Internet information platform model MCM construction of ji lin province tourism marketing

YU HAOLIANG¹, TIAN MINGHUA^{1,2}

Abstract. In order to find the reasons why Ji Lin province owns rich tourism resources, yet tourism industry performance is not ideal, this paper studied tourism marketing of Ji Lin province as a system by setting successful sustainable marketing as the target using Internet Information Platform Model, considering tourism marketing and image orientation as the main body and network system as the core technology. Based on the present situation of Ji Lin tourism market, main problems are found that market and product structure are unreasonable, typical brand image is not outstanding, tourism market and image lacks accurate orientation, and marketing technology management lags behind. Through the study of market positioning, image positioning and marketing technology, it painted a typical market positioning of "five colored frontier — Ji Lin and a prominent image positioning of splendid multinational history and civilization. The magnificent northern scenery of the new century and the cool province in China construct a tourism marketing system of great performance based on the sustainable development of Ji Lin province.

Key words. sustainable development, Ji Lin province, tourism marketing, orientation.

1. Introduction

The sustainable development of tourism industry can both keep and enhance future development opportunities, and satisfy current needs of residents^{[1][2]}. At the same time it can maintain cultural integrity, basic ecological process, biological diversity and life support system, and meet the economic and social development and aesthetic needs. tourism industry sustainability includes ecological sustainability, social cultural sustainability and economic development sustainability.

Development speed of Ji Lin tourism industry ranks high in last continuous 14 years in the domestic. However, total tourism revenue, proportion of tourism revenue accounted for GDP, and tourism employees in Ji Lin are lower than data in other

 $^{^1}$ Workshop 1 - School of Economics and Management, Beijing Forestry University, Beijing, China; e-mail: 1661246336@qq. com

 $^{^2}$ Corresponding author: Tian Minghua, School of Economics and Management, Beijing Forestry University, Beijing, China

provinces nationwide (Table 1). At the same time there still exist some problems in the industry development.

Table 1 Comparison of tourism industry nationwide in 2012

Rank	Province	total tourism revenue (One hundred million Yuan)	proportion of tourism revenue accounted for GDP
1	Jiangsu	4685	11.4%
2	Guangdong	3804.1	8.3%
3	Shanghai	3400	20.2%
4	Zhejiang	3312.6	12.2%
5	Shandong	3058.8	8.9%
6	Beijing	2615	19%
7	Liaoning	2686.9	15%
8	Henan	2294.8	10%
9	Sichuan	1886.09	11.1%
10	Hunan	1425.8	9%
11	Fujian	1337.45	9.3%
12	Tianjin	1200	13.1%
13	Anhui	1151	10.2%
14	Hubei	1151	9.4%
15	Shanxi	1083.46	11.9%
16	Guizhou	1060	23%
17	Yunnan	1006.83	13.9%
18	Shanxi	980	9.8%
19	Guangxi	952.95	10%
20	Chongqing	918	12.7%
21	Hebei	914.6	4.5%
22	Ji Lin	883.4	8.6%
23	Jiangxi	818	9.7%
24	Jilin	732.83	8.5%
25	Neimenggu	732.7	6.3%
26	Hainan	257.63	12.6%
27	Xinjiang	290	5.3%
28	Gansu	245.2	6%
29	Xizang	71.44	14%
30	Qinghai	71.02	5.3%
31	Ningxia	67.8	4.1%

Data source: "THE YEARBOOK OF CHINA tourism INDUSTRY 2012"

2. Materials and Methods

Although Ji Lin has rich tourism brands, some problems emerge: tourism market orientation is not clear and the market structure needs to be adjusted; tourism product structure is single and tourism brand image is not outstanding; tourism resources are obviously seasonal and difference is even larger between off and boom season; infrastructure construction relatively lags behind and overall quality of employees remains to be improved; market regulation is not in place and service quality needs to be promoted. Figure 1 and 2 show the JiLin tourism marketing orientation.



