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# A New Perspective of Rural Tourism and Leisure Agriculture Integration: An Empirical Analysis of Rural Tourism Satisfaction and Loyalty in Dalishu Village

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**Abstract** Tourism has become the most dynamic and promising green industry in Dalishu Village. However, with the increase of the same type of tourist areas and the addition of other theme tourism destinations, the rural tourism of Dalishu Village is facing the problem of how to develop in homogenous competition and how to maintain stable development. This is also a problem that needs to be addressed seriously in the development of rural tourism. Starting from the image perception factors, this study chooses the interaction among image perception factors, satisfaction and loyalty as a perspective, in order to identify the important factors that play a key role in tourists' satisfaction and loyalty, and to provide a new driving force for the integrated development of rural tourism in Dalishu Village.

**Key words** Rural tourism destination, Image perception factors, Satisfaction, Loyalty, Dadong Dalishu Village

## 1 Introduction

With regard to the study of tourism destination image, some scholars have made exploratory descriptions and comparative studies from the perspectives of tourist experience<sup>[1]</sup>, service perception<sup>[2]</sup>, and core competitiveness<sup>[3]</sup>. In the aspect of the composition of the influencing factors, we mostly take the design of the evaluation scale as the research means, and in the construction of the evaluation system, we mainly investigate how the influencing factors affect the satisfaction. With the increase of the same type of tourist areas and the addition of other theme tourism destinations, as an important zone to support the development of tourism, rural tourism destinations are facing the problem of how to develop in homogenous competition and how to maintain stable development. This study takes rural tourism in Dalishu Village as an example to understand the cognitive feelings of tourists in tourism. Through the analysis of the reliability and validity of the questionnaire data to refine the influencing factors, this paper uses structural test to analyze the direct and indirect effects of influencing factors on satisfaction and loyalty, in order to explore the relationship between the three, and to explore the development of rural tourism and leisure agriculture integration.

## 2 General situation of the research area

Dadong Dalishu Village is the birthplace of "hard-working"

spirit. It is a demonstration village of agricultural ecological construction in China and a national 4A-level tourist attraction. The intoxicating picturesque landscape and the unique "hard-working" spirit culture have become the two highlights of Dali's rural tourism. The number of labor forces in Dalishu Village directly or indirectly involved in tourism employment is about 1 200, the number of people employed indirectly is about 3 000, and the per capita income brought by tourism accounts for about 60%. In the past three years, the average annual number of arrivals of rural tourists in Dalishu is 505 000, and the average annual tourism income is 63.1 million yuan. In 2018, the village achieved a total social output value of 1.55 billion yuan, fixed assets of more than 500 million yuan, disposable financial resources of 20 million yuan, and per capita annual income of 22 000 yuan.

## 3 Research methods and data analysis

**3.1 Research methods** The questionnaire refers to the design of Chen Ke *et al.*<sup>[4]</sup> combined with the reality of Dalishu Village, and it mainly collects the data and information on tourism image, tourist satisfaction and tourist loyalty. The destination image perception measurement drew lessons from the index analysis method of Lai Chenxing<sup>[5]</sup>, and it was carried out in accordance with the actual development of Dalishu Village around 30 measurement items, involving 5 dimensions, as shown in Table 1.

### 3.2 Data analysis

**3.2.1 Basic information of samples.** With reference to the setting of personality characteristics and local characteristics of the research object by Jia Yanju and Lin Derong<sup>[7]</sup>, the questionnaire items are mainly described from seven aspects: sex, age, education level, monthly income, occupation, tourism purpose and number of visits. It is found that the gender and occupation distribution of the visitors are relatively balanced, and the age span is dominated by the social

Received: June 15, 2020 Accepted: August 31, 2020

Supported by 2019 Fund Project of University of Science and Technology Liaoning—Research on the New Development of Rural Tourism Industry in the Context of Rural Tourism and Leisure Agriculture Integration under "Two-wheel Drive" (2019RW08).

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professional group, with a proportion of more than 70%. In terms of income, tourists are mostly middle-and upper-class income group (3 000 – 10 000 yuan per month), accounting for 70.5%. In terms

of the number of visits, the first visit ratio is 69.8%, and the revisit rate (two or more visits) is 30.2%, which also confirms the validity of the questionnaire from another side.

