Digital technologies and global value chains. An empirical investigation on Italian industry

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The fourth industrial revolution is characterized by a set of digital technologies (DT) that in principle should improve firms' performance via a productivity premium. Yet the recent development of DT has coincided with an aggregate productivity slowdown in the past fifteen years, causing feeble growth of OECD countries, probably because of limited diffusion of DT. The twofold aim of this paper is to investigate: 1) whether firm participation in Global Value Chains (GVCs) can increase firm propensity to adopt DT and help the diffusion of these technologies; 2) what type of GVC governance structure is the most suitable to stimulate investments in DT. The empirical framework of our study is the Italian industry, which represents an ideal testing ground of our research hypotheses for two main reasons, i.e. the low level of digitalization of the Italian industry and the extensive participation of Italian firms in GVCs. Our analysis takes advantage of the 2017 and 2019 waves of the MET survey on the Italian industry. We find a positive and significant effect of GVC firms' participation on the probability of adopting DT. Governance does matter, as relational forms of governance are associated to more likely adoption of DT.