Routing Evaluation Method for Self-drive Tourism Network Development Using Cross-efficiency of Data Envelopment Analysis Model

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ABSTRACT

In travel and tourism, traveling by road is a popular means of transportation. In recent years, tourism development strategies and the creation of themed routes as tourist attractions have gained traction (Božić & Tomić, 2016). Transportation is not only an essential part of tourism infrastructure, but it is also an essential prerequisite for promoting tourism development. Self-drive tourism refers to people traveling from origins to destinations in their own or rented cars while engaging in tourism-related activities anywhere along the way (Prideaux et al., 2001). It is one of the major subsectors of the tourism industry that has benefited from the advancement of the road transportation system (Buckley & Ollenburg, 2012). For a long time, the COVID-19 pandemic has had a devastating impact on the global travel and tourism industry (Kim et al., 2021). Several countries, particularly those with a high tourism intensity, are now restoring their tourism industries through different recovery strategies. However, with the continuation of the COVID-19, private vehicles may now be positioned as temporarily safer modes of transportation (Butler et al., 2021). Building on this proposition, self-drive tourism may provide exceptional platforms for achieving well-being improvements, especially in light of the constraints and anxieties caused by COVID-19, which remains endemic.

Keywords: self-drive tourism, tourism network, network development, route evaluation, data envelopment analysis