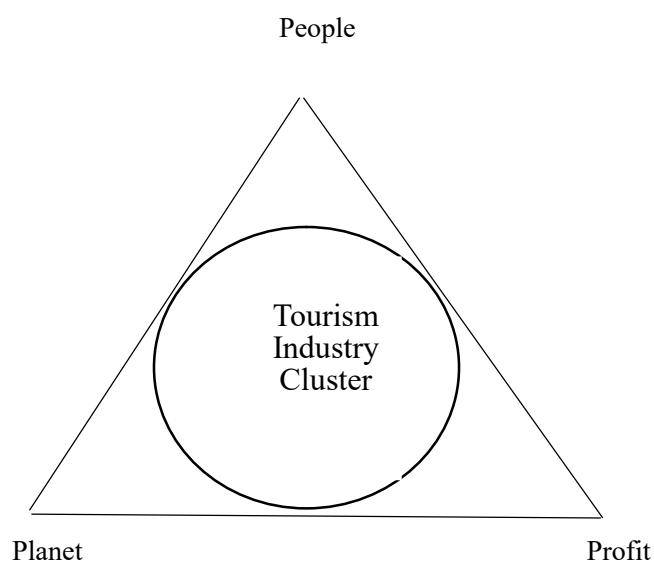


Figure 2-3 3P model

Source: Elkington and Shopley (1988)

The planet is the foundation for the development of tourism industry clusters. People are the core of tourism industry cluster development. Profit is the source for the development of tourism industry clusters. These three elements are indispensable and interaction to promote the sustainable development of tourism industry clusters (Gong & Zhang, 2016). By developing tourism resources and gaining economic profits, the people can not only stimulate regional economic growth, but also provide employment opportunities and increase local per capita income and government revenue. Economic growth and the increase of fiscal revenue have provided economic foundation and financial security for improving the environmental quality of tourism resources in the region. With the development of regional economic and the improvement of per capita income level, the people's awareness of environmental protection is also increasing. In the process of development, they are paying more and more attention to environmental issues and are willing to invest in and providing technology for improving the environment (Zhong & Liu, 2012; Du, 2014).

(1) People

The concept of sustainable development of tourism industry clusters is ultimately to achieve "people-oriented". No people's all-round development, the sustainable development

of the tourism industry cluster is also the passive water, the rootless wood. People are always in the main and active position. Moderate population and high population quality directly affect the sustainable development of tourism industry clusters (Deng, Xin, & Ma, 2017).

(2) Planet

The planet is the foundation on which human beings depend. For the sustainable development of tourism industry clusters, it not only provides space and carrier for tourism industry activities, but also can absorb all kinds of pollution and waste generated by tourism. Therefore, it is a huge ecosystem of tourism industry clusters consisting of atmospheric environment, water environment and soil environment. When this ecosystem is severely damaged, it will damage the sustainable development of the local tourism industry.

(3) Profit

Profit is a comprehensive reflection of the business operation effect, and it is also a concrete embodiment of its economic development. Economic subsystem is the key content of tourism industry cluster development. By continuously improving and optimizing the industrial structure within the tourism industry and increasing the input-output ratio of tourism, and continuously reducing the proportion of pollutant emissions, the tourism development can achieve sustained profit growth while minimizing the damage to the tourism resources and environment. The harmonious coexistence between people and nature can be finally achieved, and the continuous profit from this mode of coexistence can be continuously obtained.

2.3.2 Tourism industry carrying capacity

Tourism industry carrying capacity is often called tourism environmental carrying capacity. So in the study of the tourism industry, these two concepts can be replaced by each other. The development of a tourist destination should firstly consider the size of its capacity. The development of the tourism industry beyond its environmental capacity is generally unsustainable. The current research on the carrying capacity of tourism industry has gradually matured. It has been able to carry out theoretical analysis and empirical test within a certain theoretical framework and method system. The initial qualitative research has been

transformed into an empirical study with a quantifiable methodological system. The research covers social, economic, environmental, cultural and other issues (Rylance & Spenceley, 2017)..

As early as the 18th century, Malthus studied the maximum population limit that can be carried under certain food resource constraints in his book “Population Principles”. This is the framework prototype of the concept of “carrying capacity”. In 1921, Parker and Burges firstly proposed the concept of carrying capacity, that is the maximum limit of the number of individual organisms in a particular environmental condition. Later, Lapage borrowed this theory in 1963 when studying the development of the tourism industry, and proposed the concept of tourism environmental carrying capacity. Capacity control has become one of the important means of sustainable tourism development and has been widely used in practice, but has not been systematically studies. In the late 1970s and early 1980s, as the world’s environmental problems became more prominent, the concept of sustainable development was gradually gaining popularity. The World Tourism Organization officially proposed the concept of tourism carrying capacity in the general work plan report of 1978-1979. Since then, scholars were paying more and more attention to the issue of the capacity of the tourism environment.

Since the 1990s, with the vigorous development of the world tourism industry, the environment problems of tourism destinations caused by the development of tourism in the world has become increasingly prominent. Many scholars have shifted their research focus to the local tourism resource environment. Tourism environment capacity should not only be considered the maximum number of tourists that can be accommodated by tourist destinations from the perspective of resources and environment. On the basis of the capacity of resources and environment, the two dimensions of the perception of residents and the economic capacity of tourism destinations should be added. Firstly, from the perception of the destination residents, before they feel that the development of tourism has adversely affected their normal life, the number of tourists that can be accommodated in the tourism destination is a reasonable tourism environment capacity. Secondly, if the number of tourists is within the limits of the local infrastructure and economic development level, it will not bring about the

uncomfortable or even unpleasant process of the tourist experience due to the lack of tourism infrastructure or reception capacity which will cause the local tourist flows to decline. This is a reasonable tourism capacity. Therefore, the tourism capacity should not only include the natural environmental capacity of the tourist destination, but also include the economic capacity and social capacity of the tourist destination.

2.3.3 The relationship between 3P model and tourism industry carrying capacity

The tourism industry has the characteristics of strong radiation action and wide range of connections. However, if the relationship between tourism industry and carrying capacity is not handled well, it will bring about a series of problems, which in turn will affect the development of tourism (Haber & Reichel, 2010). Therefore, it is necessary to properly handle the three essential elements of the development of the tourism industry cluster: the environment (planet), the tourists (people), the economy (profit).

With the continuous improvement of people's living standards, the demand for tourism is becoming more and more vigorous, and the number of tourists is also constantly increasing. Therefore, more and more scholars have noticed this problem, and a series of research results have been born. Gossling (1999) pointed out in his research that tourists and local residents would exert certain pressure on tourism resources and environment, and proposed comprehensive education and comprehensive management control methods to reduce the pressure of human production activities on regional environment. Schmidhauser (1992) used the travel generation model to quantitatively study the tourist capacity of tourism destination. Mccool and Lime (2001) showed that the carrying capacity of tourism industry is mainly affected by factors such as resource environmental carrying capacity, ecological environmental carrying capacity, economic environmental carrying capacity and social environmental carrying capacity. Kibicho (2008) proposed that the development of tourism industry must coordinate with the development of community economy. Liu and Fen (2008) pointed out that the development of tourism industry would have a negative impact on the local environment, that is, the industrial carrying capacity would be negatively affected by the local environmental resources carrying capacity. In order to analyze the comprehensive

carrying capacity of urban agglomerations along the Silk Road Economic Belt, Cheng and Shen. (2015) used the improved entropy method to compare and analyze the comprehensive carrying capacity of the five major urban agglomerations. Liu and Wang (2016) analyzed the correlation mechanism between tourism industry agglomeration and tourism environmental carrying capacity. They pointed out that the carrying capacity of tourism environment is the scale and intensity of tourism activities that a tourism system can withstand without destroying the natural environment, economic environment and social environment under specific time and space. The concentration of the tourism industry would increase the regional carrying capacity by generating a strong economies of scale (Chen & Kim, 2010; Singal, 2014; Tervokankare, Kaján, & Saarinen, 2018).

2.4 Existing research on tourism industry clusters

The research and demonstration of industrial cluster have always focused on the manufacturing sector. Whether there is cluster phenomenon in non-manufacturing fields such as cultural industries and service industries, and whether the research can be carried out using industrial cluster theory has been controversial. Whether the tourism industry with close industrial linkages and obvious agglomeration characteristics can form clusters has become a hot issue of tourism scholars and regional economics circles (Cui, 1995).

2.4.1 Definition of tourism industry cluster

In recent years, scholars have started discussions and research on tourism industry clusters. The articles on tourism industry clusters are gradually increasing. Some scholars have found through empirical analysis that in some regions and cities with better tourism development, it had already possessed the characteristics of industrial cluster, innovation and social network of tourism industry clusters. They used the theory of industrial clusters to conduct research and analysis. Porter conducted an in-depth analysis of the tourism industry clusters in the analysis and evaluation of the competitiveness of the California wine industry cluster in 1998 and South Carolina in 2003 respectively. Later, more and more scholars paid attention to the phenomenon of tourism industry clusters.

This study believes that the objects (behavior subjects) of the tourism industry cluster are tourism enterprises and supporting enterprises that directly provide tourism products and services and enterprises and other organizations that indirectly provide tourism products and services. In general, tourism industry clusters can be divided from hierarchical structure, network structure and market structure. Figure 2-4 shows the different structural divisions of the tourism industry cluster.

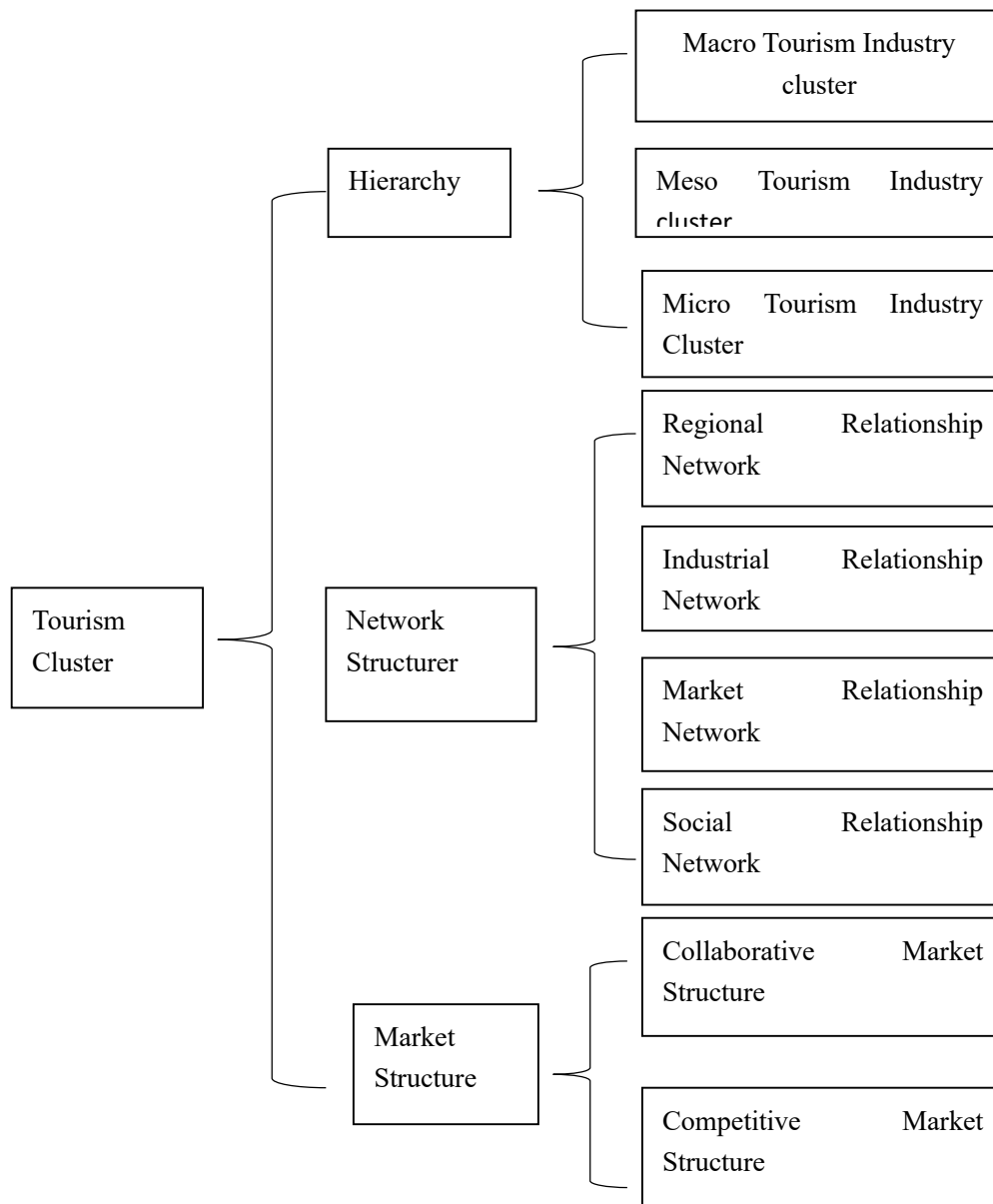


Figure 2-4 The Division of different structures of tourism industry cluster

2.4.2 The mechanism of tourism industry cluster competitiveness

Judging from the current academic research results, the competitiveness of the tourism industry cluster is derived from the positive externalities generated by the interaction between the various elements of the cluster. For example, in the study of South Carolina, Julie and Katherine (2006) focused on how to cultivate tourism industry clusters based on the theoretical framework provided by the diamond model. Their research results showed that in the process of regional development, only the effective superposition of relevant factors can have a positive impact, which is conducive to the construction of regional industrial clusters. liu (2000) found in his research that tourism industry clusters were not established in all tourist destinations. Only when the tourism industry developed to a certain extent can the tourism industry cluster be successfully cultivated with certain necessary conditions. After studying the tourism industry in western China, Jackson and Murphy (2006) found that by meeting the elemental conditions proposed in Porter's "Diamond Model" and that there can be benign interactions between these elements, a competitive tourism industry cluster can be established. Under the analysis framework of the diamond model, Zhang and Song (2009) believed that an effective way to extend the tourism industry chain and increase its added value was to cultivate local advantageous tourism industry clusters.

2.4.3 Enterprise network in tourism industry cluster

With the deepening of research on tourism industry clusters, scholars generally pay attention to the importance of the internal network structure of tourism industry clusters (Bredvold & Skalen, 2016). Meng, Li, and He (2017) found in empirical research that the structure and density of corporate networks were critical to the development of tourism industry clusters. Efficient local networks could promote communication and collaboration between companies, leading to innovation. Continuous innovation could help the growth of all types of enterprises, especially small and medium-sized enterprises in the region. Michael (2006) believed that a tightly integrated network facilitated the dissemination of information and tacit knowledge, thereby promoting the development of related companies in the region. After studying the British tourism cluster, Novelli and Schmitz (1997) believed that the

analysis from the perspective of ethnic groups and network systems could help people better understand the competitiveness of tourism destinations and their various attributes.

2.4.4 Tourism industry cluster collaborative competition and innovation

In recent years, scholars started to explore the relationship between collaborative competition and innovation within the cluster. Bushell, Prosser, Faulkner, and Jafari, (2017) believed that it was necessary to strengthen cooperation between enterprises within the local tourism industry cluster, and also to have a certain degree of competition among these enterprises. In this way, the quality of the cluster can be improved, thus promoting the high quality development of regional tourism. Nordin's (2005) empirical research on tourism industry clusters in Sweden showed that companies in tourism clusters could not only have cooperative relationships. Simply stressing cooperation was not conducive to the emergence of innovative behavior. There must be a certain degree of competition between enterprises to break the balance of inefficiency, promote innovation in products or services, and enable the entire cluster to achieve high quality development. Jackson (2006) found in an empirical study of Australia that the existence of a tourism industry cluster could promote cooperation among relevant companies in the region. Close cooperation could stimulate innovation. Through continuous innovation, the local tourism resource advantage was transformed into the competitive advantage of regional development.

2.4.5 Factors affecting the competitiveness of tourism industry

Huybers and Bennett (2003) highlighted the environmental characteristics of tourism sites in their research. They believed that the high quality natural and human environment of tourism was the main source of competitiveness of the local tourism industry. Mihalic (2000) found that the factors affecting the competitiveness of tourism destinations included the location and resources of the destination and the local infrastructure. In addition, other factors should be included, such as the friendliness of local residents, quality of service, and recreational facilities. Novelli's (2006) empirical study of the UK showed that clusters were generally not spontaneously formed. Clusters must have an appropriate and efficient economic management model based on tourism to truly form. Therefore he emphasized the

importance of management. Ritchie et al. (2007) believed that the attractiveness of tourism resources was made up of multiple factors: cultural and social characteristics, tourism destination's infrastructure and service structure, superstructure, accessibility, resident friendship, consumption level, economic and social connection, unique.

2.5 Summary

It can be seen from the above that the development of regional economy and industrial cluster theory has been relatively mature. However, there are still some problems in the research of tourism industry clusters, especially the research of the impact of tourism industry clusters on social and economic development. Under the background of rapid economic development, people's living standards are constantly improving, and the consumption for tourism is also rapidly growing. The contribution of tourism consumption to the national economy is also growing. As a strategic industry, the tourism industry has the characteristics of low energy consumption, strong correlation with other industries, more employment opportunities and good comprehensive benefits. This provides a good hotbed and soil for the phenomenon of tourism industry clusters. There have been some trends and phenomena in the tourism industry clusters around the world. In recent years, the management departments in many places have also noticed the phenomenon of tourism industry agglomeration, and have cultivated local tourism industry clusters as an important way to stimulate regional economic growth. Because the tourism industry is a typical service industry, Its main benefit comes from providing high quality services to visitors. Therefore, tourism industry clusters and manufacturing-oriented industrial clusters would differ in terms of development models, innovative approaches, and required support conditions. The accumulation of tourism industry and the development of industrial clusters would be affected by many microeconomic factors, as well as by the social environment and natural ecological environment. Therefore, it was necessary to discuss the formation, development and change of tourism industry clusters from the perspective of economic, social and environmental coordination.

In addition, for a long time, policy-makers and researchers believed that tourism is only an economic phenomenon. So they focus on extracting more profits from the tourism industry.

It is lack of adequate analysis of costs and hidden risks, especially with regard to ecological environmental costs. Many recent studies have shown that the long-term neglect of negative externalities can lead to very serious consequences. At present, when applying the theory of industrial clusters to the study of tourism industry, it does not stand in the perspective of regional development.

Therefore, Research on tourism industry clusters must be carried out in the broad context of regional development. The research should not only analyze the growth rules and characteristics of the industrial cluster itself, but also the interaction between the cluster and the social, economic and ecological environment in the development process. The development of tourism industry clusters can enhance the competitiveness of tourism destinations and promote the growth of regional economy. However, large-scale tourism development and excessive visitor reception would also have an adverse impact on the local resource environment and social life. Therefore, it is very important to study the interaction between tourism industry clusters and regional economy, social development and ecological environment protection. This can promote the sustainable development of the regional tourism economy. The thesis takes the typical tourism city of Guilin as an example to systematically study the impact of tourism industry clusters on regional economic and social development.

Chapter 3: Research Method and Design

3.1 Research strategy

The case study method originated in the field of law and was later widely used in the field of management. Yin (2010) pointed out in his article “Case study research: Design and methods” that the case study method is an empirical qualitative research method for examining a phenomenon or subject in the real environment and analyzing the reasons behind it. This is an empirical inquiry that is suitable for studying the research questions such as “why”, “how” and “how the result is” (Fan, 2013).

From the operational methods, case studies are divided into single case studies and multiple case studies. Yu (2004) believed the most of single case studies are used to verify or falsify certain a aspect of existing theoretical assumptions, which can be used to analyze an extreme, unique and rare management scenario. Multi-case research refers to relying on the same research theme, based on independent case analysis, the researchers will generalize and summarize all cases, and draw abstract and incisive research conclusions.

The aims of the thesis is to analyze how the Guilin tourism industry cluster affects economic and social development, which is a typical empirical exploration. Therefore, the thesis uses a single case analysis method for research (Enright & Newton, 2004).

3.2 Case selection

The choice of case mainly follows the principle of typicality, that is, the selected research object must have certain uniqueness and representativeness in the research direction. The city of Guilin has good basic conditions and great development potential, and has a very important position in China’s regional development configuration. Guilin is a famous international tourist city and historical and cultural city in China. It is one of the first outstanding tourist

cities in China, and is one of the top four tourist destination cities in China firstly introduced by the World Tourism Organization. Geographically speaking, Guilin is an important hub connecting the coastal and inland areas. It is the direct hinterland of the important economic sectors such as the Beibu Gulf and the Pearl River Delta. It plays a pivotal role in China's regional economic development.

In 2009, the Chinese government deployed the comprehensive reform of China's tourism industry from the strategic level and proposed to build a "one province, one island, one city" pattern. Guilin has become a national tourism comprehensive reform pilot zone, and is currently the only prefecture-level city in China building a national tourism comprehensive reform pilot zone. Guilin can give full play to its overall advantages in comprehensive reform and tourism to promote economic and social development, and provide demonstration driving effects for other regions in China. After years of development, Guilin tourism has become one of the most urban advantageous, most brand-oriented, most socially competitive and most promising industries. This thesis chooses Guilin as a case study, mainly based on the following two reasons.

3.2.1 Individualism

Guilin's development of tourism has unique advantages. Compared with the surrounding cities, Guilin has top landscape resources, historical, ethnic, artistic, religious and other multicultural resources, pivotal location advantages, comprehensive resource integration and resort-type climate and environmental characteristics. In the three landscape resources series of nature, humanities and tourism services, Guilin is mainly composed of mountain and water landscape resources and human landscape resources. Especially, its mountain and water landscape resources are unique in the world. As of February 2018, there are 59 A-level scenic spots in Guilin (see Appendix II), including 3 5A-level scenic spots, 25 4A-level scenic spots, 69 star-rated hotels, 2 large-scale tourism enterprise groups, 146 travel agencies, and 88 tourist and shipping companies. Guilin leads other similar tourist cities across the country and was named the first batch of China's best tourist destination cities by the World Tourism Organization.

3.2.2 Representative

Guilin is a major tourist destination in the world. It is famous for its beautiful mountains, waters, caves and stones. Guilin landscape is the best in the world. For a long time, Guilin has become a beautiful business card of China's natural scenery. As early as 2006, The World Tourism Organization set up a tourist observation point in Yangshuo, Guilin. Guilin has become an important "wind vane" for China's tourism industry. Firstly, Guilin is one of the earliest open tourist cities in China. The tourism in Guilin has a long history of development and has experienced various stages of tourism development in China. Secondly, Guilin is a typical scenic tourist city, with landscapes as the main tourist resources. This type of tourist destination occupies an important position in China. Thirdly, Guilin belongs to a relatively backward economic region. The research on Guilin can better reflect the role of tourism industry clusters in economic and social development, and provide considerable reference for the development of the western tourism destinations in China with rich tourism resources and weak economic foundation.

3.3 Research design

3.3.1 Data collection

In terms of data collection, this thesis uses first-hand data combined with second-hand data to conduct research on the Guilin's tourism industry cluster. First-hand data includes questionnaires, internal materials and in-depth interviews. The questionnaire is the most commonly used method of current academic research. In order to better understand the situation of the Guilin's tourism industry cluster, the research team, based on the research purpose, borrow the questionnaire surveyed by the World Tourism Organization in the monitoring report on the sustainable development of Guilin Yangshuo tourism in 2006 to conduct a random survey for tourists visiting Guilin. The internal data is obtained because of the long-term good relationship established between the research team and the tourism-related institutions in Guilin. At the same time, in order to make up for the deficiencies in the questionnaires and internal materials, and to enrich the content of the survey, this study also

uses the method of interviews. The research team conducted in-depth interviews with people related to the Guilin tourism industry to obtain the most authentic first-hand information, thus providing the most realistic data support for this research. The second-hand data mainly comes from Guilin Zhi, Guilin's statistical yearbook and China Tourism Yearbook. All data is verified by triangulation to ensure the reliability of the data source (Eisenhardt, 1989).

3.3.1.1 First-hand data

The first-hand data includes in-depth interviews and questionnaires. This is the result of the in-depth discussion of the required research questions and the refined data collection based on obtaining and analyzing second-hand data. The first-hand data is mainly through in-depth interviews with specific people who are representative of related fields to obtain content that can not be expressed by second-hand data, or even partial secret information. These content and information enable researchers to more fully grasp the subtle relationships and dynamic background of the development of things. Questionnaire survey is to help researchers grasp the commonality and regularity of developments by issuing questionnaires to relevant groups.

