

Salun M., Lytvynenko A., Bielialov T., Yamnenko H., Romanko O. (2026). Innovative Cognitive Tools for Studying Market Opportunities for Entrepreneurship. *International Review of Management and Marketing*, 16 (3), P. 750–759.

Salun M., Lytvynenko A., Bielialov T., Yamnenko H., Romanko O. Innovative Cognitive Tools for Studying Market Opportunities for Entrepreneurship

ABSTRACT

The introduction of cognitive technologies into business processes sets new requirements for market opportunity analytics, and digital analytics makes it possible to accurately measure its impact on business models and innovative solutions. The aim of the study is to quantify the role of cognitive tools in the dynamics of entrepreneurial opportunities, identify factors that change this correlation, and build a panel model. The methodological foundation of the study was panel econometric modelling, which enabled taking into account international differences observed over time and the dynamics of indicators in the domestic sphere. The model was with lags of the dependent variable, which had a dynamic nature to take into account inertia in the development of entrepreneurial opportunities, and the stability of the impact of cognitive tools was also tested. The risk of endogeneity was avoided by using an instrumental approach to obtain causal estimates of the impact of technological diffusion on market opportunities. The dependent variable is the market opportunity index, which is a combination of indicators of innovation activity, the share of firms with new products, and the share of opportunity-oriented entrepreneurs. The empirical study for 2020-2024 showed that the higher the cognitive tools index by one standard unit, the higher the market opportunity index by an average of 0.33. The cognitive tools index and the market opportunity index were -0.42 and -0.35 in 2020 and 0.94 and 0.92 in 2024, respectively. The results confirm the positive impact of cognitive technologies on the development of entrepreneurial opportunities and innovative activity. The results indicate the need to build digital infrastructure, human capital, and support open data.

Keywords: cognitive technologies, entrepreneurship, market opportunities, digital transformation, econometric modelling, innovation management, sustainable business development