

# THE COMPARATIVE ANALYSIS OF GLOBAL INNOVATION AND TECHNOLOGICAL DEVELOPMENT IN THE MEASUREMENT OF DOMESTIC AND FOREIGN RESEARCHERS' APPROACHES

**Galakhova T.O.**

Candidate of Economic Sciences,  
Kyiv National Economic University  
named after Vadym Hetman

**Galakhov Ye.M.**

Postgraduate Student,  
Kyiv National Economic University  
named after Vadym Hetman

Today, in the dimension of the latest innovative, informational and virtual forms of global socio-economic development, considerable attention of domestic and foreign scientists is concentrated in the area of studying, analyzing and creating forecasts towards modern approaches, instruments, methods and concepts of global sustainable development on the basis of innovation and technological shifts. Theoretical and practical arsenal of innovation and technological development of the economy is constantly enriched with modern investigations, which are distinguished by generally recognized characteristics and radically avant-garde direction of scientific thought.

The article is devoted to the actual issue of modern innovation and technological development in the measurement of the comparative analysis of domestic and foreign researchers' approaches. In terms of a formalized approach, two concepts for the further analysis were chosen: in the domestic dimension – the concept of innovation waves, and in the dimension of foreign studies – the concept of the Fourth industrial revolution, which are the key ones in the aspect of contemporary world scientific thought.

The focus on the innovation-technological format of activity implementation, ranging from the nanoscale-level (the level individuals activity), the micro-level (the company

business activity), meso-level (the activity of clusters and branches associations of the subjects of market economy), macro-level (level of public administration) and ending with the global-level (international organizations and institutions), provides both tangible and intangible valuable benefits and development prospects. In this context, this research is more focused on the latest features, dimensions, models of the companies business activities in terms of global innovation development trends.

Having analyzed the fundamental theoretical arsenal of innovation and technological development in a value-oriented dimension, the constant radical transformational shifts were noted: from individually presented concepts of innovation development to more complex and integrative modern concepts (the concepts of open innovation, the concepts of the Fourth industrial revolution), which are characterized by flexibility and perspective orientation, reflecting not only modern global market conditions, but also focusing on the future innovative and technological trends.

A comparative analysis of the innovation waves concept and the concept of the Fourth industrial revolution has shown that the Fourth Industrial Revolution covers 6 and 7 technological waves. However, the concepts of the Fourth industrial revolution

is more complex because it focuses not only on the development of individual innovation technologies, but also on the new format of production systems of the companies that are characterized by certain avant-garde features.

It should be noted that the technological foundation of the production systems of the Fourth industrial revolution (Industry 4.0) creates intelligent, digital and network systems which focused on the implementation of not just automatic processes, but complex self-managed production processes (autonomous processes). Consequently the companies have to focus on the latest business models based on the latest production systems for maintaining their competitive position.

Towards state programs for innovation and technological development, the bright example is Germany programs in particular High-tech strategy 2020 for Germany, which includes the Industry 4.0 project (one of the sections of this project is oriented on the implementation of cyber-physical systems for automatic production) to strengthen Germany's position as a global technological leader. In this context, the experience of Germany can be adapted and implemented by countries of the post-Soviet space for the creating and development of national innovative and technological system which meets global changes. Summing up, it should be noted that the Fourth Industrial Revolution reflects a new paradigm of global innovative and technological development.