Research on Endogenous Fixed Investment and Regional Tourism Growth Game based on Tourism Space Model of Monopolistic Competition

Zhenjie Liu

Doctor of Philosophy (PHD) Management, LimKoKwing University of Creative Technology, Cyberjaya, Selangor, 63000, Malaysia.

lzj.kevin@gmail.com

Abstract

The essential attribute of tourism space is to form a management system with monopoly characteristics in scenic spots. In the process of China's socialist economic development, there will be many problems in the process of monopoly investment construction in tourism scenic spots and regional tourism growth. Especially in the process of monopoly operation in scenic spots, the management structure should be rationally allocated, and the interest game mechanism should be established to constrain the endogenous fixed investment and regional tourism growth. Based on the theory of tourism space model, this paper takes the Quyuan hometown of 5A-level tourist scenic spot in Yichang City, Hubei Province in China as an example to explore the game of endogenous fixed investment and regional tourism growth in the process of monopoly competition in tourism scenic spots. The contradiction between them, and discussed the reasons for the formation, and then proposed a relevant solution to this contradiction.

Keywords

Monopolistic competition; Tourism space; Fixed investment.

1. Introduction

The monopolistic competition business model of tourism scenic spots refers to the management qualifications for the uniqueness and scarcity of scenic spots resources. According to the characteristics of tourism resources, people are no strangers to monopoly operations in tourist attractions. This is also an important space carrier for the smooth development of monopoly operations in the scenic spot. Only the healthy and orderly development of tourist attractions can achieve sustainable development. Therefore, it is crucial to study the endogenous fixed investment and regional tourism growth game of tourism scenic area business model. At present, the theoretical research and practice of the monopoly business operation mode in the tourist scenic spot is falling into a game dilemma. In the field of theoretical research, whether the monopoly operation right in the tourist scenic spot needs investment, and the regional tourism growth and other issues have caused widespread controversy. People pay attention to how to deal with the game of endogenous fixed investment and regional tourism growth. Based on the monopolistic competition, the tourism space is analyzed, and the corresponding spatial model is established to explore the channel price strategy under the influence of the scenic spot, which provides a scientific basis for the fixed investment decision of the monopoly operation of the scenic spot, thus providing other scholars with research on the tourism growth strategy of the tourist scenic spot. Exploratory research ideas and research methods.

2. Tourism scenic area monopoly competition

The tourism scenic area business model refers to the rational use of the resources of the scenic spot, according to the characteristics of the tourism resources, the rational allocation of the property rights

structure in the process of scenic resources management, and the establishment of a mechanism for balancing interests, and the rights, responsibilities and interests of all parties. A way of constraining. In fact, tourist attractions generally adopt unique operations and are operated by a specific operator. However, with the rapid development of China's economy, with the rapid development of the China economy, the competition between the tourism industry and the industry. Increasingly fierce, in order to maintain its competitive advantage in tourism scenic spots, more resources need to be invested in its monopoly business operations, and investment decisions become more complicated and difficult. Modern tourism scenic area operations face the problem of how to make correct investment decisions under the influence of changing economic conditions and many uncertain factors. To scientifically make the optimal investment decision for investment projects operated in tourist attractions, it is inseparable from the scientific evaluation method of investment decision theory, which needs to discuss game theory, how to improve the level of fixed investment, and establish a reasonable fixed investment. The rapid law to promote regional tourism is an important issue that requires long-term attention in the operation of China scenic spots.