(1) Depth interview

Table 3-1 Basic information of the interviewer

Serial number	Name	Interview time	Career	Introduction
1	Director Wei	3.22	a government official in charge of tourism	He is a native of Guilin. He has been working in the tourism department of Guilin for a long time since he joined the work. He is very familiar with the development of tourism in Guilin. He grew up in Guilin and has a deep understanding of the problems and development prospects of Guilin tourism.
2	Dean Xie	3.24	Professor of Guilin Tourism College	He is a native of Guilin. He has been engaged in related research on tourism in Guilin for a long time and has his own profound insights on the development of Guilin's tourism industry

				cluster.。
3...	Moon mom	3.24	The owner of the Moon Mother Hotel	She is a native of Guilin. Since the 1990s, Guilin's tourism has grown rapidly, and Moon mother has been involved in tourism. At that time, she mainly sold some simple tourist souvenirs. Although she only has a third-grade elementary school, she has gradually mastered 6 foreign languages through her exchanges with foreigners visiting Guilin. She later developed and grew up, and established the famous Moon Mother Hotel.
4	Tour guide Yu	3.25	Tourist guide	He is a native of Guilin. He is very familiar with Guilin's attractions, customs, culture, historical background. After graduating from secondary school, he has been engaged in tour guide work and has 14 years of rich tour guide experience.
5	Uncle Liu	3.25	Farmer	He is the peasant near the performance of Impression • Liu Sanjie. By playing the the actor of Impression • Liu Sanjie, his life has undergone tremendous changes from agriculture to tourism.
6	Big brother Liu	3.26	The Owner West Street Silverware Store	He is from Dali, Yunnan. He used to work in the processing of tourist silverware in Dali, and later traveled to Guilin, and liked the beautiful city of Guilin. So he moved with his family to Guilin West Street to sell tourist silverware.
7	Ms. Zhuge	3.26	Palau travel hotel group company CEO	She is a native of Guilin. Since the 1990s, a large number of foreign bars have been stationed in Yangshuo West Street. At that time, this woman was a middle school student. She often went to the bars opened by foreigners and worked with foreigners to improve her oral English. She has realized that tourism would have a great development. After graduating from college, she worked in Palau tourist hotel because her

				English is very good. After years of hard work, she gradually became the owner of the tourist hotel in Palau, a foreign tourist destination. Now she is ready to return to Guilin for investment in tourism.
8	Village Head Chen	3.26	village head	He is a native of Guilin. He is the head of the village where Impression • Liu Sanjie performance is located. Since 2000, he has served as the village head. With Impression • Liu Sanjie was located in the village, the tourism industry of the village developed rapidly, which had an important impact on the population, land, industrial structure and social life of the village.
9	General manager Zhou	3.27	General Manager of Yulonghe Scenic Area	He is a native of Guilin. He has been engaged in the management of Yulong River Scenic Spot in Guilin for 16 years and is very familiar with the changes of Yulong River Scenic Spot.
10	10 Guilin citizens	3.28-3.29	Citizens	They are all natives of Guilin. They have different views on the impact of Guilin tourism on social and economic life.

The research team did a lot of preparatory work. After repeated discussions between the mentor and the research team members, the interviewees and interview outlines were identified. Subsequently, the research team communicated with the interviewees about the purpose of the interview, the interview time and the interview location, and designed the in-depth interview plan. The research team interviewed different tourism-related managers and practitioners from various locations in Guilin from March 22 to March 29, 2017. We recorded the content of the in-depth interviews. The content of the in-depth interviews are determined according to the different roles played by the respondents in the tourism industry in Guilin. The main content interviews are the evolution process experienced by them in the economic and social development of Guilin tourism industry cluster.

This thesis interviews one government official. Since joining the work, the official has been working on the tourism system for a long time and is very familiar with the development

of Guilin tourism. This thesis interviews 4 travel practitioners, including a employee of tourist attractions, a tour guide, a shopkeeper, and a village head of tourist attractions. This thesis interviews one expert of tourism. The expert has long been engaged in related research on Guilin's tourism. He has his own deep insights into the development of Guilin's tourism industry cluster. See Table 3-1 for details. At the same time, this thesis also interviews 10 ordinary citizens in Guilin. Through in-depth interviews with government officials, tourism practitioners, experts and scholars in tourism research and ordinary citizens of Guilin, the study explore the role of tourism industry clusters in different economic and social development in different time horizons.

In addition, according to the educational level and social identity of the interviewees, the interview content and language will change slightly, but the overall change is not large. This does not affect the actual effect of the interview. Each interview is about an hour and a half or so. See Appendix 2 for details.

(2) Questionnaire

In the process of developing the survey scale, we refer to the scale adopted by the World Tourism Organization in monitoring the sustainable development of tourism in Yangshuo, Guilin. In 2004, Guilin signed a cooperation agreement with the World Tourism Organization. The agreement proposes to incorporate Yangshuo's tourism data into the book "World Tourism Organization Sustainability Indicators". On July 26, 2005, the world's first tourism sustainable development observation point was officially established in Yangshuo. Based on the research object of this thesis, combined with the development of China's tourism industry cluster and the actual situation of Guilin's tourism industry and economic and social development, we revised and improved the scale, and formed the survey scale applicable to this thesis. The scale has good reliability and validity. According to the scope and characteristics of the questionnaire survey research method, this dissertation designed a survey scale for tourists visiting Guilin. See Appendix 1 for details.

The questionnaire was issued from July 10 to July 15 in 2017 for a total of five days. This time period is just the peak season for Guilin tourism. The team members who issued the questionnaire were 10 people, all of whom were from the Guilin Tourism College.

In order to reflect the actual situation more objectively and truthfully, the author uses the “Taro Yamane formula” to calculate the sample size of this survey. This study is a cross-sectional survey that uses questionnaires to collect data. The sample size is calculated according to the joint formula of Leslie Kish and Taro Yamane. The number of people traveling to Guilin in 2017 reached more than 80 million. This study takes one-thousandth of the sample of tourists, which is the target population of 80,000. Each questionnaire has a unique code and controls the ratio of male to female to 1:1 to reduce bias.

$$n = \frac{P(1-P)(Z^2)}{e^2} \quad (3.1)$$

Of which: n = sample size

P= Proportion (randomly from the entire population), P=0.5

E= Ratio (sampling error), e=0.5

Z= Reliability 95%, Z=1.96

Finally: n=262.95 ≈ 300

In summary, our research team decides to use a sample capacity of 300, using a Convenient Sampling Method to investigate.

In order to improve the validity and reliability of the questionnaire, it was randomly distributed, and filled in the site and on-site recycling. Any questions of the respondents could be answered at any time. The questionnaire was distributed in the Lijiang Scenic Area, Jingjiang Wangfu Scenic Area and West Street. A total of 300 questionnaires were distributed, each team member is responsible for 30 copies, and after finishing, 292 valid questionnaires are obtained, with an effective rate of 97.33%.

3.3.1.2 Second-hand data

Second-hand data mainly includes officially published data, local statistical yearbooks, travel yearbooks or data published by industry associations. With the assistance of relevant local administrative departments, the materials collected in this thesis mainly include the “Yangshuo tourism sustainable development report” which are published annually by the World Tourism Organization’s Yangshuo Observation Point in Guilin and other local data in

Guilin Including “Guilin city tourism master plan revision 2015-2020” “Guilin zhi” calendar year “Guilin yearbook” “Guilin annual chronicle” “Yangshuo county national economic and Social development thirteenth five-year plan outline” “2010-2016 Yangshuo government work report”, “Yangshuo county tourism bureau 2012-2016 work summary”, “Country tourism workbook”, “Yangshuo county 1987-2016 statistics list”.

3.3.2 Data processing and analysis

After collecting relevant data, in order to obtain valid information, the research team processed and analyzed the data as follows:

(1) Analyze the division of Guilin’s tourism industry development stage by different groups of people, and then modify the development stage of Guilin tourism industry cluster to form the final conclusion.

(2) On the basis of the above steps, analyze the key events and salient features of each development stage of Guilin tourism industry cluster, and mainly verify the first-hand data and second-hand data, and obtain the remarkable development characteristics of each stage.

(3) Analyze the important events affecting industrial clusters and social and economic development in each stage. Through extensive discussions and revisions with team members, we finally got the effect of Guilin tourism industry cluster on social and economic development after the team’s responsible person’s modifying and reviewing.

(4) Analyze the similarities and differences between Guilin tourism industry cluster model and other tourism industry clusters, and draw the final conclusion of the thesis.

Chapter 4: Field Work: A Case Study of Guilin

After the introduction of data sources and research methods in the previous chapter, this chapter will conduct an in-depth analysis of the impact of Guilin's tourism industry clusters on economic and social development under the theoretical analysis framework based on Porter's diamond model theory. This chapter combines the field survey interview data, based on the qualitative research NVIVO analysis method to conduct an in-depth analysis of the impact of Guilin's tourism industry cluster on economic and social development. The core of Guilin's tourism industry cluster is the main body of several tourist attractions, including institutions and entities that provide various services to customers, covering tourism enterprises, government agencies, accommodation, catering, shopping and local residents. At the same time, tourism industry clusters have life characteristics, and they have the process of growth, aging and decline. This is the life cycle of tourism industry clusters. Of course, the Guilin Tourism Industry Cluster is no exception.

4.1 The evolution of Guilin's tourism industry cluster

Guilin is one of the first cities to open up tourism development. Its development starting point can be traced back to the 1970s. After more than 40 years of reform and opening up, the Guilin's tourism industry cluster has begun to take shape. Its development has generally experienced four stages of semi-open, slow development, stable development and rapid development. Every stage of the development of the Guilin's tourism industry cluster is accompanied by the influence from the government, the provider of tourism products or services, and local residents (Li, 2017).

4.1.1 Semi-open stage (1971-1980)

In ancient times, Guilin was a scenic spot that attracted many scholars and dignitaries. "Guilin's landscape is the best in the world" appeared in the poems of ancient literati. This is a

high evaluation of the landscape of Guilin. But for a long time, visiting Guilin is not really a tourism. Until the 1970s, the China's State Council successively approved dozens of cities including Guilin to officially conduct tourism. Some foreign leaders also chose to visit Guilin. Guilin's tourism is the real beginning. Most of the tourists coming to Guilin at that time were political reception and sightseeing. They often start from Guilin City, take a boat trip to Lijiang River, arrive at the destination and return by car. Driven by the demand for tourism, a space-form structure with the Lijiang River as the axis and the growth of Guilin City as the axis is initially formed. Due to the limitations of various local conditions such as the construction of local hotels, transportation, scenic spots, and the status of urban infrastructure, the tourism industry is developing at a slower pace. The number of inbound tourists in Guilin is still very small. In the first year of opening up, there is only a foreign-related hotel in Guilin, which can only accommodate 248 people. The number of employees engaged in tourism services in the city is less than 200. There are only 10 vehicles for sightseeing and there are only 10 vessels for sightseeing. During this period, the tourism development level of Guilin was basically in the stage of one-day tour, and there were very few overnight guests. A small-scale tourism product shopping market is built in the area from Yingxunmen to Zhijianglou. The market mainly provides local souvenirs, handicrafts, tourist souvenirs, for transit visitors who boarded from the West Street Dongkou wharf. The Inflow of passengers in Guilin at this stage is shown in Figure 4-1. This stage was the initial stage of Guilin tourism development, and the degree of development was very low. Since 1973, the number of tourists coming to Guilin had increased from the initial 1,000 to more than 100,000. However, compared with the tourism environment of Guilin, the impact of tourism activities at this stage on the environment was still very small. The ecological environment quality of Guilin was relatively high, and its ecological and environmental benefits were much higher than the economic benefits brought by tourism, so the potential for scenic development was huge.

In 1977 and 1978, Guilin successively built two shops of tourism products, namely the Arts and Crafts Service Department and the Friendship Store. As the must-go place of Guilin tourism, West Street, in the context of the tourism environment at that time, both the size of the block and the business form of the store are very limited. At that time, West Street was still in a

special period of “half is the village, half is a shop”. A small proportion of local residents are starting to engage in tourism-related industries. However, only a small part of the income of this part of the local people comes from the development of the tourism industry. The tourism income of Guilin mainly comes from small retail industries such as handicraft sales. The tourism service industry, such as hotels, restaurants, passenger transport and other industries, is developing at a slower pace and has less relevant economic income.

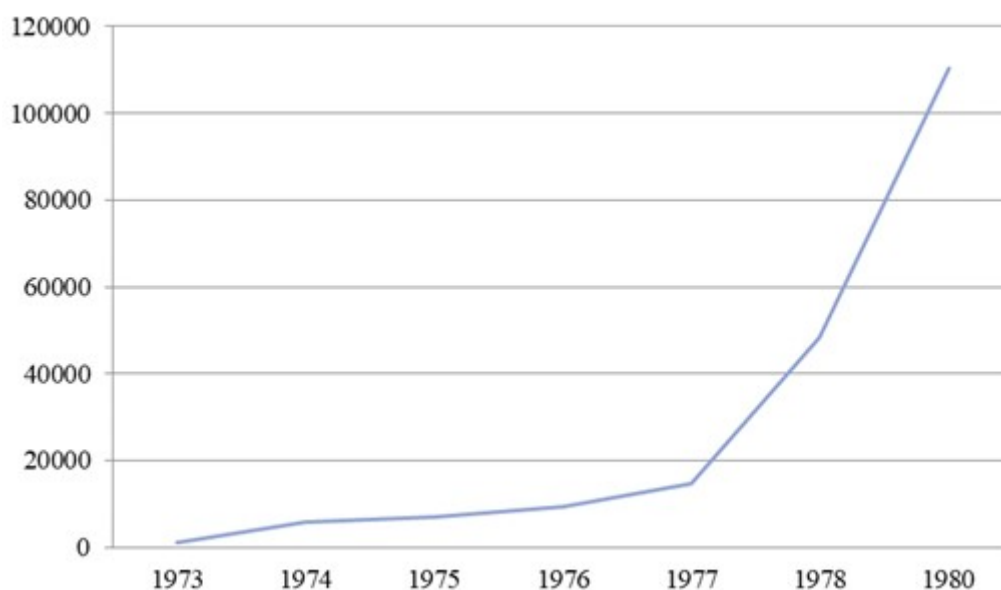


Figure 4-1 Inflow of passengers in Guilin from 1973 to 1980

Source: Guilin Annual Chronicle (1981)

4.1.2 Slow development stage (1981-1990)

In the early days of reform and opening up, foreigners, returned overseas Chinese, and Hong Kong, Macao and Taiwan compatriots visiting China are increasing. In order to meet the needs of foreigners and returned overseas Chinese, China has built a number of hotels and shops. In this era, the development speed of Guilin’s tourism industry has improved compared with the development of the first decade. Especially from 1983 to 1984, thanks to the government’s policy support and the further opening up of the tourism market, the number of foreign tourists entering the country has reached an unprecedented 220,000 from 20,000. According to statistics, from 1980 to 1990, Guilin received a total of 3,368,800 inbound tourists, with a total tourism revenue of 295 million Euros. Among them, the foreign exchange receipts revenue was 176 million Euros. In 1990 alone, the city received 484,900 inbound tourists,

including 147,700 foreigners. Total tourism revenue reached 0.81 billion Euros, an increase of 3.69 times over 1985, of which foreign exchange income was 0.47 billion Euros, an increase of 2.67 times. Foreign tourists and Hong Kong, Macao and Taiwan compatriots spend 46.74 Euros per day in Guilin, an increase of 8.61 Euros over 1985. The passenger flow of Guilin from 1981 to 1990 is shown in the following Figure 4-2. The number of tourists at this stage was significantly higher than the previous stage. The number of visitors to Guilin had increased from about 100,000 to about 500,000. With the increase in the number of tourists, the conflict between tourism development and the local natural resources environment began to appear. The rapidly increasing number of tourists had put some pressure on the local natural environment of Guilin. A series of problems such as traffic congestion, environmental pollution, conflicts between local culture and modern business culture began to emerge. The intensification of tourism activities had brought certain negative impacts on the local resources and environment of Guilin.

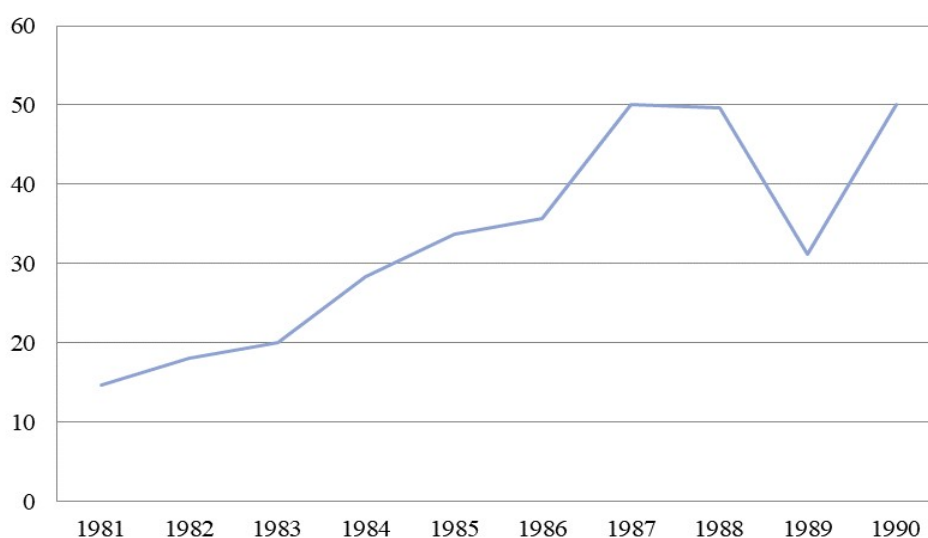


Figure 4-2 The passenger flow of Guilin from 1981 to 1990

Source: Guilin Statistical Yearbook (1982-1991)

The Australian Lonely Planet Press published a detailed introduction to Guilin in the first edition of the “China Travel Guide” published in 1984. The propaganda of this book has also become an important way for tourists to understand Guilin’s tourism. With the influx of inbound tourists, the first generation of entrepreneurs of Guilin’s tourism took advantage of the

trend and opened a new chapter in Guilin's tourism industry. As of 1985, the number of local guest houses, hostels and restaurants has risen to 31, which can meet the needs of more than 2,000 people. In the same year, China International Travel Service Guilin Branch and Guilin China Travel Service were approved. Since then, Guilin has been able to independently carry out and organize foreigners, overseas Chinese and Hong Kong, Macao and Taiwan compatriots to travel to the area. Typical representatives include the Xilangshan Hotel, the State-owned Guilin Hotel, the Zhuyang Hotel conducted by Chengguan Township and the Zhuhai City of Guangdong Province, and the Private Group Hotel. In addition, a total of 26 state-owned, collective, self-employed restaurants have emerged.

Although the growth rate of Guilin's tourism industry has developed by leaps and bounds from the previous period, the overall development is still in a relatively slow development trend because of the limitation of the short-term effect of the development of related auxiliary industries. The commercialization of tourism resources is imperceptibly affecting the living patterns, consumption concepts and attitudes of local residents. It also attracts many non-local entrepreneurs to come to Guilin for development. On one hand, these foreign businessmen who are based on economic interests and tourists have promoted the re-integration of industry resources in many areas, and accelerated the economic development of the region. Their arrival not only contributed to the new material consumption demand, but also stimulated the "window effect" of related industries such as local manufacturing industries, and then became the leading factor in the second industry wave of local people in the development of tourism industry. On the other hand, the commercialization of resources in all aspects, like snowballing, attracts more foreign operators to the development of the local tourism industry. They have become a strong supply of rigid demand for hotels, passenger transport, catering, and have strengthened the ranks of the local tourism industry cluster. These have brought many benefits to the local economic development. However, they have also driven up the prices of various living materials, resulting in an increase in the daily consumption of local residents who are not involved in the tourism industry. At the same time, the rising number of migrants has also increased the employment pressure of local residents and made the competition in the tourism industry more intense.

4.1.3 Stable development stage (1991-1999)

1991-1995 is China's eighth five-year plan period. During this period, China's reform, opening up, and modernization have entered a new stage. More than 1,100 counties and cities open to the outside world, and a large number of economic development zones have been established. Under the wave of this era, the operators of Guilin's tourism seized the opportunity to start interacting with tourists in various fields and gradually upgrade and expand Guilin's international popularity. The promotion of popularity not only attracted more tourists to come to visit and consume, but also promoted the change of local operators in their business philosophy. Western-style consumption places such as western restaurants, cafes, and bars continue to emerge. Moreover, Some merchants have gradually begun to invest in Guilin under the attraction of Guilin's pleasant natural environment, comfortable living environment and good business environment. In 1993, the first foreign language school opened by West Street opened the curtain for other country's operators to enter Guilin. The following year, Guilin Hotel cooperated with Malaysian merchants, which became the first foreign investment introduced by local tourism. During the "Eighth Five-Year Plan" period, Guilin received a total of 2.0822 million inbound tourists, creating a revenue of 558 million Euros. The increase in the number of receptions and the substantial increase in the economic benefits of tourism are inseparable from the overall development of the local tourism industry cluster.

By the end of 1995, there were 15 passenger and transport companies in the city, including 61 foreign-related vessels and 664 foreign-related vehicles. In terms of travel services, there were 4 first-class travel agencies, 13 second-class travel agencies, and 52 third-class travel agencies. In terms of dining hotels, there are more than 430 restaurants, guest houses and hostels. There are 32 foreign-related hotels in all hotels, including 2 five-star hotels, 2 four-star hotels, 13 three-star hotels and 12 second-star hotels, a total of 5,840 rooms and 13,621 beds. With the improvement of tourism facilities, the number of tourists visiting Guilin every year has gradually increased. In 1999, it reached 8.38 million person-times. Tourism has become a pillar industry of the national economy in Guilin. An economic pattern in which tourism is promoted and coordinated with all walks of life has begun to take shape.

In 1996, the Guilin tourism industry reorganized various tourism products and tourist routes to successfully develop a series of new ideas such as the unique travel form of the Lijiang River rafting, overseas children's summer camp, folk customs tour, Karst adventure tour to promote the development of multiple forms of tourism. With the effective development of various forms of tourism resources, the overall tourism industry in Guilin has shown steady growth.

In 1997, Guilin selected the first batch of “China’s Excellent Tourism Cities” as its goal, actively adjusted the tourism product structure and industry management system, and strengthened the construction of tourism infrastructure. The service quality of the tourism industry has been significantly improved and the service functions have been improved. The tourism environment has improved significantly. Guilin’s comprehensive reception capacity has been further strengthened. At the end of 1998, Guilin successfully passed the review and acceptance of the “China Excellent Tourism City” organized by the National Tourism Administration. In that year, Guilin received a total of 8.04 million tourists, including 410,000 other country’s tourists and 7.63 million China’s tourists.

At the same time, various English schools and English training camps in Guilin have sprung up, triggering the influx of English fans into Guilin. The Guilin’s municipal government also seized the opportunity to further strengthen market rectification, vigorously develop the source market, and increase the construction of scenic spots. As China began to implement the Golden Week holiday system, the number of tourists in Guilin also showed explosive growth. This directly promotes the rapid development of the local travel agency and cultural industry. At the same time of development, it is accompanied by the transformation of Guilin from sightseeing and tourism to cultural tourism. The development of Guilin’s tourism industry cluster is no longer limited to the traditional forms of the past, moving towards diversification. These changes also have a greater impact on the lifestyle of local residents. While improving the daily income of local residents, they also have a certain role in promoting the quality of residents and enhancing their economic awareness. Figure 4-3 show the statistics of China’s tourists visiting Guilin from 1996 to 1999. From 1996 to 2000, Guilin received an average annual growth rate of 12.84% for inbound tourists, maintaining a high growth rate. With the

increase in the number of tourists, local tourism income has also increased year by year. In 1996, Guilin's tourism revenue was 140 million Euros. By 1999, the city's total tourism revenue had tripled to 485 million Euros, of which foreign exchange income was nearly 163 million Euros.

