Melnikov V.V

graduate student of information systems in the economy

Kyiv National Economic University named after Vadym Hetman

SYNERGISTIC EFFECT WHEN MODELING OF INNOVATIVE PROCESSES

The main instrumental and effective method of research is the modeling method, that method of theoretical and practical action to create and use models. Research current trends functioning and development of innovative processes demonstrates nonlinear dynamics and chaos of the processes occurring in them. Therefore, the mechanisms of good governance and economic development and conduct model experiments, it is necessary to apply a fundamentally new and innovative approaches, which are based on evolutionary synergetic paradigm.

Traditional analytical methods for the study of economic, financial, social systems are increasingly hampered by problems that have no effective solution in the classical paradigm. Classic approaches have been developed to describe sustainable world, which slowly evolves.

Modern innovation processes are implemented, usually systemic, that belonging to the so-called complex innovation systems.

The research of modeling the innovation processes synergistic effect of self-organization means that the innovation system is inherently capable of self-support, play or improve their level of organization by restructuring existing and creation of new relations between the elements while changing internal or external factors by increasing the stability, preservation of integrity, ensuring effective action or development.

Synergetics focuses primarily on the fact that the innovation system can pass through the hierarchy of unsustainable development, and they (systems) have grown increasingly complex structures and organizational associations. Such instability caused by changes in external parameters and may lead to new spatial-temporal organization of the innovation system. In particular, it demonstrates the occurrence of

sudden structural change, the existence of limit cycles and chaos, the role played by stochastic processes in economic evolution, the effects of time scales and speeds installation system relative equilibrium association.

Modern innovation systems practiced two basic approaches for calculating the synergistic effect: based on statistics and on the basis of multivariate analysis and expert method.

In innovative systems management options generated by the system and imposed on it from outside and only then begin to do it the opposite effect, leading to instability and fluctuations. For the economy it is crucial, since expanding range of phenomena that introduces a mechanism of self-organization.

On the other hand synergistic effect when modeling the innovation process is achieved by integrating or coordinating set of functions and processes, thus leading to the formation of diversified (multi, multi-) structures. One of the effects of synergy is the appearance of a larger aggregate profitability as a result of coherent interaction between participants of innovative processes in comparison with the total return on their autonomous activities.

Summarizing the topic definition synergistic effect in modeling of innovation processes, we can say that there is no implicit way of determining this effect in the innovation processes. In the simulation of innovative processes to achieve synergy necessary to consider the following levels: micro level, intermediate level and macro level.

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