2.1 Development of China tourism scenic spot market

According to the website of the National Tourism Administration, the total tourism revenue of China in 2017 reached 5.97 trillion yuan, an increase of 15.1%. Among them, the tourist ticket income was about 1.5 trillion yuan, an increase of 27%. The number of China tourists was 5.01 billion, an increase of 12.8% over the same period of the previous year. The comprehensive contribution of national tourism operations to GDP was 9.13 trillion yuan, accounting for 11.04% of the total GDP. Direct tourism employment was 28.25 million, and direct and indirect employment of tourism was 79.9 million, accounting for 10.28% of the total employment population in the country. Although the income of tourist attractions in China is growing, the tickets for tourist attractions are even too low. For example, the tickets for the Great Wall and the Forbidden City have remained unchanged for many years, maintaining a low level. The lower ticket prices have always been the products of China's tourism products. One of the competitive advantages of the tourist attractions is the fixed income. Many tourist attractions in China generally adopt low-cost tourism strategies in the tourism trade. The increase in the internal profit growth of the scenic spot is to increase the investment in the scenic spot and the special operations in the contracted scenic spot. Right as an important way to increase the income of the scenic spot.

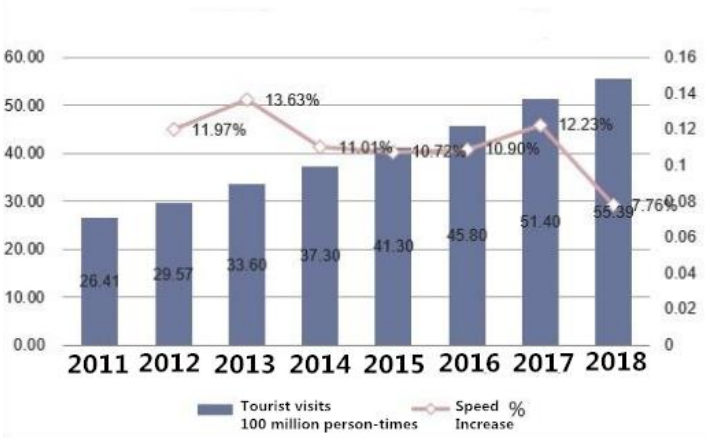

Fig. 1 2011-2018 Tourist attractions and growth rate

Among the tourism income, urban residents were 3.677 billion person-times, an increase of 15.1%; rural residents were 1.324 billion person-times, an increase of 6.8%. China tourism revenue was 4.57 trillion yuan, up 15.9% in the same period last year. Among them, urban residents spent 3.77 trillion yuan, an increase of 16.8%; rural residents spent 0.80 trillion yuan, an increase of 11.8%. Scenic tourism revenue shows a rapid growth trend.

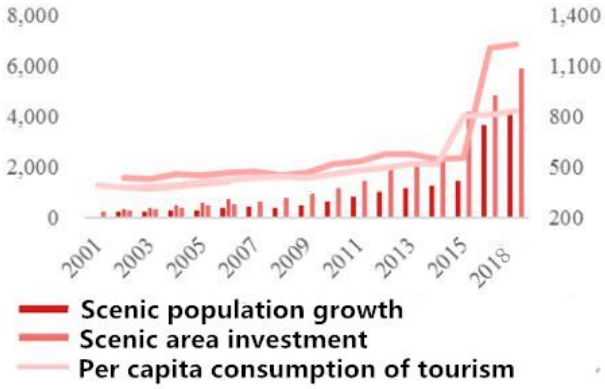

Fig. 2 2018 Analysis of the income of China's tourist attractions

2.2 The game relationship between fixed investment and regional tourism growth

There are fixed costs within the scenic spot and economies of scale in the tourism area. If you want to increase the scale of tourism fixed investment in one area, you must have sufficient market size and tourism income to digest the fixed cost of new investment to ensure the tourist scenic spot. Operating profit or zero profit, so that the fixed investment scale to maintain; and if the tourism income is not enough to digest new fixed costs, it will cause losses, business divestment in the scenic spots, resulting in the failure of additional fixed investment. On the contrary, if there is a market scale after the divestment in the tourist scenic area is still unable to digest all the fixed costs, the fixed investment will continue to decrease, and once the profit occurs, it will re-energize the enthusiasm of fixed investment, the amount of investment and the return of income. How to achieve a benign balance point and promote the problem of income balance, which requires the theory of game theory to study, and then model analysis.

