

ABSTRACT

Trade openness, Information and Communication Technology (ICT), per capita income, and Human Development Index (HDI) are important factors that influence environmental degradation in UMI countries. This study aims to analyze the effect of trade openness, ICT, and Human Development Index (HDI) on environmental degradation in Upper-Middle Income countries in the short and long term and how per capita income affects environmental degradation in the U-shaped EKC hypothesis in Upper-Middle Income countries for the period 1990-2020. This type of research is quantitative research using panel data. Using time series from 1990 to 2020. The data analysis technique used in this study is the Panel Vector Error Correction Model (VECM).

The effect of trade openness on environmental degradation in UMI countries in this study has a positive effect both in the short term (lag one 0.001256; lag two 0.002319) and the long term (0.017593). Likewise, ICT in the short term (lag one 0.009877; lag two 0.024866) has a positive effect on environmental degradation because increased digital activity often increases energy consumption and electronic waste production. However, over time there is a gradual change (incremental change) in the production process, such as the use of ICT (IR year four: -0.008585) which is innovative causing trade openness to drive a decrease in environmental degradation. Per capita income has an insignificant relationship to environmental degradation in Upper Middle Income countries. So the EKC curve in UMI countries is not proven in both the short and long term.

Keywords: *Environmental Degradation, HDI, ICT, Trade Openness, Upper-Middle Income*

