ABSTRACT

This study aims to analyze the spillover effect of air pollution on the number of domestic tourist trips across provinces in Indonesia. The data used are panel data covering 34 provinces from 2018 to 2022. The methods applied include global spatial autocorrelation test (Moran's I) and Local Indicators of Spatial Association (LISA), with model estimation conducted using the Spatial Durbin Model (SDM).

The Moran's I test results show significant spatial autocorrelation in 2018 and 2021. LISA analysis identifies clusters of provinces categorized as Low-Low, High-Low, and High-High, indicating that the distribution of air pollution is not random but forms local spatial patterns. The SDM estimation results reveal that a reduction in air pollution in a province does not have a statistically significant direct effect on the number of tourist trips to that province. However, a positive and significant spillover effect is found: improvements in air quality in one province increase tourist visits to neighboring provinces. The number of tourism sector workers has a positive and significant direct effect, while road length and the number of facilities/accommodations do not show significant direct or indirect effects.

Keywords: Tourism, Spillover Effect, Air Pollution, and Spatial Regression.