

ABSTRACT

The Human Development Index (HDI) is a composite indicator measuring human development achievements through health, education, and decent living standards dimensions. This study analyzes factors affecting HDI in 27 districts/cities of West Java during 2021–2024 using spatial econometric panel data approach. Independent variables include Real Expenditure per Capita, Education Index, Number of Hospitals, and Open Unemployment Rate. Research methodology applies Queen Contiguity weight matrix, Lagrange Multiplier test for spatial diagnostics, trilogy test for panel model selection, and Maximum Likelihood estimation. Results show Spatial Autoregressive Fixed Effect (SAR FEM) as the selected model with $R^2 = 98.99\%$. Education Index has the most dominant effect ($\beta = 2.4568$, $p < 0.05$), followed by Real Expenditure per Capita ($\beta = 0.0007$, $p < 0.05$). Spatial lag parameter is significant ($\delta = 0.3344$, $p < 0.05$), confirming positive spatial dependence among regions. Impact measures decomposition reveals dominance of direct effects over indirect effects, indicating stronger local influence despite inter-regional spillover effects.

Keywords: Human Development Index, Spatial Econometrics, Panel Data, Spatial Autoregressive Model, Fixed Effect, Impact Measures, West Java.