**Table 1 Image perception measurement items**

Item	Factor
Tourism environment	Ecological environment, villagers' attitude, architectural style, public security environment, sanitary condition, suitable climate, green plant coverage
Tourism attraction	Agricultural resources, folk characteristics, featured activities that can be participated in, rural cultural landscape, tourism commodities with local characteristics
Tourism support system	The level of tourism reception, the diversity of experience activities, the standardization of tourism transaction activities, the healthiness and cleanliness of tourism employees, the perfection of tourism information system, the perfection of interpretation system and the convenience of shopping
Tourism infrastructure	Traffic accessibility, public toilet conditions, communication facilities, tourist reception capacity, signs in scenic spots, parking space
Food, accommodation and shopping	Reasonable accommodation price, clean and hygienic catering environment, clean and comfortable accommodation facilities, reasonable catering price, and reasonable price of tourism commodity

Note: They are: "very consistent" = 5 to "very inconsistent" = 1. The measurement of tourist satisfaction is mainly based on a single item (that is, the overall satisfaction with tourism), from "very satisfied" = 5 to "very dissatisfied" = 1. Tourist loyalty is measured by the most frequently used two-item measurement method, including two items—revisiting the local area and recommending the local area to relatives and friends<sup>[6]</sup>, from "very willing" = 5 to "very reluctant" = 1.

**3.2.2 Reliability and validity analysis.** According to the analysis of SPSS24.0 software (Table 2), the internal consistency reliability of 33 items (30 image perception factors, 1 satisfaction factor, 2 loyalty factors—recommendation and revisit) of the questionnaire is 0.942, indicating that the reliability of the overall scale is good. The content validity of the corrected overall correlation analysis shows that only the correlation coefficients of five items (characteristic folklore, perfect interpretation system, communication facilities, tourism reception capacity and reasonable prices of tourism commodities) are less than 0.3 and they need to be removed while other measurement items have good content validity (coefficients are all between 0.439 and 0.748). After KMO and Bartlett spherical test, the scale accords with the judgment standard<sup>[8]</sup>.

**3.2.3 Factor analysis.** Factor analysis of image factors can be carried out<sup>[9]</sup>, in which the factor load coefficients of interpretation system perfection and shopping convenience are 0.039 and 0.224,

and they need to be eliminated; the remaining 23 measurement items are verified by factor analysis. Maximum likelihood estimation is used to verify the interaction (Table 3). Thus it can be seen that the five dimensions interact with each other, and the correlation has been verified.

**Table 2 KMO and Bartlett spherical test**

Measuring part	KMO	Approximate chi-square	df	Sig.
Whole	0.953	3 906.959	21	0
Tourism environment	0.953	3 906.959	21	0
Tourism attraction	0.838	1 090.136	6	0
Tourism support system	0.861	1 767.370	15	0
Infrastructure	0.864	1 853.901	6	0
Food, accommodation and shopping	0.865	1 675.357	6	0

**Table 3 Parameter estimates between potential variables**

Item	Interaction	Item	Non-standardized coefficient	Standardized coefficient	S. E.	C. R.	P
Tourism environment	<-->	Tourism attraction	0.366	0.462	0.044	8.267	***
Tourism attraction	<-->	Tourism support system	0.376	0.439	0.048	7.842	***
Tourism support system	<-->	Tourism infrastructure	0.778	0.582	0.075	10.324	***
Tourism infrastructure	<-->	Food, accommodation and shopping	0.589	0.464	0.068	8.717	***
Tourism environment	<-->	Tourism support system	0.640	0.545	0.065	9.837	***
Tourism support system	<-->	Food, accommodation and shopping	0.459	0.381	0.063	7.319	***
Tourism attraction	<-->	Tourism infrastructure	0.420	0.465	0.051	8.293	***
Tourism environment	<-->	Food, accommodation and shopping	0.476	0.428	0.058	8.178	***
Tourism attraction	<-->	Food, accommodation and shopping	0.260	0.320	0.043	6.050	***
Tourism environment	<-->	Tourism infrastructure	0.712	0.577	0.068	10.396	***

**3.2.4 Structural hypothesis testing.** In order to further determine the relationship between measured variables and potential variables and their direct or indirect effects, a structural hypothesis test is carried out on the items. It contains 8 structural variables, of which 5 dimensions are observation variables, and tourist satisfac-

tion and tourist loyalty (willingness to repeat purchase and willingness to recommend purchase) are potential variables. As a result, only the critical ratio between tourist loyalty and tourism support system is less than 1.65, and the effect relationship after elimination and revision is shown in Table 4.

