

THE SPATIAL-TEMPORAL CHARACTERISTICS AND INFLUENTIAL FACTORS OF NETWORK ATTENTION TO HORSE TOURISM IN THE MAINLAND OF CHINA

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INTRODUCTION

Horses are important attractions in some countries or regions, such as Iceland, Kyrgyzstan and Australia, etc. (Buchmann, 2017; Sigurðardóttir & Helgadóttir, 2015; Sturød et al., 2020). Horse tourism in this study adopts the definition “Horse tourism ranges from races and shows where the tourist is passive to active recreation where the tourist is a rider, traveling by horse on longer tours or shorter rides, it can be urban or rural, adventurous or sedentary” (Ollenburg, 2005). Despite its fast growth in this sector, horse tourism is still of marginal interest to scholars (Tomljenović et al., 2018). Previous studies mainly contributed to making the definition of horse tourism more precisely (Buchmann, 2017), exploring the sustainable development strategies of horse tourism (Dong et al., 2019), analyzing the human-horse interaction relationship in horse tourism (Dashper, 2020; Sigurðardóttir & Helgadóttir, 2015) and stakeholder analysis (Helgadóttir & Sigurðardóttir, 2008; Newsome et al., 2008). However, given the inadequacy of research methods and difficult data collection, previous studies focused primarily on qualitative research and special cases. More research methods and objective data need to be further expanded. The factors that affect the development of horse tourism is still needed to be excavated.

Thus, to solve the problem and accelerate the development of horse tourism, we take the horse tourism industry of 31 provinces (including autonomous regions and municipalities directly

under the Central Government) in the Chinese mainland as cases to investigate the mechanism of the development process. Since the horse culture is one of the common symbols in countries along the Silk Road, China has become increasingly conscious of the importance of developing the modern horse tourism industry. However, the studies focusing on Chinese horse tourism are insufficient, even though Chinese horse culture plays a significant role in the world and the horse tourism market is gradually becoming the niche. Therefore, describing the current situation of modern horse tourism development in China and exploring the influencing factors that affect its development is of great significance.

Due to the difficulties in collecting data to measure the level of tourism segment market demand since the lacking of official statistics, network attention has become one of the alternative indicators in quite a few previous studies. Therefore, this study takes network attention as an alternative indicator of tourists' demand for horse tourism, and the study on spatial-temporal distribution characteristics and influencing factors of horse tourism demand in the Mainland of China was conducted.

METHOD

Research Method.

The Herfindahl-Hirschman index, the seasonal concentration index and the coefficient of variation are adopted to measure the differences in the

distribution of network attention to horse tourism. A fuzzy-set Qualitative Comparative Analysis (or fsQCA for short) method is applied to explore the factors that affect network attention.

Data collection of the dependent variable.

According to Ollenburg's (2005) definition of horse tourism, types of horse tourism activities can be summarized as horse-riding, horse-racing, equestrian and horse-watching. Considering that horse-watching has not been observed as a theme by the Baidu Search Index Website, this study used "horse-riding", "horse-racing" and "equestrian" as keywords to get the data. Although some interference items appear in the word cloud, the three keywords are believed to be desirable after checking the hot events given by the website. the final network attention to horse tourism was obtained by summing the indexes obtained from the Baidu Search Index Website by entering the three keywords mentioned above.

Data collection of the independent variables.

The data adopted in the analysis of the factors affecting the network attention degree are from the 2022 China Statistical Yearbook, the 2022 statistical yearbooks of 31 provinces, the Mainland Horse Racing Website, the Chinese Equestrian Association Website and the Tian Yan Cha Website.

Additionally, considering that China officially joined the International Equestrian Tourism Federation (IETF) and became the 21st member of the World Equestrian Organization in 2017, which can be regarded as a milestone, this study set the starting point of the dataset as January 1, 2018. Due to the latest data in the China Statistical Yearbook being from 2021, this study set the end point of the dataset as December 31, 2021 (only the data of network attention contains data till 2022).

