

Revealing the Sustainable Development Mechanism of Guilin Tourism Based on Driving Force/Pressure/State/Impact/Response Framework

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Abstract : China's tourism industry is in a state of shock and recovery, although COVID-19 has brought great impact and challenges to the tourism industry. The theory of sustainable development originates from the contradiction of increasing awareness of environmental protection and the pursuit of economic interests. The sustainable development of tourism should consider social, economic, and environmental factors and develop tourism in a planned and targeted way from the overall situation. Guilin is one of the popular tourist cities in China. However, there exist several problems in Guilin tourism, such as low quality of scenic spot construction and low efficiency of tourism resource development. Due to its unwell-managed, Guilin's tourism industry is facing problems such as supply and demand crowding pressure for tourists. According to the data from 2009 to 2019, there is a change in the degree of sustainable development of Guilin tourism. This research aimed to evaluate the sustainable development state of Guilin tourism using the DPSIR (driving force/pressure/state/impact/response) framework and to provide suggestions and recommendations for sustainable development in Guilin. An improved TOPSIS (technology for order preference by similarity to an ideal solution) model based on the entropy weights relationship is applied to the quantitative analysis and to analyze the mechanisms of sustainable development of tourism in Guilin. The DPSIR framework organizes indicators into sub-five categories: of which twenty-eight indicators related to sustainable aspects of Guilin tourism are classified. The study analyzed and summarized the economic, social, and ecological effects generated by tourism development in Guilin from 2009-2019. The results show that the conversion rate of tourism development in Guilin into regional economic benefits is more efficient than that into social benefits. Thus, tourism development is an important driving force of Guilin's economic growth. In addition, the study also analyzed the static weights of 28 relevant indicators of sustainable development of tourism in Guilin and ranked them from largest to smallest. Then it was found that the economic and social factors related to tourism revenue occupy the highest weight, which means that the economic and social development of Guilin can influence the sustainable development of Guilin tourism to a greater extent. Therefore, there is a two-way causal relationship between tourism development and economic growth in Guilin. At the same time, ecological development-related indicators also have relatively large weights, so ecological and environmental resources also have a great influence on the sustainable development of Guilin tourism.

Keywords : DPSIR framework, entropy weights analysis, sustainable development of tourism, TOPSIS analysis

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