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The reconstruction of tourism resources evaluation model based on regression to the original meaning- Taking the tourism of the Silk Road in Gansu Province as example

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ABSTRACT

A large number of empirical studies have shown that the Chinese national standard ------tourism resources classification, investigation and evaluation must be further improved due to the lack of tourists' perspective and the unscientific factor assignment. Based on profound reflection and improvement of tourism resources evaluation mode, this paper returns to the original meaning of the concept of tourism resources, and reconstructs comprehensively the content, subject and process of the tourist resources evaluation model. Then taking the tourism of the Silk Road in Gansu Province as example, this thesis verifies the methods and processes of the new model. And finally the characteristics of the reconstructed evaluation model are described for better discussion and application.

Keywords: Tourism resources; Evaluation; Model

INTRODUCTION

Tourism resources are the basis for the development of tourism, and tourism resources evaluation studies are the starting point of the tourism planning and tourism subject research. There existing various tourism resources evaluations at home and abroad, but in order to further standardize the classification and evaluation of tourism resources, the State Quality Supervision Bureau of China in 2003 promulgated a national standard-------tourist resources classification, investigation and evaluation (hereinafter referred to as " national standard "). However, discussion and discrimination of academia never stopped since its enactment. On the basis of the overall relatively positive on the whole, the scholars have put forward their own unique views, which focus on: unitary evaluation subject[1], unreasonable evaluation factor setting[2], unscientific factor assignment[3], over simple resource level standard, unreasonable standard division[4,5] and so on. Setting national standard as the basis for improvement is the basic path for academia to study the evaluation of tourism resources. Tourism resources evaluation is a kind of means and tool, serving for the understanding, development and utilization of resources. The starting point of the evaluation is the concept of tourism resources. This article from the original intent of the righteous way of tourism resources, on the basis of "international standard" look on the two-dimensional content, binary subject, the focus of the second-order process to reconstruct patterns of tourism resources evaluation, and Silk Road segments focus of tourism resources in Gansu as an example and verification, scientific tourism resources that provide the basis for the orderly development.

2.The concept

Basically, the academia defines the tourism resources in the following three categories [6]:

- In a broad sense, tourism resources are considered as the union set of social resources and specialized resources [7].
- In a neutral sense, tourism resources are deemed equivalent to tourist attractions.

- In a narrow sense, the national standard holds the point that tourism resources are all kinds of things and factors in nature and human society, which appeal to the tourists and can be utilized for tourism development and can produce economic benefits, social benefits and environmental benefits.

The author favors the narrow definition and takes it as theoretical foundation of the construction of resources evaluation mode. First of all, the traditional formal logic is usually defined by revealing the nearby genus and. It can be expressed in the following formula: the concept defined = differentia + nearby genus.Accordingly, the simplest way of defining "tourism resources" is "tourism + resources". "Resources" is "the nearby genus" of this concept and it is construed as "the source of wealth", namely the fountain of creating the wealth of human society. And it contains two meanings: first, the evolution result of the resources is the “wealth”; second, this evolution is realized in the process of creation. In brief, “benefit” and “usability” is the essential attribute of resources. “Tourism” is the differentia of the concept “tourism resources”. So the "tourism attraction” is another connotation of the concept of "tourism resources”. Then, from the practical point, the broad definition confused “tourism resources” and “resources”, which is not conducive to the specific guidance of tourism practice and it is inappropriate for neutral definition to confuse it with “tourist attraction”.

3.Reconstruction of the tourism resources evaluation mode

Based on the original meaning of the concept of tourism resources, the reconstructed tourism resources evaluation model can be simply summarized as a "two dimension + binary + second order" model.

