Exploring the Characteristics of Destination Image in the New Era of Information Technology: The Case of Online Travel Reviews

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Introduction

The COVID-19 pandemic has caused unprecedented challenges to the tourism industry. According to a report from the Committee for the Coordination of Statistical Activities (CCSA, 2021), this crisis has caused a 74% drop in international tourism, with the number of visitors falling from approximately 1.5 billion in 2019 to 380 million in 2020. Moreover, it is estimated that the worldwide tourism industry will take two and a half to four years to recover to pre-pandemic levels (CCSA, 2021). This speed depends on the containment and control of the pandemic in each country as well as the effectiveness of vaccination programmes. During this pandemic, different countries have generated varying reputations on social media because of their epidemic prevention strategies. Due to rapid and effective control of the COVID-19 pandemic, some countries have gained an enhanced status, while the reputation of others has suffered due to misleading information. Many countries will soon face the issue of how to repair or improve their destination image in the aftermath of the COVID-19 pandemic. One of the ways to repair destination image is by disseminating positive destination information on different social media platforms, including TripAdvisor, Facebook, Twitter, YouTube etc. This is where information communication technology has become a solution and has opened up ways for for tourists to perceive a destination.

With the advent of innovative communication technologies, especially in the current interconnected society, the exchange of destination information through social media is unavoidable. Various online information sources provide tourists a wealth of additional information to become more familiar with a particular travel destination. Those information

sources include official tourism websites, online travel agencies, or social media platforms such as Facebook or Twitter. The impact of multi-channel destination information on tourists' perception of a place is inconsistent, leading to the formation of the destination image being complicated by the development of information communication technology.

Of these information resources, online travel reviews are unsolicited, unbiased, and first-hand (Marine-Roig, 2017). Therefore, they can be considered trustworthy sources of destination information for tourists. Travel reviews not only play a pivotal role in the formation of tourists' impressions of a destination but have also increasingly become an opportunity for destination marketers to promote their destinations. Tourists have become active producers and transmitters of destination images through online travel reviews. Therefore, the destination image is moulded by travel reviews and gradually becomes the perceived image of other potential users. Compared with conventional studies on destination image characteristics, incorporating online travel reviews into destination image research is a novel approach to understanding the characteristics of destination image in the context of the new era of information technology.

Literature Review

Destination image is a complex and multiple concept (Gallarza et al., 2002). There have been two mainstream views on the framework of the destination image. The first framework is based on Echtner and Ritchie's (1991, p. 8) concept that the structure of a destination image is composed of three jointly interpreted continuums: attribute-holistic, functional-psychological, and common-unique (Echtner & Ritchie, 1991). The attribute-holistic continuum illustrates whether the representation of the destination image is from the perspective of an individual attribute or a holistic aggregate. The functional-psychological continuum refers to functional (directly observable or measurable) or psychological (less tangible, difficult to measure) attributes. The common-unique continuum also refers to common characteristics, attributes, and impressions according to which destinations are commonly compared or unique or destination-specific features (Echtner & Ritchie, 1991, 1993).

The second framework argues that a destination image is generally considered to have a multi-dimensional structure of three interrelated components: cognitive, affective, and conative (Gartner, 1993). Cognitive image refers to the knowledge of the destination; specifically, it relates to tourists' perception of destination attributes (Baloglu & McCleary, 1999). The affective image represents tourists' feelings about these destination attributes (Kim et al., 2017). The conative image represents the behaviour intention of tourists for future behaviour (Gartner, 1993).

In addition, based on a review of relevant destination image studies, Gallarza et al. (2002) indicated that relativistic nature and dynamic nature are the essential characteristics of the destination image concept. Relativistic nature refers to diverse groups of tourists or information sources contributing to different perceptions or presentations of the destination image (Gallarza et al., 2002). Additionally, the formation of the destination image is dynamic due to time and space factors. Although some studies on the destination image

concept involve its characteristics in the context of information technology, there are still significant deficiencies in this topic. For example, Marine-Roig and Ferrer-Rosell (2018) established the relativistic nature of destination image according to different kinds of information sources (e.g., official travel websites, blog platforms, and travel review platforms). However, it is still unknown whether this relativistic nature exists within the same category of information source, such as between different travel review platforms.

According to a destination image literature review, the author did not find systematic and comprehensive studies proving its relativistic nature and dynamic nature from the perspective of information technology. Therefore, the main objective of this research was to understand the relativistic nature and dynamic nature of the destination image from the information technology concept, case of online travel reviews. Then, three studies were presented to achieve the primary research purpose.

1. How is the relativistic nature of destination image manifested in different online travel review platforms? (relativistic nature)
2. How does the dynamic nature of destination image become evident in online travel reviews at the macro destination level? (dynamic nature at the macro level)
3. How is the dynamic nature of destination image reflected in the influence of online travel reviews on tourists' perceptions of a destination? (dynamic nature at the micro-level)

Methodology

Finland is an example destination in all three studies, while research data were collected from Chinese tourists. The reason to choose Finland as an example is that from 2013 until the pre-pandemic period, the number of Chinese outbound tourists visiting Finland increased by 265% (Guo et al., 2022). Although the destination of Finland has proliferated in the Chinese market, few studies have explored its image from the perspective of Chinese tourists (Guo et al., 2021). For Finland to maintain its attractiveness in the mind of Chinese tourists after the COVID-19 pandemic, it is necessary to have a profound understanding of the destination image of Finland from the perspective of Chinese tourists. This can assist in the adequate formulation of corresponding marketing strategies for Chinese tourists and develop appropriate tourism products and services. Therefore, to provide insights into the future development of tourism in Finland as well as other Western countries, this paper selects Finland as a case study to explore its image from a Chinese perspective as a tourist destination for the Chinese market.

