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## Title

# ***Revisiting the nexus between digital trade, green technological innovation, and environmental sustainability in BRICS economies***

## Abstract

After the UN Climate Action Summit in 2019, many countries started progressing towards race to zero targets. The intricate framework of digitalization and green technologies has the potential to persuade governments to implement policies that promote a zero-carbon economy, i.e., green economy. Hence, this study determines the effect of digital trade (DGT) and green technological innovation (GTI) on environmental sustainability (ENS) by considering the role of renewable energy consumption (REC), globalization (GLOB), and economic growth (EG). The study measured ENS by taking into account three proxy variables, i.e., ecological footprint (EF), carbon dioxide emission (CO<sub>2</sub>e), and methane emissions (CH<sub>4</sub>e). POLS and PMG-ARDL techniques are applied to the panel data of BRICS (Brazil, Russia, India, China, and South Africa) from 2000 to 2019. Panel Quantile Regression (PQR) along with AMG and CCEMG estimators is applied hereafter for checking the robustness of the empirical results. The long-run empirical outcomes show the positive association of DGT, GTI, REC, and GLOB with ENS. Lastly, this study inscribed the Environmental Kuznets Curve (EKC) and highlights policy implications and governmental measures to ensure environmental sustainability in BRICS economies. © 2024, The Author(s), under exclusive licence to Springer-Verlag GmbH Germany, part of Springer Nature.

## Authors

Yuerong H.; Javaid M.Q.; Ali M.S.; Zada M.

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## Author full names

Yuerong, Han (58867603800); Javaid, Muhammad Qasim (58475714400); Ali, Muhammad Sibte (57571856000); Zada, Muhammad (57208921628)

## Author(s) ID

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## Affiliations

University of Macau Avenida da Universidade, Taipa, Macao; Business School, Zhengzhou University, Henan, Zhengzhou, China; Facultad de Administración y Negocios, Universidad Autónoma de Chile, Santiago, 8320000, Chile

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## Authors with affiliations

Yuerong H., University of Macau Avenida da Universidade, Taipa, Macao; Javaid M.Q., Business School, Zhengzhou University, Henan, Zhengzhou, China; Ali M.S., Business School, Zhengzhou University, Henan, Zhengzhou, China; Zada M., Facultad de Administración y Negocios, Universidad Autónoma de Chile, Santiago, 8320000, Chile

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## **Correspondence Address**

M.S. Ali; Business School, Zhengzhou University, Zhengzhou, Henan, China; email: ali4bzu@gmail.com

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