

EDITORIAL

Methods and Applications of Operations Research is the name of an annual conference on the methodology and applications of operations research (mostly in economics, finance and management). The conference is held by chosen Polish research centers performing research in the area of operations research. In 2012, it was organized by the Department of Operations Research of the Poznań University of Economics. The conference talks covered various fields of operations research. The authors of chosen presentations were invited to submit an article to the journal *Operations Research and Decisions*. Selected papers were accepted for publication in two issues: 3/2012 and 4/2012.

The article *Comparison of the valuations of alternatives based on cumulative prospect theory and almost stochastic dominance in the 3/2012 issue* was submitted by Ewa Michalska and Renata Dudzińska-Baryła. The authors test the consistency of the orders of the valuations of random alternatives using two behavioral rules – one based on cumulative prospect theory and another on almost stochastic dominance. These two kinds of rules are relatively new tools that take into account the fact that the decision maker does not always act in a rational way. The authors show, in particular, the advantages of the presented rules over a rule based on stochastic dominance.

Krzysztof Piasecki is the author of the next article entitled *The basis of financial arithmetic from the viewpoint of utility theory*. The main goal of this paper is to present a modern axiomatic approach to financial arithmetic. The author proposed an approach based on the utility of a financial flow, where the utility function is defined as a linear extension of a multicriterion comparison determined by an individual's time preference and capital preference.

Krzysztof S. Targiel prepared the second to last paper, entitled *Implementations of interactive multicriteria decision support methods in conditions of risk*. The author presents computer applications (MS Excel add-ons) that implement two interactive methods of decision support under risk: STEM-DPR and INSDECM.

The last article in this issue, *Calibration of a credit rating scale for polish companies*, was prepared by Aleksandra Wójcicka. The author indicates the importance of correct calibration of the credit rating scale. A rating scale cannot be assumed to remain valid once it has been defined, in other words, it changes in space and time. In particular, it seems that the cut-off point for Polish companies should be higher than the one used in practice. A modified classification matrix based on the probability of default is used to calibrate the scale.

The 4/2012 issue opens with an article by Marcin Anholcer entitled *Algorithm for the stochastic generalized transportation problem*. In this paper, a version of the equalization method for the stochastic version of the GTP is presented. The author formulates the model, describes the algorithm, sketches the proof of convergence and discusses the computational results.

The next paper, *Using an analytic hierarchy process to develop a scoring system for a set of continuous feasible alternatives in negotiation*, was prepared by Jakub Brzostowski, Tomasz Wachowicz and Ewa Roszkowska. The authors analyze the use of AHP to define a scoring system over an uncountable space of negotiation alternatives. In particular, they evaluate methods of selecting from a discrete set of alternatives in a continuous space. They also define a method of deriving the final scores for all the feasible alternatives from the initial set.

In the third article, *Applying multi-criteria decision aiding techniques in the process of project management within the wedding planning business*, Dorota Górecka compares various methods for making multiple criteria decisions in the context of project management. These considerations end with an illustrative example related to planning a wedding.

Bogumił Kamiński, Mariusz Kozakiewicz, Wit Jakuczun and Małgorzata Póltorak submitted the fourth paper, entitled *An optimal assignment procedure for multiple online surveys*. They consider the problem of assigning respondents to questionnaires. A mathematical programming model is formulated, and then the authors present an iterative stochastic algorithm that solves the problem. Finally a weighting procedure is described that allows us to calculate unbiased estimators for the responses.

The fifth article, *Application of fuzzy numbers to the estimation of an ongoing project's completion time*, was written by Dorota Kuchta. The author proposes a dynamic, interactive approach to controlling a project's realization. The durations of the tasks depend on some factors that may change in time. The estimates of the durations of tasks, as well as the duration of the whole project, are expressed using fuzzy numbers.

The second to last article, *Analysis of the impact of storage parameters and the size of orders on the choice of the method for routing order picking* was submitted by Grzegorz Tarczyński. The author analyzes and compares several algorithms describing how a warehouseman should move during the order completion process. In particular, the author tests the effectiveness of the chosen heuristics, taking into account the parameters of the warehouse and the sizes of the order lists.

The paper that closes the list is *Reference points-based methods in supporting the evaluation of negotiation offers* by Tomasz Wachowicz, Jakub Brzostowski and Ewa Roszkowska. This time the authors analyze and discuss the fundamental ideas of the TOPSIS, VIKOR and BIPOLAR methods and then propose a new hybrid method for evaluating negotiation offers.

I hope that all the papers included in these two issues will be a valuable contribution to the OR literature, interesting to both theorists and practitioners in this field.

Marcin Anholcer