It can be seen that whether the scale of the monopoly business market within the tourist scenic spot is enough to bring profit is the decisive factor for the change of fixed investment in tourism. And because in a closed tourist scenic space, the total market size of the tourism system (the sum of the budget constraints of tourists minus the cost of travel) is limited, the change in the scale of fixed investment in a region actually depends on Whether the regional tourism consumer market share is enough to digest the total fixed investment and bring profits.

In reality, the return on fixed investment in tourism is often reflected in the emergence of more distinctive tourism products and the improvement of the level of tourism reception. In fact, it is also an increase in the richness of tourism products. Therefore, it can be considered that the scale of fixed investment in a region actually determines the degree of diversity of tourism products.

In a dynamic process, from the beginning of tourism fixed investment to product diversity, market share, operating profit in the tourism scenic area, and finally back to the circular interaction process of tourism fixed investment. In all aspects of this process, the scale of tourism fixed investment, product diversity and market share are important variables to describe the development status of tourism economy in a region, and profit can effectively describe the survival status of many tourist attractions. In order to express the scale of tourism fixed investment, it also serves as an important regional industrial development indicator that describes regional tourism growth in the region. Figure 3 has clearly shown us the interactive mechanism of tourism fixed investment and regional tourism development, and also constitutes the content of game theory research.

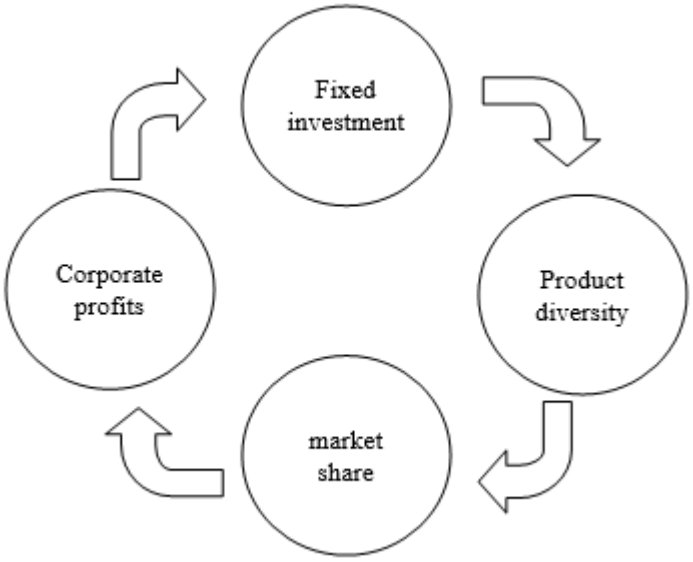

Fig. 3 Interactive map of tourism fixed investment and regional tourism development

2.3 Analysis of the Elements of Game Relationship Research

In reality, in order to better develop tourism management, tourist attractions often take the initiative to increase the fixed investment of tourist attractions through publicity, policy attraction and investment. In the game model, in the case of the outsourcing of the cost structure, the means to increase the fixed investment in the tourist scenic spot is to expand the total fixed investment through the entry of the new tourist scenic spot. In reality, it is expressed as the monopoly of the tourist scenic spot background. Operators or other various local marketing methods to attract more investment operators in the tourist attractions to enter.

Although the market share of fixed investment and tourism revenue has grown at a faster rate and reached equilibrium, the fixed investment scale and tourism market share at the time of equilibrium are still the same as before. That is to say, the development of tourist attractions has been accelerated, but in the end, it has not gained more income in the entire tourism monopoly system. Through a larger-scale short-term fixed investment, new operations will appear in the tourist attractions. As a result, although the market share of tourist attractions is growing, it is far from enough to absorb so many fixed costs. The operators in the tourist scenic spots have chosen to withdraw and withdraw after the loss. After the time has passed, they finally returned. And the same fixed investment scale of tourism is balanced, and its final market share is the same as and. Under the condition that the various parameters are unchanged, the scale of tourism fixed investment in a balanced state is certain. This scale is common to the total market demand, consumer preferences, market location and regional tourism development stage (reflected as cost structure). The decision is irrelevant to the initial strength of the short-term investment. At the same time, this equilibrium scale also determines the final market share that a tourist attraction can obtain when these exogenous factors are fixed (ie under relatively stable external conditions and internal product production structures).

