

Competitiveness in the European Union Countries: Human Capital, Information and Communication Technologies, and Innovation Eco-System

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Abstract. This study aims to analyse the role of human capital, market size, information and communication technologies (ICT), and innovation eco-system as drivers of global competitiveness measured by global competitiveness index (GCI) of the European Union (EU-28) countries. Human capital with capabilities and skills of individuals and populations can be a key driver of economic prosperity and productivity (WEF, 2020). The Covid-19 crisis has revealed the importance of the health system. Human capital with a healthy and educated workforce, knowledge and skills can be also linked with use of advanced ICTs. Innovation eco-systems (business sophistication and innovation) can be linked with development of entrepreneurship, start-ups and creation of new enterprises and technologies. Investments can be needed to promote the spread of new technologies that support the establishment of new enterprises and research, development and innovation. This can be supported by financial system development and access to finance.

We test the following two hypotheses: first, whether human capital (health, skills, and education) has greater impact on the GCI than technological readiness with ICT and market size. Second, indicators of business dynamism and innovation capacity, and the extent of financing of small and medium enterprises (SMEs) affect the GCI. We added control independent variables by a set foreign direct investment (FDI) and gross domestic product per capita. In order to gain an in-depth insight into the GCI drivers of the EU-28 countries, we used data from the World Economic Forum, Eurostat, and World Bank. Data are collected for 22 variables. Descriptive statistics of variables, correlation and regression analyses, and structural equation models (SEMs) are applied in the empirical analysis.

The empirical results show that ICT variables and human capital have a significant impact on the GCI, whilst markets size has also a positive impact on the GCI. Innovation eco-system with business sophistication and financing of SMEs help to achieve higher GCI of the EU-28 countries. The empirical results could be relevant for policy makers and managers. Our findings offer support for an increased focus on human capital, ICT adoption, and innovation eco-system with expenditures on R&D and multi-stakeholder cooperation.

Keywords: human capital, market size, information and communication technologies, innovation eco-system, global competitiveness index, European Union

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