3.1 Attractiveness evaluation

Tab.1 The scale of attraction evaluation

Evaluation factors	Evaluation stage: first stage Evaluation subject: tourists		Evaluation stage: second stage Evaluation subject: experts		Evaluation results
	Evaluation content: Determine the weight of each index evaluation	Evaluation procedure and methods	Evaluation content: Each index score	Evaluation procedures and methods	
Ornamental value(A_1)	Evaluation weight of ornamental value (AW_1)	1. conducting a qualitative questionnaire survey on the test objects; 2.Turning the qualitative findings into a quantitative value [a], and making credibility judgments, excluding the low reliability indicators [b]; 3. Determining weight values of the index verified by the credibility with the mean of hierarchical analysis.	Evaluation weight of ornamental value (AS_1)	1.Conducting a qualitative questionnaire survey on the test objects; 2. Turning the qualitative findings into a quantitative value, making credibility judgments, and determining whether it can be used as evaluation results.	$A=\sum_{i=1}^{j} Ai = \sum_{i=1}^{j} (AWi \times A$
Leisure value (A_2)	Leisure value (AW_2)		Leisure value (AS_2)		
Use value (A_3)	Use value (AW_3)		Use value (AS_3)		
Historical value (A_4)	Historical value (AW_4)		Historical value (AS_4)		
Cultural value (A_5)	Cultural value (AW_5)		Cultural value (AS_5)		
Scientific value (A_6)	Scientific value (AW_6)		Scientific value (AS_6)		
Artistic value (A_7)	Artistic value (AW_7)		Artistic value (AS_7)		
Rare and unusual degree (A_8)	Rare and unusual degree (AW_8)		Rare and unusual degree (AS_8)		
Scale, abundance and chance (A_9)	Scale, abundance and chance (AW_9)		Scale, abundance and chance (AS_9)		
Integrity (A_{10})	Integrity (AW_{10})		Integrity (AS_{10})		
Fame and influence (A_{11})	Fame and influence (AW_{11})		Fame and influence (AS_{11})		

a. The evaluation of the visitors from the "unimportant" to "very important" were assigned 1、3、5、7、9 respectively.

b. Including total credibility coefficient calculation, the general Cronbach α value is not less than 0.7; Eliminate all the Cronbach α value after the project and eliminate the factors whose overall reliability coefficients are higher than the reliability coefficients after the elimination.

3.2 Usability evaluation

Tab.2 The scale of usability evaluation

Evaluation factors	Evaluation stage: first stage Evaluation subject: experts		Evaluation stage: second stage Evaluation subject: researchers		Evaluation results
	Evaluation content: Determine the evaluation weight of each index	Evaluation procedure and methods	Evaluation content: Each index score		$U=\sum_{i=1}^{j} Ui = \sum_{i=1}^{j} (UWi \times$
The traffic condition-ns of the transportation center(U_1)	The traffic conditions of the transportation center. (UW_1)	1. conducting a qualitative questionnaire survey on the test	The traffic conditions of the transportation center (US_1)	The corresponding values of all factor	
The spatial distance between the resources and	The spatial distance between the resources and transportation		The spatial distance between the resources and		

transportation center. (U_2)	center. (UW_2)	objects; 2.Turning the qualitative findings into a quantitative value [a], and making credibility judgments, excluding the low reliability indicators [b]; 3. Determining weight values of the index verified by the credibility with the mean of hierarchical analysis.	transportation center. (US_2)	values or scores with the reference region or reference resources compared to the ratio as the score value [c]
The annual average temperature(U_3)	The annual average temperature(UW_3)		The annual average temperature.(US_3)	
Air quality(U_4)	Air quality(UW_4)		Air quality(US_4)	
Applicable travel period（U_5）	Applicable travel period. (UW_5)		Applicable travel period. (US_5)	
Administrative Region GDP of Resources（U_6）	Administrative Region. GDP of Resources (UW_6)		Administrative Region GDP (US_6)	
The evaluation of people's attitudes（U_7）.	The evaluation of people's attitudes. (UW_7)		The evaluation of people's attitudes.(US_7)	
The evaluation of space polymerization degree（U_8）	The evaluation of space polymerization degree.(UW_8)		The evaluation of space polymerization degree.(US_8)	
The evaluation of type of polymerization degree （U_9）	The evaluation of type of polymerization-n degree . (UW_9)		The evaluation of type of polymerization degree . (US_9)	
Differences with the core resources within the region（U_{10}）	Difference-s with the core resources within the region. (UW_{10})		Differences with the core resources within the region. (US_{10})	

a. legal policies and conditions constitute a judgment factors and do not constitute rating factors, say, they do not meet the policy and legal requirement that usability is zero, matching ones will be involved in the evaluation;
b. Refer to attraction evaluation a ,b;

4.The evaluation of the key tourism resources in of the Silk Road in Gansu Province

The investigation team takes 62 tourists who are the first time to visit there and 31 tourism experts in Gansu province as sample in a random way.

