

Based On Public Opinion Analysis Of Jilin Province Snow And Ice Tourism Competitiveness Promotion Path Research

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Abstract: Through the public opinion monitoring platform to analyze the basic situation of ice and snow tourism in Jilin Province, pointed out that Jilin Province ice and snow tourism competitiveness is faced with the main problems and competitiveness improvement index system, and then to build Jilin Province ice and snow tourism competitiveness model, and finally give Jilin Province ice and snow tourism competitiveness improvement path, the development of ice and snow tourism in Jilin Province has a great reference.

1. With the Help of Public Opinion Monitoring Platform, This Paper Points Out the Ways to Improve the Competitiveness of Ice and Snow Tourism in Jilin Province

The competitiveness of ice and snow tourism refers to the quality advantage of a series of products and services that ice and snow tourists need to consume. The ice and snow tourism resources, together with the special facilities, infrastructure and related conditions for ice and snow tourism, provide tourists with a complete tourism experience. From November 1, 2018 to March 31, 2019, Jilin province received 843.18 million tourists, up 16.08% year-on-year, and realized 169.808 billion yuan in tourism revenue, up 19.43% year-on-year. As a big province with traditional ice and snow industry and a strong province with ice and snow tourism, Jilin province takes the lead in the country to issue the Implementation Opinions on Expanding and Strengthening the Ice and snow Industry. With the development of ice and snow tourism in China, the competition among various ice and snow tourism destinations is increasingly intensified. Current domestic and foreign scholars' model of Tourism Destination Competitiveness is mainly Crouch & Ritchie's (1999)C-R model and Dwyer & Kim's (2003)D-K model. ^[1]The core resources and attractions in THE C-R model are the basic conditions for tourists to choose a destination as a tourist destination. Includes geographical profiles, culture and history, market linkages, portfolio of activities, special conditions and upper level facilities. In d-K model, there are six factors that determine TDC: resource endowment, artificial resources, supporting factors and resources, destination management, environmental conditions, and demand conditions. ^[2]The D-K model elevates demand conditions and environmental conditions to the position of the core factors that determine the TED model. Later, Crouch and Ritchie added the core elements of destination policy, planning and development into the C-R model, thus ensuring the effectiveness of the whole model. In this paper, with the aid of public opinion monitoring platform, through large data secondary yuan development, analyzed the ice-snow tourism competitiveness in jilin province and influence factor, and optimization of ice and snow tourism competitiveness in jilin province model, points out that the reform path of ice-snow tourism in jilin province of jilin province of ice-snow tourism industry provides referential method, especially for ice and snow tourist destination city of changchun city, jilin city, jilin province songyuan and changbai mountain scenic spot has very realistic significance.

2. The Main Problems and the Index System and Model Construction of the Competitiveness Promotion of Jilin Ice and Snow Tourism are Faced with At Present

2.1 Main Issues

Core competitiveness: Relying on abundant snow and ice tourism resources, Jilin Province continues to explore the “snow and ice +” integrated development model, and the four product systems of “ice and snow leisure vacation, ice and snow hot spring health care, ice and snow sightseeing experience, and ice and snow folk culture” are more clear. Five tourism routes, namely ice and snow ecological leisure tour experience tour, Changji ice and snow leisure city sightseeing experience tour, ice and snow health experience tour, ice and snow fishing and hunting folk culture experience tour, and border ice and snow amorous feelings experience tour, have stimulated new momentum of tourism in the whole region. ^[3]Under the comprehensive tourism strategy, we will vigorously develop the “white economy” and constantly enrich the infrastructure construction of tourism products and tourism public services from the perspective of meeting and adapting to the needs of different tourist groups. The development momentum of ice and snow tourism in Jilin is good. According to public opinion monitoring, there are still the following main problems in ice and snow tourism in Jilin province: Low expectation index of tourists in ice and snow tourism cities and destinations; The communication influence of ice and snow tourism cities and destinations is not high; The innovation of ice and snow tourism marketing events is not high; The main problems include insufficient integration of ice and snow tourism industry with cultural innovation and creativity.