3. Spatial model modeling analysis

The price of commodity products is an important factor affecting the investment of assets in tourist attractions. Changes in the price of products in the tourist attractions will lead to changes in the expected cash flow, and the uncertainty of product prices will directly affect the investment in tourist attractions. According to the discounted cash flow rule, when other conditions remain unchanged, the price of the product decreases, the expected cash flow is reduced, the net present value of the project decreases; the price of the product rises, the expected cash flow increases, and the net present value of the project increases. . In the closed scenic environment, the uncertainty of product prices and cost prices faced by monopolistic tourist attractions is also increasing, and investment decisions in tourist attractions are becoming more and more difficult.

Uncertainty in tourism technology, uncertainty in interest rates, exchange rates, and policy uncertainty will have an impact on asset investment in tourist attractions through the impact on cash flow or discount rate.

4. Empirical analysis of spatial game model

4.1 Sample selection

The selected location is the national AAAAA-level tourist scenic spot (5A) located in one of Maoping Town in China,where is called Zigui County. The hometown of Quyuan is the hometown of Qu Yuan,who is the famous Chinese poet. the great patriotic poet of the Chu State in the Warring States Period of China. One of the birthplaces. Quyuan's hometown scenic spot, the high-level Pinghu Lake has a panoramic view. At the same time, 24 Xiajiang ground cultural relics represented by Quyuan Temple and Jiangyin Temple were relocated here. In May 2006, it was announced by the State Council as the sixth batch of national key cultural relics protection units.

The reason for choosing to change the area as a sample is that the area is adjacent to the Three Gorges Dam and has a straight line distance of 600 meters. It covers an area of about 500 acres. The place is unique and remote, and the floor space is large enough to have the characteristics of the sample.

Fig. 4 National AAAAA-level tourist scenic spot (5A) - Qu Yuan's hometown in China

4.2 Game Model Analysis

Under the guidance of transformation and development, Yichang Zigui County has vigorously developed tourism. In 2018, Quyuan's hometown has received more than 9.5 million tourists in the past year, achieving a tourism income of 8.63 billion yuan, up 19.1% and 22.9% respectively. Tourism fixed assets investment completed 560 million yuan. As mentioned above, the monopoly operation includes the hotel facilities, entertainment facilities, shopping facilities and corresponding services in the scenic spot. The development and management methods can be carried out in two ways. One is to use A dedicated investment method.

This data is from the statistical report of the Yichang Tourism Bureau. First, check the accuracy of the data, consider the error in data entry, check the degree of change in tourism income data within 5 years of the scenic spot, remove the abnormally changing scenic spots, and secondly check whether the gap between the number of free tickets in each scenic spot and the actual number of people in the scenic spot is too large. If it is too large, it is necessary to remove the number of passengers from the passenger flow. Finally, according to the per capita expenditure of the scenic spot, the scenic spot tourism income per capita will be field visited and visited, and the data will be revised. The total income of the scenic spot includes catering, accommodation, transportation, tickets, merchandise, performing arts and other income in the scenic spot.

We assume that the investment amount of this input method is K, K>0. In order to ensure the investment of speciality, certain security protection measures can be taken, that is, a certain social capital owner can be authorized to monopolize the development and operation of monopoly operation for a long time, and the monopoly operation of the scenic spot Guarantee to provide good basic

projects, and even directly authorize the same social capital owner to monopolize the development of monopoly operations and basic projects at the same time. This protection measure can be expressed by S. When there are protective measures, S>0, there is no security protection measure. When S=0, the other is to use the investment with poor specificity. The investment amount of this input method is also K, and K=0 at this time.