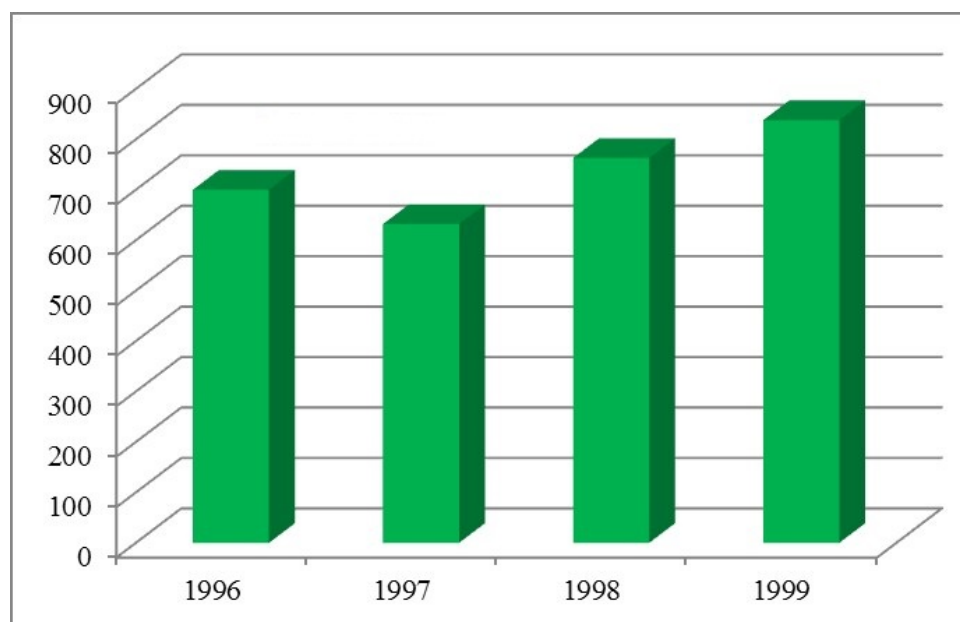


Figure 4-3 Statistics of China's tourists visiting Guilin from 1996 to 1999

Source: Guilin Statistical Yearbook (1997-1999)

With the tourism industry as the pillar industry of Guilin, the Guilin's municipal government proposed the "Two Rivers and Four Lakes" project to build the water system around the city of Guilin in September 1998. The project has greatly improved the surrounding living environment and has had a great impact on the surrounding communities. The project strengthens the urban characteristics of Guilin and enhances the sense of urban identity of local residents. At the same time, the project has also played a certain role in the development of Guilin's real estate enterprises, and played an important role in promoting the transformation of local economic development. At this stage, a lot of tourism-related facilities in Guilin were quickly built. The number of tourists coming to Guilin also showed a strong upward trend. However, the rapid development of tourism had brought about a significant adverse impact on the local environmental, economic and social aspects of Guilin. Guilin's tourism environment quality was declining. At the same time, however, the decline in environmental quality had made many people aware of the importance of environmental protection of local resources. How to reduce the adverse effects while promoting the rapid development of tourism had

become the key content for further development of the tourism industry. Improving the quality of tourism environment and promoting the transformation and upgrading of tourism industry had become the inevitable direction of tourism development in Guilin.

4.1.4 Rapid development stage (After 2000)

Following the “Two Rivers and Four Lakes” project in Guilin was gradually implemented, Guilin’s tourism industry cluster has reached a stage of rapid development. In the cultural industry, the large-scale landscape performance “Impression • Liu Sanjie” was officially performed in 2004, which triggered another round of tourism climax. “Global village”, “Moon mother who knows English” and more and more foreign language schools have gradually become the cultural cards of Guilin’s tourism. The growth of these industries has greatly enhanced the attractiveness of Guilin’s cultural tourism. Every year, many spectators or students come here to study in summer vacation. In terms of economic investment, large enterprises represented by Sunshine 100 Real Estate Company began to invest in tourism in Guilin. Combined with the steady improvement of local infrastructure construction, the development of Guilin and surrounding towns has been greatly improved. The World Tourism Organization Sustainable Development Conference was held in Guilin, which has greatly promoted the comprehensive attraction of Guilin’s tourism.

In May 2016, the project of Wanda Cultural Tourism City was launched in Guilin. The total investment of the project was more than 2.6 billion Euros. Among them, cultural tourism investment was 2.119 billion Euros. The project planned a total construction area of 1 million square meters, and would cover an area of 200 hectares after completion. The project was scheduled to open in 2020. It was expected to receive 20 million tourists a year and the annual tourism income was 662 million Euros. The construction of the project provided an opportunity and platform for promoting the internationalization and branding of Guilin tourism products, and also provided hardware facilities and software atmosphere for Guilin to build a world-class tourist destination. At the same time, Guilin also focused on building city-level tourism distribution centers, Xing’an, Yangshuo and Longsheng secondary tourism distribution centers. Guilin Liangjiang International Airport is also expanding, nurturing new

routes and expanding the routes of Guilin's tourism to major cities. Guilin improves Tourism Big Data Center and E-commerce Platform to accelerate smart tourism construction, and realizes "a mobile phone tour of Guilin". Guilin is promoting the facilitation of tourism infrastructure (Fan, 2017).

The comprehensive development of the Guilin's tourism industry cluster is not only reflected in the unprecedented growth of the development form, but also has significant effects in the breadth and scope of the space. The area of the street in the scenic area is increasing. Hotels, restaurants, bars, souvenir shops, travel agencies, ticketing service points, banks and other related facilities are increasing. This has increased the development status of the local tourism industry cluster in terms of space and breadth. At this stage, with the development of tourism worldwide and the improvement of people's living standards, tourists' requirements for the quality of the tourism environment were further improved. At the same time, the expansion of Guilin's scenic areas had put forward higher requirements for its environmental carrying capacity. The large increase in the number of tourists inevitably put a lot of pressure on the local resources and environment. The development of tourism in Guilin has encountered a bottleneck. How to improve the local resources and environment while continuing to promote tourism development? How to maintain the green mountains and green waters while having money mountains and waters? This had become a strategic choice that Guilin must face in the economic development and environmental protection of this stage.

4.2 Theoretical framework

According to Porter's diamond theory model, this thesis analyzes the participants of the tourism industry cluster. According to the "3P" development concept, the participants in the tourism industry cluster refer to the stakeholders of the tourism industry cluster. This thesis focuses on the analysis of the participants of the tourism industry cluster of local government, tourism product or service providers, local residents and tourists.

4.2.1 Diamond model analysis framework

4.2.1.1 Elemental condition

The elements of the tourism industry cluster include natural resources, traffic conditions and location advantages. Guilin has a wide variety of tourism resources, and it is praised by the world for its beautiful “mountain, water, cave, and stone”. There are “Guilin landscape is the best in the world” and “Rivers are liking Qingluo belts, Mountains are liking jasper” and other good sentences have been passed down to the world. Throughout the ages, Guilin has attracted countless domestic and foreign tourists with its unique natural resources. In terms of location advantages and traffic conditions, Guilin City is located at the southern end of the Xianggui Corridor. It is an important link city connecting the east and the west and connecting the north and the south. It is a connecting city connecting the coastal and inland areas. Guilin is also the hinterland of economic cooperation areas such as the Beibu Gulf and the Pearl River Delta. Guilin has comprehensive transportation resources such as Liangjiang International Airport, Xianggui Railway, 321 National Highway, 322 National Highway and 323 National Highway. The Guiguang high-speed railway that has been built connects Guilin with the Pearl River Delta to make transportation in Guilin more convenient. Since July 2014, the central government has implemented a policy of “72-hour transit visa exemption” for citizens of 51 countries in Guilin. If a tourist transits from Guilin Liangjiang International Airport to a third country (region) and stays within the administrative area of Guilin for no more than 72 hours, the visa can be exempted. The unique natural resources, superior location conditions, fast traffic conditions and convenient visa policies all provide good conditions for the development of Guilin’s tourism industry clusters.

4.2.1.2 Tourism industry relevance

Tourism industry relevance refers to the degree of association between related and supporting industries and tourism industries. The development of tourism industry clusters is inseparable from the support of related auxiliary industrial clusters. Traditional industries such as industry and service industry have been continuously improved in the development of tourism industry cluster elements, which accelerates the formation and improvement of the tourism industry cluster. In addition, only with a strong auxiliary industry cluster can the overall competitive advantage of the tourism industry cluster be truly played. According to the overall goal set by Guilin International Tourism Resort Construction and Development Plan, Guilin will basically establish an international tourist resort by 2020. As of 2015, Guilin’s

total tourism revenue has exceeded 20% of GDP. According to the planning target, the ratio will reach 27.4% in 2020. It can be seen that the industrial relevance of the Guilin's tourism industry clusters is very high.

4.2.1.3 Market demand

There are two aspects of the demand situation in the tourism market: on one hand, the growth rate of market demand, and on the other hand, the scale of market demand. Effective demand can stimulate the effective supply of tourism products and tourism services, thereby continuously optimizing the industrial structure and promoting the healthy and sustainable development of industrial clusters. With the continuous improvement of the living standards of Chinese residents, the consumption of tourism products has increased rapidly. Consumers pay more attention to the comfort of tourism and the cultural connotation of attractions, and pursue a unique travel experience. In 2017, Guilin received 82.327 million visitors, and the number of visitors received exceeded 80 million for the first time.

In the past few years, under the situation that the global economy is facing severe challenges, the tourism industry has maintained continuous growth and has become an important driving force and the largest industry to promote economic growth. In 2016, China has become the world's largest source of outbound tourism and the world's fourth largest inbound tourist destination. Tourism has become a daily consumption project for Chinese people. The development of tourist attractions has become an important economic development force in many regions. In 2017, the number of tourists in the Chinese tourism market was 5 billion, an increase of 69.12% over 2012, with an average annual growth of 11.08%. Tourism revenue in 2017 was 0.61 trillion Euros, an increase of 101.15% over 2012, with an average annual growth rate of 15%. Tourism in China has entered the primary stage of mass development with national consumption as the mainstay. Tourism and leisure are becoming the basic content and rigid demand of urban and rural residents' lives.

4.2.1.4 Development opportunities

Development opportunities are not controlled by government and other cluster participants. It mainly includes the invention of high and new technology, the turmoil in the international financial market, the sharp increase in demand market, major decisions of foreign

governments and other irresistible factors. Development opportunities, like the role of the government, indirectly change the development path of industrial clusters by influencing other factors in the diamond model.

In November 2012, the State Council agreed to approve the Outline of the Guilin International Tourism Resort Construction and Development Plan. This marks the official rise of the construction of Guilin International Resort as a national strategy. In 2016, the Guangxi Zhuang Autonomous Region Government officially incorporated the construction of Guilin International Resort into the core development strategy of the autonomous region, which clarifies the strategic position of Guilin in the overall development of Guangxi. The “Planning Outline” proposes that by 2020, Guilin International Tourist Resort will be basically completed. Guilin will become an important tourism destinations for world-class landscape and leisure, an important platform for international tourism cooperation and cultural exchanges.

With the economic development and the improvement of the living standards of the people, the Chinese government has established an economic policy to vigorously develop tourism. Promoting the development of tourism has become an important strategy for China to promote economic development. The Chinese government has successively promulgated a series of laws and policies such as “Opinions of the State Council on Accelerating Tourism Development” “National Tourism Leisure Program (2013-2020)” “People’s Republic of China Tourism Law” “Several Opinions of the State Council on Promoting Tourism Reform and Development” “Notice on Implementing Rural Tourism and Enriching People Project to Promote Tourism Poverty Alleviation Work” to promote the development of tourism. Guangxi Zhuang Autonomous Region issued the documents such “Decision on Accelerating the Leap-forward Development of Tourism” “Notice on Doing a Good Job in Promoting Service Guarantee for Major Tourism Projects” and proposed to jointly build Guilin International Tourism Resort. In order to implement the “Outline of Guilin International Tourism Resort Construction and Development Plan”, Guilin has successively promulgated a number of policies on tourism project land use, tourism industry land reform pilot, and new business mode tourism. Governments at all levels have provided development support for Guilin’s tourism industry clusters, such as policy support, market supply, legal guarantees, and fiscal and tax support.

4.2.2 Conceptual model of the study

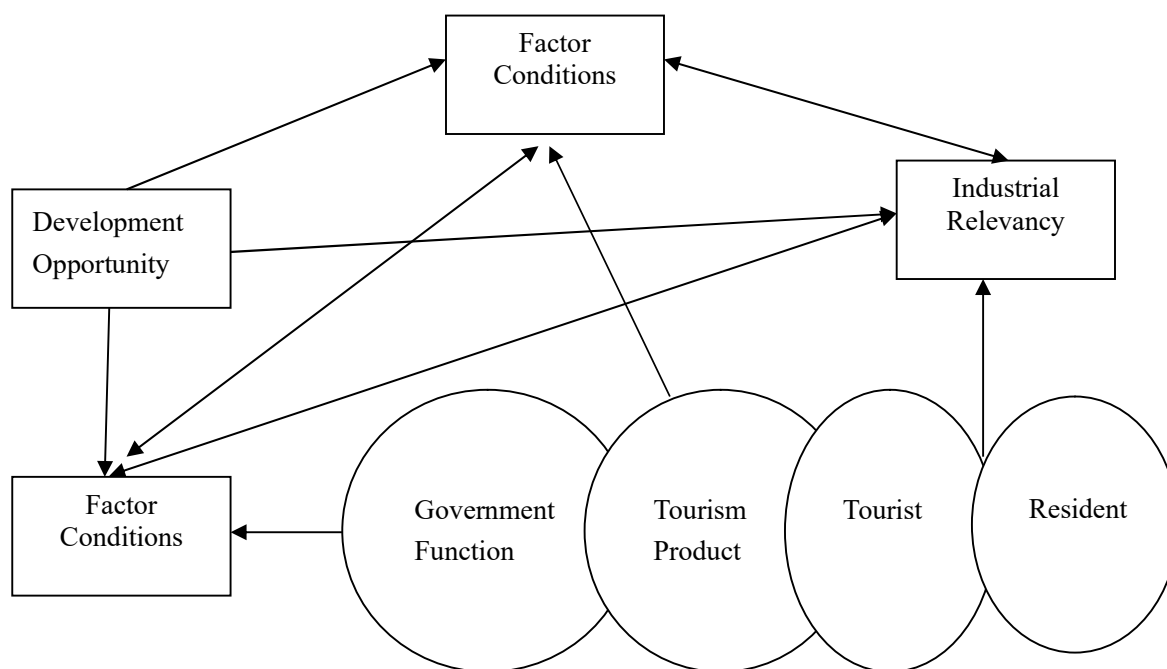


Figure 4-4 Guilin tourism industry cluster diamond model

This research focuses on the concept of “industrial cluster” and the characteristics of industrial clusters. According to Porter’s diamond model and a large number of study literature on tourism industry clusters, this thesis believes that the providers of tourism products or services, tourists and local residents are also important factors influencing the establishment of tourism industry clusters (Yang, 2008; Tang, 2008; Gan, 2010; Peng, 2014; Song, 2014). Therefore, this thesis incorporates the three and the government as equally important factors into the diamond model to establish the conceptual model of the study. Then, this thesis uses the industry life cycle law to analyze the development and evolution of Guilin’s tourism industry clusters in different time horizons. The “3P” model will carry out the research process all the time. Guilin tourism industry cluster diamond model is shown in the following Figure 4-4.

4.2.2.1 Local government

As the most important driving factor for the development of Guilin’s tourism industry cluster, the government’s role in the construction of tourism industry clusters is particularly

prominent. The government represents the overall interests of the state and society, and pursues the unity of economic benefits, social benefits and environmental benefits. As one of the core stakeholders, the government department should play a strategic leading role and assume the role of the leader of the tourism industry cluster development. Therefore, the government's interest appeal is mainly reflected in the sustainable development of the local tourism industry cluster based on the coordination of tourism economic development and the natural environment.

The government cannot directly influence the development of tourism industry clusters, but influence the development process of tourism industry clusters by changing the comprehensive effects of the other three factors in the diamond model. The role of the government is to provide good policy conditions for the development of tourism industry clusters and maintain a virtuous competitive environment. In the initial stage of industrial cluster development, the government provides generative power for the development of the cluster. Therefore, the government must have a keen market foresight. The government can promulgate appropriate policies to encourage the development of the tourism industry. The government can focus on building tourism culture brands, maintain a benign competitive environment for the market, and promote the stable development of the tourism industry cluster.

In 1973, the State Council approved the official opening of tourism in Guilin. As an important channel for foreign exchanges, Guilin has undertaken the reception task of international friends and has become a window to show the world the achievements of the Chinese socialist revolution. At that time, Guilin's tourism was still in a semi-open period, and its tourism conditions were far from meeting the needs of tourists. The Guilin Municipal Government strengthens the infrastructure construction of the local tourism industry through loans, funds and financial resources. Guilin worked hard to improve the reception capacity of the local tourism industry under the difficult conditions at that time. In the following ten years, the government continued to strengthen the local infrastructure construction and urban supporting conditions in Guilin. Guilin's tourism hardware facilities have been significantly improved. The scale of tourism industry and the ability of industry linkage have improved

significantly. With the increasing level of hardware, the Guilin Municipal Government also pays attention to strengthening the tourism market to rectify. In the process of steady growth of the tourism industry, the municipal government rectified tourism products and services, passenger service companies, travel agencies, hotels and restaurants. At the same time, government functional departments have also standardized tourism service procedures, tourism service quality supervision,. Guilin took the lead in setting up a tourist police in China.

In 1998, In order to expand and reconstruct tourism infrastructure and improve the quality of tourism environment, the Guilin Municipal Government planned to implement two major projects of urban construction and environmental protection and determined the guiding ideology of urban construction that “showing mountains and water, connecting river to lake, opening the wall, and increasing green and decreasing dust”. After a series of preliminary preparations such as demonstration, planning, fundraising and positioning, the Guilin Municipal Government launched 33 key construction and renovation projects. The purpose was to build Guilin into a modern international tourist city with beautiful scenery, beautiful environment, developed economy, prosperous culture, stable society, convenient transportation and civilized civilization. After several years of construction, the total investment has reached 2.913 billion Euros, and Guilin has completed the transformation and upgrading of urban infrastructure construction. The cityscape in Guilin has changed a lot. Urban architecture is hidden in the gallery of Karst landforms. The city is brightened by mountains and rivers, and the mountains and rivers add color to the city. They are reflect each other and show each other. The achievements of Guilin’s urban construction have made it a unique model for urban development in the economically underdeveloped cities of western China, non-coastal border cities, and non-provincial cities, and thus have been valued and imitated.

Since 2001, Guilin tourism has entered a stage of rapid development. Guilin City refered to the standard of international tourism city, developed high-quality tourism products (Such as “three mountains, two holes, one river”) and various comprehensive tourism products with tourism and entertainment. Guilin has launched a number of high-end subculture tourism products that are well-known at home and abroad, such as “Impression Liu Sanjie” and

“Dream Lijiang”. These measures of docking with international standards have enhanced the international influence of Guilin tourism, and also made Guilin a landmark city for the development of China’s tourism industry.

While promoting the rapid development of tourism, in order to maintain the sustainable development of the tourism industry cluster, the Guilin Municipal Government also strives to manage various tourist chaos. In 2015, CCTV’s “Economic Half-Hour” program exposed the phenomenon of “grabbing a day trip” of Guilin’s landscape. The Guilin Municipal Government convened relevant departments to hold special rectification meetings. At the meeting, it was required to strictly investigate the behavior of black tour guides, and focus on rectifying the business order of Yulong River photography booths and river sales. At the same time, the relevant government departments immediately banned all kinds of illegal industry chaos and severely punished relevant personnel. These measures ensured the social order of Guilin tourism and maintained the brand image of Guilin tourism.

Table 4-1 Milestones of Guilin municipal government’s promotion of tourism industry cluster construction in recent three years

Time	Project	Memorabilia
December 2015	Promulgated the “Guilin City Environmental Protection ‘Party and Government Responsibility, One Post and Double Responsibility’ Management System (Provisional)” “Interim Measures for the Environmental Protection Faults of Leading Cadres of the Party and Government in Guilin (Draft)” “Guilin City Environmental Protection Responsibility System	Municipal Party Committee Secretary and Mayor respectively served as the first director and director. Defining 110 environmental responsibilities of party committees, governments and municipal units at all levels in Guangxi. Strictly implementing the local government environmental protection target responsibility system. Constructing a long-term mechanism for environmental protection work that is “Uniform responsibility, specific responsibility, assessment responsibility, investigation responsibility”

	Assessment Method”, .	
January 2016	Launched the Lijiang River Cruise Ship Upgrade and Reconstruction Plan	In order to protect the environment of the Lijiang River and improve the quality of tourism services, the government upgraded 82 old cruise ships in the Jinghua section of Lijiang River. All the other cruise ships were phased out of operation. Star cruises welcome Chinese and foreign tourists with a new look.
April 2016	Protecting and repairing Zhengyang Dongxiang historical and cultural district	Rebuilding city landmarks. Reproduce cultural classics
May 2016	Guilin Wanda Cultural Tourism City Project	Guilin Wanda City Project with an investment of 30 billion yuan started. The project is planned to be completed in 2020. Guilin will be a world-class holiday destination.
January 2017	a sub-meeting venue for the 2017 CCTV Spring Festival Gala in Guilin	With the stunning appearance of the CCTV Spring Festival Evening Guilin branch in front of the national and global audience, Guilin is at the forefront of the national popular tourist city search list.
February 2017	National “Toilet Revolution” work site meeting	Guilin was once again awarded the “advanced city of Toilet Revolution”
February 2017	Implementation of the “Provisional Regulations on the Administration of Service spots of Travel Agencies in Guilin City”	The measure is to rectify the “unreasonable low price tour”, regulate the management of travel agency service outlets, and maintain the normal operation order of the tourism market.
June 2018	Guilin Tourism Commodities	This initiative aims to establish a unified tourism

	Association was established	team shopping industry organization. This measure can regulate industry standards, strengthen the industry self-discipline, promote the orderly development of tourism team shopping, and enhance the satisfaction of tourists.
July 2018	A symposium was held around the upgrading and development of Guilin International Tourism Resort	The symposium summed up the work results since the construction of Guilin International Resort, further refine the next step of upgrading the development of Guilin International Resort.

In order to inherit the history and culture of Guilin, in 2013, the Guilin Municipal Government transformed the east and west lanes, rebuilt the Xiaoyao Building, and demolished the wall of Jingjiang Wangfu, and transformed the three districts and surrounding neighborhoods into a historical and cultural tourism and leisure district covering an area of 1 square kilometer. In 2017, the Guilin Municipal Government worked hard to set up one of the minutes of the 2017 CCTV Spring Festival Gala in Guilin to increase the visibility of Guilin. In fact, the Guilin’s most beautiful performance has greatly enhanced Guilin’s popularity and reputation at home and abroad. Driven by the “Spring Festival Evening Effect”, Guilin became the top ten destination for the 2017 Spring Festival Golden Week. Table 4-1 shows the measures taken by the Guilin Municipal Government to promote the construction of tourism industry clusters in the past three years. This also confirms from one aspect that the government plays a vital role in the construction of tourism industry clusters.

At the same time, the Guilin Municipal Government has also actively promoted the “double creation” work of creating national region-tourism demonstration areas and famous tourist counties in Guangxi to promote the development of regional-wide tourism in Guilin. The five counties (districts) under the jurisdiction of Guilin have successively established the “1+3” model of comprehensive tourism regulatory agencies and tourism police, tourism courts, tourism and industrial sub-bureau. The purpose was also to accelerate the transformation of tourism from “scenic tourism” to “regional-wide tourism”. These measures have achieved remarkable results. For example, the number of national regional-wide tourism

demonstration areas that have been successfully established in Guilin and the number of famous tourist counties in Guangxi are the first in Guangxi. Table 4-2 shows the achievements of the tourism industry cluster construction in the past three years promoted by the Guilin Municipal Government.

Table 4-2 Achievements of Guilin municipal government in promoting the construction of tourism industry clusters in recent three years

Time	Title
January 2015	Yangshuo and Xing'an were approved as the first batch of famous tourist counties in Guangxi (The first batch of 3 counties in the whole autonomous region)
Early 2016	Yangshuo, Xing'an and Longsheng were selected to create the "National Regional-wide Tourism Demonstration Zone".
February 2016	Longsheng was approved as the second batch of famous tourist counties in Guangxi
End of 2016	Gongcheng and Yanshan Districts were selected as the second batch of National Regional-wide Tourism Demonstration Zones
Early 2018	Lipu won the title of Guangxi famous tourist county
June 2018	The four counties of Yongfu, Guanyang, Pingle, and Quanzhou entered the autonomous-level regional-wide tourism demonstration zone

The support of government policies has created a favorable environment for the construction of Guilin's national tourist resorts. Therefore, in the development of Guilin's tourism, the local government has played an important role in infrastructure construction, branded tourism products and the construction of a diversified tourism market, thus expanding the influence of the diamond system proposed by Porter. The government gradually evolved from the identity of the industry leader to the identity of the guider in the development of the Guilin's tourism industry cluster. The government promotes the sustainable development of Guilin's tourism based on the coordination of tourism economic development and natural environment (Wang, Li, & Jiang, 2013).

