Foreign markets and the nature of digital technologies: Mixed-methods evidence from Italian firms

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Even though the importance of technological adoption in enhancing firms' international performance is known, very little evidence stands on the role played by the most recent digital technologies of the Industry 4.0 era. In this study, by using arguments from the information processing theory of the organisation, we provide a detailed quantitative and qualitative investigation of the impact of adopting different digital technologies on the international competitiveness of Italian firms. We use three waves of INAPP's *Relazioni Imprese e Lavoro* survey and support the econometric results with five in-depth case studies on internationalised and digitalised firms from different sectors. Through a Diff-in-Diffs approach, we find that adopting information technologies (such as big data analytics and IoT) and production technologies (robotics) increases international performance. The results are driven by medium-to-large firms specialised in high-tech, knowledge intensive sectors. The qualitative investigation unravels three enabling factors qualifying the adoption of digital technologies: virtualisation, enhanced analytics capabilities, and operational flexibility.