Rural Tourism Marketing Strategy under Natural Protection Environment Based on Deep Learning

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Abstract: With the development of rural tourism, rural tourism has become one of the fastest growing industries in China's tourism industry. However, the current marketing strategy of rural tourism is relatively simple, which is difficult to meet the needs of market development. In view of this situation, based on the theory of in-depth learning, this paper starts with the current situation of rural tourism development and the problems in tourism marketing, analyzes and studies the marketing strategies of rural tourism in China's natural protection environment, and puts forward effective countermeasures to provide reference for the development of rural tourism industry. The final experimental results show that the rural tourism marketing strategy should pay attention to reputation first, with the influencing factor value of 3.741, and should pay attention to service, followed by characteristics, with the influencing factor value of 3.540, and then factors such as price and geographical location. As one of the fastest growing industries in the tourism industry, rural tourism plays an important role in the development of China's rural tourism industry.

1. Introduction

China's rural tourism is developing rapidly. In 2018, the total scale of China's rural tourism market reached 3.5 trillion yuan, up 7.6% year on year, accounting for 32.6% of the total number of tourists in China. The tourism market has grown steadily. With the continuous development of China's tourism industry, the demand for tourism is also growing, but there is a problem of homogeneous competition in the market. The homogenization competition of tourism products is serious, and tourists are not willing to consume tourism. Therefore, the development of rural tourism in China urgently needs to solve this problem. In this context, we should vigorously develop rural tourism to improve people's living standards and development levels. With the continuous improvement of people's living standards and the change of consumption concept,

tourism has become an indispensable item in people's life; Tourism has become an indispensable part of people's daily life.

With the improvement of living standards and the enhancement of people's demand for quality of life, people's demand for improving the quality of life has continuously improved the tourists' pursuit of a better life. Kai L aims to study the construction of SWOT (S represents strengths, W represents weaknesses, O represents opportunities, T represents threats) structural analysis model of e-commerce tourism development strategy based on the experience of big data [1]. In order to solve the problems of low accuracy and long time consumption of traditional rural tourism route recommendation methods, Yuping Lu proposed a rural characteristic tourism route recommendation algorithm based on multi-objective optimization algorithm [2]. The innovation of rural tourism and hotel industry is a complex process, involving the exchange of knowledge and resources between many participants and the interrelationship between these participants in the business environment. Arun Madanaguli aims to provide a structure for this "knowledge and resource ecosystem" through a comprehensive and systematic review of existing literature [3]. The tourism industry is not only the embodiment of consumers' entertainment and leisure lifestyle, but also one of the important ways to improve people's quality of life. Therefore, in order to meet the growing cultural needs of the people, it is one of the important tasks that every tourism enterprise faces and must do well to carry out various activities to meet people's yearning for a better life.

At present, China's rural tourism marketing mechanism still needs to be further improved. Therefore, this paper will put forward suggestions on the analysis of China's rural tourism marketing strategies from the following aspects: strengthening the training of talents to improve the quality of tourism practitioners and optimize the tourism market environment; In the process of tourism development, perfect incentive policies should be formulated to ensure the direction of tourism development; Actively promote diversification of publicity and expand publicity channels; Strengthen the internal management of enterprises. I hope to improve the development level of rural tourism marketing and provide corresponding suggestions through the analysis and research on the theory of rural tourism marketing under China's natural protection environment

2. Research on Rural Tourism Marketing Strategy under Natural Protection Environment Based on In-Depth Learning

2.1. Current Situation of Rural Tourism Marketing

At present, the main problem in China's rural tourism development is that the resources for rural tourism development in China are relatively dispersed. At present, rural tourism has formed a kind of scale economy. With the gradual maturity of modern tourism consumption concept, more and more tourists like to visit rural tourism, and the consumption environment has been further improved [4, 5]. At present, the proportion of tourism consumption in rural tourism consumption structure is relatively low. Although China has achieved integration with cities, there is still a big gap with surrounding provinces and cities. In addition, rural tourism has been developed for more than ten years, but no good protection measures and reasonable planning have been carried out [6, 7]. At present, most of the rural tourism products are still in the primary stage and most of them are still extensive development behaviors, which have not fully utilized the existing resources to promote the development of rural tourism industry. These are all important factors that hinder the sustainable development and progress of rural tourism.