FINDINGS

Spatial-temporal distribution characteristics.

On the whole, the fluctuation of network attention is stable, and the annual network attention remained between 850,000 and 900,000 times. The

Herfindahl-Hirschman index of each year is slightly greater than 0.083 and the seasonal concentration index of each year has no significant change, indicating the difference between each month is small. Overall, the network attention shows a cyclical pattern characteristic of the off-season and peak season. the second and third quarters of each year form the peak season, and the first and fourth quarters of each year form the off-season. The coefficient of variation is 0.36 which indicates that the geographical distribution of network attention is dispersed. In general, the network attention to horse tourism in economic development regions is relatively high.

Analysis of factors influencing network attention to horse tourism.

Although a few studies have considered the impact of population on network attention (Zhang & Wu, 2022), this study still takes daily network attention to measure the dependent variable because the scale of demand also reveals the level of tourism development. Tourists' attention to tourism is essentially driven by demand (Zhang & Wu, 2022). Based on the push-pull theory and according to previous studies (Su & Kang, 2022; Wang, 2021), the pushes including consumption level (CL) and financial support (FS), and the pulls including product supply (PS), market vitality (MV), biological resource (BR) and tourism development level (TDL) are adopted as representative indicators that may affect public demand for horse tourism.

The results show that there is no necessary condition leading to high-level or low-level network attention to horse tourism. Five configuration paths (C1-C5) that can lead to high-level network attention and three configuration paths (N1-N3) that can lead to low-level network attention are discovered (see Table 1). Four development models are defined which are the market-driven model (including configuration C1 and C5), the financial-support-driven model (including configuration C2), the tourism-single-factor-driven model (including configuration C3 and C4) and the resource-economy-uncoordinated-border model (including configuration N1, N2 and N3).

Table 1 Configuration paths of the network attention to horse tourism

Antecedent Condition	High-Level Network Attention					Low-Level Network Attention		
	C1	C2	C3	C4	C5	N1	N2	N3
CL	●	⊗	●		●	⊗	⊗	⊗
FS		●	●	●	●	⊗	⊗	⊗
PS	●	●	⊗	⊗	●	⊗		⊗
MV	●	●	⊗	●	●	⊗	⊗	⊗
BR				⊗	⊗		●	●
TDL	●	⊗	●	●		⊗	⊗	
Raw Coverage	0.3594	0.2511	0.2411	0.3291	0.3546	0.4797	0.4296	0.4639
Unique Coverage	0.0507	0.0483	0.0553	0.0658	0.0582	0.1294	0.0793	0.1137
Consistency	0.9984	0.9683	0.9976	0.9929	0.9983	0.9545	0.9836	0.9687
Solution Coverage				0.6576				0.6727
Solution Consistency				0.9876				0.9563

Note : ●, ●, ⊗ and ⊗ indicate that the presence of the core condition, the presence of the marginal condition, the absence of the core condition and the absence of the marginal condition, respectively. The blank space indicates the attribute is unimportant for the configuration.

IMPLICATIONS or CONCLUSION

Spatial-temporal distribution of network attention to horse tourism is not very concentrated and the degree of network attention is low generally indicating that the demand for horse tourism has not been fully stimulated. However, the network attention to special events increases sharply providing evidence that the market potential is large.

The factors that influence the network attention to horse tourism are relatively complex, and a single precondition cannot lead to an increase in network attention. The necessary preconditions leading to high-level or low-level network attention to horse tourism have not been identified from the cases.

The configuration paths that bring high-level or low-level network attention to horse tourism are not unique. Multiple equivalent paths containing different conditions can achieve the same effect. Three development models and five configuration paths that can bring high-level network attention are evoked based on 31 cases that are different in the resource endowments and economic development level. The three models are the market-driven model, the financial-support-driven model and the tourism-single-factor-driven model. Additionally, the resource-economy-uncoordinated-border model is identified to avoid low-level network attention

occurring.

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