

Vnukova N. Information and communication technologies for assessing the maturity of digital transformation/ Nataliya Vnukova, , Sergii Lysenko and Oksana Makovoz // Proceedings of the Workshop on Scientific and Practical Issues of Cybersecurity and Information Technology – CEUR Workshop Proceedings. V International Scientific and Practical Conference “Information security and information technology” (ISecIT 2025). Lutsk, Ukraine (09–11 June, 2025). P. 60-71.

Abstract The article substantiates the need to develop a flexible and context-sensitive methodology for assessing the digital maturity of business process transformation using information and communication technologies (ICT). A critical analysis of current digital maturity models (such as DCF, DMI, CMMI) has revealed their limited adaptability to different types of enterprises. Based on conceptual modelling of digital technologies and expert validation, a multi-stage methodology is proposed and tested on three types of enterprises: a large industrial enterprise, a medium-sized IT company, and a small service oriented logistics business. The assessment was carried out using the Digital Maturity Model (DMM), which encompasses five key domains: analytics, artificial intelligence, cybersecurity, process automation, and the strategic integration of digital initiatives. The results demonstrated significant differences among the enterprises, confirming both the sensitivity and versatility of the model. The article concludes with recommendations for further development of the model and the creation of digital tools for systematic monitoring of digital transformation.

Keywords information and communication technologies, digital transformation, cybersecurity, maturity assessment models, strategy, business process management, digital maturity model