Among them, HT is the monopoly management diversity index of scenic spots, and Ki is the proportion of operating income of each fixed investment type to total income.

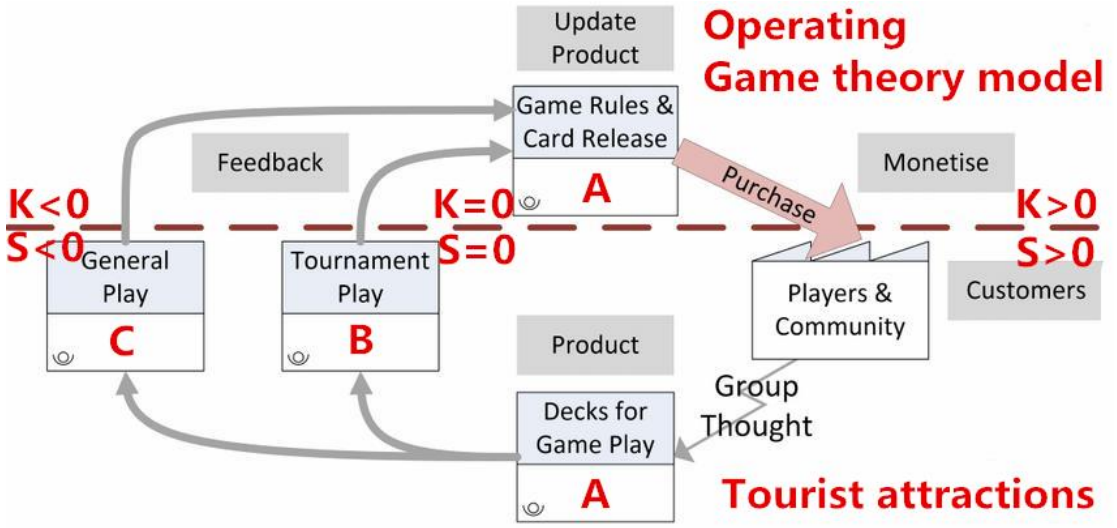

Fig. 5 Game Analysis of Tourism Monopoly Management

4.3 Game Model Analysis

Hypothesis 1:

(1) Increase the mode of fixed investment

Point A represents the governance model of K=0 and the price of monopoly operations. This model increases fixed investment. At this time, the monopoly operation of tourist attractions is completely provided by the competitive market, mainly by the investment of non-specific assets. The overall quality of this monopoly operation is poor, the fixed investment is low, and the professional level of its management service personnel is also relatively poor. This kind of governance model exists in many tourist scenic spots in China. For example, many tourist attractions in China have a large number of low-grade, disorderly, poor service levels, which are operated by local residents, such as tourist commemorative goods vendors, social hotels, etc. The investment of non-specific assets is formed. On the surface, in this mode of governance, tourists can purchase monopoly products at a lower price, but the quality of these monopolistic products is quite low, affecting the overall tourism experience of tourists, from the perspective of tourism resources utilization in tourist attractions. It is inefficient to see.

(2) Empirical analysis:

Scenic Spot Fixed Investment (JQ) is a basic guarantee for the normal operation of a scenic spot and an important indicator for measuring the level of tourism development. Therefore, the tourism income (JE) of a scenic spot should first be a function of the fixed investment (JQ) of the scenic spot and the tourism growth in the scenic spot, expressed as:

$$JE = K_i + S_i JQ_i \quad (1)$$

Therefore, this paper collects the scenic spot data within 5 years, and takes the logarithm of the tourist income of the scenic spot and the passenger flow of the scenic spot, and then uses SPSS19.0 to perform multiple linear regression. The marginal contribution of each factor is analyzed. It is found that the scenic area management diversity index has a greater impact on the total tourism revenue of

the scenic spot than the scenic spot level. This shows that the scenic spot can increase its income by increasing fixed investment.