2.2 Indicator System and Model Construction for Improving the Competitiveness of Ice and Snow Tourism in Jilin Province

Based on the value of quadratic element development of big data, this paper analyzes the influencing factors of the competitiveness of ice and snow tourism in Jilin Province, measures and analyzes them, and establishes an optimized model. With the help of the network toolbox, the influence factor parameters of the competitiveness of ice and snow tourism in Jilin province were adjusted through the network data. After the parameters reached the ideal state, the model was simulated trained and tested by inputting the sample data. By comparing the test results with the actual events, the value data based on the quadratic element development of big data are obtained through analysis, so as to improve the specific application effect of the snow and ice tourism competitiveness model of Jilin Province.

2.2.1 Comprehensive Evaluation System for the Competitiveness of Ice and Snow Tourism in Jilin Province

Table 1. Comprehensive Evaluation System for the Competitiveness of Ice and Snow Tourism in Jilin Province

Evaluation factors.	Evaluation indicator 1.	Evaluation indicator 2.
The size of the tourist base.	Number of overseas tourists X1. Number of domestic tourists X2.	Tourism foreign exchange income y1. Total domestic tourism revenue y2.
The standard of living of the residents of the tourist destination.	Disposable income of urban residents X3. Rural per capita net income X4.	Balance of savings deposits for urban and rural residents y3.
Tourism facilities and foundations.	Number of star-rated hotels X5. Rail passenger traffic X6. Road passenger traffic X7. Post and telecommunications business total X8.	Total passenger traffic y4.
The economic strength of the tourist destination.	Third industry dominance X9.	Gross national product y5. Total retail sales of consumer goods y6.

The social and cultural environment of the tourist destination.	Total population X10. Urbanization level X11. Mobile Internet users X12.	Number of new jobs y7.
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2.2.2 Evaluation of Competitiveness of Ice and Snow Tourism in Jilin Province Based on BP Artificial Neural Network

This paper mainly analyzes the competitiveness of ice and snow tourism in Jilin province from the perspective of longitudinal evaluation. Longitudinal analysis means to study the data of ice and snow tourism in Jilin province in the last five years, analyze the current development of the competitiveness of ice and snow tourism in Jilin Province from the perspective of development, and study and analyze the competitiveness of ice and snow tourism in Jilin Province from its own perspective.

(i) Establish a comprehensive evaluation system for the competitiveness of ice and snow tourism in Jilin Province, and establish the structure of artificial neural network.

(ii) Train the network with data.

(iii) The trained network will be used to comprehensively evaluate the competitiveness of ice and snow tourism in Jilin Province.

Among the neural network models, BP neural network model is the most representative and widely used one.

BP neural network with 3 layers (input layer, hidden layer and output layer) with enough hidden nodes can approximate a nonlinear function with arbitrary precision.^[4]

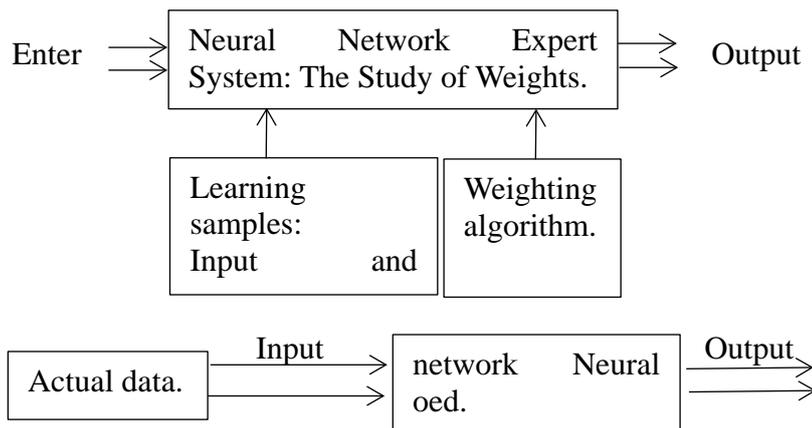


Figure 1. BP Neural Network Expert System Evaluation Model of Ice and Snow Tourism Competitiveness in Jilin Province

