

DOES DIGITAL TRANSFORMATION CONTRIBUTE TO REDUCING POLLUTION? INSIGHTS FROM EUROPEAN OECD COUNTRIES

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Abstract: Digital advancement is a key pillar of economic development that, through effective harmonization, can contribute to a sustainable future. Accordingly, this paper uses the Autoregressive Distributed Lag (ARDL) approach to study digital transformation's long-run impact on environmental pollution. On the one hand, we find that digital transformation significantly reduces pollution, a result that holds for a wide set of robustness tests. On the other hand, the findings unveil heterogeneities with respect to digitalization components and countries' structural characteristics. Overall, while these findings support the crucial role of digitalization in promoting sustainable growth, special focus should be directed to those components that are more likely to harm the environment.

Key words: pollution; digitalization; cointegration; CS-(N)ARDL

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