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## **FEATURES OF THE APPLICATION OF STATISTICAL-ECONOMETRIC AND OPTIMIZATION APPROACHES TO THE MODELING AND MANAGEMENT DECISION-MAKING IN THE ECONOMY**

### *Summary*

Both the theoretical and applied potential of modern economic science is quite powerful and depends significantly on the level of development of economic-mathematical, computer and information-technological tools. However, the application of economic-mathematical models, methods and information technologies has its own peculiarities and possibilities in the sense of processing and preparation of statistical or expert information and relevant management decisions, which actualizes them as a separate scientific problem.

Aim of the work is isolation and analysis of the most important and fundamental features of the use of statistical-econometric and optimization approaches in theoretical and applied research, which together form a methodological platform for the process of information processing and its application in the preparation of decisions.

The characteristic features and conditions of the application of statistical-econometric and optimization approaches in the processes of modeling the economy, preparing and making appropriate management decisions are revealed. The implementation of these approaches in both theoretical and applied research leads to adequate results only when the conceptual and methodological requirements for their use are met. Violation of these requirements, in particular for information provision, creates far from always obvious risks regarding the possibility of using the constructed model or the prepared solution in practice. The specifics of econometric and optimization models that reproduce not only quantitative, but also qualitative characteristics of the studied objects (phenomena, processes, systems) were analyzed. Taking such characteristics into account often leads to modification of certain approaches to modeling and development of management solutions. Certain aspects of information provision of decision-making conditions, formed on the basis of data (knowledge) possessed by the control subsystem about the operating environment of the research object, are substantiated.

The characterized features of the statistical-econometric and optimization approaches, which are used in the development of economic-mathematical models and the preparation of management decisions in the economy based on them, have an obvious practical orientation and are directly related to applied research. According to their content, all the stated provisions are practically significant in the sense that they are focused on scientifically based warnings regarding the specifics of using the analyzed tools in practice.

The specificity of the conditions of application of the analyzed statistical-econometric and optimization approaches is that, depending on the object of research, these conditions may have their own specific features. The justification of these features is the subject of further research.

*Keywords:* modeling, approach, statistical and econometric, optimization, features, decision-making.

*Number of sources* – 11.

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