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ABSTRACT

The active spread of digital transformation forces small and medium-sized enterprises (SMEs) in Ukraine to look for innovative approaches to improving process efficiency. The aim of the study is to assess the relationship between the level of design thinking implementation, digitalization, innovative activity, and operational efficiency of enterprises.

The methodological framework is a panel-type econometric model with fixed effects based on secondary statistics for 2022–2024. The sample was formed from 252 Ukrainian enterprises representing five sectors of the economy: industry, trade, transport, information and communication technologies (ICTs), and professional services. The business Process Optimization Index (POI) was used as the dependent variable and the Design Thinking Index as the main influencing factor. The obtained results indicate a positive and statistically significant relationship between the implementation of design thinking and the business process efficiency ($\beta=0.215$, $p<0.01$The highest indicators were recorded in the ICTs (BPO=125.4) and trade (BPO=114.8) sectors, where design thinking is combined with a high level of digital maturity.

The conclusions confirm that the implementation of design thinking is an effective tool for increasing the productivity and competitiveness of small and medium-sized enterprises. The findings also indicate that design thinking contributes to the reduction of transaction costs, optimization of customer acquisition processes, and improvement of customer lifetime value through stronger customer orientation and more efficient business process design. The practical significance is the possibility of applying the obtained results to form state policies to support the innovative development of SMEs. The novelty of the study is the quantitative confirmation of the impact of design thinking on the efficiency of business processes using a composite index and panel econometric analysis.

Keywords: digital transformation, crisis management, digital resilience, economic resilience, digital maturity, artificial intelligence, predictive analytics, risk management, digital technologies, economic instability.