

## **Digitalization process and its impact on economic growth.**

### **A panel data study for developing countries.**

Ewa Lechman

[eda@zie.pg.edu.pl](mailto:eda@zie.pg.edu.pl)

ORCID: 0000-0003-1718-7134

Gdansk University of Technology  
Faculty of Management and Economics  
ul. Narutowicza 11/12  
80-233 Gdańsk, Poland

Helena Anacka

[helena.anacka@pg.edu.pl](mailto:helena.anacka@pg.edu.pl)

ORCID: 0000-0001-7483-2844

Gdansk University of Technology  
Faculty of Management and Economics  
ul. Narutowicza 11/12  
80-233 Gdańsk, Poland

### **Abstract**

This research contributes to the recent knowledge developments in the field of the role of digital technologies in developing countries by tracing the strength of digital technologies diffusion impact on economic growth and examining changes in cross-country inequality changes related to ICT and growth. By convention, we concentrate on economically backward economies for which digital technologies are often treated as a significant economic growth and development accelerator. Our empirical sample covers 40 low-income and lower-middle-income economies, and the time span of the analysis is set for 1990-2019. To examine the role of digital technologies in the process of economic growth, we chose two core ICT indicators: mobile cellular telephony and Internet users. Additionally, as explanatory variables for economic growth, we use high-tech-related export activities, gross fixed capital formation, school enrolment, expenditure on education, wage, and salaried workers. All data are extracted from World Development Indicators 2021 and World Telecommunication/ICT Indicators databases. Our results suggest that the digitalization process affects positively economic growth. Moreover, growing digitalization and enhanced economic growth are accompanied by dropping cross-country technological and economic development inequalities. Our panel regressions results indicate positive and statistically significant relations between gross national income per capita and internet users, mobile cellular telephony, tertiary school enrolment and wage, and salaried workers explanatory variables across 40 countries. We conclude with empirical research analysis and policy recommendations.

Keywords: ICT, digital technology, developing countries, economic growth

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