The impact of digitalization on public administration, economic development, and well-being in the EU countries

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Abstract

In the last years, digitalization was the main driver in creating jobs and increasing economic growth. However, the digitalization of countries and sectors proved to be uneven. Our research is concentrated on various factors that influence economic development and well-being in EU countries. The main objective of this research is to show how the EU states evolved from the point of view of digital transformation and how other ICT-related indicators, like e-government, human development index, labor productivity, and economic growth influenced the economic development and well-being of the selected countries during 2019-2021. We use a data set composed of 15 numerical indicators collected from Eurostat and World Bank databases. We apply Principal Component Analysis. The main research results show the fact that the first dimension is dominated by e-government, the percent of ICT specialists in total, internet use by individuals, Human Development Index, Digitalization Index, Happiness Indicator, Human Capital, Productivity, and integration of digital technology. It means that the first direction will be called the impact of innovation on productivity and well-being. The second dimension is dominated by government expenses. Finally, the third dimension is dominated by the GDP growth rate. The first 3 PCs explain together 77.67% of the total variance. The combination of these indicators influencing the first PC measures the short-term effects of digitalization on public administration.