4.2.2.2 Tourism products or services providers

As a supplier of tourism products or services, tourism companies cover the business operators of providing products and services in various tourism links such as “food, lodging, travel, shopping and entertainment”, which includes tourist attractions, restaurants, hotels, transportation, travel agencies, etc. Tourism enterprises are one of the core and most important stakeholders in the tourism industry cluster.

The biggest problem faced in the early development of Guilin tourism is the extremely scarce number of tourism products and services. When it was opened in 1973, Guilin only had a tourist hotel named Ronghu Hotel that can accommodate foreign tourists. At that time, there were only 48 inns, guest houses and non-foreign travel agencies in Guilin; and there has less than 200 people in tourism. Subsequently, Guilin successively completed two foreign hotels namely Lijing Hotel and Jiashan Hotel that can accommodate foreign tourists. After China’s reform and opening up, China’s focus at that time has shifted from political struggle to economic construction. It is in this era that Guilin’s tourism industry has ushered in the new year of the reform of the tourism system. Guilin’s tourism industry has transformed from a tourism industry with the theme of political reception to an economic industry that earns foreign exchange by operating tourism products and services. Guilin Tourism Company adopted a combination of government and enterprise to establish a new type of tourism enterprise with the nature of government administrative institutions. The company has five tourism products or service companies including Ronghu Hotel.

In the 1980s, Guilin set off a wave of construction of foreign-related travel hotels. At that time, a large amount of funds began to flow into investment projects such as travel agencies, travel transportation, and scenic spots. The development of the tourism industry is in full swing. Guilin’s tourism practitioners also rose from 1,180 in 1978 to more than 15,000 in 1988. At the same time, horizontal cooperation activities have also begun between various tourism companies. Such as Ronghu Hotel, Guolu Guilin Branch, Hong Kong and China Airlines began to jointly provide one-stop service for passengers. By 1997, Guilin’s tertiary industry’s gross domestic product exceeded the industrial output for the first time and ranked first. This is mainly due to the fact that companies providing tourism products and services are gradually

strengthening internal cooperation. Major travel agencies and restaurants have gradually jointly recommend local tourism resources to counterparts. At the same time, the institutional reform of tourism enterprises has gradually advanced. Mergers and acquisitions and share transfers of enterprises has been carried out. Enterprises strive to use capital markets to raise funds for development. New tourism products, diversified forms of tourism development and expanding tourism business scope have enabled the development speed of Guilin's tourism industry cluster to be continuously improved in an increasingly competitive environment. Guilin's tourism industry cluster maintains a strong momentum of development.

4.2.2.3 Tourists

Tourists are very important participants in the tourism cluster and are also the ultimate consumers of tourism products and services. What kind of catering, accommodation, transportation and other methods tourists choose can have a major impact on the development of tourism industry clusters. Tourists' intentions, behaviors and experience feedback will also directly affect the development of tourism. Visitors can be divided into the local tourists in Guangxi, China's tourists and world's tourists according to different sources.

In the early stage of the development of tourism in Guilin, the main tourist in Guilin was diplomatic personnel, political figures and international students. These inbound tourists have brought certain political and economic benefits to the local tourism industry. At the same time, they have also played a certain role in publicity, which brings more potential tourists. Since then, the number of personally-owned tourists has increased year by year, which has brought more and more significant economic benefits to Guilin's tourism.

Benefiting from the unique natural environment impact and the improvement of local tourism facilities, the reputation of Guilin's tourism has attracted more tourists. With the development of local tourism industry clusters, the service level of Guilin's tourism industry has been continuously improved. Therefore, the number of other countries' tourists and China's tourists who are coming to travel has gradually increased. In 2017, Guilin received 82.327 million passengers, a year-on-year increase of 52.86%. Among them, the number of China's tourists was 79.8389 million, a year-on-year increase of 54.95%; the number of overnight visitors was 2.489 million, an increase of 6.68% over the same period of last year. The

continuous increase in the number of tourists has brought huge economic income to the local area. At the same time, their feedback provided reference and suggestions for the development of the local tourism industry, and played a great role in publicity. Therefore, the development focus of the tourism industry has also gradually changed from the original political orientation to the local economic interest orientation to the tourist experience. However, the influx of tourists has directly led to a relatively tight supply of local non-staple food products, which has increased the daily expenses of local people and brought inconvenience to the normal life of local people.

4.2.2.4 Local residents

Local residents refer to residents who have settled in tourist destinations. They are an important part of tourism activities. As permanent residents, the construction of tourism resources, tourism infrastructure and the ecological environment are closely related to their lives, and the development of tourism industry clusters will also have a direct impact on them. The continuous development of tourism has brought significant influence to the local economy, environment and culture of Guilin. At the same time, with the rapid commercialization of tourism resources in Guilin, the lifestyle of local residents in Guilin has also begun to be affected to varying degrees in many aspects. First, the most intuitive impact is the improvement in income. This mainly refers to the local residents who participate in tourism activities. Some local residents began to liberate their hands from busy agricultural activities, instead providing tourism agricultural and sideline products or tourism services, or developing tourism-related sideline businesses while engaged in farming. This change has effectively improved the average income level of local residents and improved their living conditions. Take “Impression - Liu Sanjie” as an example, about 400 villagers participated in the performance. According to the degree of participation and the role of the performance, each villager has an income of 132.41 Euros to 264.83 Euros. In addition, local villagers have greatly improved their income status by providing services such as catering and accommodation. The improvement of living conditions has had a huge impact on the economic awareness of local residents.

4.3 Analysis of Guilin's tourism cluster based on the life cycle

Since Guilin vigorously developed tourism, the establishment of Guilin's tourism industry cluster has evolved from the original government to the multi-party mutual game. According to the theoretical analysis framework of the diamond model of Guilin's tourism industry cluster established in the previous article, Guilin's tourism industry cluster is mainly affected by the government, the provider of tourism products or services, tourists and local residents. In the market economy, these four factors are indispensable. They are stakeholders in a close tourism industry cluster and also interact with each other.

As an organization form of tourism industry, tourism industry clusters also have life cycle. Specific issues and behavioral patterns are presented at each stage of the cluster's life cycle. Industrial clusters have different driving forces at different stages of their life cycle. According to Zhu Zhiwen's (2007) research, the growth dynamics of industrial clusters are divided into three types: generating power, growth power and sustainable power. Generating power induce the birth of industrial clusters. Growth power drives industrial clusters to grow and mature. Sustainable power enables industrial clusters to obtain sufficient qualitative and variable energy from within, as well as to obtain energy and vitality input from outside, and to maintain the sustainable development of industrial clusters. Combined with the theoretical model established above, this part divides the development process of Guilin tourism industry cluster into four stages: semi-open stage, slow developmental stage, stable development stage, rapid development stage. This part analyzes the development characteristics of Guilin's tourism industry clusters at various stages of the life cycle.

4.3.1 Analysis of semi-open stage (1971-1980)

The semi-open stage of the Guilin's tourism industry cluster began around 1971. At that time, some cities were approved to conduct tourism abroad. As the external window of reform and opening up, Guilin City is responsible for receiving international tourists appointed by the central government to Guilin. Therefore, the tourism activities at that time were mainly of the reception type. Due to the nature of the visitor's visit in the early stage of development and the

development conditions of related supporting resources such as local tourist facilities, the number of visitors in Guilin in 1973 was only 977. The tourism industry in Guilin during this period did not show the obvious agglomeration phenomenon. The companies involved in the provision of tourism products and services are state-owned. The cooperation between enterprises is low, and the competitive pressure is also low. In order to better show the international friends the great achievements of the construction of the socialist country, Guilin's driving force for tourism activities is political interest. Under such a background, the unique natural environment resources such as the unique Karst land forms and the Lijiang River scenery in Guilin have become an important support for the tourism development. According to the life cycle theory, tourism resources determine the life cycle of the tourism industry, and the life cycle of industrial clusters will also counteract the development of tourism industry clusters. Therefore, during the semi-open period, Guilin basically planned and launched short-distance tourism products around the local natural scenery. Table 4-3 shows the Guilin's tourism resources in the semi-open stage.

Table 4-3 Guilin's tourism resources in the semi-opening stage

Project	Representative products
Product pattern	Three mountains, two holes and one river: Diecai Mountain, Xiangbi Mountain, Fubo Mountain; Ludi Rock, Qixing Rock; Lijiang River, Darongshu
One-day tour	Three mountains, two holes and one river
Two-day tour	Three mountains, two holes and one river + Seven Star Park, Chuanshan Park, Jingjiangwang, Yao Mountain Three mountains, two holes and one river + Ludi Park, Xishan Park

In the process of continuous exploration, Guilin City has gradually established the primacy of tourism development in urban development planning. By coordinating the relevant industrial and agricultural development system, Guilin City will give priority to ensuring the development of tourism supporting resources and the management and protection of natural resources. With the development and opening up of Guilin tourism, the number of tourists

had also increased. However, the number of tourists at this stage was relatively small, and the tourism environmental resources had not been significantly adversely affected. In the early days of Guilin's tourism development, the infrastructure was relatively weak. The tourism industry and economic development level were relatively low, and the development speed and development scale were relatively small. The tourism industry's relevance and development benefits were low. Due to a series of problems such as limited supporting facilities, low system development and insufficient infrastructure conditions, the development of tourism in Guilin was relatively slow.

In the semi-open stage, the unique natural resources are the driving force behind the development of the Guilin's tourism industry cluster, and also the promotional business card attracting more potential tourists. At the same time, the celebrity effect brought by the visits of politicians from various countries has also become an important resource for propagating Guilin. Most of the staff responsible for reception at that time were university graduates engaging in foreign affairs. These service personnel generally have a wide range of knowledge, are generally eloquent, and are good at communication. They left a very positive impression on visiting foreign guests and domestic tourists and won a good reputation for the tourism industry in Guilin. Although Guilin's tourism facilities are not perfect, the number of visitors to Guilin is limited or the visit time is short. In addition, the professionalism of the employees just met the needs of elite tourism at that time, so the reputation of Guilin's tourism industry has gradually become one of the important resources to attract more tourists. A small proportion of local residents participated in tourism activities by selling tourist souvenirs and native products. However, most local residents still lived through agricultural activities or working outside the home. Therefore, the impact on local residents was relatively small. Guilin's tourism during this period was completely controlled by the government. The government rules everything in Guilin's Tourism. The government's operation of tourism mainly uses the original natural and humanistic tourism resources. Guilin's tourism is closely attached to the government's opening up policy and political development process. Therefore, various conflicts of interest are almost extinct in the construction of the tourism industry cluster dominated by the government (Huang & Liang, 2007)

4.3.2 Analysis of slow developmental stage (1981-1990)

By the end of the 1980s, Guilin's status as a leader in China's tourism industry could not be underestimated. However, with the accelerating pace of reform and opening up, more and more cities have gradually acquired their own advantages in the tourism industry. This has brought certain competitive pressure to the development of Guilin's tourism. During this period, Guilin's development advantage of relying solely on natural scenery is no longer outstanding. Therefore, the tourism industry in Guilin entered a relatively slow development stage after 1980. Under the guidance of the national tourism system to the corporate reform, Guilin proposed a development strategy led by the tourism economy. Guilin tourism has also officially changed from political reception to economic interests. Thanks to good reputation and vigorous publicity, the number of inbound tourists in Guilin during this period has significantly improved compared with the previous development period. The number of visitors from Hong Kong, Macao and Taiwan and Japan accounts for nearly 70% of Guilin's tourist traffic. These tourists are no longer limited to past visiting politicians. They are mainly for tourism and sightseeing purposes. The market demand formed by a large number of inbound tourists has become the initial driving force of the slow development stage of Guilin's tourism industry cluster. Figure 4-5 and Figure 4-6 shows the foreign exchange income and the number of inbound tourists in Guilin during 1978 and 1985.

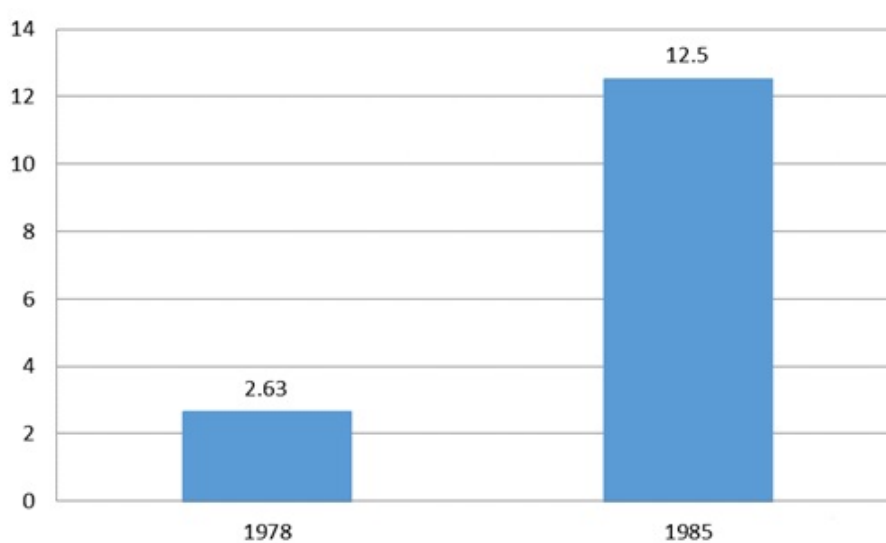


Figure 4-5 Foreign exchange income of Guilin's tourism between 1978 and 1985

Source: Guilin Annual Chronicle (1986)

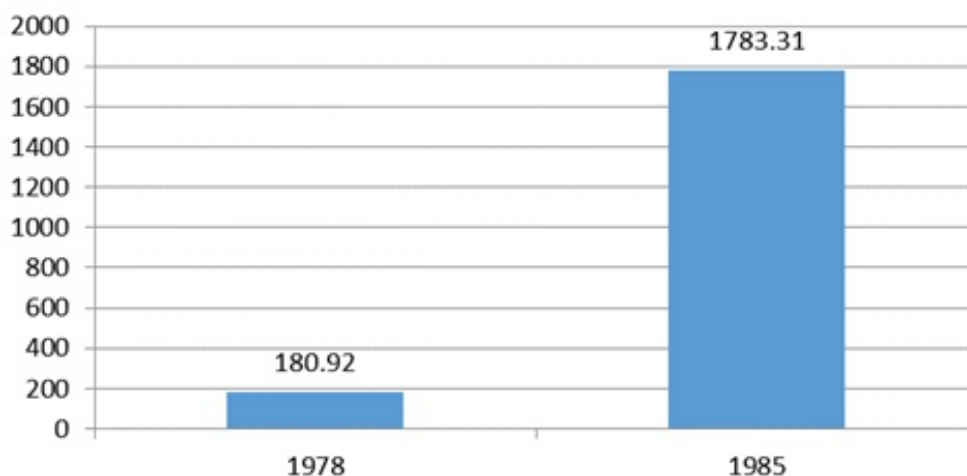


Figure 4-6 The Number of inbound tourists between 1978 and 1985

Source: Guilin Annual Chronicle (1986)

During this period, the Guilin Municipal Government began to accelerate the construction of related supporting facilities, mainly in the fields of urban construction, transportation, communications. Facing the objective reasons that restrict the development speed of Guilin's tourism industry, the local government is focusing on increasing the investment in infrastructure construction and the introduction of foreign capital and the training of relevant professionals in the industry. These resources are another key issue that Guilin's tourism industry clusters face in this life cycle. With the extensive investment from various economic entities such as government, foreign capital, private capital, and bank capital, the construction of foreign-related hotels in Guilin has ushered in a period of rapid growth. The gradual improvement of related supporting facilities has met the basic needs of visiting tourists for accommodation, catering and entertainment. At the same time, Guilin City also pays close attention to talent construction. The government established the Guilin Tourism College and hired professional management groups from abroad and Hong Kong to manage the local joint venture hotels, thus improving the management level, which opened up the source of customers. With the introduction of market factors, Guilin's tourism in this period changed the situation completely dominated by the government. Tourism companies were slowly entering the people's field of vision and are beginning to cooperate with the government for tourism development. Tourists and local residents are still in a neglected position. They played a small role. The government was still in a strong position in the construction of tourism industry

clusters. Tourism enterprises only cooperate with the construction of the government's tourism industry cluster, and benefit from it.

During this period, the conflicts of interest from the construction of tourism industry clusters have begun to appear, but they are still not common. Although the development benefit of the tourism industry at this stage had improved compared with the previous stage, its development speed was still relatively slow. The driving force for development was still relatively simple. With the further improvement of tourism industry development, the coupling and coordination relationship between environmental carrying capacity and tourism industry development has basically shown a benign development situation. However, from the numerous policy measures introduced by the local government, it can be seen that the development of tourism industry in Guilin is more a product of the government's macroeconomic regulation and control.

4.3.3 Analysis of stable development stage (1991-1999)

In the last decade of the twentieth century, the Guilin tourism industry cluster has also moved from the predicament of the past "Guilin landscape is the best in the world. Came to Guilin to sleep underground" to a new stage with relatively mature supporting facilities and relatively stable development speed. The capital investment from all parties not only solves the big problem of imbalance between supply and demand, but also promotes the rise of related auxiliary industries. Horizontal cooperation within the industry has gradually deepened and vertical links have become closer. The correlation of various tourism industries has risen to an unprecedented new height. The industrial cluster at this stage shows a better competitive advantage as a whole. The transaction costs within the cluster is reduced, the cooperation within the cluster is frequent. The standardization of tourism products is increased. This helps reduce travel costs for visitors.

During this period, competition from the other parts of China has also intensified. Guilin's Tourism Industry Cluster is also striving for resource project development and cultivating serialized tourism products, so as to gain more market share. The Guilin Municipal Government began to transform tourism products into cultural tourism product models by

summarizing the problems and laws in the past development of tourism in Guilin. Taking advantage of the local folk customs culture and long history and tradition, Guilin has gradually established a new type of tourism products integrating local landscape beauty and customs culture. During this period, the protection of the natural environment played a decisive role in whether the Guilin's tourism industry cluster was declining or rapidly rising. The Guilin Municipal Government is also taking the opportunity to synchronize environmental protection and resource development. The government has implemented key measures to greatly improve the urban landscape of Guilin, such as the "two rivers and four lakes" project, which effectively broadens the breadth and depth of the Guilin's tourism industry cluster. The industrial development model in which culture and resources go hand in hand has quickly become an important reason for Guilin to attract tourists. Such as Arcadia, West Street, Beilin and other well-known special tourism products are the signs of Guilin tourism. During this period, it is mainly economic interests to link the various stakeholders in the Guilin's tourism cluster. The Guilin Municipal Government has begun to realize that the massive increase in passenger flow will have some adverse effects on the environment. The government has begun to promote the development model of Guilin's tourism from natural tourism to multicultural reform, from the simple use of resources in the past to the development and management of resources.

At this stage, the comprehensive benefits of tourism industry development showed a steady upward trend. Benefiting from the development policies of tourism industry clusters, fully tapping tourism resources, and developing and upgrading the tourism industry chain, the tourism industry plays an important role in the economic development of the region. As the tourism development process pays more attention to the economic benefits, the impact on the ecological environment background is neglected, and environmental problems are gradually becoming prominent. With the increasing number of tourists, the increasing human activities have brought severe challenges to the local ecological environment carrying capacity, and the importance of its environmental benefits has gradually begun to receive attention. The local government actively introduced corresponding environmental protection measures and environmental protection regulations to guide the ecological environment to adapt to economic and social development (Han & Yun, 2015)

4.3.4 Analysis of rapid development stage (After 2000-)

Entering the new century, the Guilin's tourism industry cluster has also ushered in a new first year. Is it to continue to launch a new height, or to go into a period of decline along with market resources? The key lies in finding the core driving force for the development of Guilin's tourism industry cluster in this period. Since the development of tourism in Guilin, Guilin's tourism development model has been actively adjusted and improved with the requirements of the times. In 1999, the state promulgated the Golden Week holiday system, which set off a climax of a holiday tour. In order to win a place in tourism market, the larger travel agencies and enterprises in Guilin have strengthened cooperation between various industries and produced distinctive tourism products of Guilin. The establishment of the Guilin's tourism industry cluster in this period has not only been limited to economic benefits, but has begun to pay more attention to social and ecological benefits.

In 2003, the success of "Impression • Liu Sanjie" was a perfect interpretation of the relationship between the government, the tourism industry or service providers, tourists and local residents. During this period, providers of tourism products or services and local residents began to have an important influence on the construction of tourism industry clusters. Guilin's unique natural landscape guarantees its huge tourist scale. Guilin's excellent natural resources provide a good resource base for the development of "Impression • Liu Sanjie", which easily forms an interaction between the natural landscape and other tourism products. At each stage of the project, "Impression • Liu Sanjie" has received the support of the government. The government played a key role in the planning of "Impression • Liu Sanjie", the approval of "Impression • Liu Sanjie", the requisition of related land, the site selection of the project, and the construction of infrastructure such as roads. In addition, the initial creativity and fine post-production from the investment planning team of "Impression • Liu Sanjie" ensured its overall quality, which laid a solid foundation for the development of "Impression • Liu Sanjie". The theater project of "Impression • Liu Sanjie" was designed by Qinghua University School of Architecture. In the construction process, the whole project strictly follows the concept of "green art, environmental protection first", forming a scene of harmony between man and nature. The theater is covered with green, planted with tea trees, wind-tailed bamboo, turf, and

the greening rate is over 90%. The lighting and sound systems are concealed and integrated into the environment. The water stage is built entirely of bamboo rafts. It can be completely dismantled and concealed when not performing, which does not affect the water body and riverbed of the Lijiang River. The creation of “Impression • Liu Sanjie” changed the behavior of tourists. “Impression • Liu Sanjie” has attracted a large number of foreign tourists, increasing the number of overnight visitors in Guilin and increasing the average consumption of tourists. It also changed the overall tourist structure of Guilin to a certain extent. The number of team visitors has increased rapidly, while backpackers have gradually decreased. The status of major tourist distribution centers such as West Street has also changed accordingly. Bars and souvenir shops have increased significantly. Western restaurant and leisure shops are growing slowly. At the same time, most of the actors in the “Impression • Liu Sanjie” project are students trained by Zhang Yimou Lijiang Art School, as well as local farmers. “The fishermen during the day and the actors at night” is their true portrayal. The project’s management training for local farmers has improved the quality of local residents. The project has indirectly led to tens of thousands of jobs. Table 4-4 shows the roles played by different stakeholders in the Guilin’s tourism industry cluster.

Table 4-4 Description of different stakeholders in Guilin’s tourism industry cluster

	Role positioning in the tourism industry cluster	Performance status	Owned resources	Power in the cluster
Government	Manager, Guider, Strong position	initiative	Political resources	Control power
Travel product or service providers	The main participants, Strong position	Strong initiative	Economic resources	Bargaining power
Tourists	Secondary participants, position	Weak passive	Lack of relevant resources	Supervisory power
local residents	Affected persons, vulnerable position	Most passive	Lack of relevant resources	Proposed power

With the rapid development of the Internet industry, the local government promotes Guilin's special tourism products through a well-known domestic Internet platform. At the same time, Guilin effectively uses the Internet platform and actively introduces external resources to develop new tourism products. With the adjustment of the administrative regional planning of the city and land consolidation, Guilin has formed a new tourism development pattern radiating from the center to the periphery. The resources of the Internet platform effectively complement the various guarantees needed for the development of new tourism products. Guilin vigorously develops smart tourism, thus realizing faster and more rational development and utilization of resources. In addition, as tourists' travel motives become more complex, the providers of tourism products or services need to provide higher quality tourism products. At the same time, the awareness of the interests of local residents and the requirements for their own environment will be correspondingly improved. The development of Guilin's tourism industry cluster must take into account the interests of all parties, and should realize the balanced development of economic interests, social interests and environmental interests.