2.2. Existing Problems and Countermeasures

There are some problems in the process of China's tourism development, which are also

important factors affecting the current situation and market of China's rural tourism. First, China's rural tourism resources are rich but seriously homogeneous. Rural tourism is a comprehensive concept, involving the production, management, service, publicity, promotion and other aspects of tourism products, which plays an irreplaceable role. However, there are many problems in many rural tourism in China at present [8, 9]. For example: First, many rural tourism enterprises have chaotic management or nonstandard operation, resulting in these problems not being solved well. Second, the market environment is not perfect. As a tourism product, rural tourism mainly develops a variety of products based on natural resources. The competition in China's rural tourism market is more intense, and the competition among tourism enterprises is more intense, which is also a region with more serious homogeneous competition [10, 11]. Therefore, the development of tourism activities in order to obtain more income will lead to various problems such as weak product competitiveness. In the development process of rural tourism, various problems arise due to the unmet needs of tourists, such as tourists' dissatisfaction, insufficient attraction of tourism products, reduction of tourists and other prominent problems, or consumer disputes caused by consumer safety issues, which will directly affect the healthy development of the rural tourism market. The third is the low quality of tourism practitioners. At present, Chinese tourists have shown that tourists pay more attention to the ticket price of scenic spots rather than experiential consumption. This has led many rural tourism enterprises to lack in-depth research on tourism product marketing strategies, corresponding suggestions and measures, and the service awareness of relevant managers is not strong [12]. The third point is that whether a place can be recognized by tourists and local residents has a great impact on the local people. Because the market is not mature, the competitiveness of tourism products is insufficient. At present, rural tourism marketing personnel lack professional knowledge. Due to the unreasonable structure of tourism marketing knowledge in China's tourism industry, the tourism marketing strategy is not perfect enough, which affects the tourism industry chain, tourists and local residents' higher level understanding of rural tourism industry and consumption capacity. Therefore, in the process of rural tourism marketing, corresponding talents are also needed as the guarantee and support. It is mainly reflected in the following aspects: tourism enterprises should strengthen personnel training and improve staff quality and professional knowledge level to promote the overall development level of rural tourism industry.

2.3. Analysis of In-Depth Learning Theory and the Current Situation of China's Rural Tourism Market

Deep learning is a multi-level and multi-level marketing strategy theory [13, 14]. Its core is to build a marketing model and use customer value requirements to guide business activities of enterprises. It mainly includes: customer demand cognitive model, customer emotion analysis model, etc. From the perspective of customer cognition, it is necessary to understand how customers decide their travel needs. Therefore, it is one of the important ways for enterprises to obtain long-term benefits to propose corresponding business strategies according to customer needs.

The deep learning is abstracted and summarized by mathematical expressions. There are two states of neurons, active state or inhibitory state, which are represented by plus or minus 1 respectively. The output of neuron j can be expressed as:

$$b_i = \text{sgn}(\sum_{j=1}^{m} s_{ji} a_j - \varphi_i) \tag{1}$$

Where: φ_i is the threshold of the ith neuron, and the expression of sgn is:

$$b_i = \text{sgn} = \begin{cases} \sum_{j=1}^{m} s_{ji} a_j > \varphi_i = 1 \\ \sum_{j=1}^{m} s_{ji} a_j \leq \varphi_i = -1 \end{cases}$$

(2)

Influenced by the theory of market economy, people buy products according to their needs in the process of tourism, and use products for exchange. In the process of market consumption, products are one of the ways to obtain an important position in the minds of consumers. Tourism marketing is a way and result of making choices and arranging consumption behaviors to meet market consumption demand. When tourism service personnel can provide a variety of choices, it is a process in which customers choose consumption behaviors to interact to produce effects and get results. Its core is to complete consumption behavior, choose consumption behavior and choose consumption results after making behavior decisions based on consumer interests. That is, the consumption behavior and consumption motivation mentioned in this paper, which is a controversial issue in the theory of deep learning. That is, it cannot be customer-centric, so it will lead to the fact that an enterprise is unable to meet customer needs and finally gives up marketing activities. But at the same time, as China's rural tourism market is already in a larger stage, it is also an indisputable market. Therefore, traditional rural tourism marketing is often difficult to meet the needs of the market.

Due to the large and fast changing demand of China's rural tourism market, marketing needs to constantly adjust strategies to meet market demand. And with the upgrading of consumer demand for services, the consumer demand also shows a diversified trend [15, 16]. The demand of Chinese tourists for rural tourism is diversified, with few personalized products and high demand diversity. Therefore, the market competition is very fierce. Therefore, enterprises should make reasonable adjustments according to their own conditions to ensure that they can reach a consensus with consumers in terms of product and service quality and better promote the stable and rapid development of tourism. Only in this way can the products and services meet the needs of tourists, so as to maximize the benefits and maximize consumer satisfaction and product value-added potential, and finally achieve the goal of profitability.

