BOOK REVIEW

Mathematical Methods and Models in Economic Planning, Management and Budgeting
Galimkair Mutanov (Springer -Verlag Berlin Heidelberg 2015, 356p., ISBN 978-3-662-45141-0).
Reviewed by F.A. Aliev*

Modern economic situation essentially differs by its complexity and undefinicity. New adequate mathematical and technical approaches must be developed to analyze and forecast such situation arisen in practice. The presented work by Galimkair Mutanov is devoted to solution of such problems. The author proposed new mathematical methods and models, which allow him to create information-analytical system of management of financial and economic processes and systems. "Mathematical Methods and Models in Economic Planning, Management and Budgeting" consists of nine chapters:

Chapter 1 "Mathematical methods of budget modelling" presents a complex of models used to analyze and forecast the flow of budget financial resources, current calculations and long-term forecasting of budget indicators.

Chapter 2 "Methods and mathematical models of budget management" focussed on the methods and mathematical models for program control of budget resources focused on the end result.

Chapter 3 "Energy-entropic methods in assessment and control of economic system" describes that often new knowledge arises at the intersection of different scientific schools when well-known laws of one science adapted to and interpreted by the other science. As example author used application of the thermodynamical approach to the mathematical description and business system management focused on the decrease in their entropy and increase in productive efficiency.

Chapter 4 "Currency trading methods and mathematical models" analyzes the methods and mathematical models of the processes taking place in the foreign exchange market. The mathematical model of the balance of exchange rates is proposed in this work, to solve the problem of the balance.

Chapter 5 "Methods and mathematical models of innovation project appraisal" presents a methods that provide safety of financial investments in the conditions of information uncertainty the development of methods and mathematical models used to assess innovation projects is a strategically oriented innovation.

Chapter 6 "Mathematical methods in making investment decisions" represents an integrated methodology of making investment decisions that enables to reduce risks, more objectively estimate probability of investment consequences and equip the investor with a practical instrument of scientifically-based forecasting.

Chapter 7 "Multi-objective stochastic models for making decisions on resource allocation" offered a set of mathematical methods and decision-making models on the resources allocation in the conditions of incompleteness information, which allows to increase a functioning efficiency of socio-economic and production systems.

Chapter 8 "Mathematical methods and models for monitoring of government programs". In this chapter for the purpose of solution complex tasks of the ensuring the effectiveness of state programs in their implementation and execution of budget performance, the author developed an information and analytical technology monitoring of realization Public housing program.

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Chapter 9 "Methodology for identification of competitive industrial clusters" considered methodology for identification of competitive industrial clusters.

Galimkair Mutanov one of the first developed the mathematical budged model, which with mathematical exactness reflects properties and conditions at any budget level. Author tasted his methods and models on real examples. New methods proposed by author can be used to analyze economical situation in the filed of sale, to make forecasts, to determine profitable cycle to structure decision-making in the foreign exchange market. Suggested by author mathematical methods and models allow one to make investment decision to reduce risk by more objectively estimating real situation. The described innovated methods and models were tested on the example of Kazakhstan's economy and the generated solutions would be useful for applications at other levels and in other countries.

This book will be interesting and valuable for teaching staff, faculty members, undergraduate and graduate students of economic and mathematical specialties.