Hypothesis 2:

(1) Mode of promoting tourism growth

Point B represents the governance mode of K>0, S=0 and the price of the monopoly operation. This model focuses on tourism growth. At this time, social capital enters the monopoly management development of tourist attractions, and conducts special and high-cost investment. However, this investment is not well protected, that is, the owner of social capital is not authorized. Long-term monopoly development and management monopoly operations and guaranteed tourism scenic spots can provide good basic projects. However, if there is no guarantee, its investment recovery becomes a problem, so in reality, this mode must move to A mode or C mode.

(2) Empirical analysis:

Combine these data with the game model so that we can get a model system analysis of the relationship between endogenous fixed investment and regional tourism growth.

$$HT = \sum_{i=1}^{n} S_i \log_e K_i \tag{2}$$

The coefficient of passenger traffic in the scenic spot decreased from 1.123 in 2017 to 0.928 in 2018, indicating that the influence of the number of tourists in the tourist income of the scenic spot is decreasing. The coefficient of the business diversity index of the scenic spot has risen from 0.913 to 1.039, indicating that the operational diversity is The influence of tourism income in scenic spots is increasing. The scenic spot level has increased from 0.519 to 0.594, indicating that the contribution of scenic spot tickets to scenic tourism revenue is increasing. This may be related to the ticket price increase in recent years after the ticket price increase or scenic spot upgrade. related.

Hypothesis 3:

(1) Adopt a balanced development model

Point C represents K>0, S>0 and the governance mode of monopoly management. This model promotes balanced development. At this time, social capital enters the monopoly operation of the tourist scenic spot, and the owner of the social scenic capital management and management authorizes the long-term monopoly operation of the social capital to develop the monopoly operation of the tourist scenic spot, and at the same time guarantees to provide a good basic project, or Directly authorize direct operations of basic projects. In this model, if the contract period for the monopoly operation is authorized to develop and operate, and the stronger the guarantee measures for providing good scenic spot projects, the greater the K will be, that is, the owner of the social capital monopolizes the tourist scenic spot. The more specific the assets of the development investment, the higher the quality. Under this kind of governance mode, tourists can enjoy the tourism products with better service and higher quality, which is the highest from the perspective of the utilization efficiency of tourism resources in tourist attractions.

(2) Empirical analysis:

In 2017, the coefficient of passenger traffic of 0.871 has a certain decline compared with 0.943 in 2018. The coefficient of business diversity index has increased from 1.074 in 2018 to 1.999, and the grade factor of the scenic spot has increased to 0.643, indicating the fixed investment and tourism growth. After the balance, it plays a greater role in the income of the scenic spot.

Therefore, we can conclude that the model of fixed investment in monopoly operations in tourist scenic spots should be authorized by the management of the scenic spot, and measures must be taken to ensure that the owners of social capital have good basic projects in the scenic spots. The grade will be upgraded, and the optimal use of tourism resources will be realized, and the optimal balance can be obtained.

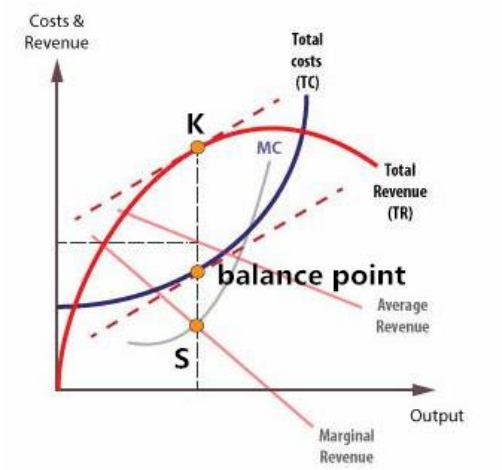

Fig. 6 Investment and tourism growth game equilibrium

Table. 1 Error distribution of tourism revenue forecast value and fixed input statistical value

tolerance scope	Proportion	2011	2012	2013	2014	2015	2016	2017	2018
		Number of samples	Number of samples	Number of samples	Number of samples	Number of samples	Number of samples	Number of samples	Number of samples
<10%	22%	12	16	25	28	29	32	34	35
30%-50%	53%	35	42	46	47	52	56	59	61
>50%	25%	16	19	22	25	29	32	35	38
Fixed investment		0.735	0.749	0.763	0.799	0.843	0.865	0.871	0.943
Growth coefficient		1.024	1.029	1.036	1.045	1.048	1.056	1.074	1.099