The above surveys and interviews showed that the Asia-Pacific region had become a new tourist hot spot due to the impact of the economic globalization. A good international and domestic market environment provided a broad space for the development of tourism during this period. Guilin's tourism development showed a development trend of blowout growth. The GDP and per capita GDP of the region were showing a good development trend. There was a qualitative leap in economic aggregate and development scale. However, part of the tourism and economic benefits at this stage were largely at the expense of environmental benefits. Environmental carrying capacity was significantly lower than previous stages. The continuous development of the tourism industry had caused a certain degree of adverse impact on the quality of the ecological environment. In order to ensure the sustainable development of tourism resources and reduce the adverse impact on the ecological environment, Guilin began to weigh the comprehensive benefits of tourism development and environmental, economic, social and other aspects, focusing on the support and protection of the ecological environment. On the one hand, strong economic development could provide strong financial support and

technical support for ecological environmental protection. On the other hand, the excellent ecological environment provided a sustainable development of endogenous power for the sustainable and rapid development of the tourism industry and the quality of the tourism industry. Therefore, it was particularly important to promote the coupling and coordination of tourism industry with ecological environmental protection and economic and social development. Tourism modes such as ecotourism and ecological compensation mechanisms had received much attention.

In summary, in the rapid development stage, the growth momentum of Guilin's tourism industry cluster development mainly came from the continuous deepening of the correlation between various industries. The advantages of various production factors were fully reflected, and market demand was stable. The cluster was stimulated by appropriate government regulation and development opportunities under the conditions of market economy. The government began to pay attention to the ecological environment. The environmental awareness of tourism companies, tourists and residents was increasing. Their influence on the government was growing. Guilin tourism had shifted from being attached to political interests to focusing on economic interests, and gradually shifting to multiple interests. Guilin Tourism realized the coexistence of economic benefits, social interests and environmental interests. Guilin's Tourism Cluster had realized a transition from a simple quantitative product to a quality product, realizing the development from a low level to a high level.

4.4 Qualitative analysis

4.4.1 Word frequency statistics

Tourism industry clusters had many impacts on the economy and society. Based on the NVivo qualitative research, the related photos and text data of the above-mentioned development of the Guilin tourism industry cluster were created and coded by the procedure of “defining the phenomenon – mining scope – defining the category”. After repeated comparison and analysis, the corresponding interview data was encoded. The coding information is shown

in Table 4-5. After counting the frequency of each tree node, the concept and category of each data were obtained. See Table 4-6 for details.

Table 4-5 Open coding information table for the impact of Guilin tourism industry cluster on social economy

Interview data example	Coverage rate	Conceptualization	Category	Attribute definition
Tourism is conducive to local development	89.73%	Local development		
Can benefit from the tourism industry	66.34%	Benefit		
How satisfied are you with the development of Guilin tourism?	63.72%	Satisfied	Overall perception of residents	“good” of description
Do you support the continued development of tourism in Guilin?	86.52%	Continued development		
Tourism attracts more investment and consumption	85.47%	Investment, consumption		
Tourism development increases economic income	62.93%	Income	Impact on employment	“good” description
Tourism has greatly improved living standards	65.92%	Living standards		
Tourism leads to rising prices	80.68%	Prices		
Tourism leads to an increase in housing prices	79.95%	Housing prices	Economic impact	“bad” description
Tourism only benefits a few people	52.46%	Benefits a few people		

Tourism promotes cultural exchanges between the local and outside	74.29%	Cultural exchanges		
Tourism makes local cultural events or traditional festivals increase	57.14%	Festivals	Cultural impact	“good” description
Tourism allows more people to participate in the promotion of traditional culture	68.57%	Traditional culture		
Tourism leads to an increase in crime rate	28.57%	Crime rate		
Tourists disrupt the original life	60.81%	Moral ethos	Social impact	“bad” description
Tourism damages local morality	20.23%			
Tourism enhances local pride and belonging	66.47%	Pride and belonging		“good” description
The positive effect of tourism on local employment	86.42%	Drive employment	Impact on	“good”
Provide adequate employment opportunities for migrant workers	54.31%	Employment opportunities	employment	description
Tourism makes traffic crowded	85.11%	Traffic crowded	Traffic condition	
Noise pollution becomes serious	64.96%	Noise pollution	Changes in environmental	“bad” description
Solid waste increase	74.79%	Solid waste	conditions	

Water pollution is aggravated	56.56%	Water pollution		
Increased air pollution	54.31%	Air pollution		
Hotel and other tourist facilities have destroyed the beauty of the landscape	35.34%	Beauty of landscape		
Local waste disposal is timely and effective	53.73%	Waste disposal		
Protecting the natural environment is very important	92.47%	Protecting the natural environment	Environmental awareness	“good” description
Willing to take the initiative to make recommendations for the development of the scenic spot	65.81%	Development proposals		
The scenic area will listen to opinions when making some decisions.	35.72%	Listen to opinions	Resident participation willingness	“good” description
Obtaining information on policies implemented by the government	28.66%	Policies		

Table 4-6 Coding information and node frequency related to Guilin tourism industry cluster

Tree node	Frequency of appearance (%)	Information point example
Tourism industry cluster	6.42%	Degree of agglomeration of scenic spot; Degree of association of scenic spot; Agglomeration scale; Intensive degree of scenic spot; Agglomeration benefit; Industry scale effect, .
Industrial	10.31%	Service industry; Industrial integration; Industrial factors;

structure		Industrial relevance; Industrial upgrading, .
Tourism income	14.24%	Tourism industry accounting for the proportion of the tertiary industry; GDP contribution rate; Fiscal tax; Tourism contribution rate; Tourism revenue, .
Economic development	20.61%	Job creation; Increasing economic income; Introducing investment; Improving life, .
Price perception	10.82%	Improving life; House price rising; Ticket price; Room and board price; Tourism commodity price, .
Tourism state	2.61%	Eco-tourism; “Internet + tourism”; Green tourism; “Smart line”; “Mobile payment”; “Electronic invoice” “Face recognition”; “Smart guide”, .
Tourism economy	3.81%	Service economy; Information economy, .
Supporting facilities	6.71%	Traffic; Food; Inn; Hotel; Travel agency; Overall facility layout; Service facilities, .
Environmental awareness	8.58%	Sustainable development; Ecology; Green development, . Air; Water; Noise; Waste pollution, .
Propaganda awareness	6.46%	Brand propaganda; Attractions; Brand image, .
Tourist situation	3.92%	Number of tourists; Congestion; Criminal behavior, .
Scenic culture	2.35%	Concept changing; Customs; Lifestyle
Tourism support system	3.43%	Scenic area management; Scenic area service; Reception capacity, .

4.4.2 Analysis of economic impact

As can be seen from Table 4-6, among the many node types, the word frequency ratio related to economic development was the highest (20.61%). This revealed that tourism industry clusters had a prominent position in promoting local economic development. The interview

found that both local government workers, local residents and migrant workers had deeply experienced the important role of tourism industry clusters in driving local economic development. Director Wei, who was in charge of tourism, had been working in the tourism department of Guilin for a long time since he joined the work. He was well aware of the important role of Guilin tourism in Guilin's economic development. He said: "Since the 1980s, tourism had become the most important pillar industry in Guilin. Later, this status was continuously consolidated and strengthened. For example, in 2017, the city received a total of 82.3279 million tourists, including 79.8389 million China's tourists. The total tourism consumption for the whole year was 12.864 billion Euros. Tourism was a well-deserved strategic pillar industry in Guilin. In addition, the development of the tourism industry had also promoted the completeness of the city's industrial chain. Tourist accommodation facilities such as star-rated hotels, brand hotel chains, specialty hotels, and personalized residential hotels were constantly improving. Rural tourism and ecological leisure industry had also sprung up. The whole industry was like a string, connecting different industries together to form a complete network of Guilin industrial clusters."

As the village head of Liu Sanjie's performance, Village Head Chen was a native of Guilin. He said, "The development of our village was a microcosm of Guilin's tourism development. As more and more tourists came to Guilin, a large number of local resident restaurants and accommodations continued to grow and develop. This not only increased the household income of local residents (Tourism revenue accounted for more than 80% of household income), but also provided jobs for those who could not operate on their own. This gradually solved the dilemma of local low-income people living below the poverty line. In addition, the income of the village collective was gradually increasing. Some of the village public facilities that could not be built were gradually improved, and the village's appearance was completely renewed." Mr. Chen witnessed the practical benefits brought by tourism development to their village. One restaurant owners who served many tourists was also deeply aware of this change. She said, "As long as the hardworking people live here, they will be able to live a very rich life. In the exchanges with tourists, I not only increased my knowledge, but also promoted the improvement of my own culture. For family reasons, I only read the third grade of primary

school. In the process of communicating with these tourists, I have gradually mastered 6 languages in order to communicate with foreign tourists. This not only increased my knowledge, but also added a lot of income to my restaurant.”

The tour guide Yu has been living in Guilin. He was influenced by the family since he was a child. He dropped out of school at the age of 14 and started a tour guide. He has been leading the team for 14 years. In these 14 years, he not only greatly improved his life, but also formed his own happy family. The above interviews have confirmed the benefits of the development of the tourism industry cluster to the local economy and its own development.

4.4.3 Analysis of social impact

At the same time, industrial structure, industrial agglomeration, ecological environmental protection, price perception, which characterize economic and environmental development, have a relatively high proportion of words. In addition, the frequency of the culture of the scenic spot, the tourism support system, the tourism industry, and the tourist situation are relatively small, accounting for less than 5%. For example, in the perception of the price of accommodation and tourism goods, many tourists said that the commercial atmosphere here is strong. In terms of price perception, tourists have a relatively serious misrecognition. This is probably caused by the long-term tourism development in Guilin, where local people want to generate more income. In addition, on the bustling commodity street, the small commodities that are common in other tourist attractions in the country make tourists feel a little disgusted. In the small shop selling ethnic jewelry, the owner obviously has the kind of profit of the businessman, the attitude is very unfriendly. The content of the above interviews makes the price-aware word frequently appear on the encoded information.

The word frequency of ecological environmental protection also appears more on the coding information. The interviewees not only covered government staff and tourists, but also covered local residents. One of the local staff who worked in Longsheng for a long time said that “Longsheng should give priority to the development of tourism and conservation of ecology. Longsheng can’t make quick and profitable development tourism resources. Longsheng should develop tourism resources in a moderate and gradual manner within the

scope of the current environment, so that economic, ecological and tourism can be coordinated. Inefficient, predatory development must not last long. It will ultimately destroy resources and can't continue to promote economic development. The best way for Longsheng tourism is to further improve the quality and ecological benefits of tourism.”

An expert who has been engaged in tourism research for a long time mentioned that “In the period of rapid development of tourism, the government and local residents only look at the economic interests, forgetting that the environment in which they live is also in need of protection. They always wait until the environment deteriorates and they suffer from it before they think about protecting the environment. But it will pay a higher price. Therefore, in any place, the sustainable development of tourism must be based on the protection of the ecological environment. This is especially important for Guilin, which is famous for its natural resource landscape.”

Another resident of Guilin, who has lived for a long time, used the simplest words to tell the future development of Guilin tourism. He said, “The environmental damage caused by too many tourists has hurt us. For example, the water that we drink cannot be directly quoted from a few years ago, relying on purified water. And there are rubbish thrown by uncivilized tourists everywhere on our streets. The smell of these rubbish cannot be tolerated in the summer. In the future, the development of Guilin tourism must take the road of green mountains and green waters. These are all left by the ancestors, and we must protect them. Our generation can't break the way of our children and grandchildren.”

4.4.4 Overall analysis

The frequency of occurrence of the above words mainly depends on three aspects. On the one hand, most of the respondents in the process of investigating and interviewing believe that the level of local economic development is inextricably linked with the development of tourism industry clusters. Economic development has a positive effect on the emergence, formation, development and growth of tourism industry clusters. The development of tourism industry clusters has greatly promoted the sound development of the economy. Therefore, in the analysis of economic impact, word frequency is mainly reflected in increasing income, attracting

investment and consumption, increasing employment opportunities, and promoting local economic development. For example, the interview team can clearly obtain the answers from the interviews with Mr. Chen and Mr. Liu. At the same time, tourism has also had some negative effects, such as price, housing prices rising, benefits limited to a few people, . The proportional distribution in the resident test indicators profoundly reflects this phenomenon. Secondly, the correlation degree of tourism industry and the effect of industrial scale are important factors influencing the concentration of tourism industry, and always have an impact on the tourism economy. Third, new modes of tourism such as “Internet + tourism” and “smart tourism” have become the new direction for the transformation and upgrading of the current tourism industry. The development of tourism industry clusters has spawned a group of new tourism products and new tourism industries with vitality.

The concentration of tourism industry has also had a profound impact on society. Cultural exchanges and integration brought by industrial clusters have further enhanced the cultural identity of local residents. However, while promoting traditional culture, tourism has led to an increase in crime rate and has become an important problem restricting the healthy development of tourism. The scenic culture and tourists on the tree nodes reflect the social impact of the tourism industry cluster. We interviewed a tourist researcher in the scenic area. He said, “The folk culture in the village has its historical objectivity. Folk tourism products based on folk culture development should respect their historical objectivity. For example, folk performances should be as close as possible to real social life, and should not deviate from the true colors of folk culture. In the process of utilizing the development of folk tourism resources, based on the historical and cultural connotation of folk facts, the development of folk products greatly enhances the cultural identity of the people in the region.” However, the influx of tourists has also brought the fact that the rise of tourism crime has caused great trouble to the lives of the residents and tourists of the region. In most interviews, it is found that crime has such a law. Among the common types of tourism crimes, property crimes account for the vast majority, and theft and fraud are the main criminal methods. The proportion of violent crimes is small and often linked to property crimes, that is, criminals may use all means for money. This

has become a common social problem brought by the development of the tourism industry cluster, which has caused serious problems for local residents and tourists.

The continuous improvement of tourism clusters has significantly increased the employment opportunities of local residents. This has injected a strong impetus into the development of people's livelihood, making this frequency of occurrence up to 20.61%. At the same time, the traditional concept of local residents has also been improved. Local residents use part of their income to improve their living standards and improve their quality of life and legal concepts. The interview found that in the context of the rapid development of Guilin's tourism industry cluster, the most obvious change in traditional concept is female residents. The traditional concept of the 1980s and 1990s is that it is the responsibility of men to earn money to support their families, while women are taking care of their children at home. With the rapid development of tourism, it is not only male-dominated to earn money to support the family. Most women have also started short-term work and sold goods on the street. While women are doing housework, they gradually assume the responsibility of raising a family, and the status of women is gradually improved. As the service position provided by the tourism industry is mainly suitable for women, the status of women has been further improved. In the end, this new way of division of labor gives women the opportunity to get in touch with the outside world. Women's ideas have also changed, and they have more confidence in their abilities. Women achieve economic independence by earning income, and their consumption is no longer constrained.

Another important social impact is that local residents' willingness to participate is greatly enhanced. Local residents not only actively used the economic opportunities brought by tourism, but also showed positive willingness to participate in the issues such as ecological environment protection and tourism development. Local residents believe that the natural environment is an important guarantee for the sustainable development of tourism in Guilin. Local residents believe that the destruction of the tourism environment has caused problems for their own lives. At the same time, the residents also realize that to achieve sustainable development of the tourism industry, it is necessary to continuously improve the supporting measures of the scenic spot, to further reduce the negative impact of tourism on the

environment. The survey found that with the continuous development of tourism clusters, this awareness of participation has been improved. For example, the frequency of environmental awareness and awareness of publicity in interviews reached 8.58% and 6.46% respectively. Guilin tourism needs to gradually seek the development of tourism in line with the development of society and ecological environment with the participation of the government, the market, residents and tourists. Guilin needs to strengthen the shaping of tourism brands and gradually enhance the visibility and influence of tourist attractions. Guilin needs to constantly improve the management service capability of the scenic spot, and create a unique scenic culture that meets the characteristics of Guilin's tourism development, and continuously promotes the integration of Guilin's tourism industry.

4.5 Quantitative analysis

4.5.1 Overall analysis of tourists

A total of 300 questionnaires were distributed to tourists in this survey. After finishing, 292 copies of valid questionnaires were finally obtained. The effective rate is 97.33%. The specific distribution is shown in Table 4-7. The sample has a good representation.

Table 4-7 Basic information on the distribution of tourists

(N=292)

Variables	Category	Number of samples	Proportion
Gender	Male	161	53.67
	Female	149	46.33
Age	Under 18 years old	57	19
	18-24 years old	73	24.33
	25-34 years old	64	21.33
	35-44 years old	43	14.33
	45-60 years old	35	11.67

		Over 60 years old	28	9.33
Career		National public officials	71	23.67
			89	29.67
		Corporate employees	52	17.33
		Freelancers	26	8.67
		Farmers	62	20.67
		Others		
Education level		Junior high school and below	85	28.33
			92	30.67
		High school	113	37.67
		Bachelors	10	3.33
		Graduate and above		
Personal income	monthly	Less than 3,000 Yuan	15	5.00
		3001-6000 Yuan	115	38.33
		6001-9000 Yuan	106	35.33
		9001-12000 Yuan	47	15.67
		Over 12001 Yuan	16	5.33
Tourists		China's tourists	183	61.00
		Other countries' tourists	117	39.00

4.5.1.1 Tourists motivation

Getting the motivation of China's and other countries' tourists to travel to Guilin is the premise and basis for the design of Guilin tourism products. The difference in motivation of China's and other countries' tourists from the survey is convenient for tourism product designers to design tourism products more specifically to enhance the attractiveness of Guilin as a tourist destination. According to the data, the main motivation for tourists to choose Guilin

is to focus on sightseeing and leisure. However, the ranking of the proportion of tourism motives is different between China's and other countries' tourists.

The main travel motivation for China's and other countries' tourists are sightseeing and leisure holidays. These two types of travel motivation are ranked in the top two of all travel motivation. See Table 4-8 for details. Among them, the proportion of China's tourists who choose sightseeing is 63.54%, and the proportion of other countries' tourists who choose sightseeing is 75.61%. It can be seen that the beautiful scenery of Guilin is the main attraction for tourists to choose Guilin for tourism. About the option of leisure vacation, 68.82% of China's tourists chose this project, while only 36.86% of other countries' tourists chose this project. This shows that Guilin's leisure and holiday products are still less attractive to other countries' tourists. Among the China's tourists' options, the remaining higher options are experience culture and food, photography. This shows that Guilin's food culture and natural scenery can become Guilin's auxiliary tourism products. It is worth noting that the proportion of domestic tourists whose travel motivation is to visit relatives and friends significantly increased. Among other countries' tourists' options, the remaining higher options are the understanding of culture and food and photography. The proportion of other countries' tourists who want to experience local cuisine and culture is 22.61%, the proportion of other countries' tourists who want to photograph is 19.29%. However, the proportion of China's tourists in photography is only 8.89%. This shows that other countries' tourists and domestic tourists have significant differences in the motivation of the tour.

Table 4-8 Statistical table of the motivation of China's and other countries' tourists to travel to Guilin

	Domestic tourists		Foreign tourists	
	Percentage	Rank	Percentage	Rank
Sightseeing	63.54%	2	75.61%	1
Leisure vacation	68.82%	1	36.86%	2
Business activity	4.54%	6	2.11%	7
Visit friends	6.21%	5	8.14%	5

Photography	8.89%	4	19.29%	4
Meeting inspection	3.37%	7	0	8
Experience local cuisine and culture	25.54%	3	22.61%	3
Others	2.36%	8	6.86%	6

In summary, Guilin's natural landscape is the main attraction of tourism, and local culture and special catering are also the focus of China's and other countries' tourists traveling in Guilin. Therefore, Guilin needs to constantly improve and update related tourism products to continuously enhance the tourists' travel experience. For other countries' tourists who pay more attention to photography, Guilin can carry out customized services for other countries' to expand the market share of this segment.

4.5.1.2 Estimated staying time

Visitors' staying time can reflect the travel plan of the tourists and the expected status for the tourist destination. There is a significant difference in the demand for tourist goods between short-term tourists and long-term tourists. Tourists who travel in the short term have relatively little contact with tourist destinations. The long-term tourists will have more in-depth contact with tourist destinations, and more travel goods and services will be consumed. The tourists' staying time can also reflect the schedule of tourists traveling in Guilin from the side. According to the results of the questionnaire data survey, the thesis analyzes the expected staying time of China's and other countries' tourists.

Table 4-9 Statistical table of China's and other countries' tourists staying time

Tourists	China's tourists	Other countries' tourists
	Percentage	Percentage
1-3 days	73.55%	62.76%
4-6 days	20.09%	23.74%
7-15 days	3.32%	3.69%
>15 days	4.98%	12.11%

According to the above Table 4-9, it can be found that the staying time of China's tourists is mainly concentrated in 1-3 days. This time period accounts for more than 70% of the total number of people. The proportion of other countries' tourists whose staying time is in 1-3 days is 62.76%. China's and other countries' tourists stay in Guilin for a relatively short period of time. This shows that the total number and quality of tourist attractions in Guilin is not enough to attract tourists for long-term stays, only suitable for short-term tours of 1-3 days. Therefore, Guilin can develop leisure vacation tourism to a certain extent and improve the average tour time of China's and other countries' tourists. Guilin can also help to enhance the tourist attraction of surrounding cities, strengthen tourism cooperation with surrounding cities, form an overall attraction, and increase the time for tourists to stay in the surrounding areas of Guilin and Guilin. Overall, other countries' tourists stay longer than China's tourists. Therefore, designers should develop tourism products that allow tourists to stay for a long time in addition to leisure vacations, such as wilderness adventures and photography, to increase the stay time of other countries' tourists.

4.5.1.3 Tourist sources

The popularity of tourist sources is directly related to the market size of tourists. According to the above Table 4-10, most of the China's tourists come from the provinces and cities around Guilin. Especially Guangxi local tourists accounted for 22.33%. Among the tourists outside the province, the most visitors come from Hong Kong, Macao and Taiwan and South China, accounting for 41.19%. The sum of the two accounts for more than 60% of the China's market. A small number of tourists come from the Northwest, accounting for only 3.55% of China's tourists. This shows that the spatial distance and economic development have an important impact on the Guilin source market. The sources of other countries' tourists also confirms this point. According to the above Table 4-11, other countries' tourists mainly come from Southeast Asia, accounting for 38.05% of foreign tourists. This is mainly due to the 6-day immigration visa policy for Guilin Airport's tour group of ordinary passport holders from 10 ASEAN countries. This is mainly due to the implementation of the 6-day immigration visa-free policy of Guilin Airport to the tour group holding ordinary passport from 10 ASEAN countries (Malaysia, Thailand, Indonesia, Vietnam, Cambodia, Laos, Myanmar, Singapore, Brunei,

Philippines). Guilin has become an important destination for ASEAN tourists when they travel to China.

Table 4-10 Table of source of China’s tourists to Guilin

Areas	Guangxi local	South China area	Southwest area	East China area	Northeast area	North China area	Northwest area
Proportion	22.33%	41.19%	4.75%	13.60%	5.31%	12.06%	3.55%
Ranking	2	1	6	3	5	4	7

Table 4-11 Table of source of other countries’ tourists to Guilin

Areas	Southeast Asia	East Asia	North America	Australia	Europe	Others
Proportion	38.05%	9.09%	29.65%	2.34%	21.83%	1.04%
Ranking	1	4	2	5	3	6

After the ASEAN tourists, they are European and American tourists. Japanese and Korean tourists from the closer East Asian markets are relatively few. This shows that Guilin’s attraction in the East Asian market is not enough. This is basically the same as the main sources of foreign tourists during the Spring Festival Golden Week of 2018. During the Spring Festival Golden Week, foreign tourists mainly come from Malaysia, the United States, Canada, Singapore, Australia, France, the United Kingdom and other countries. This also proves the rationality of the sample selection of this survey.

4.5.1.4 Tourist satisfaction

We survey tourist information, travel impressions, and travel experiences, and combine tourists’ perceptions of tourism resources, products and services, and the behavioral characteristics of tourists to comprehensively assess the satisfaction of tourists. The tourist satisfaction questionnaire consists of two parts: tourism resource characteristics evaluation and tourism service evaluation. Tourism service evaluation includes five major service types:

scenic spot, catering, accommodation, transportation and shopping. In addition, the thesis also takes the tourism complaint data obtained from the Guilin Tourism Development Committee as an auxiliary indicator to measure satisfaction.