Fig. 1. Five colored frontier -Ji Lin Province

From the angle of system theory, human consumption activity is a system. tourism system, which is an organic whole through travel activities consisting of affiliation and interaction of elements, is an aggregation of various travel issues and has realized the function of the tourism value. Modern tourism industry is a dynamic global industry combined with wide influence, various elements, large changes and high status^[3]. In the face of such a complicated big industry, traditional research methods and means are hard to grasp and control. We have to research and analyze in the aid of system theory, which provides scientific theory and method for our correct understanding of tourism system.tourism system elements are universal. This universality generalizes from strong social and economic relevance of tourism consumption activities^[4]. In space, relationships include marketing from destination to source market, row materials flow moving from tourism source to destination. In



Fig. 2. Colorful ethnic minorities

economy, relationships include tourism products produced by destination tourism enterprise to satisfy their needs.

The so-called tourism marketing system is to put forward a marketing strategy and operational framework which promotes its overall layout and conforms to the enterprise actuality through analysis of the present situation, problems and causes of the tourism market. It means to construct a marketing management system with accurate market orientation, outstanding market image and optimizing technical management, promote marketing to achieve the overall advantage and then enhance regionally economic, social and environmental benefits. The constructing mechanism is as shown in figure 3.

The calculate formula is shown as follows:

Assuming the research of one thing involves P indexes $X_1, X_2, X_P . X = (X_1, X_2, X_P)$, the random vector X is B, and the covariance matrix is A, consider the following linear transformation

$$Y_i = ai'X = a_{1i}X_1 + a_{2i}X_2 + \dots + a_{ni}X_n(1)$$

Yi represents the i-th principal component $a'_i = (a_{1i}, a_{2i}, a_{ni})(i = 1, 2, ...n)$ a_{ij} represents the coefficient relationship between j-th variable and the i-th principal component the correlation coefficient of Z_i 's variance Var Z_i =ai Aai Z_i Z_j is

$$Cov(Z_i, Z_j) = a'_i A a'_j, (i, j = 1, 2, ...n)$$
 (2)

Use the variance of Z1 to represent the information of P variables?? the larger VAR(Z1) is??the more information it has, this is the first principal component. The rest may be deduced by analogy. With this method the dimension of the original factor can be reduced.

Based on sustainable development, this article tends to establish Ji Lin's tourism

marketing system with sustainable marketing as the system object, orientation of tourism market and image as the main body, and tourism marketing network system as the core technology. Figure 1 is showing tourism marketing system.

3. The network system of Ji Lin tourism marketing

Tourism is an information intensive industry, each business link relating to information. In consumers' point of view, informatization should start from the planning stage, and its value largely depends on consumers' feelings and satisfaction, which decides whether tourism activities can succeed. Information and network technology is a necessary deployment means of supply and demand of tourism industry.

Chinese internet users have amounted to hundreds of millions of people, and the methods of network marketing are various with the advantages of high speed, interactive, global and "all-day". Network marketing is greatly welcomed by users and any scenic spots are trying network marketing. Compared with the traditional tourism marketing modes, network marketing shows the advantages of fast, low cost, and quick effect, etc. With the fast development of the tourism industry, network marketing will be more and more popular among tourists and tourism enterprises.

The general thought of network system construction for tourism marketing in Ji Lin can be describes as "One center, two platforms, four main bodies and eight systems" briefly, namely "1248". It's planned to digitize tourism management and public service within 3 years, establishing tourism e-government, e-commerce platform, dynamic database including government affairs management, tourist attractions, hotels, and travel agencies management, in order to realize information resources sharing and to build gradual digital urban tourism. The main task of the "digital tourism" construction is to perfect the four main body structures and establish the eight data systems.

1. Constructing reasonable tourism service center networks

Capital city constructs the first level of visitor information network; prefecturelevel cities construct secondary network; county-level cities construct third level network. We need to establish the unified tourism identification system, strengthen the tourism system supervision, and maintain the tourism market order.

2. Establishing unified tourism information platform

To establish unified tourism information platform means to perfect tourism egovernment network guide, promote tourism information network construction, and open travel consultation complaint hotline.

3. Upgrading the tourism industry platform by informatization

Resources should be integrated, the key points will be stressed, and the management should be strengthened by using the science and technology innovations as a driving force, the network construction and human resources construction as the foundation^{[5][6]}, and the tourist information resources development and utilization as the core. Make great use of the informatiolization to promote tourism industry, to realize office automation, and to make informationization to be the strong power to promote the sustainable development of tourism industry in Ji Lin.

