Mathematical Methods and Models in Economic Planning, Management and Budgeting (Second Edition) -A Book Review-

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1.   Introduction

The book "Mathematical Methods and Models in Economic Planning, Management and Budgeting (Second Edition)" 9783662451427 (online) 9783662451410 (print), **DOI**: 10.1007/978-3-662-45142-7 is object of reviewing in this work. The author, **Mutanov**, Galimkair claims that the book:

-Presents economic research results based on innovative mathematical models and methods,

- For a deeper understanding these models are accompanied by computing experiments on the presented topics,

-Gives new insights into the development of economic processes and systems.

It is composed of nine chapters:

1. Mathematical Methods of Budget Modeling

2. Methods and Mathematical Models of Budget Management

3. Energy-Entropic Methods in Assessment and Control of Economic Systems

4. Currency Trading Methods and Mathematical Models
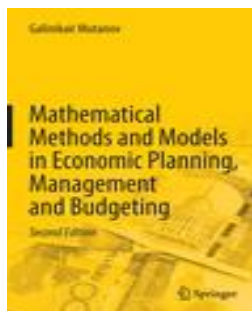
5. Methods and Mathematical Models of Innovation Project Appraisal

6. Mathematical Methods for Making Investment Decisions

7. Multi-Objective Stochastic Models for Making Decisions on Resource Allocation

8. Mathematical Methods and Models for Monitoring of Government Programs

9. Methodology for Identification of Competitive Industrial Clusters.

2.   The review

"Mathematical Methods and Models in Economic Planning, Management and Budgeting (Second Edition)" is a work of great breath that describes a set of mathematical models and methods useful to analyze real economic and managerial decisions, aiming to give a great support to their effectiveness.

Application areas fall into the following range, as can be understood checking the chapters listed above: management of development and operation budgets, assessment and management of economic systems using an energy entropy approach, equation of exchange rates and forecasting foreign exchange operations, evaluation of innovative projects, monitoring of governmental programs, risk management of investment processes, decisions on the allocation of resources, and identification of competitive industrial clusters.

Readers will certainly not question the enormous importance of either of those areas or of any of the nine chapters enunciated in the study and in the realization of economic planning or management or budgeting. In addition, the texts of any of the chapters reveal deep knowledge, pedagogical gifts and great capacity of organization on the part of the author. In a very particular

view I would say that I was particularly pleased with the readings of the chapters:

3. Energy-Entropic Methods in Assessment and Control of Economic Systems,

that in particular would allow to join "Physical" to "Mathematical" in the nomination of the methods

and

5. Methods and Mathematical Models of Innovation Project Appraisal,

because of the emphasis put in "innovation".

Also to note the importance given to the budgeting and risk management areas and that these models, due to their detail and comprehensiveness can be used in the very complex problems approach. No less important that the models described in this book were tested on the particular case of the Kazakhstan's economy.

In short, "Mathematical Methods and Models in Economic Planning, Management and Budgeting (Second Edition)" is an outstanding work, indispensable for economists, mathematical economists, and members of the computer technology community. Important for academics, researchers, real-world professionals and policy makers.