In the evaluation of tourism resources, the following five indicators are used to measure: “Enriched natural resources and beautiful scenery”, “The water quality of the Li River is good”, “The water quality of the Yulong River is good”, “Cultural landscape has local customs”, and “Guilin landscape is the best in the world”. Through the comparison of the degree of approval, it is found that both China’s and other countries’ tourists agree that Guilin is rich in natural resources, and the scenery is beautiful, the landscape is a must, and the cultural landscape also has local characteristics. On the other hand, the evaluation of the water quality of the Li River and the Yulong River is relatively low, especially for other countries’ tourists, the satisfaction is only about 30%. This shows that other countries’ tourists have high requirements for water quality. In addition, the monitoring day was just a few days after the flood, and the water was turbid, leaving a bad impression. In general, China’s and other countries’ tourists give high praise to the cultural landscape of Guilin. This need to continue to protect and inherit. On the natural landscape, especially the water quality should be strengthened to clean the treatment and improve the ability to resist disasters.

For the evaluation of scenic service, the overall evaluation of other countries’ tourists is higher than that of China’s tourists. However, China’s and other countries’ tourists believe that handling complaints is not efficient. Tourist claims cannot be solved very well. Scenic service personnel and corresponding agencies and departments need to strengthen their complaint handling capabilities, improve the complaint handling mechanism, and speed up processing. In addition, other countries’ tourists also expressed dissatisfaction with the tourism toilets. The field survey also found that the number of tourist toilets is small, and the health problems are serious, which brings great inconvenience to tourists. Most foreign scenic spots have better hardware facilities than domestic scenic spots. Therefore, the imperfection of hardware brings a large psychological gap to other countries’ tourists, so the evaluation is lower.

It can be seen from the above analysis that the overall satisfaction evaluation of other countries’ tourists is higher than that of China’s tourists. There are many reasons for this.

Although Guilin's hardware support needs to be upgraded, the scenic area is overcrowded, and the environment needs to be rectified, the other countries' tourists tourism experience is better. It is mainly due to that natural landscapes, accommodation services and the human environment bring a good experience to other countries' tourists. In contrast, due to China's vast land and natural scenery, many tourists who have come to Guilin have already visited similar landscape tourism destinations. When evaluating overall satisfaction, China's tourists will compare and finally give a relatively conservative evaluation. Therefore, the satisfaction of China's tourists will be lower than that of other countries' tourists as a whole.

4.5.2 Analysis of the influence of Guilin tourism industry cluster on the economy

In the study of the economic impact of tourism, this thesis takes the economic benefit indicators in the Guide to the Use of Sustainable Development Indicators in Tourism Destinations developed by the United Nations World Tourism Organization (UNWTO) as a monitoring system, and combines the actual situation of Guilin to make corrections and refinements. Specifically, this part analyzes the tourism income, the contribution of tourism to Guilin's GDP and finance, the impact of tourism on agriculture and industrial structure, the impact of tourism on the commercial development of Guilin, and the impact of tourism on prices.

4.5.2.1 Residents' overall perception of tourism's impact on economy

The monitoring of residents used a simple random sampling method to recover 300 valid questionnaires. The ratio of male to female in the interviewed group was about 1:2, accounting for 34.7% and 65.36% of the sample respectively. The age distribution is mainly concentrated in 15-44 years old, accounting for 90.18% of the total. Among them, residents aged 15-24 accounted for 52.21% of the total number of respondents, residents aged 25-44 accounted for 37.92% of the total number of respondents, and residents aged 45-60 accounted for 5.41%. The group under 15 years old and the group over 60 years old only accounted for 9.93% of the total number of respondents. In terms of education level, about half of the respondents (45.83%) are high school or technical secondary school graduates. The respondents who have received junior high school education and the respondents who have received universities or colleges each

account for about 25%. Most residents (64.71%) do not have the habit of learning English. In terms of economic income, 45.66% of the respondents' monthly income is 264.89-397.24 Euros. The respondents with monthly income below 264.89 Euros and the respondents with monthly income above 397.24 Euros each accounted for 28% and 26.4% of the total. 79.28% of respondents lived in Guilin for more than 10 years. Longer residence time indicates that the majority of the resident questionnaires are well represented.

Resident monitoring indicators reflect the local residents' overall perception of the impacts of tourism development on socio-cultural, economic, and environmental aspects. In the indicator analysis, in order to more clearly reflect the residents' attitudes towards various impact indicators, the percentage or value of "strongly agree" and "agree" in the attitude scale is classified as one "consensus"; the percentage or value of "very disagree" and "disagree" is classified as one "objection".

The respondents' responses to the four questions in the questionnaire such as "Tourism is conducive to our local development" "I can benefit from the tourism industry" "How satisfied are you with the development of Guilin tourism" "Do you support the continued development of tourism in Guilin" can reflect residents' attitude towards Guilin's current overall tourism development. The data shows that 89.73% of residents believe that tourism is conducive to local development; 66.34% of residents believe that they can benefit from the tourism industry; 63.72% of residents are satisfied with the tourism development of Guilin; 86.52% of residents said they will continue to support Guilin's tourism development. The proportion of residents who have objections to "tourism is conducive to local development" "I can benefit from tourism" and "will continue to support the development of tourism in Guilin" are respectively 6.36%, 13.76%, 2.46%. However, there are relatively much residents who disagree with "I am satisfied with the tourism development of Guilin", accounting for 20.10%. It can be seen from the data that residents' perceptions are mostly concentrated on the two options of "agree" and "strongly agree". This shows that most residents believe that tourism is conducive to local development and that they can profit from it. Residents have higher satisfaction and support for local tourism development. However, about one-fifth of the residents are not satisfied with the development of tourism in Guilin.

From interviews with residents, it can be found that most residents believe that they can benefit from tourism. The main reason is that tourism accounts for a large proportion of the industrial structure of Guilin. Employment opportunities offered by industrial enterprises are limited. Residents can earn higher incomes than agricultural production by directly participating in tourism or indirectly participating in tourism-related industries. Moreover, Guilin's more relaxed pace of life and leisurely lifestyle are also reasons that many residents choose to give up working outside and return to Guilin for tourism-related industries. For example, a local inn owner mentioned that in the operation, "I feel that there is no competitive pressure in my own house. It doesn't matter if there is business. I may earn more, you may also earn less".

The residents' evaluation indicators of tourism economy impacts are mainly reflected in these eight aspects of the questionnaire such as "Tourism development brings more job opportunities" "Tourism development has increased my economic income" "I am satisfied with my income situation" "Tourism attracts more investment and consumption" "Tourism leads to rising prices" "Tourism leads to an increase in housing prices" "Tourism has greatly improved living standards" "Tourism only benefits a few people". These eight questions can reflect the positive and negative impacts of tourism on the economy. It can be seen from the data that Guilin's residents have a high positive impact on the tourism economy. The vast majority of residents have affirmed the positive impact of tourism in creating jobs, increasing economic income, introducing investment, and improving living. Among them, the proportion of "tourism attracting more investment and consumption" and "tourism development has brought more employment opportunities" is high, respectively accounting for 85.47% and 79.16%. 62.93% of residents believe that tourism development has increased their economic income. 65.92% of residents agree that tourism has greatly improved living standards.

At the same time, the data also reflects the negative evaluation of the Guilin's residents on the tourism economy. 80.68% of residents believe that tourism has caused prices to rise. 79.95% of residents believe that tourism leads to rising house prices. Another 52.46% of the residents believe that the development of tourism only benefits a small number of people. The opinions of respondents were more consistent in the view that tourism caused prices and house

prices to rise. And for the saying that “tourism only benefits a few people”, everyone’s opinions are inconsistent. 34.48% of the residents expressed their opposition, 13.05% were neutral, and 52.46% of the residents agreed.

In general, the perception of the residents of Guilin’s tourism economy is more objective and true, and has two sides. The data is mainly concentrated on the two options of “agree” and “strongly agree”. This reflects that local residents have a clear perception of the positive and negative impacts of tourism development on the economy. This shows that in the eyes of local residents, tourism is a “double-edged sword” for economic development. They have affirmed the role of tourism in economic development, and expressed dissatisfaction and concern about rising prices and rising housing prices brought by tourism.

4.5.2.2 Tourism revenue occupies the core position of Guilin’s GDP

According to the definition and calculation method of the GDP contribution rate of the three industries in the tourism satellite account and the National Bureau of Statistics, the contribution rate of the three industries refers to the contribution rate of the three industries to the growth rate of GDP, which is equal to the ratio of the increment of value added of each industry to the increase of GDP. Increase in value increments are calculated at constant prices. Therefore, the contribution rate of tourism to Guilin’s GDP is equal to the ratio of the increase in tourism income and the increase in GDP. However, at present, it is difficult to verify the increase in tourism revenue in terms of statistics. In this study, the proportion of tourism income in GDP is used to express the contribution rate of tourism to Guilin’s GDP.

In 2001-2003, tourism revenue accounted for a small proportion of Guilin’s GDP. Since 2003, tourism revenue has increased in the proportion of Guilin’s GDP. Especially since 2009, the proportion of tourism revenue in GDP has risen rapidly. By 2017, Guilin’s tourism revenue will account for more than 20% of GDP. In general, the proportion of tourism revenue in Guilin’s GDP in the early 21st century is increasing. It can be seen that the contribution rate of Guilin tourism industry cluster to GDP continues to increase. The proportion of tourism income in GDP will be one-third after 2020 according to the development target determined by the planning outline. Tourism industry clusters occupy a pivotal position in the economic development of Guilin. This is of great significance to Guilin. On one hand, tourism leads the

economic development and brings income and living standards to the residents of Guilin. On the other hand, the uniqueness of the tourism industry has also made Guilin's economic structure relatively simple. Tourism itself is vulnerable to internal and external environmental disturbances. If there is a problem with the development of tourism, it may cause Guilin to fall into crisis.

4.5.2.3 The contribution to finance is not obvious

The contribution of tourism to Guilin's finance is mainly measured by the two aspects of fiscal taxation and foreign investment brought by tourism. According to the information provided by the Guilin Local Taxation Bureau, the fiscal tax mainly considers the contribution of taxation in Guilin Scenic Area to finance. At the same time, the tourism industry is more extensive. Because the development of tourism can attract outside investment in Guilin's service industry. These investments are one of the contributions of tourism to Guilin's finances and the driving force behind industrial development.

Table 4-12 Taxation of some major tourist attractions in Guilin

Taxpayer name	Unit: Million Euros		
	2013 taxes	2014 taxes	Taxes for the first half of 2015
Guilin Guangwei Wenhua Tourism Industry Co., Ltd.	2.98	2.55	0.56
Guilin Butterfly Spring Tourism Development Co., Ltd.	0.07	0.02	0.06
Guilin Jiangshan Tourism Service Co., Ltd.	0.05	0.11	0.04
Guilin Shanshui Tourism Development Co., Ltd.	0.09	0.25	0.25
Guilin Yulonghe Drifting Co., Ltd.	0.41	0.48	0.20

Source: Yangshuo County Tourism Bureau Work Summary (2012-2016)

According to the above Table 4-12, from the taxable situation of major tourist attractions from 2013 to the first half of 2015, the largest taxpayer, Guilin Guangwei Wenhua Tourism Industry Co., Ltd., pays nearly 2.6 million Euros. The smallest Guilin Butterfly Spring Tourism

Development Co., Ltd. pays only twenty thousand Euros. This shows that the scale of different tourist attractions varies greatly. Guilin needs to properly merge some tourist attractions to form several large-scale tourism group companies to better adapt to market competition.

According to the above Table 4-13, from 2010 to 2016, it can be seen that the overall investment promotion work was successful according to the results of the investment promotion work in Yangshuo County, Guilin. Especially in 2010, 40 new projects were signed in Guilin with a total investment of 1.589 billion Euros. in 2016, Only 8 new projects were signed in Guilin, but the total investment was as high as 3.163 billion Euros, a new record. These are mainly investments related to the tourism industry, including tourism products, infrastructure . In 2016, the Guilin High Speed Railway Station was officially put into use. The supporting works of the high-speed rail station parking lot and passenger station are also completed at the same time. Guilin integrates creative culture, leisure and holiday, and special business. However, except for 2010, the overall growth of foreign investment funds is not high. The funds in place for foreign investment projects have barely increased since 2010 to 2016. External investment is still based on China's investment. At present, although there are many foreign investment projects in Guilin, there is no rapid growth in actual funds in place. Therefore, the financial pulling effect of tourism on Guilin is not obvious.

Table 4-13 2010-2016 Guilin Yangshuo County attracts investment results

Year	Newly signed items	Total investment (billion Euros)	Fund in place (billion Euros)
2010	40	1.589	0.405
2011	20	-	0.14
2012	23	-	0.192
2013	-	-	0.203
2014	4	-	-
2015	9	1.95	-
2016	8	3.163	0.223

Source: Yangshuo County Tourism Bureau Work Summary (2012-2016)

4.5.2.4 Promote the optimization of agricultural industrial structure

Agriculture is the basic industry of Guilin. The development of tourism has led to an adjustment in the structure of agricultural production. Before the development of tourism, Guilin was a traditional farming area dominated by rice. After Guilin developed tourism, the agriculture began to move toward intensification, scale and branding. In the decades when the government guided the development of the industry, the industrial structure of Guilin's agriculture has undergone significant changes. This huge change can be seen from Yangshuo County, Guilin, which has the best development in the tourism industry. In 2002, the ratio of economic crops to food crops in Yangshuo was 0.93:1; the rice planting area reached 256,600 mu; the annual fruit output was 84,500 tons. In 2002, there were still 9 million mu of "ton grain field" and 5.22 million mu of anti-season pollution-free vegetables. In 2002, there were 249,700 pigs in the whole year, with 0.64 million cattle, 25,500 sheep and 1.713 million birds; the total output value of animal husbandry for the whole year was 26.07 million Euros.

In 2016, after more than ten years of development, Yangshuo formed a number of agricultural demonstration zones represented by the Kumquat Industry (Core) Demonstration Zone of Baili New Village in the Autonomous Region. The total fruit area of Yangshuo has reached 315,600 mu, and the planting of kumquats has reached 188,000 mu, with a total output of 287,400 tons; the total area of fruits has reached 315,600 mu. 18.8 million mu of kumquat was planted with a total output of 28.74 million tons. 9.23 million mu of sugar oranges were planted with a total output of 89,100 tons. There are 5 national and autonomous regional livestock and poultry modern ecological breeding demonstration sites. There are 195,800 pigs, 62,000 cattle and 44,800 sheep in the whole year. There are 2,446,800 domestic birds. A total of 2,237 tons of honey was produced throughout the year. Jiulongteng Honey obtained the national agricultural product geographical indication. Therefore, more than ten years of tourism development has played an important role in Guilin's primary industry. The types of agricultural products in Guilin are more diverse and the output of agricultural products is greatly improved. Tourism has greatly promoted the optimization of agricultural structure in Guilin. More famous agricultural products have been cultivated under the influence of local tourism products in Guilin.

4.5.2.5 Promoting the formation of a new type of industry in Guilin

Guilin's tourism plays a dual role of restricting and guiding industrial development, which in turn has contributed to the formation of Guilin's new industry. On one hand, in the context of Guilin's tourism industry as the core driving force for economic development, in order to protect the ecological environment and protect the Lijiang River, the government adopts the following measures to restrict industrial development. In 2015, Guilin completed the construction of the sewage treatment plant in the grape industry concentration area and the comprehensive improvement of the Baisha stone processing concentration area. In 2016, Guilin shut down some polluting industrial enterprises, and the scale of industrial output value fell. On the other hand, Guilin adjusted the industrial structure, guided enterprises to adjust the product structure, and invested a large amount of funds to help enterprises complete technological transformation. For example, in 2015, the technical transformation of Dufeng Building Material Cement Grinding System and the expansion project of Liangshan Food Black Garlic were completed. Guilin supports the development of micro-enterprises. Guilin supports the development of a number of industrial enterprises supporting the tourism industry, such as Kangmeisi medical equipment and Ouyi water equipment.

Guilin strengthens information construction at the same time. WeChat public information platform, "Broadband Guilin" strategy, West Street free Wi-Fi Internet project and other information construction is increasingly perfect. Guilin launches smart tourism, builds a big data center and a basic support platform, and gradually realizes the wisdom management and operation of tourism, transportation, government affairs and people's livelihood projects in the city. Guilin builds a smart tourism information platform, WeChat APP and electronic maps to build a WeChat public service platform. Guilin implements "Broadband China" strategy and fourth-generation mobile communication infrastructure construction, and promotes free Wi-Fi work in key scenic spots. Guilin promotes the use of "smart lines" "mobile payments" "electronic invoices" "face recognition" "smart guides" "integrity system" and other Internet products. Guilin has basically realized the elements of "eat, live, travel, travel, purchase, entertainment" and the "business, support, learning, leisure, love, and odd" formats, providing a full range of personalized travel services for tourists. Guilin's e-commerce is developing

rapidly. More than 100 companies conduct product promotion and sales through e-commerce platforms. Guilin built 21 villages and towns online shop. Guilin established more than 20 online e-commerce companies selling kumquat, honey and other specialty agricultural products.

4.5.2.6 Guide the differentiation of commercial space

Tourism commercialization is an unavoidable topic in the development of tourism destinations. In many historical towns with rapid development of tourism in China, the main streets have almost evolved into purely profitable places. The entire street became a public intersection and shopping street. This is also an important performance of tourism on local influence. The number of stores and the changes in the types of stores reflect the trend of commercialization of Guilin tourism. The number of family hotel inns, hotels and other accommodation facilities and restaurants, bars and other dining facilities are the largest, accounting for the largest proportion. Handicrafts, specialty clothing stores, souvenir supermarkets and other shopping facilities are numerous, accounting for a certain proportion. Residents' daily service facilities such as pharmacies, daily grocery stores, and vegetable markets are sparsely populated and remotely located, which are basically separate from the streets where tourism service facilities are dense. Handicraft shops, specialty clothing stores, bars, restaurants and other shops are concentrated in West Street and New West Street. Hotels, inns and restaurants are distributed in other streets.

According to the survey data of the World Tourism Organization's Yangshuo Observation Point, this study counts 2,445 shops in three regions. The thesis divides the shops into nine categories. The first seven categories are directly related to tourism, and they are named T-type shops, including hotels, restaurants, bars (western restaurants), souvenirs, tourism services, Chinese health care and foreign language schools. Commercial streets are divided into three different areas according to the intensity of tourists: A, B, C areas. Area A is the tourist center business district, which is the most densely populated area with 14 streets. Area B is a transitional area between tourist areas and residential areas, with a small number of tourists, a total of 7 streets. Area C belongs to residential areas with the least number of visitors, including

8 streets. Table 4-14 shows the accommodation shops and souvenir shops in the main tourist areas of Yangshuo, Guilin.

Table 4-14 Accommodation shops and souvenir shops in the main tourist areas of Yangshuo, Guilin

Area	T class shops	Souvenir shops	Proportion (%)	Accommodation shops	Proportion (%)
Area A	670	151	22.54	125	18.66
Area B	331	22	6.65	88	26.59
Area C	224	16	7.14	74	33.04
total	1225	191	15.59	287	23.43

Source: World Tourism Organization's Yangshuo Observation Point (2018)

Among the tourist shops in Guilin in 2017, hotels, restaurants, and souvenirs are still the most important types of tourist shops, accounting for 80.61% of the total number of tourist shops. From the perspective of tourism investment projects, hotels and leisure entertainment are hot industries invested by Guilin. This shows that Guilin's hotel accommodation and leisure and entertainment services have shown the withdrawal of small capital and the entry of large capital. The old city centered on West Street and others will gradually realize the transformation of multi-purpose and multi-purpose land use types to tourism sites with single functions and uses. It can be seen that the development of Guilin tourism promotes the formation of urban functional patterns centered on commercial districts.

4.5.3 Analysis of the influence of Guilin tourism industry cluster on social aspects

In the tourism social impact part, this study takes to the social benefit indicator part of the "Guidelines for the Use of Sustainable Development Indicators of Tourism Destinations" formulated by the United Nations Tourism Organization (UNWTO) as a monitoring system, and combines and corrects the actual situation of Guilin. The thesis analyzes the residents' overall perception of the tourism on the society, the residents' perception of the impact of the tourism on employment, the traditional concept of the residents, the residents' environmental awareness and the residents' willingness to participate.

4.5.3.1 Residents' overall perception of the tourism on the society

The local residents have strong perceptions of the positive social and cultural impact of tourism. However, residents' perception of the negative impact of tourism is somewhat different. For the development of local culture, residents have a higher recognition of the positive promotion of tourism. 74.29% of residents believe that tourism promotes cultural exchanges between local and other places. 57.14% of residents agree that tourism has increased local cultural activities or traditional festivals. 68.57% of the residents believe that tourism allows more people to participate in the promotion of traditional culture. However, for the negative effects of social and cultural influences, residents have more differences. In terms of "tourism leads to an increase in crime rate", 42.86% of residents clearly disagreed; 28.57% of residents agree with it; 28.57% of residents think that tourism have no influence on crime rate. The difference in crime rate mainly exists in the process of tourism development. Due to the conflict of interests between the residents and the developers, the government and other stakeholders, the various events occur. In the case of "tourists disrupting our original life", 60% of the residents expressed their consent or did not matter. According to the residents, the noise caused by the coach of the tourism team directly disturbed the normal life of the residents on both sides of the road. Regarding the damage of tourism to the local morality, 40% of the residents expressed disagreement, and 40% of the residents said that there is no impact. However, in the survey, some residents reported that due to the development of tourism, the residents became commercialized, "always remember the money in the pockets of others", not as simple as before. Although residents have some different opinions on tourism to improve local crime rate, damage to folk customs and morality, 60% of residents agree that tourism can enhance local pride and sense of belonging.

4.5.3.2 Impact on employment

In the residents' survey, 86.42% of the residents agreed that tourism development has brought them more employment opportunities. This shows that residents are generally aware of the positive effects of tourism on local employment. Guilin's tourism development has made residents become more and more optimistic about the number of employment opportunities in Guilin. At the same time, the development of tourism has prompted local residents and

employees to conduct training. However, the improvement of residents' employment and work capacity are limited due to restrictions on the content of work and the type of work. Most residents still work in grassroots services. But most residents want to switch jobs and expect better employment opportunities. In the survey sample, 54.31% of the residents believe that the local can provide sufficient employment opportunities for migrant workers. This reflects the fact that local residents are more optimistic about the ability of tourism to increase employment. The actual number of people directly employed in Guilin tourism is about 200,000. The number of employed people indirectly driven by tourism is more. For example, Guilin Wanda City, which is scheduled to be completed in 2020, is expected to create 20,000 jobs with an annual tourism income of 0.662 billion Euros. Therefore, the Guilin tourism industry cluster has a strong driving force for people's livelihood, for employment, and for economic and social development.

4.5.3.3 Traditional mindset have changed

The impact of tourism on the lives of local residents is also reflected in the change of ideas. According to the statistics of the questionnaire, 73.39% of the residents believe that tourism has improved their living standards and improved their quality of life. As the residents of an international tourism destination, Guilin people constantly receive ideas and culture from all over the world and gradually change their traditional concepts. For example, the new concept of subverting the traditional frugality, such as "money is earning flowers, not coming in", prompts Guilin people to take out the earned money to improve their quality of life. In addition, due to the large number of foreign tourists coming to Guilin, English communication has become an indispensable job skill for tourism practitioners. Among the residents surveyed, more than 67.78% of residents believe that learning English is very important; and 19.93% of residents can use simple basic communication in English. For small and medium-sized cities in the southwestern region that are traditionally based on agriculture, the level of English proficiency of local residents in Guilin is already very high. This is largely influenced by the tourism industry in Guilin. The local residents who participated in Liu Sanjie • Impression performance not only got the corresponding labor remuneration, but also improved their quality of life and legal awareness by signing labor contracts and purchasing insurance. Local residents have also

effectively enhanced their team literacy and discipline organization awareness in the process of participating in group activities. These have changed the traditional concept of local villagers' old-fashioned closure.

4.5.3.4 Residents' awareness of environmental protection is increasing

In the perception of residents, whether tourism activities have caused damage to the natural environment of Guilin? In order to explore this issue, the questionnaire designed these six indicators to measure the negative impact of residents on the tourism environment such as "Tourism makes air pollution worse" "Tourism makes water pollution worse" "Tourism makes noise pollution worse" "Tourism makes solid waste pollution worse" "Hotel and other tourist facilities have destroyed the beauty of the landscape" "Tourism makes traffic crowded".