4.1Attraction evaluation

This paper has counted the evaluation results of tourists and analyzed it with SPSS13.0, and got total reliability coefficient 0.718. The reliability coefficient of recreational value, use value, scientific value is only 0.012, -0.009, -0.065 which are all less than 0.35. The reliability coefficients after elimination are 0.744, 0.752 and 0.754, higher than total reliability coefficient, so they are needed to be eliminated, and other quantities are credible. So the evaluation factors of the tourism resources in Gansu Silk Road is touring value (A_1), historical value (A_4), cultural value (A_5), artistic value (A_7), rare and unusual degree (A_8), scale, abundance and chance (A_9), integrity (A_{10}), popularity (A_{11}). This paper sets the average value of every index as the assignment of the Analytic Hierarchy, takes multiple comparisons, and obtains the hierarchical analysis matrix. The maximum characteristic root calculated = 8.118712. Judge the feature vector value of Q of the matrix w = (0.15,0.15,0.14,0.14,0.12,0.09,0.13,0.08) T. the consistency check coefficient C.I = .016959, the CR= 0.012028 <.015, indicating the consistency of feasiblity.

So this paper gets the evaluation function of the tourism resources attraction in Gansu Silk Road:

$$A=0.15\times AS1+0.15\times AS4+0.14\times AS5+0.14\times AS7+0.12\times AS8+0.09\times AS9+0.13\times AS10+0.08\times AS11 \quad (1)$$

4.2 Usability evaluation

Usability analysis process is similar to the above attraction analysis. Calculating survey statistics value of the each index weight and assignment, eliminating the index whose reliability coefficient is low, through the AHP analysis, we get the biggest characteristic root for $\lambda_{max} = 3$, judging matrix features vector-valued for w = (0.26, 0.21, 0.14, 0.18, 0.21) T, calculated the consistency testing coefficient is C.I= 0.000268, C.R. = 0.00024 < 0.015, indicating the feasible consistency.

So we get the evaluation function of Gansu Silk Road tourism resource usability:

$$U' = US_1 \times 0.26 + US_2 \times 0.21 + US_6 \times 0.14 + US_8 \times 0.18 + US_{10} \times 0.21 \quad (2)$$

Since the index US used reflects the comparison value between the situation of each resource to be evaluated and the ideal situation of the large area, calculation results of the U should be between [0,1]. In order to be consistent with "attraction" evaluation in magnitude, set

$$U = U' \times 10 \quad (3)$$

4.3Evaluation Results

Table 3. The evaluation of the key tourist resources in the silk road for Gansu province