3. Research and Design Experiment of Rural Tourism Marketing Strategy under Natural Protection Environment Based on Deep Learning

In this paper, SPSS19.0 is used for data analysis, and the analysis is based on the residence of the respondents. The results show that (as shown in Table 1): from the basic situation of the respondents, most consumers are urban residents of X City, which is consistent with the characteristics of rural tourism in X City. The proportion of tourists in other areas is 21.49% [17, 18]. The source characteristics of the questionnaire consumers: urban residents in X city are the main part of rural residents, accounting for 59.09%. The tourist attractions in X city are also attractive to foreign tourists.

As shown in Table 2, the travel rate of men and women is 42.1%, and that of women is 57.9%. As far as the frequency of male and female tourism is concerned, the average male travels 5-10 times a year, accounting for 51.95%, 22.55% less than 5 times, and 25.49% more than 10 times. On the contrary, the average annual travel frequency of women is 5-10 and more than 10, accounting for 35.71% and 41.43%. It can be seen from the table that women travel more frequently than men.

Table 1. Source of tourists

Tourist Residence	Proportion
Urban residents of City A	19.42%
Rural residents of City A	59.09%
Other regions	21.49%

Table 2. Gender ratio of investigators and their travel

Gender	Number of people	Annual average number of trips	Number of people	proportion
male	102	<5	23	22.55%
		5-10	53	51.95%
		>10	26	25.49%
female	140	<5	32	22.86%
		5-10	50	35.71%
		>10	58	41.43%

4. Experimental Analysis of Rural Tourism Marketing Strategy Research under Natural Protection Environment Based on Deep Learning

4.1. Analysis on the Motivation Characteristics of Consumers' Rural Tourism

The motivation of rural tourism in the questionnaire is multi choice, which means that under different conditions, the subjects choose one from a variety of choices. Using the theory of multiple choice in SPPS, this paper studies the motivation of rural tourism of tourists. As can be seen from Figure 1, leisure (A) is the biggest driving force for tourists to participate in rural tourism. Working pressure, learning pressure and urban environment far away from nature make them more yearning for rural natural environment. 148, the reaction frequency was 30.14%, accounting for 61.16% of the samples; Secondly, it is to enhance feelings (D) and experience rural scenery (B), accounting for 18.74% and 15.48% respectively; The third is to understand the rural customs (C) and taste the rural