The survey results show that more than half of the residents believe that tourism development brings more serious air, water, noise and waste pollution to the local environment, and traffic becomes more crowded. The residents have the strongest perception of traffic congestion, noise and solid waste pollution. 85.11% of the residents think that tourism makes traffic crowded; 64.96% of residents think that noise pollution has become serious; 74.79% of residents believe that tourism development leads to an increase in solid waste. 56.5% of the residents felt that the water pollution was aggravated, and 54.31% of the residents thought that the air pollution was aggravated. Regarding the statement that "hotel and other tourist facilities have destroyed the beauty of the landscape", the opinions of the residents are quite different. Only 35.34% of the residents agreed to agree; 19.85% of the residents expressed their opposition; and 42.36% of the residents felt that it did not affect. The residents generally believe that the sharp increase in the number of tourists in recent years is the main reason for the decline in environmental quality. Especially during holidays, traffic congestion is a serious phenomenon, and the road smoke and noise accompanying it bring negative experiences to local residents and tourists. "Blocking is because of the bus outside. This is disgusting. Holiday, many bus cars. The most dissatisfied thing is that the quality of people is too low. As far as driving, you don't let me, I won't let you." "Sometimes when I come to West Street, there is no place to park at all." Although sanitation workers often clean, but due to the large number of tourists and the lack of garbage cans on some streets, garbage can often be seen on the street.

“Some people litter. Garbage cans are still not perfect. Some have, but it’s too far. And the number of trash cans is not a lot.

Most residents feel that the water quality of the Li River and the Yulong River is still relatively clear, but it has declined somewhat in recent years. It is believed that this may be related to the deterioration of the source water quality and the lack of centralized treatment of domestic sewage in some villages. “At that time, I felt that the water in the Li River was very clear. Now I think the water in the Li River is very mixed. But I don't think this is caused by Guilin, because there is no factory in Guilin. Pollution should flow down from above”.

In addition, 53.73% of residents believe that local waste disposal is timely and effective. 57.9% of residents said that the environment is cleaner than before the development of tourism. This shows that local environmental protection measures have been strengthened. At the same time, 92.47% of residents believe that it is important to protect the natural environment. This shows that the vast majority of residents have a high awareness of environmental protection, and there is still room for improvement in sustainable tourism development in Guilin. The rapid development of tourism has enabled the government’s tourism and environmental sectors to invest more in the construction of the municipal environment. Most residents feel the improvement of environmental protection measures. However, due to the sharp increase in tourists in recent years, the effect of the measures is not as obvious as before. “The effect is definitely there. But there are staff who have special cleaning, so I feel okay, there is no particularly big impact.” “Some garbage will be cleaned up, please also sweep the ground, very good” As far as environmental awareness is concerned, on the one hand, being in a cleaner environment directly enhances the environmental awareness of residents. “The surrounding environment has become clean. You see no rubbish on the street, you won’t throw garbage at will.” On the other hand, the interaction with foreign tourists has also changed the environmental concept of some residents. Finally, the development of tourism has brought the relationship between the economy and the environment closer, which has also made residents pay more attention to changes in environmental quality. “When you come over, you mainly look at the landscape. If you want to destroy the landscape, no one will come.”

In general, the residents' negative perceptions of the tourism environment are more prominent. In addition to the decline in direct quality of life associated with the environment, residents are also worried that environmental degradation will reduce the number of tourists and reduce tourism revenue. "West Street lost that kind of peace and leisure, now it's all overcrowded. So under normal circumstances, people will not go again after going once."

4.5.3.5 Residents' willingness to participate is improved

Whether residents are willing to take the initiative to make recommendations for the development of the scenic spot can reflect the willingness of the residents to participate in the community. Whether the scenic decision-maker can listen to the opinions of the residents, whether the residents can obtain the government's policy guidelines, and whether the residents can get help from the community and the government during the participation in the tourism process all can reflect the accessibility of the residents' community participation. Residents' concerns and suggestions on tourism development reflect the sense of ownership of residents' community participation. Among the valid questionnaires collected, 79.28% of the residents have lived in the country for more than 10 years, which shows that the survey sample has a good representation.

The survey on the participation of Guilin residents in tourism decision-making mainly involves these three aspects such as "I am willing to take the initiative to make recommendations for the development of the scenic spot" "The scenic designer will listen to our opinions when making some decisions" "I got information about the policy guidelines implemented by the government".

65.81% of residents expressed their willingness to take the initiative to make recommendations for the development of the scenic spot. This shows that local residents have a stronger willingness of participation in tourism development. However, in the item "The scenic designer will listen to our opinions when making some decisions", 64.36% of the residents disagreed or considered "no impact", and only 35.72% of the residents agreed with this statement. In the indicator that "I got information about the policy guidelines implemented by the government", 71.43% of the residents disagreed or considered "no impact", and only 28.66% of the residents agreed with this statement. This shows that residents have major

obstacles to the acquisition of the policy information implemented by the government. 71.63% of residents do not believe that they have received help from the community and the government during their participation in the tourism process. Residents' participation capacity and channels are still limited. This shows that there are insufficient channels for residents to obtain government policy guidelines. However, an obvious change found in the interviews is that the Guilin tourism practitioners and the government offices make full use of WeChat groups as information dissemination and communication channels, which has improved the problems of "difficulties in issuing permits" and poor communication between government and enterprises. However, for most ordinary residents, there is still room for improvement in terms of policy release and channel of opinion transmission and efficiency.

Thus, in terms of community participation, the following conclusions can be drawn: Although residents have a high willingness to participate in the development of scenic spots, residents have not been able to participate deeply in the tourism industry. In addition, contradicting the high enthusiasm for participation, residents have insufficient advice and decision-making power, and residents still have major obstacles to the acquisition of policy and policy information. Improving the accessibility and participation capacity of residents becomes the goal of the government to continue its efforts.

4.6 Monographic study

In 2003, "Impression • Liu Sanjie", the world's first large-scale landscape performance, was performed in Yangshuo, Guilin, which attracted wide attention from the tourism industry and academic circles. The live performance, as a new stage performance, began to enter people's field of vision. As a new artistic expression of Liu Sanjie's culture, the landscape drama "Impression • Liu Sanjie" carried out the creative return under the modern background according to the story of the folklore of the movie "Liu Sanjie", which combined folk songs, customs and daily life that reflected the local culture of Guangxi with songs, lighting, dance and local natural scenery. The performance had been widely praised at home and abroad and had aroused widespread concern. As of December 31, 2017, the total number of viewers of "Impression • Liu Sanjie" reached 16.11 million; the cumulative number of sessions was

5,860. In 2017, “Impression • Liu Sanjie” received a total of 1.65 million person-times, and the number of people who bought tickets was 1.61 million, a record high. “Impression • Liu Sanjie” led the prosperity and development of the entire Yangshuo and even Guilin and Guangxi tourism, which produced a 1:7 pull effect on the local economy. The great success of “Impression • Liu Sanjie” had made it a great influence in the country, and it was typical as a case study.

4.6.1 Impact on Yangshuo’s social economy

4.6.1.1 Increasing local finance

The most direct economic contribution of “Impression • Liu Sanjie” to Yangshuo’s tourism development came from taxation. As of 2009, the total amount of tax paid by the “Impression • Liu Sanjie” project was 5.42 million Euros. The successful holding of “Impression • Liu Sanjie” changed the situation of less taxation in Yangshuo tourist attractions. In 2007, the tax contribution of tourist attractions accounted for 62% of the tax contribution of tourism-related industries. The taxation of “Impression • Liu Sanjie” brought a considerable income to the local government, and also provided financial support for Yangshuo’s municipal construction. In addition, the operation of the “Impression • Liu Sanjie” project also boosted the overall improvement of Yangshuo’s tourism revenue. Before 2003, the growth of Yangshuo’s total tourism revenue had been relatively stable. In 2003, the total tourism revenue of Yangshuo County was only 32 million Euros. However, since 2004, after the performance of “Impression • Liu Sanjie”, the total income of Yangshuo tourism had grown rapidly. By 2009, Yangshuo’s total tourism revenue had reached 0.32 billion Euros, 10 times that of 2003.

4.6.1.2 Enhancing the image of the place

The “Impression • Liu Sanjie” project has played a great role in shaping the overall tourism image of Yangshuo. First of all, in terms of media attention, “Impression • Liu Sanjie” had received much attention since the project preparation stage; and the great success of its performance on March 20, 2004 attracted more media attention. After its performance, The audience responded strongly and the media actively promoted the image, which made the

image status and popularity of the entire Yangshuo improved. Secondly, the performance of “Impression • Liu Sanjie” also aroused great concern of local residents. Many people began to use the words “Impression” and “Liu Sanjie”, and the shops related to these terms could be seen in the streets and lanes. Especially some restaurants and souvenir shops whose tourists came from other places could enhance the influence of their stores through the popularity of Impression • Liu Sanjie. Thirdly, after the “Impression • Liu Sanjie” was born, because of its operation mode with the travel agency, “Impression • Liu Sanjie” became an iconic tourism product of Yangshuo, which enhanced the image of Yangshuo’s overall tourist destination to a certain extent. Finally, the tourists’ evaluation of “Impression • Liu Sanjie” was generally high. Under the publicity of tourists, the image of Yangshuo’s tourist destination had been well publicized.

4.6.1.3 Pulling related industries

The successful operation of the “Impression • Liu Sanjie” project had greatly stimulated the development of local relevant industries and made great contributions to the increase in the total number of tourists in Yangshuo County. The number of tourists watching “Impression • Liu Sanjie” had increased steadily in recent years. Nearly 20% of Yangshuo tourists would go to watch “Impression • Liu Sanjie”. The “Impression • Liu Sanjie” had a significant effect on the amount of Yangshuo tourists. Due to the large multiplier effect of the tourism industry, the added tourists of “Impression • Liu Sanjie” would have consumer behavior in other related industries during the stay of Yangshuo, promoting the development of related industries. Guilin Tourism Bureau had included this project in the key tourism projects of the autonomous region and listed it as one of the mandatory projects for Guilin Tourism, which had once again led the tourism related service industries such as catering and transportation. In addition, “Impression • Liu Sanjie” also promoted the local tourism real estate. There was a plot called Yangshuo East Street outside the performance area. After the operation of the “Impression • Liu Sanjie” project, every night, the tourists entered the theater through East Street, therefore, the original ridiculous East Street opened bar restaurants, hotels, tourist souvenirs, snacks, becoming a new tourist consumption area in Yangshuo.

4.6.2 Impact on visitor behavior

4.6.2.1 Extended residence time

Under normal circumstances, most of the recreational activities were carried out during the day. Visitors were often free at night. The operation of the “Impression • Liu Sanjie” project, first of all, enriched the nightlife activities of tourists, so that tourists could also get a good travel experience. Secondly, because the “Impression • Liu Sanjie” was performing at night, many tourists who came to watch “Impression • Liu Sanjie” would choose to stay in Yangshuo for one day after watching the performance, which increased the number of overnight visitors in Yangshuo. Thirdly, the increase of overnight tourists had led to the development of Yangshuo’s accommodation industry. After the performance of “Impression • Liu Sanjie”, the number of Yangshuo hotel beds had increased to more than 10,000, an increase of nearly 70% in one year, and the number of tourist hotels had also increased from 181 in 2003 increased to 253 in 2004, an increase of nearly 40%. Fourth, in order to meet the increasing number of tourists with different needs, various family-style inns or hotels were constantly emerging. More and more team visitors had also extended their stay time in Yangshuo. Therefore, the “Impression • Liu Sanjie” , as a typical nighttime cultural product, had a great influence on the stay time of team tourists in Yangshuo.

4.6.2.2 Attracting foreign tourists

After 2004, Yangshuo had become increasingly mature in the development of the international tourism market. The “Impression • Liu Sanjie” had increasingly become a “gimmick” to promote Yangshuo, attracting overseas tourists to travel. Among the viewers of “Impression • Liu Sanjie”, there had a lot of foreign tourists. The “Impression • Liu Sanjie” as a tourism product with Yangzhou’s unique local cultural characteristics had become an important tourist content for many European and American tourists to come to China. It could attract about 90,000 foreign tourists every year, which increased the overall foreign exchange income of Yangshuo. To a certain extent, the image of Yangshuo’s international tourism destination had been shaped by the promotion of foreign tourists.

4.6.2.3 Increase travel expenses

According to the questionnaire survey of Yangshuo tourists in 2007 by the research group of the Tourism Development and Planning Research Center of Sun Yat-sen University, the total cost of the tourists in the “Impression • Liu Sanjie” was 246.62 Euros, and the average cost of purchasing the “Impression • Liu Sanjie” tickets was 28.00 Euros; the average cost of visitors who did not watch “Impression • Liu Sanjie” was 183.34 Euros. The consumption of tourists who chose to watch “Impression • Liu Sanjie” was obviously higher than that of tourists who did not watch “Impression • Liu Sanjie”.

4.6.2.4 Changing the structure of visitors

The performance of “Impression • Liu Sanjie” directly led to an increase in the number of staying days of tourists at home and abroad, and indirectly led to a decrease in backpackers at home and abroad. During the visit to the owners of West Street, many owners said that due to the performance of “Impression • Liu Sanjie”, the number of group tourists was too large, and the crowds were too dense, which made the atmosphere of leisure and relaxation in West Street change, so the overseas backpackers were reduced to some extent. In addition, the change in the structure of tourists had also led West Street owners to transform their stores into better economic benefits in order to maximize the benefits. The type of West Street shops had changed greatly since the “Impression • Liu Sanjie” was held. The textiles and crafts were leading to the coexistence of various types of hotels and bars.

4.6.3 Impact on surrounding communities

The “Impression • Liu Sanjie” had more than 750 performers, including more than 400 farmers, who came from 7 natural villages, including Mushan, Guanjia, Xiemo, Tianjiahe, Mushan, Baishawan and Maozishan. More than 2,700 people, including more than 200 people in the performance of the task of pulling red silk, fishing, flag raising, water ambulance and other tasks. The operation of “Impression • Liu Sanjie” project has had a great impact on the lives of local residents, especially neighboring residents, the project improved the residents’ income, improving residents’ quality and enhancing economic awareness.

4.6.3.1 Increase the income of residents

According to the person in charge of “Impression • Liu Sanjie”, the entire project has more than 750 cast members, including nearly 400 local farmers. Because the “Impression • Liu Sanjie” project development company ensured that each villager had the right to participate in tourism, a large number of local villagers were able to join the performance of “Impression • Liu Sanjie”. These farmers had different incomes due to different roles, and the per capita monthly income ranged from 132.38 Euros to 264.76 Euros. At present, the average monthly salary of an actor had reached more than 172.09 Euros. In addition to the salary paid by “Impression • Liu Sanjie”, local farmers also get extra income by starting catering and renting houses. Some villagers set up a small stall near the performance point of “Impression • Liu Sanjie”, selling small food, renting telescopes, raincoats and cotton coats, earning 6.6 thousands Euros per year. In the Tianjiahe Village near the water stage and stand of “Impression • Liu Sanjie”, each family has built a beautiful new building, each new building has 3 floors or 5 floors. Some villagers would also rent extra houses to the employees and tourists of “impression • Liu Sanjie”. A building can earn 2.6 thousands Euros to 4.0 thousands Euros per year. The “Impression • Liu Sanjie” greatly improved the income level of local villagers. In addition, the large-scale land acquisition activities carried out before the development of the impression also made many villagers in Tianjiahe Village gain huge economic benefits. The original land price of 529.51 Euros per mu was soared to 1251-2316 Euros per mu in 2007 due to the development of impressions.

4.6.3.2 Improve the quality of residents

The “Impression • Liu Sanjie” project recruited a large number of local residents to regulate and manage according to law, such as signing labor contracts with farmers participating in the performance, paying them wages, buying insurance for them, examining their working quality. These measures had changed the traditional ideas of farmers, and improved the quality of farmers. In addition, with the establishment of the “Zhang Yimou Art School”, the poor children with artistic literacy in Guangxi minority areas had been trained in professional art. The exemption from tuition and fees was from 52.95 Euros to 132.38 Euros. More than 500 job opportunities had been added to the local area, and education

responsibility had also been taken to improve the quality of poor children.

4.6.3.3 Enhance economic awareness

After the “Impression • Liu Sanjie” project began, many farmers’ original cultivated land was requisitioned by the project, and the farmers’ economic behavior began to change from farming to business, and the residents’ economic awareness was enhanced. However, in the process, due to the excessive attention to tourism revenue, some problems have arisen, such as xenophobic behavior and irregular behavior. The villagers’ collective management awareness has been enhanced. For example, the rental of telescopes at the entrance of the Impression Scenic Area and the sale of tourism products are managed by the second team of Tianjia Village. Each household adopts the principle of distribution according to work to extract income. However, there have been obvious exclusions. In order to ensure the interests of their own brigade, there has been a partial monopoly in the tourism business near the tourism performing arts products. It can be seen that under the strong interests, the villagers’ economic awareness is rising. However, only orderly guidance and effective regulation can transform this economic consciousness into a continuous driving force for local tourism and economic development.

4.6.4 Summary

In general, the operation of the “Impression • Liu Sanjie” project has had a great impact on the development of Yangshuo tourism, increasing the local finance of Yangshuo, promoting the steady growth of Yangshuo’s total tourism revenue, enhancing the local image of Yangshuo and stimulating the development related industries. For tourists, it enriches the tourists’ night-time amusement activities, prolongs the tourists’ stay time, increases the tourists’ travel expenses, and changes the previous visitor structure to a certain extent, resulting in a decrease in the proportion of foreign FITs, and the proportion of popular tourists at home has increased. For neighboring residents, the operation of “Impression • Liu Sanjie” has greatly improved the income of residents, improved the lives of residents, and improved the quality of residents to a certain extent, but at the same time, with the economic awareness of residents, some violations and unfair competition also arise.

Chapter 5: Conclusion and Discussion

From small cities in the southwest to international famous tourist cities, from traditional mountain sightseeing destinations to international tourist destinations, in just over 30 years, the tourism industry in Guilin has undergone earth-shaking changes. Especially after 2000, Guilin's tourism industry cluster has begun to take shape under the successive development of a series of innovative tourism products such as "Two Rivers and Four Lakes" and "Impression • Liu Sanjie" in Guilin. The cluster experienced a journey from government drive to multi-stakeholder drive. The interest orientation shifts from political interests to economic interests, and then from economic interests to the stage of combining economic interests, social interests and environmental interests. Tourism development has also evolved from a single landscape of Guilin to a multi-faceted attraction. Tourism develops from a single quantity to a quality (Huang, 2008; Jiang, 2017; Liu, 2018).

From the perspective of its development process, the reason why the Guilin's tourism industry cluster has always been at the forefront of China's tourism cities, namely the "Guilin model", is mainly reflected in the government's overall efforts to pool various resources. The government began to pay attention to human relations earlier. The construction of various tourism systems in Guilin has always been at the forefront of China's tourism, and has been continuously promoted into various innovative tourism products. The various stages and achievements achieved in this process are the unique experiences of Guilin, which played a demonstration role in China's tourist cities. Therefore, it is very important to study the role of Guilin's tourism industry cluster in economic and social development, which has very good reference and guiding value for the development of other tourist cities (Liu & Yang, 2011; Huang & Coelho, 2017).

5.1 Conclusion

Firstly, according to the different driving forces of the industrial cluster life cycle stage, Guilin's tourism industry cluster can be divided into semi-open stage, slow development stage, stable development stage and rapid development stage. Guilin's tourism industry clusters have different dynamic mechanisms at different stages of their life cycle.

(1) The first stage of the Guilin tourism industry cluster is a semi-open stage. The characteristics of this period are mainly political reception and sightseeing. Guilin's tourism during this period was completely controlled by the government. The government rules everything in Guilin's Tourism. The government's operation of tourism mainly uses the original natural and humanistic tourism resources. Guilin's tourism is closely attached to the government's opening up policy and political development process. Therefore, various conflicts of interest are almost extinct in the construction of the tourism industry cluster dominated by the government.

(2) The second stage of Guilin tourism industry cluster is a slow development stage. During this period, Guilin's tourism was gradually introduced with the factors of marketization, which changed the situation completely dominated by the government. Tourism companies were slowly entering the people's field of vision and are beginning to cooperate with the government for tourism development. Tourists and local residents are still in a neglected position. They played a small role. The government was still in a strong position in the construction of tourism industry clusters. Tourism enterprises only cooperate with the construction of the government's tourism industry cluster, and benefit from it. During this period, the conflicts of interest from the construction of tourism industry clusters have begun to appear, but they are still not common.

(3) The third stage of Guilin's tourism industry cluster is a stable development stage. During this period, it is mainly economic interests to link the various stakeholders in the Guilin's tourism industry cluster. The Guilin Municipal Government has begun to realize that the massive increase in passenger flow will have some adverse effects on the environment. The

government has begun to promote the development model of Guilin's tourism from natural tourism to multicultural reform, from the simple use of resources in the past to the development and management of resources.

(4) The fourth stage of Guilin's tourism industry cluster is a rapid development stage. During this period, the advantages of various production factors of the Guilin's tourism industry cluster were fully reflected, and market demand is stable. The cluster is stimulated by appropriate government regulation and development opportunities under the conditions of market economy. The government began to pay attention to the ecological environment. The environmental awareness of tourism companies, tourists and residents is increasing. Their influence on the government is growing. Guilin tourism has shifted from being attached to political interests to focusing on economic interests, and gradually shifting to multiple interests. Guilin Tourism realizes the coexistence of economic benefits, social interests and environmental interests. Guilin's Tourism Cluster has realized a transition from a simple quantitative product to a quality product, realizing the development from a low level to a high level.

Secondly, the impact of tourism industry clusters on the economy and society is very significant.

(1) From the analysis of tourists, the overall satisfaction evaluation of other countries' tourists is higher than that of China's tourists. there are many reasons. Although Guilin's hardware support needs to be upgraded, the scenic area is overcrowded, and the environment needs to be rectified, the foreign tourists' Guilin tourism experience is better. It is mainly due to that natural landscapes, accommodation services and the human environment bring a good experience to other countries' tourists. In contrast, due to China's vast land and natural scenery, many tourists who have come to Guilin have already visited similar landscape tourism destinations. When evaluating overall satisfaction, China's tourists will compare and finally give a relatively conservative evaluation. Therefore, the satisfaction of China's tourists will be lower than that of other countries' tourists as a whole.

(2) From the analysis of local residents, in general, the perception of the economic and social impact of tourism industry clusters by Guilin residents is more objective and true, and

has two sides. The data is mainly concentrated on the two options of “agree” and “strongly agree”. This reflects that local residents have a clear perception of the positive and negative impacts of tourism development on the economy. This shows that in the eyes of local residents, tourism is a “double-edged sword” for economic development. They have affirmed the role of tourism in economic development, and expressed dissatisfaction and concern about rising prices and rising housing prices brought by tourism.

5.2 Implication

(1) Guilin tourism should clarify the development speed and scale of development, and adapt to the carrying capacity.

Guilin has quality tourism resources. Its landscape tourism resources are world famous. Nearly 100 million visitors come here every year, and this number continues to increase. This poses a certain challenge to the tourism environment and capacity in Guilin. In addition to the need to develop a broader tourist attraction to meet the growing market space, the government must also clarify the development speed and scale of tourism to be compatible with the carrying capacity of Guilin tourism. Guilin needs to formulate a scientific and rational development plan, avoid blindly pursuing the mode of economic benefit development, improve the awareness of the protection of the ecological environment, and ensure the orderly development of the Guilin’s tourism industry cluster. While vigorously promoting the development of the Guilin’s tourism industry cluster, Guilin must rationally develop and utilize various tourism resources, promote eco-tourism, and protect the natural environment of the scenic spot. At the same time, the government should carry out ecological education for the majority of tourists, enhance the tourists’ own quality and protect the ecological environment of the scenic spot, so as to promote the sustainable development of Guilin’s tourism industry cluster, and realize the construction of Guilin's international tourist destination at an early date.

(2) Guilin should accelerate the development of tourism industry clusters from “scenic tourism” to “regional-wide tourism”.