NO.	RESOURCE	Resources attraction	Resource usability
1	Yellow River Stone Forest National Geopark	6.3	6.1
2	Red Army joined forces landscaped area	6.8	3.5
3	Grand Canyon of the Yellow River	5.5	5.1
4	Four dragons resort recreation and leisure	4.8	7
5	Shoulu National Forest Park	5.2	5.6
6	The Guiqingshan National Forest Park	6.4	5.1
7	Lee cultural Church in Longxi	5.8	5.1
8	The Zhe Yang mountain Forest Park	5.8	2.6
9	The Lintao Flower Base	5.5	7.3
10	The Weihe source National Forest Park	5.6	5.1
11	Overhanging Great Wall , the black gorge tourist area	7.4	6.9
12	Grand Canyon to the Lai River, and the First Beacon Tower,	6.8	6.9
13	Jiayuguan pass	8.6	7.4
14	Mural Tombs of the Wei-Jin Period	7.7	6.4
15	Montenegro rock art	6.9	6.4
16	Jinchang City Nickel Industrial City (China Nickel)	6.2	6.4
17	Badain Jaran Desert	6	6
18	Li Lijian ancient city	6	4.6
19	Yangguan Pass	7.5	6.9
20	Mogao Grottoes	8.7	7.8
21	Mingsha Mountains and Yueya Spring	8.1	7.3
22	Yadan National Geopark	7.8	6.4
23	Jiuquan Satellite Launch Centre in Brief	7.3	6
24	Xinglongshan the State Nature Reserve	6.6	8.9
25	Spit Lu ditch national forest park	5.8	8.2
26	100-li Scenic Zone along the Yellow River	6.6	10
27	The Lutusi Goverment Office	7	8.6
28	Gansu Provincial Museum	7.3	9.5
29	The Liujiaxia dinosaur Country Address Park	7.1	8.6
30	Bingling Temple	7.2	9.1
31	Bingling stone forest	6.2	7.7
32	Song Ming Yan National Forest Park	6.3	6.8
33	Liujiaxia power plant	6.2	6.6
34	Kongtong Mountains	7.8	6.6
35	Dadiwan site	7.6	6
36	Fu Xi Gua Taishan	6.7	7.1
37	Fuxi Temple	7.7	6.2
38	Maiji Mountain Grottoes	8.4	6.9
39	Ladder Grottoes	6.5	5.6
40	Ray Taiwan Han Tomb	7.8	7.2
41	The Confucius Temple	7	5.8
42	Zhangye colored hills Danxia landform group	7.2	5.7
43	Giant Buddha Temple	7.8	6.8
44	Mati Temple in Sunan , Gold pagoda	7.7	4.3
45	Shandan horse farm	7.4	5.7

5.Characteristics Of the Evaluation Mode

Compared with the traditional evaluation mode, this paper proposes the evaluation mode of tourism resources based on the regression to original meaning. Its main characteristics are reflected in: (1) it provides a more comprehensive understanding of the inside and outside conditions of the development of tourism resources, and makes clear the good and bad order of attraction and availability in the tour resources in an overall tourism zone (line). This provides scientific basis for the tourism resources development direction and the development timing of regional tourist resources; (2) it brings the tourists into the tourism resources evaluation process, makes the evaluation resources meet the needs of tourists and becomes more adapted to the needs of the market with more scientific tourism resources evaluation; (3) it divides the resource evaluation process into factors establishment and assignment as well as the score and calculation, using fuzzy mathematics, hierarchical and statistical analysis tools for evaluation, abandoning the prior, subjective evaluation method, and makes the score system more adapted to the tourism regional characteristics, and can reflect dynamically the resource distribution. The conclusion derived from the mode of the quantitative evaluation lays a foundation for the further study on the tourist spatial behavior

characteristics of tourism resource, the physical characteristics and social characteristics of the docking, theory of a tourist destination and source of Spatial Gravity Model and such practical issues as development content and timing of tourism resources.

REFERENCES

[1] Liu Jiaming, *Annals of tourism research*, vol.21, pp.9-11, **2006**.
[2] Xia Zancai, *Annals of tourism research*, vol.21, pp.12-13, **2006**.
[3] Zhu Zhan, *Annals of tourism research*, vol.20, pp.8-9, **2005**.
[4] Liu Yi, *Annals of tourism research*, vol.21, pp.8-9, **2006**.
[5] Gao Yafang, *Annals of tourism research*, vol.22, pp.2-3, **2006**.
[6] Liu Simin, *Annals of tourism research*, vol.14, pp.37-42, **2005**.
[7] Wu Bihu, *Principles of regional tourism planning*,Beijing: China Tourism Press, **2001**, pp. 23-24.
[8]Joppe,M.,Martin.D.W&Waalen.J. *Journal of Travel Research*,**2001**, 252 - 260.
[9]Papatheodorou,A. *Annals of Tourism Research*,**2004**,31(1):219–237.
[10]Xie Yanjun, Wu Kai. *Tourism Science*, **2000**, (2) :1-4.
[11]Xu Honggang.Travel Systems Analysis . Tianjin: Nankai University Press, **2009**.