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## **THE EFFECT OF ICT ON PRODUCTIVITY IN TRANSITION AND DEVELOPED EU MEMBERS**

### **Abstract:**

The aim of the paper was to investigate the effects of the share of value added of the ICT sector on productivity within the EU, and also to investigate any systematic differences in the effects between east (transition countries) and west (developed) EU members. To analyze the effect we used a fixed effects panel framework on a total of 23 EU countries (12 countries in “west” and 11 in “east” Europe) in a 25 year time period (1995-2020). Our main finding is that overall the share of ICT value added is a relevant and statistically significant predictor of labor productivity in the entire EU region. Furthermore, we find that the effect is twice as strong in west as opposed to east EU countries, implying a greater efficiency in translating new technology into more output per worker in developed countries. Additionally, we find that government share of GDP is a negative predictor of labor productivity in both sets of countries, giving credence to the often heard criticisms of the inefficient EU labor market due to excessive regulation which is further exacerbated by high corruption levels in east EU countries. Finally, we find that GDP per capita has a statistically significant negative relationship with productivity also in both sets of countries, implying that there is a significant catch-up effect at work both within west and east EU, with higher GDP per capita levels corresponding with lower productivity growth.

### **Keywords:**

ICT, Productivity, Transition countries

**JEL Classification:** N10, O47, O57