Promoting regional-wide tourism is a new strategy for China's tourism development under the background of new economic and social development. As an international tourist destination, Guilin should take the initiative to adapt to this new change and strategic positioning, and assume the heavy responsibility of leading the development trend of China's tourism. In order to obtain comprehensive and sustainable development, Guilin tourism industry cluster must change from scenic tourism mode to regional-wide tourism mode, from traditional tourism to modern tourism, from small tourism to large tourism. The local government should take the initiative to remove obstacles that hinder the free flow of tourism elements inside and outside the region, inside and outside the industry, inside and outside the region, and actively promote the optimal allocation of tourism elements in the whole domain. Guilin should realize the transformation of tourism ticket economy to tourism industrial economy, and upgrade the extensive and inefficient tourism economy to a precise and efficient tourism sustainable development. In addition, the system in which the tour guide was used to be appointed by the travel agency should be transformed into a system in which the tour guide is open to the industry and the survival of the fittest. The government's multi-sectoral management system should be transformed into a modern governance system in which all the people participate together to build, co-go, and share. The internal management mode of tourism scenic spots should be transformed into an open tourism governance model. The tourist reception of the scenic spot should turn to the full range, multi-class and high-level experience of the tourists within the whole area. These measures can further release tourism productivity, improve tourist satisfaction and increase the total factor productivity of tourism.

(3) Guilin should deeply explore the Guilin tourism big data report and explore the customized tourism of different target groups in a wide range.

In August 2018, the Guilin Tourism Development Committee that was established at the end of last year released the "Guilin Tourism Big Data Report for the First Half of 2018" for the first time. The report uses modern data collection technology to capture tourism big data, which marks that Guilin's tourism has entered the era of big data analysis. The data covers more than 20 million pieces of information on the six major elements of tourism technology such as

accommodation data, tour guide data, traffic data, and public opinion data. It has built 13 categories of data information bases and data sharing exchange platforms, and has implemented functions such as data exchange, statistics and early warning. On this basis, the Guilin Municipal Government can deepen the tourism big data and lock in the four main dimensions of time, place, budget and theme of tourists, and explore and try to fully understand customer needs based on big data algorithms. Guilin can carry out customized tourism according to the needs of different target groups in a large scale, use data to accurately target groups and promote the upgrading of Guilin's tourism industry cluster.

(4) Vigorously carrying out “tourism +” and leading the new development of tourism in Guilin

After decades of development, the Guilin tourism industry clusters has reached a very mature state. In order to obtain further development in the future, Guilin's tourism industry cluster cannot be based on tourism and stay on the basis of single tourism development. The breakthrough point of Guilin's tourism industry cluster lies in the development of “tourism+” and the transformation of Guilin's tourism development. “Tourism+” can give full play to the characteristics of strong tourism linkage and strong demand. Tourism can provide a development platform for related industries and fields. “Tourism +” can not only effectively play the role of the tourism industry, but also expand the development space of the tourism industry and promote the transformation and upgrading of the tourism industry cluster.

On the one hand, Guilin can develop “tourism + exhibition”. In 2007, the first United Nations World Tourism Organization and Asia Pacific Tourism Association Tourism Trends and Research Conference was held in Guilin. At the third international forum held in 2009, Guilin was identified as the permanent venue of the international forum by the United Nations World Tourism Organization. Guilin has hosted the International Tourism Forum for 11 consecutive years. Guilin has become an important research center for world tourism and the venue for international tourism conferences. This provides a very good opportunity for the development of the Guilin tourism industry cluster. Guilin can continue to vigorously develop tourism + exhibition economy.

On the other hand, Guilin can develop “tourism + leisure vacation”. The proportion of Chinese tourists traveling by car has reached more than 70%. Especially in the range of 500 km, the proportion of self-driving tour is higher. Guilin is close to economically developed

areas such as Guangdong, Hong Kong and Macao. The proportion of these tourist sources coming to Guilin is very high. This was confirmed again in the Guilin Tourism Big Data Report in the first half of 2018. The top four in Guilin's self-driving tour are Shenzhen, Guangzhou, Dongguan, and Foshan, with the top three rankings accounting for nearly 20%. The State Council issued the "Several Opinions on Further Promoting Tourism Investment and Consumption", proposing to encourage peak vacations and flexible work and rest. Domestic residents' tourism consumption demand would show explosive growth. It can also be seen from the Guilin Tourism Big Data Report in the first half of 2018 that the purpose of coming to Guilin is mainly for leisure and sightseeing. The sum of the two accounts for an overall proportion of 63.04%. Therefore, Guilin should take advantage of this opportunity in the consumer market to promote leisure tourism products, accelerate the construction of urban leisure areas, expand urban leisure and holiday space, and realize the industrial development model of "tourism + leisure vacation".

(5) Accelerating the pace of transformation and upgrading of tourism industry, deepening the development of tourism culture

Culture is the soul of tourism, tourism is the carrier of culture. Guilin is famous for its landscapes. Guilin also has unique cultural resources (Jingjiang Wangfu Tomb, Liu Sanjie Culture, Guilin Beilin Culture, Anti-Japanese war culture, Lingqu ancient water culture and Gui Opera Performing Arts Culture). Tourism and culture have always been intermingled. A culture without tourism is a culture that is difficult to create a complete value chain. In today's new era, especially as people's spiritual needs grow, the number of tourists continues to grow rapidly. Culture has become an important pillar of the tourism economy and the spiritual pillar that governs tourism activities. Relying on the historical and cultural resources full of regional characteristics, Guilin should adhere to the integration of culture and tourism, and integrate the cultural connotation into the whole process of tourism to realize the unification of tourism forms and cultural contents. The practical experience of the development of a large number of tourist cities shows that the higher the integration of tourism and culture, the more popular tourist products are, and the more developed the tourism economy. Therefore, Guilin should deepen the integration of culture and tourism, highlighting the characteristics of Guilin tourism products, and thus continuously enhance the competitiveness and attractiveness of Guilin. The image of Guilin's tourism products should

be upgraded from “Guilin landscape is the best in the world” to “Totem’s Guilin, the home of the soul”.

(6) Actively promoting the construction of the greater Guilin tourism circle

Guilin is located at the junction of the three provinces of Guangxi, Hunan and Guizhou. The surrounding area is also rich in tourism resources, and there are many scenic spots featuring landscapes. However, the popularity of these scenic spots is generally low. As a famous international tourism city, Guilin can promote the development of tourism resources and tourism industries in the surrounding areas, thus expanding the development space of Guilin tourism industry cluster and promoting the construction of the Greater Guilin Tourism Circle. In the Guangxi Zhuang Autonomous Region, Guilin can cooperate with its surrounding Liuzhou, Laibin, Wuzhou and Hezhou to create a tourism circle characterized by mountains and rivers. Guilin can also strengthen cooperation with Beibu Gulf cities such as Beihai, and work together to create a “Guangxi Tourism City Tour”. Outside the Guangxi Zhuang Autonomous Region, Guilin can cooperate with neighboring Hunan Shaoyang, Huaihua and Yongzhou, as well as Guizhou’s southeastern and southern minorities, to create a “Xiang, Qian and Gui ethnic customs tour”. At the same time, Guilin can also cooperate with the Pearl River Delta, which is a little farther away, to promote the “Lingnan Cultural City Tour”. Guilin can also consider cooperation with countries such as ASEAN, especially Vietnam, to create a “Guilin-ASEAN landscape and exotic scenery tour”. These measures can achieve complementary resources, brand building, and intercommunication, accelerate the transformation of Guilin to China’s important tourism distribution centers, and promote the construction of Guilin’s tourism circle.

(7) Holding a tourism hearing to improve the right of local residents to participate in tourism

It is necessary to let tourism participation become the right that every resident should have. The government should mobilize the enthusiasm of local residents to participate in the construction of tourism industry clusters. The government should hold a tourism hearing in due course, communicate well with local residents, listen to the opinions of local residents in a timely manner, and strengthen the participation and organization of residents. The government

should regard local residents as partners and ensure residents' participation in tourism product design and tourism planning to ensure the interests of vulnerable groups. The government should timely monitor and adjust the adverse effects brought by the development of tourism. The government should enhance the right of local residents to participate in tourism in terms of policy and organizational structure, and avoid the phenomenon of residents' exclusion due to the construction of Guilin's tourism industry cluster. The government should combine the construction of the Guilin' tourism industry cluster with its economic interests, social interests and environmental interests, so that local residents fully understand the special significance of protecting the environment and resources. The government should standardize the ways and behaviors of participating in the use of resources by all stakeholders, share benefits fairly, and increase residents' participation.

5.3 Research limitations and further research

Based on the relevant literatures at home and abroad, this thesis combines the macroscopic research and microscopic research of Guilin's tourism industry clusters in different time horizons to study the role of Guilin's tourism industry clusters on economic and social development. However, due to the reasons of data and space, there are still some problems in this study that need to be further explored.

Due to the limitation of statistical data, the analysis of the impact of the entire Guilin's tourism industry cluster on GDP and fiscal revenue can only be based on the limited data obtained. This makes some studies fail to expand more deeply. In particular, the impact of tourism industry clusters on urban renewal and investment attraction has not been deeply analyzed. Therefore, on the basis of supplementing existing data in the future, it is best to quantitatively analyze the role of tourism industry clusters in attracting investment in Guilin, so as to better reflect the role of Guilin's tourism industry clusters in optimizing industrial structure.

The impact of tourism industry clusters on society is extremely complicated. This thesis is more about studying from the changes of various concepts, ignoring the cultural factors. In the

actual situation, it is also necessary to consider the impact of tourism industry clusters on local cultural customs. These may affect every aspect of the lives of local people. At the same time, there may be differences in the impact of tourism industry clusters on social customs in different periods. Research in this area also needs to be further supplemented and improved.

This thesis constructs a theoretical analysis framework for the diamond model of the Guilin tourism industry cluster constructed by the government, tourism product or service provider, tourists and local residents, and analyzes the role of these actors in the tourism industry cluster. However, this thesis does not notice that public opinion (media and scholars) is also increasingly affecting the tourism industry cluster. Guilin once had the attention of the media caused by the black tour guide event, and finally affected the Guilin Municipal Government to issue a series of related policies. Therefore, broadening the research scope of stakeholders in the tourism industry cluster and paying attention to the interaction between various actors will further improve the theoretical analysis framework.

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Appendix I

Questionnaire number:

Questionnaire on the relationship between tourism industry clusters and economic and social development (For Tourists)

Questionnaire explanation:

Dear ladies and gentlemen:

Hello! Welcome to Guilin! We are conducting a survey on the tourism industry cluster in Guilin. Please ask for your valuable time to help fill out this questionnaire. We believe that the valuable advice you provide can help Guilin's tourism industry cluster development and social and economic development. Please believe that this survey is anonymous. The questionnaire you filled out will be kept strictly confidential. Therefore, I hope that you can answer according to your true feelings, and hit "√" in the box before the appropriate answer. Thank you very much for your support and cooperation! I wish you a pleasant journey!

1. where are you from?

China

Guangxi

South China

(Guangdong, Fujiang,
Jiangxi, Hunan)

East China (Jiangsu,

Zhejiang, Shanghai,
Anhui,Hubei)

North China

(Beijing, Tianjin,
Hebei, Neimenggu,
Henan, Shandong)

Northeast

(Heilongjiang, Jilin,
Liaoning)

Northwest

(Shanxi,Gansu,
Ningxia, Qinghai,
Xinjiang)

Overseas

Southeast Asia

North America

Australia

East Asia

Europe

Others

2. Gender: Male

Female

3. Age

- under 18 years old 18~24 years old 25~34 years old
 35~44 years old 45~60 years old Over 61 years old

4. Career

- National public official Corporate employee Freelancer
 Farmer Others

5. Education

- Junior high school and below High school University
 Graduate and above

6. Income

- Under 3000 yuan 3001-6000 yuan 6001-9000 yuan
 9001-12000 yuan Over 12001 yuan

7 The purpose of this tour is to:

- Sightseeing Leisure vacation Business activity
 Visit friends Photography Meeting inspection
 Experience local food culture Others

8 How much days are you planning to stay in Guilin?

- 1-3 days 4-6 days 7-15 days
 Over 16 days

9. What is your budget for Guilin Tourism? (unit: RMB)

- Under 2000 yuan 2001~4000 yuan 4001~6000 yuan
 6001~8000 yuan 8001~10000 yuan Over 10000 yuan

10. What is your overall impression of Guilin tourism?

- very good good general
 bad very bad

Questionnaire number:

**Questionnaire on the relationship between tourism industry clusters
and economic and social development (For Residents)**

Questionnaire explanation:

Dear ladies and gentlemen:

Hello! Welcome to Guilin! We are conducting a survey on the tourism industry cluster in Guilin. Please ask for your valuable time to help fill out this questionnaire. We believe that the valuable advice you provide can help Guilin’s tourism industry cluster development and social and economic development. Please believe that this survey is anonymous. The questionnaire you filled out will be kept strictly confidential. Therefore, I hope that you can answer according to your true feelings

Please “√” on the options you think are appropriate based on your awareness and satisfaction with the impact of Guilin’s tourism development.

		strongly disagree	disagree	No effect	agree	Very much agree
A	Tourism is good for our local development	1	2	3	4	5
B	I can benefit from the tourism industry.	1	2	3	4	5
The impact of tourism on the local economy						
C1	How satisfied are you with the development of Guilin tourism?	1	2	3	4	5
	Do you support the continued development of tourism in Guilin?	1	2	3	4	5
	I am satisfied with my income situation.	1	2	3	4	5
	Tourism attracts more investment and consumption	1	2	3	4	5
	Tourism leads to rising prices	1	2	3	4	5
	Tourism leads to an increase in housing prices	1	2	3	4	5
	Tourism has greatly improved living standards	1	2	3	4	5
	Tourism development has increased my economic income	1	2	3	4	5
	Local economic income increases compared to pre-tourism	1	2	3	4	5

	Travel only benefits a few people	1	2	3	4	5
The impact of tourism on local social culture						
C2	Tourism has led to an increase in crime rates	1	2	3	4	5
	Tourists disrupted our original life	1	2	3	4	5
	Tourism promotes social culture	1	2	3	4	5
	The impact of tourism on morality	1	2	3	4	5
	Tourism enhances local pride and belonging	1	2	3	4	5
	Tourism development brings more job opportunities	1	2	3	4	5
	Tourism has changed the traditional concept	1	2	3	4	5
	Tourism improves environmental awareness	1	2	3	4	5
	Tourism strengthens residents' willingness to participate in tourism	1	2	3	4	5

The following is your personal situation. We will use this as a basis for classification research.. Please fill in. We will keep you secret.

1. Gender: A. Male B. Female
2. Nationality: _____ nation
3. Age:
 - A. Under 15years old
 - B. 15-24 years old
 - C. 25-44 years old
 - D. 45-60 years old
 - D. Over 60 years old
4. Your place of residence: _____ Town, _____ Village
5. Education:
 - A. Elementary school and below
 - B. Junior high school
 - C. High school or secondary school
 - D. University

E. Master degree and above

6. Do you usually have the habit of learning English?

A. Yes B. No

7. Your work_____ Your work belongs to:_____

A. full time B. part time. Your time of employment:_____years_____ months. Your place of employment_____

8. Your monthly income:

A. Under 1000 yuan B. 1001—2000 yuan C. 2001—3000 yuan

D. 3001—5000 yuan E. 5000—10000 yuan F. Over10000 yuan

9. Your annual household income: yuan

(Your annual income as a percentage of total household income: %)

10. Your local residence time:

A. Under 1 year B. 1—3 years C. 4—6 years D. 7—10 year E.

Over 10 years

11. How satisfied are you with the development of Guilin tourism?

A. Very dissatisfied

B. Dissatisfied

C. Nowhere

D. Satisfied

E. Very satisfied

12. Do you support the continued development of tourism in Guilin?

A. Very opposed

B. Opposed

C. Nowhere

D. Support

E. Very support

Appendix II

Depth Interview

I . The Development Path of Guilin Tourism Industry Cluster

- (1) What stages do you think that the development of Guilin industrial cluster has gone through? What are the outstanding features of each stage?
- (2) What are the most impressive things you feel in Guilin during your career?
- (3) What are the main factors affecting the development of Guilin's tourism industry cluster? How did you face these problems at the time?
- (4) What do you think is the biggest innovation or breakthrough made by the government in the development path of Guilin industrial cluster?
- (5) Do you have any suggestions or opinions on the development of Guilin tourism industry at this stage?

II. The Relationship between the Development of Tourism Industry Clusters and Local Economic and Social Development

- (1) What changes do you think have the flow of tourists to Guilin in recent years?
- (2) From the perspective of outsiders/locals, what stage do you think Guilin Tourism is at? What is unique about it compared to other famous tourist attractions in China?
- (3) What is the difference about the natural scenery of Guilin between your memory and the present? Do you think if the natural scenery of Guilin is negatively affected by the development of the tourism industry?
- (4) What impact do you think the development of tourism industry in Guilin has on the development of Guilin's economy?
- (5) From what year did you think that the income growth of this industry was particularly fast?
- (6) When the government formulates tourism planning, will it listen to your opinions (tourism practitioners, experts and scholars, citizens)?

(7) What do you think of the over-exploitation of scenic spots?

III. Suggestion

(1) what do you think is the biggest problem in Guilin tourism?

(2) What problems do you think does it have in the development of Guilin tourism industry cluster? Which improvements does it need to make?

(3) What improvements do you hope the participants of the Guilin Tourism Industry Cluster (government, tourism practitioners, experts and scholars, citizens) will make in the future development of Guilin industrial clusters and regional economic and social development process?

Appendix III

A-level scenic spot list of Guilin (59)

Grade	Number	Tourist attraction name	Approval time	Approval number
5A (four)	1	Guilin Lijiang Scenic Area	May 8, 2007	National A Judges Announcement No. 2 of 2007
	2	Guilin Lemandi Leisure World	May 8, 2007	National A Judges Announcement No. 2 of 2007
	3	Guilin Duxiufeng· Wangcheng Scenic Area	November.6, 2012	National A Judges Announcement No. 11 of 2012
	4	Guilin Two River Four Lakes·Elephant Mountain Scenic Area	February, 2017	National A Judges Announcement No. 1 of 2017
4A (25)	5	Seven Star Scenic Area	January.1, 2001	National Tourism Administration (Tourism Office [2001] No. 20)
	6	Reed Flute Scenic Area	January.1, 2001	National Tourism Administration (Tourism Office [2001] No. 20)
	7	Guilin Xanadu Tourist Area	January.1, 2001	National Tourism Administration (Tourism Office [2001] No. 20)

8	Guilin Guanyan Scenic Area	February 20, 2002	National Tourism Administration Announcement No. 18
9	Guilin Yuzi Paradise Art Park	December.25, 2003	National Tourism Administration Announcement No. 14
10	Guilin Yinziyan Tourist Resort	December.22, 2005	National A Judge Announcement No. 1 of 2005
11	Guilin Gudong Waterfall Scenic Area	October .23, 2006	National Tourism Administration (Tourism Issued [2006] No. 73)
12	Xing'an Lingqu Scenic Area	October .23, 2006	National Tourism Administration (Tourism Issued [2006] No. 73)
13	Guilin Fengyuyan Tourist Resort	April. 30, 2008	National Tourism Administration (Tourism Issued [2008] No. 19)
14	Guilin Longsheng spa Resort	April. 30, 2008	National Tourism Administration (Tourism Issued [2008] No. 19)
15	Guilin Chuan Mountain Scenic Area	April. 30, 2008	National Tourism Administration (Tourism Issued [2008] No. 19)
16	Guilin Yao Mountain Scenic Area	January.23, 2009	National A Judges Announcement No. 1 of 2009
17	Lipu Lijiangwan Scenic Area	January.23, 2009	National A Judges Announcement No. 1 of 2009

18	Guilin Yijiangyuan Scenic Area	December.30, 2009	National A Judges Announcement No. 5 of 2009
19	Guilin Tuteng Ancient Road - Julongtan Scenic Area	December.30, 2009	National A Judges Announcement No. 5 of 2009
20	Jinzhong Mountain Scenic Area	December.21, 2010	National Tourism Administration (Tourism Issued [2010] No. 92)
21	Nanxi Mountain Scenic Area	December.21, 2010	National Tourism Administration (Tourism Issued [2010] No. 92)
22	Longji Rice Terraces Scenic Area	December.21, 2010	National Tourism Administration (Tourism Issued [2010] No. 92)
23	Guilin Classic Liu Sanjie Daguanyuan Scenic Area	August.14, 2012	Announcement of the National Tourism Scenic Area Quality Rating Committee (No. 6 of 2012)
24	Guilin Butterfly Spring Scenic Area	January.29, 2013	Announcement of the National Tourism Scenic Area Quality Rating Committee (No. 2 of 2013)
25	West Mountain Scenic Area	July.15, 2013	Announcement of the National Tourism Scenic Area Quality Rating Committee (No. 3 of 2013)

	26	Guilin Luoshan Lake·Maya Water Park Scenic Area	December.2, 2014	Gui Tourism Office [2014] No. 281 Guangxi Tourism Development Committee Announcement
	27	Guilin Xiaoyao Lake	December.2, 2014	Gui Tourism Office [2014] No. 281 Guangxi Tourism Development Committee Announcement
3A (30)	28	Guilin Cat Mountain Scenic Area	. December.2, 2014	Gui Tourism Office [2015] No. 368 Guangxi Tourism Development Committee Announcement (No. 3)
	29	Guilin West Street	December, 2017.	Autonomous Region No. 3, 2017
	30	Guilin Zijiang Scenic Area	October.25, 2001	National Tourism Administration Announcement No. 20
	31	Lingui Twelve Beaches Drifting Scenic Area	December.18, 2007	Gui Tourism [2007] No. 156
	32	Guilin Jianshan Temple Scenic Area	December.29, 2008	Gui Tourism [2008] No. 181
	33	Lipu Tianhe Waterfall Scenic Area	December.29, 2008	Gui Tourism [2008] No. 181
	34	Lingchuan Longmen Waterfall Scenic Area	December.23, 2009	Gui Tourism [2009] No. 184
	35	Pingle Xianjia Spa Scenic Area	December.23, 2009	Gui Tourism [2009] No. 184

36	Ziyuan Bajiaozhai Scenic Area	February14, 2012	Gui Tourism [2012] No. 21
37	Guilin Hongyan Scenic Area	February14, 2012	Gui Tourism [2012] No. 21
38	Three Temples & One Pavilion Scenic Area in Gongcheng County	December.30, 2012	Gui Tourism Office [2012] No. 329 Guangxi Announcement (No. 3, 2012)
39	Jiangtou Scenic Area	December.30, 2013	Gui Tourism Office [2013] No. 265 Guangxi Announcement
40	Snake King Li Scenic Area	December.30, 2013	Gui Tourism Office [2013] No. 265 Guangxi Announcement
41	Guilin Luyuan Scenic Area	December.15, 2014	City Tourism Office [2013] No.102
42	Xiangjiang Campaign Memorial Park of Red Army Long March in Xing'an County, Guilin	December.15, 2014	City Tourism Office [2014] No.102
43	Guilin Reed Flute Bloodstone Culture and Art Center	December.15, 2014	City Tourism Office [2014] No.102
44	Xiangshan Temple Scenic Area, Quanzhou County, Guilin	December.15, 2014	City Tourism Office [2014] No.102

45	Guilin Baimian Yao Village	October.14, 2015	City Tourism Issued [2015] No.77
46	Yijiangnan Chinese Red jade Culture Park	October.14, 2015	City Tourism Issued [2015] No.77
47	Guilin Chonghua Chinese Medicine Street	December.8, 2016	City Tourism Issued [2016] No.90
48	Yanjing Spa Area, Quanzhou County	December.8, 2016	City Tourism Issued [2016] No.90
49	Guilin Shenlong Water World Resort	January.9, 2012	National A Judges Announcement No. 1 of 2012
50	Wanfu Square·Leisure Travel City	November, 2017	City Tourism Evaluation [2017] No.1
51	Ma Ling Drumming Village National Customs Park, Lipu County	November, 2017	City Tourism Evaluation [2017] No.1
52	Lipu County Zhe Village Scenic Area	November, 2017	City Tourism Evaluation [2017] No.1
53	Lipu County Eling Temple Scenic Area	November, 2017	City Tourism Evaluation [2017] No.1
54	Ziyuan County Baoding Scenic Area	November, 2017	City Tourism Evaluation [2017] No.2

55	Zijiang Denggu Scenic Area	November, 2017	City Tourism Evaluation [2017] No.2
56	Tangdong Scenic Area	November, 2017	City Tourism Evaluation [2017] No.2
57	Lingshui Scenic Area, Lingchuan County	January, 2018	City Tourism Evaluation [2018] No.1
58	Fengshan Scenic Area, Yongfu County	January, 2018	City Tourism Evaluation [2018] No.1
59	Xiangshan District Dongqing Water Houses Scenic Area	January, 2018	City Tourism Evaluation [2018] No.1