2.2.3 BP Neural Network Input and Output Variables and Model Training

Table 2. BP Neural Network Input and Output Variables and Model Training

Enter the variable.	X1 (10,000 times).	X2(10,000 times).	X3 (yuan).	X4 (yuan).	X5 (home).	X6 (tens of thousands).	X7 (tens of thousands).	X8 (billion yuan).	X9 (%).	X10 (10,000 people).	X11 (%).	X12 (%).
In 2019	136.58	24696.43	32299	14936	98	8623.46	22881	1862.6	53.8	2690.73	58.5	2304.91
In 2018	143.75	22012.64	30172	10826	147	8445.53	23372	1147.06	51.3	2704.6	57.53	2457.37
In 2017	148.43	19092.9	28319	12950	176	7662.3	25203	557.75	56.2	2717.43	56.65	2349.

												58
In 2016	161.95	16416.82	26530	12123	193	7567	27186	575.23	49.9	2733.03	55.97	2029.7
In 2015	148.10	13982.8	24901	11326	215	7158	29013	389.43	45.7	2753.3	55.31	1793.3
In 2014	137.69	12003.55	23217.8	10780.1	218	6935	27866	328.16	37.6	2752.38	54.81	1646.1
The output variable.	Y1 (US\$100 million).	Y2 (RMB 100 million).	Y3 (RMB 100 million).	Y4 (billions of times).	Y5 (billion yuan).	Y6 (billion yuan).	Y7 (millions).					
In 2019	6.15	4877.89	24019.43	3.24	11726.82	7777.23	37.56					
In 2018	6.86	4165.6	21926.98	3.27	15074.62	7520.37	47.94					
In 2017	7.66	3456.5	21562.67	3.37	15288.94	7855.75	53.15					
In 2016	7.91	2845.94	21003.9	3.55	14886.23	7310.42	51.1					
In 2015	7.24	2269.55	18499.59	3.48	14274.11	6646.46	53.2					
In 2014	6.75	1766.55	16400.1	3.55	13803.81	6080.90	52.1					

Data description is as follows:

The input variable. 12 .

The output variable. 7 .

Implied Layer. 3 layer.

Data for the five years 2014-2018 were used to train the network. Data for 2019 are used as comparison data.

The data in this table is from the webs ^{[5][6][7][8][9][10]}

2.2.4 Process of Simulation Algorithm

```
X =[143.75 22012.64 30172 10826 147 8445.53 23372 1147.06 51.3 2704.6 57.53 2457.37;
148.43 19092.9 28319 12950 176 7662.3 25203 557.75 56.2 2717.43 56.65 2349.58;
161.95 16416.82 26530 12123 193 7567 27186 575.23 49.9 2733.03 55.97 2029.7;
148.10 13982.8 24901 11326 215 7158 29013 389.43 45.7 2753.3 55.31 1793.3;
137.69 12003.55 23217.8 10780.1 218 6935 27866 328.16 37.6 2752.38 54.81 1646.1]
```

```
Y =[6.86 4165.6 21926.98 3.27 15074.62 7520.37 47.94;
7.66 3456.5 21562.67 3.37 15288.94 7855.75 53.15;
7.91 2845.94 21003.9 3.55 14886.23 7310.42 51.1;
7.24 2269.55 18499.59 3.48 14274.11 6646.4653.2;
6.75 1766.55 16400.1 3.55 13803.81 6080.90 52.1;]
```

```
[x, PSx] = mapminmax (x '); % normalizes x
```

```
[y, PSy] = mapminmax (y '); The % pair is normalized
```

```
Net = newff (minmax (x),,3,7 [12] and {' tansig ', 'tansig', 'purelin'}, 'trainlm'); % Create neural network, input 12 hide 3 output 7, tansig and purelin is to convert each layer of net input into net output, training method is trainLM (called: Levenberg-Marquardt)
```

```
Net. TrainParam. Epochs = 5000; % Maximum number of training 5000
```

```
Net. TrainParam. Goal = 0.000001; % Convergence error 0.000001
```

```
[.net, tr] = "train" (.net, x, y); Training network
```

```
X2019 = [137.69 12003.55 23217.8 10780.1 218 6935 27866 328.16 37.6 2752.38 54.81 1646.1];
```

```
[a, PS] = mapminmax (x2019 '); % normalized to x2109
```

```
B = sim (.net, a); % Input 2019 data to get the output value B
```

```
C = mapminmax ("reverse", b, PSy); % Inverse normalization
```

