

Mints, O., Kolodiziev, O., Khadzhynova, O., Krupka, M., Demchyshak, N., Shchepka, O., Sidelov, P., Zaplatynskyi, M. (2026). Detection of the impact of technology maturity on investment activity in the industry using the example of FinTech. *Eastern-European Journal of Enterprise Technologies*, 2 (13 (140)), 62–72.

Aleksey Mints, Oleh Kolodiziev, Olena Khadzhynova, Mykhailo Krupka, Nazar Demchyshak, Oleksandr Shchepka, Sidelov Pavlo, Markiiian Zaplatynskyi

DETECTION OF THE IMPACT OF TECHNOLOGY MATURITY ON INVESTMENT ACTIVITY IN THE INDUSTRY USING THE EXAMPLE OF FINTECH

Abstract. The financial technology industry and its individual segments have been investigated in this study. The task addressed relates to the insufficient development of methodological tools for quantitatively determining the role of maturity of key technologies as a factor of investment attractiveness, as well as the fragmentation of the analysis of technological drivers of investment activity in FinTech segments. The methodological basis of this study is the Gartner Hype Cycle model. The information basis is data from global rating and research agencies. The global investment dynamics for 2018–2024 were analyzed, as well as their parameters in the context of individual sectors, which made it possible to identify the main patterns of investment activity. Based on the rule-based approach, methods for determining score estimates for investment activity and for the technology maturity factor have been proposed. They make it possible to eliminate the nonlinearity critical for the use of correlation analysis, which is inherent in the Gartner model. The results of the analysis of investment activity and maturity factors of key technologies confirmed a high positive correlation ($r = 0.8615$) between the indicated indicators. It was determined that the main driver for increasing investment activity is the implementation of key technologies that are near the “peak of inflated expectations” in the Gartner model. It was established that at present such technologies are often associated with artificial intelligence. Thus, taking into account the stages of technology maturity allows one to better explain investor behavior and predict changes in investment activity in FinTech segments. The results also extend to other sectors of the digital economy with a high share of intangible assets, fast cycles of updating and scaling, network effects, and a global sales model.

Keywords: FinTech, technology maturity, Gartner Hype Cycle, drivers of investment activity, investment attractiveness.