Ensuring the sustainable functioning and development of industrial enterprises in the digital economy

Dmitry A. Stepanov, Applicant MEI RAS
e-mail: ctepanov@gmail.com

Abstract
Subject/topic. The article discusses the possibilities and prospects of ensuring the dynamic stability of the economic development of industrial enterprises through the use of end-to-end technologies of the digital economy. The purpose and objectives of the study is to consider the potential and state of the use of digital technologies in the context of ensuring the dynamic sustainability of the development of industrial enterprises and to identify promising areas for improvement. Methodology. The study used: the general scientific dialectical method of knowledge, as well as some special research methods: comparative, survey method, statistical, generalization method and others. Results. An approach to understanding dynamic stability as a key characteristic of economic development has been substantiated. The importance of end-to-end digital technologies as a source of dynamism and sustainability of the development process of industrial enterprises is noted. Insufficient effectiveness of digitalization of Russian industrial enterprises is stated, factors that inhibit and stimulate industrial digitalization are highlighted. Some promising areas of digital assistance to ensure the economic development of Russian industrial enterprises are presented. Conclusions/Relevance. It has been confirmed that complex digital technologies of the so-called "end-to-end" nature can be fairly considered as the most modern toolkit for ensuring the dynamic sustainability of the development of economic entities in industry. Their use is truly synergistic in nature, since it pushes high-tech development of related industries, provides a deeper penetration of digitalization into the public sector, and also contributes to an integral increase in the global competitiveness of domestic industry, thereby making an invaluable contribution to achieving the desired parameters of national economic security. The promising directions of digitalization as a tool for ensuring the dynamic stability of the economic development of Russian industrial enterprises are given, such as the introduction of wireless communication technologies and the industrial Internet along the entire territorial chain of added value creation; activation of the use of robotics and sensorics components through the support of digital control and monitoring tools; orientation of the consumer product portfolio to the "Internet of Things"; further digitalization of general administrative and management processes (upstream-level of management of industrial enterprises) based on the introduction of tools and technologies for integrated digital planning and digital controlling.

Keywords: dynamism, sustainability, development, industrial enterprises, digitalization, end-to-end technologies, digital economy, Industry 4.0

References


About author
Dmitry A. Stepanov, Applicant, Market Economy Institute of RAS, Moscow.

For citation

DOI: https://doi.org/10.33051/2500-2325-2021-1-110-119