4. Perfecting the four main bodies structure

- (??)1) Office automation framework includes the office automation systems of the provinces, cities and bureau institutions and information management system of tourism enterprises, which can realize dynamic management functions of the electronic document, network video conference, authority management, and scenic spot hotels.
- (??)2) E-government and e-commerce framework uses tourism network of Ji Lin province and tourism networks of prefecture-level cities such as Harbin, Qiqihar, Mudanjiang, Jiamusi, Daqing, Yichun as platforms and all kinds of foundation databases as the backing to realize the flowing functions, such as making government affairs public, realizing online application and approval, reporting and receiving information, handy service for the public and accepting complaint, releasing tourism enterprise information, reserving guest room, applying tourism line, guiding shopping, and electronic post offices^[7].
- (??)3) Database scheme is composed of three parts, namely, government affairs management database, tourism information database and electronic map database. Those are the basis of the above application systems, whose main function is to facilitate statistical management and provide scientific basis for decision makers.
- (??)4) Destination marketing system (DMS): Use one year to do research and data acquisition. It mainly includes basic geographic data platform, central control system, information release system, tourist information websites of administrative cities and counties, tourism products system, quality control system, tourism information system, electronic map system, customer management (namely statistical analysis system and standard application interface) and other subsystems.

5. Establishing eight systems

- (??)1) Perfect authority LAN network, use unified office platforms and application software, and ensure the safe, stable and fast operation of LAN.
- (??)2) Establish the urban tourism website as a professional tourist information one with urban characteristics to meet the needs of the access of various tourism data application systems, and reflect the city tourism image. The website will be the main e-government and e-commerce platform.
- (??)3) Use unified electronic mail server, draw up unified code of the mailbox of each units, normalize email management, secure system safety, and meet the external exchanges.
- (??)4) Open tourism BBS columns in city information ports of both Harbin and Ji Lin province and offer an interactive platform of tourist and particular public complaints acceptance system.
- (??)5) Build a dynamic management database of tourism information, including policies and regulations, hotels, tourist attractions, travel agencies and tourist guide management, passenger source and flow, etc.
- (??)6) Realize online booking, travel agency registration, tourism souvenir shopping guiding, and other electronic business functions, and open online payment busi-

ness.

(??)7) Electronic map should have the functions of inquiring, servicing, guiding, scenic spots introducing, way referring and so on.

(??)8)Strengthen informatization management and promote internal informatization construction of the tourism enterprises.

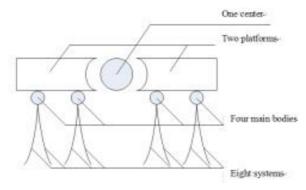


Fig. 3. tourism marketing network system in Ji Lin

6. Conclusion

Based on the present situation of Ji Lin tourism market, main problems are found that market and product structure are unreasonable, typical brand image is not outstanding, tourism market and image lacks accurate orientation, and marketing technology management lags behind.

Through the study of market positioning, image positioning and marketing technology, it painted a typical market positioning of "five colored frontier — Ji Lin" and a prominent image positioning of "splendid multinational history and civilization". The magnificent northern scenery of the new century and the "cool" province in China construct a tourism marketing system of great performance based on the sustainable development of Ji Lin province.

References

- [1] B. H. Wu: tourism System: An explanation of tourism activities and tourism science. tourism Tribune 1 (1998), No. 14, 21-25.
- [2] A. Shakeela, D. Weaver: Resident reactions to a tourism incident: Mapping a Maldivian Emoscape. Annals of tourism Research 39 (2012), No. 3, 1337-1358.
- [3] X. Wu: A Stable Group-based Trust Management Scheme for Mobile P2P Networks. JDCTA: International Journal of Digital Content Technology and its Applications 5 (2011), No. 2, 116-125.
- [4] H. C. Huang, C. C. Ho: Back-Propagation Neural Network Combined With a Particle Swarm Optimization Algorithm for Travel Package Demand Forecasting. JDCTA 6 (2012), No. 17, 194-203.

- [5] B. Gregersen, B. Johnson: Learning Economies, Innovation Systems and European integration. Regional Studies (2001), No. 31,479-490.
- [6] G. Tassey: Technology infrastructure and competitive. position Norwell. MA: Kluwer Academic Publishers(1992).
- [7] T. Gregory: Modeling and Measuring the Economic Roles of Technology Infrastructure. Economics of Innovation and New Technology (2007).

Received November 16, 2017