

Introduction

The Special Issue *Mechanisms and Methods of Decision Making* of the journal *Studies in Logic, Grammar and Rhetoric* covers topics devoted to the theoretical and application aspects of decision-making.

The paper *Distributive Justice: From Steinhaus, Knaster, and Banach to Elster and Rawls. The Perspective of Sociological Game Theory* (T. Burns, E. Roszkowska, N. Machado des Johansson) presents a relatively straightforward theoretical framework about distributive justice with some applications. It provides a spectrum of distributive cases concerning principles of equality, differentiation among recipients according to performance or contribution, status or authority, or need.

The paper *How Firms Can Hedge Against Market Risk* (K. Echaust) presents a problem of proper hedging strategy in expected utility model when forward contracts and options strategies are available. The case of hedging when an investor formulates his own expectation on future price of underlying asset is considered.

In the paper *Multidimensional Risk Management for Underground Electricity Networks* (Thalles V. Garcez, P. Szufel) a decision making process for an electricity grid maintenance allocation is considered. A network simulation model has been constructed and dependencies between network structure and maintenance efficiency have been analysed.

The paper *The Occurrence of The Day-of-the Week Effects on Polish and Major World Stock Markets* (P. Jamróz, G. Koronkiewicz) presents a study of the occurrence of the day of the week effects on: Warsaw Stock Exchange and some major world financial markets. The paper analyzes the occurrence of stock market anomalies that can be used for investment decision making in periods: before, during, and after the global financial crisis.

In the paper *Optimizing firm inventory costs as a fuzzy problem* (D. Kacprzak, W. Kosiński) fuzzy optimization problem for total inventory cost function is formulated within the space of Ordered Fuzzy Numbers. After the choice of a particular defuzzification functional an appropriate theorem is formulated which gives the solution of the problem.

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The paper *Decision Support System for Blockage Management in Fire Service* (A. Krasuski, K. Kreński) describes a method of handling blockages in fire stations. Blockage refers to a situation when all fire units are out and a new incident occurs.

The paper *Clustering Algorithms in Hybrid Recommender System on MovieLens Data* (D. Kuzelewska) presents an approach to recommender systems, which are electronic applications, the aim of which is to support humans in a decision making process. The approach is based on clustering, which uses the k-means method with identification of cluster representatives instead of centroids.

The paper *Number of Clusters and the Quality of Hybrid Predictive Models in Analytical CRM* (M. Łapczyński, B. Jefmański) attempts to build a hybrid predictive model combining decision trees (C&RT algorithm) and cluster analysis (k means). The authors tried to find a connection between the number of clusters and models' performance.

In the paper *On imprecise investment recommendations* (K. Piasecki) the problem of investment recommendations given for securities with fuzzy probabilistic return is considered. The main cognitive result is to propose general methodology for imprecise investments recommendations. Moreover, the paper also offers original generalization of the financial equilibrium criteria and of the first safety criteria to the fuzzy case.

The paper *Environmental Quality as a decisive Variable in Shaping Regional Development Policy* (D. Perło) examines the impact of environmental quality on shaping the development policy of Polish voivodeships. The main analytical tool used was the synthetic index of environmental quality, compiled by means of the Perkal method.

In the paper *The Multi-Criteria Negotiation Analysis based on the Membership Function* (E. Roszkowska, T. Wachowicz) a multi-criteria model based on fuzzy preferences approach which can be implemented in the pre-negotiation phase to evaluate the negotiations packages is proposed. The applicability of some multi-criteria ranking methods was discussed for building scoring function for negotiation packages.

The paper *Market Basket Analysis as a Support Tool for The Management of Public Transport* (D. Sokołowska) presents a non-standard use of the method of market basket analysis in one of the areas of economy, i.e. public transport.

In the paper *Equitable Distribution in a Three Players Problem* (M. Szopa) the example of the jazz band game is discussed. It is shown e.g. that the negotiation position of the weakest player is stronger if the core of the game is empty.

The paper *Assorted methods of making of pricing decisions in an enterprise* (H. Wnorowski) first shows the importance of pricing decisions in the company, and then proposes three methods for pricing targeted for specific types of enterprises. Setting such prices can be a starting point for further modification of prices as an effect of specific pricing strategies.

I would like to take this opportunity to express my sincere thanks to the authors for reporting on their innovative research and sharing their insights in this volume. The reviewers deserve our thanks for their constructive input.

I hope that the readers will find this volume useful with their further progress in research, education, and practical application.

Ewa Roszkowska