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How do e-governance and e-business drive sustainable development goals?

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ABSTRACT

Sustainable development policies trigger a shift in the global development paradigm by aligning economic, social, and ecological goals. Concurrently, the rapid surge in digitalization is transforming business processes and communications across all sectors and levels. As a result, the integration of e-business and e-governance becomes a critical component in achieving Sustainable Development Goals (SDGs). In this context, the aim of this article is to analyze the effects of digitalization, specifically e-governance and e-business, on the attainment of SDGs in European Union (EU) countries. The method used is a panel of corrected standard errors and feasible generalized least squares models to identify the impact and significance of e-governance and e-business on SDG achievement. The e-governance indicators considered by this study were found to significantly impact SDG achievement. Moreover, e-business indicators were also found to positively impact the attainment of SDGs, with some exceptions. The findings suggest that EU countries should continue to intensify digitalization across all sectors as it enhances the transparency accountability of all business processes and communications and increases trust in government services, which are the core drivers of achieving SDGs.

1. Introduction

The global paradigm shift from resource-based economic growth to sustainable development depends on the creation of new models that harmonize economic (Zofio et al., 2023), social and ecological objectives (Lacarcel and Huete, 2023). In response to this, world leaders adopted the agenda on Sustainable Development at the “Earth Summit” in 1996 to safeguard the planet for future generations (United Nations, 2023). Notably, the Sustainable Development Goals (SDGs) underwent modernization starting in 1992. As per the 2030 Agenda for Sustainable Development, the global community accepted the responsibility to achieve 17 goals, as measured by 169 targets, by 2030. Researchers (e. g., Yi and Thomas, 2006; Gavkalova et al., 2022) highlight that SDG achievement necessitates consolidation and effective communication among businesses, government, and society (Saura et al., 2022a, 2022b).

Simultaneously, the increased development of industry 4.0 drives the transformation of business processes and communications across all sectors and levels (Miskiewicz, 2020; Kwilinski et al., 2021; Ramadania et al., 2022), thereby increasing the penetration of digital technologies in everyday life and boosting innovation processes (Saura et al., 2023a,

2023b). Choi (2017) posits that the digital revolution has altered the global development paradigm from total government surveillance and control protocols to an economy where citizens play a vital role in economic growth (Lan and Tang, 2023).

In this regard, the enhancement of e-business and the improvement of e-governance should be prioritized within the pursuit of achieving SDGs that cover all aspect of respecting human rights and sustainable activities in society (Anand et al., 2018). Authors such as Yi and Thomas (2006) note that the rapid development of digital technologies triggers a range of social (Saura et al., 2022a), economic, and ecological effects (Saura et al., 2023a), influencing a country’s development and societal life. They also highlight the contentious impact of digitalization on the environment, both positive and negative. Thus, while the enhancement of digital technologies may result in negative environmental externalities in the short term (increased energy consumption, waste generation, etc.), it also yields positive social and economic effects (simplified communications, increased efficiency of marketing communications (Barbosa et al., 2023), reduced labour usage, etc. (Pérez Zabaleta et al., 2022)).

In this context, the use of digital technologies in business and

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