flavor (E), accounting for 10.59% and 9.78% respectively. In addition, tourism motivation, such as health preservation (F), free travel (G) and shopping (H), is also a part of it, which are 7.54%, 4.89% and 2.85% respectively.
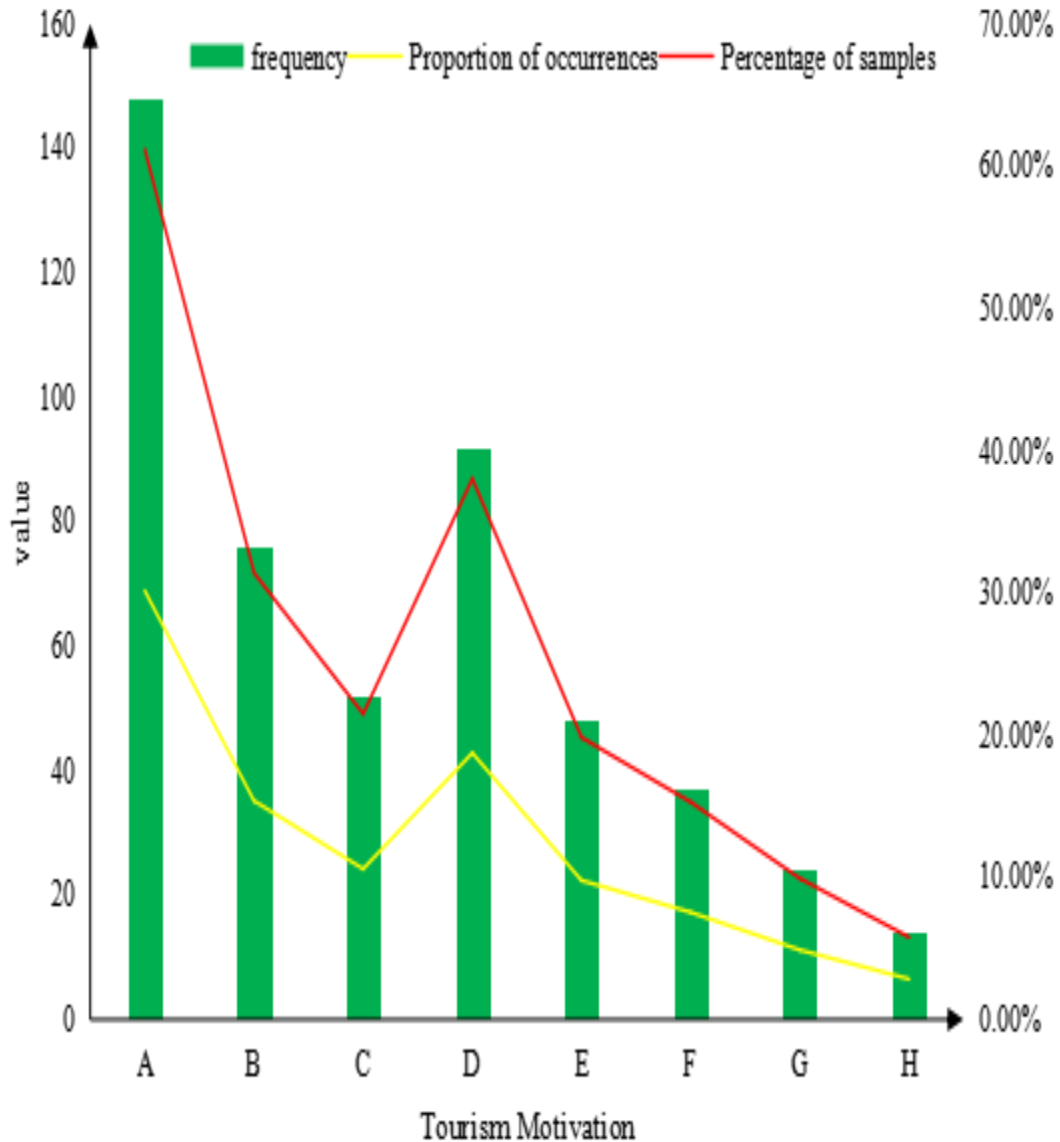

Figure 1. Distribution of rural tourism motivation

Factors that affect tourists' behavior: distance, price, facilities, characteristics and reputation. The results are shown in Figure 2: Among 242 respondents, 15.12% of them listed "distance" as the main factor, with "equipment: availability of convenient accommodation, transportation and other public services" accounting for the largest proportion; The most popular is "reputation: network, friend's evaluation", accounting for 35.54%.
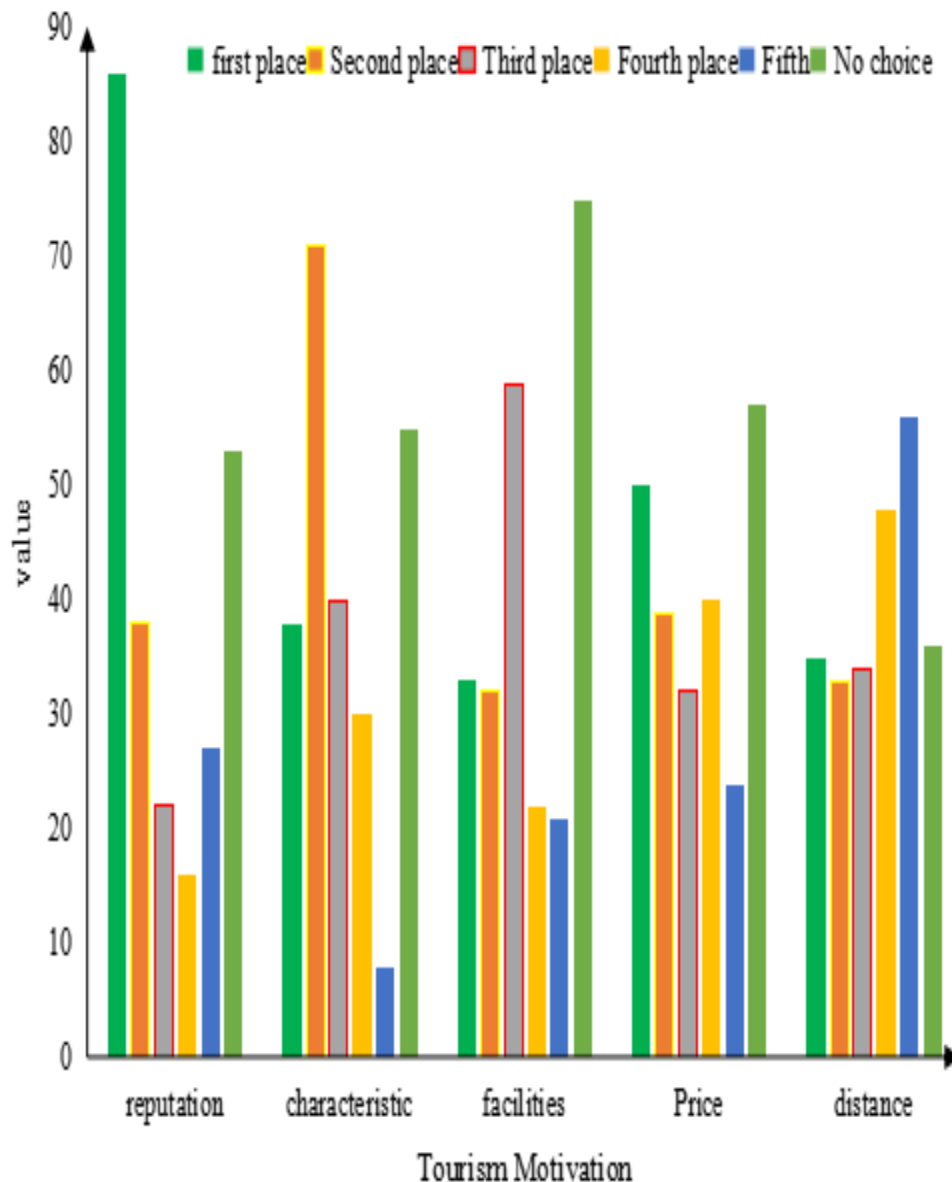
Figure 2. Ranking chart of influencing factors of tourism decision-making of X rural tourism consumers