The first two studies used a data crawler (Octopus), scraping 10,197 Simplified Chinese online travel reviews from five Chinese travel review platforms, including Ctrip, Qyer, Mafengwo, Tuniu, and Qunar. The data was collected between early October and the end of December 2018. The data of the third study was from an experimental design survey carried out from March 24, 2021, to April 29, 2021, a total of 1,305 Chinese tourist.

The content analysis, sentiment analysis, basic descriptive analysis, non-parametric tests and the post hoc z-test were applied in these three studies. Destination image anal-

ysis is often conducted using the approach of analysing textual messages. Thus, content analysis is commonly used in tourism studies (Stepchenkova & Mills, 2010). Sentiment analysis reveals tourists' positive, neutral, or negative emotions by identifying meaningful words embedded in context. Sentiment detection provides an affect-centred interpretation of tourists' attitudes towards tourism products or services (Költringer & Dickinger, 2015). In tourism research, descriptive analysis is used to describe, display, or constructively summarise the results of the study. Simple descriptive analysis can provide some industry insights for destination marketers when formulating marketing strategies, while exploring more complex tourist behaviour requires multivariate analysis, such as the parameter test (z-test) and non-parametric tests (Jenkins, 1999).

Results & Discussion

Research results from study 1 not only filled the gap in research on the relativity of destination image from the information communication concept but also prove that travel review studies based on a single platform may lead to biased conclusions. The results showed that the destination image varies significantly according to the online travel review platform. This discrepancy is especially prominent in the dimension of functional and mixed functional-psychological destination attributes. In general, the destination image of Finland on Qyer review platform contains a more advanced perception than on the other platforms. Specific to each destination attribute dimension, the review platforms are divided as follows: Qyer is superior in general infrastructure, Ctrip and Mafengwo have higher ratings in tourism leisure attributes, while Qunar and Tuniu have better scores in culture, history, and art. Results further suggest that since different travel review platforms display dissimilar destination images, tourists visiting specific platforms may have different travel behaviour. Therefore, destination marketers should develop different marketing strategies according to the media channel.

Research results from study 2 proved that all dimensions of destination image evolve. Regarding the perception of destination attributes, tourists' perceptions of macro destinations change rapidly over time, even for destinations at the national level. The development of destination attributes at the psychological and functional levels seems to follow the trend of mixed function-psychological destination attributes. In terms of destination structure perception, even if the overall structure of the destination image does not undergo fundamental changes, substantial changes may occur in the dimensions of the destination attributes. The final result of this structural evolution leads to a change in tourists' perceptions of a particular destination. Regarding destination sentiment, the evolution of destination sentiment differs from the progression of destination attributes, and they even display opposite trends. For example, in the case of Finland, the more Chinese tourists perceive and share Finnish entertainment and leisure activities, the more negative their attitudes become. Although these findings are inconsistent with earlier studies, there is a consensus that these dynamic evolutions seem to be related to the improvement of desti-

nation facilities, promotion of destination marketing organisations, and impact of international events.

Research results from study 3 indicated that the destination image changes dynamically due to the influence of travel review content. Different travel review attributes have varying effects on the change of cognitive image, affective image, and conative image. Positive high rating reviews improve cognitive image much more than negative reviews, while negative low rating reviews considerably impact the affective image. For positive high rating scenarios, concrete review content enhances all three image components more than abstract review content. In contrast, in low rating circumstances, the negative effect of abstract review content is larger than concrete review content for all three image components. The results of this study confirm that the dynamic changes in tourist perception of a destination are affected by destination information. Destination marketers should be aware that diverse types of information content cause different outcomes in forming a destination image. For instance, as this study ascertained, positive concrete destination information profoundly improves tourists' perceptions of a location.

Conclusions

Tourism researchers have been studying destination image for more than half a century. From the perspective of destinations, the destination image is an essential indicator for destination market segmentation, market positioning, and competitiveness analysis. In contrast, from the standpoint of tourists, the image of a destination is vital in their decision-making process. When information technology ushered in the rapid development of tourism, understanding of the destination image concept also changed. As Kislali et al. (2016) mentioned, information technology is one of the most significant factors in forming a destination image. Tourists have entered the internet age, so more destination image studies are required in the context of online destination information since most investigations into the nature of destination images are still 20 years behind the times. Although this study has proved in detail the relativity and dynamics of the destination image concept in the context of information technology, with the development of information communication and the constantly updated iteration of social media platforms, researchers should not stop at the exploration of destination image characteristics at present. On the contrary, researchers should improve the concept of destination image with the progress of society.

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