

ABSTRACT

Indonesia is one of the 5th largest iron and steel exporters in the world. Iron ore and iron sand reserves are spread across several regions in Indonesia. However, CO₂ emissions caused by iron and steel production are a barrier to international trade. Decarbonization of the iron and steel industry is a form of commitment of every country in the Paris Agreement related to net zero emissions in 2050. The purpose of this study is to analyze the variables that affect Indonesia's iron and steel exports to the five main destination countries (China, South Korea, India, Singapore, and Thailand) on the demand side. The independent variables are real GDP per capita, real exchange rate, and economic distance as a representation of the gravity model.

This research uses a quantitative approach by utilizing secondary data sourced from official websites including BPS, World Bank Indicator, UN Comtrade, IMF, CEPII, and other relevant websites. The time span used is 1991 to 2020. This study uses panel data regression with the formulation of the gravity model with three stages to choose the most appropriate model, namely the Common Effect Model, Fixed Effect Model, and Random Effect Model. The data processing process uses Eviews 10 software.

The findings are that the real exchange rate variable, and Indonesia's economic distance from destination countries partially affect Indonesia's iron and steel exports. Meanwhile, the real GDP per capita variable of the main destination countries has no effect on Indonesian iron and steel exports. Indonesian iron and steel exports are positively affected by the economic distance variable. In contrast, the real exchange rate has a negative effect on Indonesian iron and steel exports.

Keywords: Iron and steel exports, real GDP per capita, exchange rate, gravity model