5. Outlook

When a closed scenic spot promotes the development of tourism monopoly by adding fixed investment, it must ensure the effectiveness of its investment, that is, the new fixed investment can digest its market share. If the increased tourism revenue is enough to offset the additional fixed costs, then increasing fixed investment can increase the speed of regional tourism development; if excessive investment is made regardless of market demand and cost structure, then this scenic spot can not effectively enhance the tourism competitiveness of the scenic spot and Market share, on the other hand, will lead to the invalidation of fixed inputs. In fact, any questions about the effectiveness of investment are worthy of the attention of governments and developers of destinations. In the tourism investment, we must fully consider our own development potential, so as to avoid the waste of investment, we can get the best results through the game.

6. Conclusion

We draw the following conclusions: For the monopoly of tourism scenic spots, under the current national conditions, the best governance model is to authorize a certain social capital owner to monopolize long-term operations, but must solve the problem of basic project supply in order to ensure the high-end of monopoly operations. high quality. Under the premise that the monopoly of the tourist scenic spot is long-term monopolized by a certain social capital owner, the best choice for the overall governance model of the tourist scenic spot is to uniformly manage the entire tourist scenic spot by the monopoly operator of the tourist scenic spot. In the face of the above game, the tourist scenic spot should carefully analyze the game situation, weigh the pros and cons, seek long-term high interest, and take a complete journey with the spirit of full cooperation, so that the operator finally reaches the win-win destination with the greatest interest. Since reaching the end is a win-win outcome, both sides of the game should follow this route and form such a consensus. In the above game model, we must first form a certain rule and system to make it legal. Secondly, in order to

ensure the effective implementation of such a system, tourism scenic spots should strengthen supervision and cooperation within the framework of certain mechanisms.

References

[1] Dong Zhiwen, Wu Fengning. Improving the monopoly operation of scenic spots in state-owned listed companies.Management, Vol.7 (2010).
[2] Li Lei, Research on the Difference of Macro Location of Tourism Industry. Dongbei University of Finance and Economics, Vol. 12 (2018).
[3] Lin Ling, Economic Thinking on Global Tourism and Its Enlightenment to Xiamen. Southern Review, Vol. 02 (2018).
[4] Liu Qiang, Wang Lei, The Theoretical Framework and Reform Practice of the Scenic Spot Charge System. Macroeconomic Research, Vol. 06 (2018).
[5] Liu Xiaomei, Ning Fengju. Discussion on the Management and Management of Taishan Scenic Spot from the Perspective of Monopoly. Journal of Taishan University, Vol.5(2008).
[6] Wan Jianmin. Planning and Design of Tourism Scenic Areas . Beijing: Tourism Education Press, Vol. 8 (2012).
[7] Wan Sanmin. The Problems and Countermeasures of the Current Tourist Souvenir Market in China.Journal of Henan Institute of Education,Vol. 10 (2006) .
[8] Wang Jingjing. Research on channel price strategy of monopolistic competitive scenic spots. Hainan University, 2013, 5.
[9] Xiang Xu, Yang Xiaoxia, Qu Nina, Evaluation and Promotion of Tourism Competitiveness in Chongqing Area of Qinba Mountain Range[J]. Journal of Southwest University, Vol. 01 (2018).
[10] Xu Yuetao, Strengthening Market Supervision and Regulating Tourism Order. China Price Supervision and Antitrust, Vol. 02 (2018).
[11] Zou Tongzhan. Development and Management of Scenic Spots. Beijing: Tsinghua University Press, Vol. 5 (2011).