Digitalization and Technological Innovation as Keys to Boosting Economic Growth in Africa

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Abstract

The growth of an African digitalization process is improving millions of lives and rapidly transforming the continent. Africa has a unique opportunity to become more sustainable and create economic growth through the better use of data, instead of using old technologies. Digitalization transforms our everyday life, our way of communication and information, as well as our relationships with other people. Especially in African countries, digitalization is still under development and poses on the one hand risks, challenges, and difficulties, on the other hand, opportunities, chances, and, and perspectives for users, providers, and politics. High hopes for development lie in Information and Communication Technologies (ICT) and their potential benefits for the Global South. Digitalization has many benefits: It speeds up the spread of information, brings people closer together, creates jobs, and makes societies more efficient. In this study, we investigate the role of digitalization and technological innovation characteristics related to Africa economic development, in 45 African countries, a sample of 789 participants in public and private sectors were selected from 2020 to 2023. Technological progress and economic growth inter-dependency were analyzed in two steps. First, the relation was tested using Augmented Dickey-Fuller method. Second, we estimated the long-run relation between the variables by using Engel Granger and Error Correction models. A disaggregated analysis of the types of usage reveals that two indicators, social media and the importance of ICTs to government vision, are significant for growth. Results of regression analyses show that digitalization and technological innovation positively related to Africa's economic growth. Also, the results indicate that adopting technological innovation and digitizing the economy has the potential to drive sustainable growth and development. In particular, it was noted that ICT investments drive high productivity rates and faster economic growth. In sum, technological progress and digitization have the potential to foster significant growth and therefore must be given high credence in the planning and designing of development programs. This paper contributes to development theories on the role that ICT plays in economic growth and development.

Keywords: Digitalization, Digital technology usage, Economic growth, Africa.