

The Modeling of the Value Added Distribution in Innovative Networks

Irina A. ZARAYCHENKO, Aleksey I. SHINKEVICH, Aleksandr T. KUSHIMOV, Vladimir Y. DUBROVIN, Alexey D. CHUDNOVSKIY

Abstract

The relevance of the problem stated in the paper is caused by the necessity of administrative decisions' search that improves the performance of innovation networks, which is reflected in the volumes of the generated innovative flow. The purpose of this paper is to develop a model to distribute value added between the nodes of the innovation network, which enables, on the one hand, the stimulation of the innovation process, and on the other, the optimal ratio of resources' cost and added value received of the network's participants. Methodological basis of research is the network approach in the application to the innovation process, as well as the logistic approach based on the management of flow processes. The research allowed to identify the specific features of the distribution of value added by phases of the innovation process and to develop a model of resources' cost optimization of network's participants in terms of network interactions' variability. Implementation of the proposed model allows developing of managerial solutions that contribute to the stimulation of innovative activity on the basis of network structures.