**Table 4** Effect values between observed variables and potential variables

Item	Food, accommodation and shopping	Tourism infrastructure	Tourism support system	Tourism attraction	Tourism environment	Tourist satisfaction	Tourist loyalty
Direct effect:							
Tourist satisfaction	0.075	0.183	0.441	0.125	0.128	0	0
Tourist loyalty	0.141	0.222	-0.03	0.151	0.316	0.319	0
Indirect effect:							
Tourist satisfaction	0	0	0	0	0	0	0
Tourist loyalty	0.024	0.058	0.141	0.04	0.041	0	0
Overall effect:							
Tourist satisfaction	0.075 (5)	0.183 (2)	0.441 (1)	0.125 (4)	0.128 (3)	0	0
Tourist loyalty	0.165 (4)	0.28 (2)	0.111 (5)	0.191 (3)	0.357 (1)	0.319	0

## 4 Discussions and recommendations

As can be seen from Table 4, the five dimensions have only a direct impact on tourist satisfaction, and there is no indirect impact. It has both direct and indirect influence on loyalty. Tourist satisfaction has only a direct impact on tourist loyalty, and there is no indirect impact, and tourism support system only has an indirect impact but no direct impact on tourist loyalty.

Zhou Yang *et al.* believe that there is an obvious correlation between the willingness of tourists to revisit and the satisfaction of rural tourism, while the hard and soft conditions of products always run through the evaluation of tourists' satisfaction and loyalty to rural tourism, which lays a foundation for tourists' willingness to recommend and revisit in the later period<sup>[10]</sup>. The tourist satisfaction with Dandong Dalishu scenic spot not only has a significant direct impact on tourist loyalty, but also plays an intermediary role between some dimensions of Dalishu Village image and tourist loyalty.

From the influence effect relationship, we can see that the primary task of Dandong Dalishu scenic spot is to establish a perfect tourism information system, so that tourists can have a full understanding of Dalishu scenic spot so as to improve the status of Dalishu scenic spot in the national rural tourism. On the other hand, tourism infrastructure is the cornerstone of healthy development, but while strengthening the construction of hardware facilities, we cannot ignore the cultivation of residents' friendly attitude towards tourists. At the same time, the diversity of experience activities, the standardization of tourism transaction activities and the healthiness and cleanliness of tourism employees are the most important conditions for tourists to be satisfied with the tourism of Dandong Dalishu scenic spot. If the tourism information systems such as websites and advertising pages are perfect, tourists can participate in a variety of activities, the transaction prices in the scenic spots and their surrounding areas are reasonable, and people engaged in the tourism service industry are healthy and clean, then the overall satisfaction of tourists will be high.

The direct impact of the food, accommodation and shopping on satisfaction is the lowest among the five dimensions, and the direct and indirect impact on tourist loyalty is also very low. Thus it

can be seen that tourists are not very satisfied with the food, accommodation and shopping system of the scenic spot. Dalishu scenic spot should make targeted adjustments in time to provide tourists with a good accommodation experience, but it is necessary to avoid excessive urbanization packaging and maintain local and unique characteristics.

## References

- [1] SHI LF. Research on the intelligent construction of rural tourism service under the concept of tourist experience[J]. *Agricultural Economy*, 2020, 40(1): 59–61. (in Chinese).
- [2] ZHU H. Research on the improvement of Sanya rural tourism service quality based on the tourists' perception[D]. Sanya: Hainan Tropical Ocean University, 2019. (in Chinese).
- [3] WANG ZH, LI CG, YANG F. Identification and cultivation of core competitiveness of rural tourism market in Central and Southern Hebei Province[J]. *Technology Innovation and Application*, 2014, 4(9): 259–260. (in Chinese).
- [4] CHEN K, ZHANG JX, ZHANG Q. Research on residents' perception of tourism impact, willingness to participate and participation behavior in Dalishu Village[J]. *Agricultural Economy*, 2016, 36(5): 26–28. (in Chinese).
- [5] LAI CX. A study on the promotion of Chengdu rural tourism image based on tourist satisfaction[D]. Chengdu: Sichuan Normal University, 2017. (in Chinese).
- [6] GUO J. Examining the relationship between destination image and tourist satisfaction and loyalty[D]. Harbin: Harbin Institute of Technology, 2009. (in Chinese).
- [7] JIA YJ, LIN DR. Influence factors and effects of tourists' environmentally responsible behaviors based on place theory[J]. *China Population · Resources and Environment*, 2015, 25(7): 161–169. (in Chinese).
- [8] LIN D. Empirical study about the influencing factors of rural tourist satisfaction based on factor analysis and single factor analysis of variance[J]. *Journal of Central South University of Forestry & Technology (Social Sciences)*, 2015, 9(4): 56–60. (in Chinese).
- [9] ZHANG HH. The relationship between the tourist satisfaction and behavioral intention for rural tourism in Henan Province[J]. *Journal of Xinyang Teachers College (Natural Science Edition)*, 2017, 30(3): 402–406. (in Chinese).
- [10] ZHOU Y, HE JH, RONG H. Satisfaction evaluation of tourist and influence factors analysis in rural tourism[J]. *Economic Management*, 2016, 38(7): 156–166. (in Chinese).