

Modeling the Economic Growth in ASEAN Countries with a Spatial Panel Approach

by Rosita Kusumawati, Bayutama Isnaini, Indira Ihnu Brilliant

ABSTRACT

Economic growth is one of the things that is the focus of attention in every country. This is because economic growth can be an indicator of successful development in a country's economic activities. Real economic growth can be seen from Gross Domestic Product or also known as Gross Domestic Product at constant prices where a country's economic growth will be observed from year to year. In the current era of globalization, many countries are implementing an open economic system, giving a country the opportunity to interact economically with other countries. The economic relationships that exist between countries can approach spatial econometrics. In this study, researchers are interested in analyzing several variables that might influence a country's economic growth if it is known that the country has economic relations with other countries. The dependent variable used is gross domestic product, while the independent variables are foreign direct investment, carbon dioxide emissions, renewable energy, and urban population. The unit of observation in this research is ten ASEAN countries and data for each country is taken from the World Development Indicator for 2013-2019 with customized spatial weighting which is based on the occurrence of import-export activities between ASEAN countries. Based on the results of data processing, the results obtained show that there is spatial dependence in the form of a relationship between economic growth in one ASEAN country and economic growth in other ASEAN countries. The spatial panel model that is suitable for this research is the spatial autoregressive fixed effect model, so that the results obtained show that the variables that influence ASEAN economic growth are carbon dioxide emissions and urban population.

Kata Kunci: *Economic Growth, ASEAN, Panel, Spatial*