In order to better measure the influence of each factor, this paper calculates the weight of each factor to obtain its influence score. The formula is"（ Σ frequency × Weight)/number of people with the problem ". "Weight value" means that the higher the level of respondents, the higher the score. Take "Distance" as an example, there are 35 people in total, with a weight of 5; 33 people ranked second with a weight of 4; The third place is 34, with a weight of 3; There are 48 people in the fourth place, with a weight of 2; There are 56 people ranking fifth, with a weight of 1. 36 students did not choose this item. Therefore, the final score of this project is: (35 * 5+33 * 4+34 * 3+48 * 2+56 * 1) (/242-36)=2.72. The influence of other factors on scores is the same. Please note that when the respondent only selects 3 items, his first item will score 5, and his last item will score 3; One is five o'clock, the other is five o'clock. The final calculation is:

Table 3. Impact score of factors influencing the decision-making of rural tourists in X City

characteristic	Impact score	sort
reputation	3.741	1
characteristic	3.540	2
Price	3.276	3
facilities	3.204	4
distance	2.723	5

It can be seen from Table 3 that "Reputation" scored the highest in the end. As shown in Figure 2, the main sales channel in rural X is "friend recommendation". In addition, the frequent events in recent years, such as "black tour guides" and "extorting tourists at exorbitant prices", have also made consumers more cautious in choosing rural tourism destinations. The second is "characteristics: whether the local environment is beautiful and the service is distinctive", which indicates that the competitive advantage and resource characteristics of the tourism region attract tourists; "Price: Affordable" is the third most influential factor, indicating that tourists are still concerned about value for money. In addition, unexpectedly, the impact score of "distance" was the lowest, indicating that tourists would take this factor into account when choosing a destination, but it did not have much impact. This is contrary to the fact that the rural tourism in X City is concentrated in the area about one hour away from the urban area.

5. Conclusion

Rural tourism is one of the contradictions in China's development, so corresponding measures should be taken to solve these problems for the development of rural tourism industry. In order to promote the healthy and rapid development of rural tourism, we must constantly innovate marketing strategies to meet the requirements of market demand, and then make corresponding adjustments to meet the needs of market development. This requires rural tourism enterprises to fully reflect their marketing strategies in their daily marketing activities, and improve the quality of tourism products to a new level to serve tourists. Improving the quality of tourism products is also one of the important means to improve tourist satisfaction. This paper is based on the methodology of the analysis of the realization of China's rural tourism marketing strategy in the context of in-depth learning theory. In order to provide reference for the development of rural tourism in china.

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Data Availability

Data sharing is not applicable to this article as no new data were created or analysed in this study.

Conflict of Interest

The author states that this article has no conflict of interest.

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