The format long; C; % does not abbreviate C
C c % output

2.3 Promotion Path of Ice and Snow Tourism Competition in Jilin Province

2.3.1 Do a Good Job in Tourist Analysis, Portrait and Consumption Hot Spots of Ice and Snow Tourism

In China, 39% of males and 61% of females take part in ice and snow tourism. The high participation rate of females is consistent with the potential characteristics of snow and ice purity and purity, such as females' respect for romance and innocence, and is also closely related to females' preference for traveling with companions. In terms of age composition of snow and ice tourists, tourists under 18 years old account for 14%, those between 18 and 30 years old account for 29%, those between 30 and 60 years old account for 48%, and those over 60 years old account for 9%. It can be seen that the business forming group aged 30-60 is the main force of ice and snow tourism, which is closely related to the high consumption of ice and snow tourism, and the business forming personnel have strong financial consumption ability. In addition, the youth market cannot be ignored, with tourists under 30 accounting for 43 percent of the total. Among the traveling crowd, lovers' tour, family tourists and total tourists account for 17% and 37% respectively. The family tour market is a large ice and snow tourism market. In addition, the purity and romance of ice and snow also attract a large number of couples to participate in ice and snow tourism.

2.3.2 Innovation Path of Ice and Snow Tourism Marketing In Jilin Province: Innovate the Tourism Marketing Path According to the Monitoring of Public Opinion Guidance and the Analysis of Reputation

Aimed at the problems in brand promotion, put forward the fundamental for “effective marketing” strategy, the implementation of online synchronous linkage method, in the brand projects focus on double IP micro operation and marketing, and through a series of measures for jilin ice and snow tourism the promotion of new ideas, to provide a full range of solutions, also have the effect of serving local economy at the same time.

2.3.3 Promotion of Cross-border Cooperation in Ice and Snow Tourism: The Original Animation System of Ice and Snow Tourism in Jilin Province

The original animation system of ice and snow tourism in Jilin Province mainly relies on super IP, which is a high cultural value symbol with content features and personality attributes. Moreover, it is cross-cultural and cross-industry, relying on the three characteristics of values, stories and emotional expression, so that the co-shaping of differentiated personality becomes a unique brand subculture. Distinctive brand image is a part of brand equity. In recent years, consumers have begun to pursue diversified brand content, and brands have also begun to link consumers with IP marketing, so as to better reduce costs and realize quick cash while building brand differences. To build IP first image characteristics analysis, one is to have personality characteristics: lovely, lively, lovely, generate people like reasons; Second, it has shape characteristics: symbolized, personalized, easy to recognize, so that the public remember.

3. The Influence of the Snow and Ice Tourism and Public Opinion Monitoring System in Jilin Province on the Competitiveness Improvement of Snow and Ice Tourism

Through the analysis of the data monitored for public opinion, this paper focuses on relationship analysis and social network analysis: key opinion leader (KOL) fans' social network size is linked to the extension and predictability. Based on the analysis, the factors affecting the competitiveness of ice and snow tourism in Jilin province are measured and modeled. The influence factor parameters of the competitiveness of ice and snow tourism in Jilin province were adjusted through network data. After the parameters reached the ideal state, the model was simulated trained and tested by inputting sample data. This research method is based on the quantitative analysis of big data and modeling to provide a set of scientific methods for the promotion of the snow and ice tourism

industry in Jilin Province and quantitative and empirical research on news communication. The factors affecting the competitiveness of ice and snow tourism in Jilin province were measured and analyzed. With the help of the neural network toolbox in MATLAB project and taking the ice and snow tourism industry in Jilin province as an example, the intelligent measurement model with high reliability was formed after the system simulation training and detection. The factors involved in the construction of the index system are: snow and ice tourism resources, snow and ice tourism products, snow and ice tourism destination communication, innovation index, and accuracy of snow and ice tourism tourists' demand. This is an interdisciplinary and beneficial attempt of big data and artificial intelligence, ice and snow tourism industry and news communication industry.

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