

Sustainable Development in OIC Countries: Evaluating the role of ICT in Environmental Conservation

ABSTRACT

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In recent decades, the world has witnessed an enormous increase in digitalization among businesses and individuals. This is because the adoption of information and communication technology (ICT) brought numerous advantages to human beings in the form of improved communication, productivity, and research. In the 21st century, computing has become a key resource in many sectors to help in various purposes, including information retrieval, processing, and automation. However, as the use of ICT has been continuously increasing, concerns are growing about its effects on the natural environment and climatic conditions. Theoretically environmental effects of ICT are ambiguous. To assess it empirically, this study explores the ICT-environment nexus for Organization of Islamic Cooperation (OIC) economies. The empirical analysis is based on novel measures of ICT. The results showed a favorable role of ICT penetration on environmental quality in OIC countries. Thus, the empirical findings support the ‘*greening through ICT*’ hypothesis. Moreover, the ‘*environmental Kuznets curve*’ is also validated in OIC countries.

Keywords: ICT, E-Waste, Environmental Degradation, CO₂ Emissions, OIC Countries

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