



Editorial

Hans-Ulrich Küpper¹ · Jan Trockel²

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Theoretical approaches on decision making in business administration exist since many decades and strive to lead to optimal decisions in companies and between individuals. In this Special Issue, decisions are made in the fields of, for instance, multicriteria optimization problems, production theory and game theory, which have one thing in common: Günter Fandel's research efforts with respect to them. Already in 1979, Fandel conducted a game theoretic analysis to establish optimal decisions within companies. More recently, for example Fandel and Lorth (2009) turn to the corresponding efficiency analysis, and Fandel and Trockel (2013) discuss an interpersonal trust game in the form of an inspection game, where the individual decisions depend on the mutual behavior. This special issue attends in many ways to the research fields Günter Fandel committed himself to.

To contribute to the literature of decision making in economics, we have invited theoretical submissions on this topic. All submitted manuscripts went through a thorough double-blind peer-review process. There are seven articles that are presented in this issue.

In the first contribution, Dellnitz et al. study the mutual relationships between the two most popular optimization models of data envelopment analysis (DEA)—CCR and BCC. Both models allow for measuring efficiency of a comparable set of decision-making units, but these models are based on different activity scaling assumptions and hence can lead to different results. In other words, choosing the appropriate model when designing a DEA study is one of the most important and difficult tasks. Therefore, Dellnitz et al. support the decision maker or analyst, determining the effect of BCC-efficiency invariant activity scaling on CCR-efficiency, and vice versa. An application concerning a theater scenery illustrates these findings.

In the second article, Dyckhoff shows that the multi-criteria production theory (MCPT) is a generalization of traditional production theories, and sheds some light

✉ Jan Trockel
Jan.Trockel@fernuni-hagen.de

Hans-Ulrich Küpper
kuepper@bwl.lmu.de

¹ Bavarian EliteAcademy, Prinzregentenstr. 7, 80538 Munich, Germany

² Center for Production Economics and Decision Support, FernUniversität in Hagen, Universitätsstr. 41, 58084 Hagen, Germany

on its basic assumptions in relation to the latter. MCPT is targeted at the integration of concerns of modern management science and economics, especially against the background of environmental and sustainability issues. Therefore this paper employs the MCPT to discuss issues, such as undesirable products and factors, hierarchies of performance evaluations or the rationality of ‘technically inefficient’ production.

Third, Siggelkow et al. consider a trust game and, in particular, a company-internal inspection game to analyze the impact of whistle-blowing on potentially fraudulent behavior of a manager and the willingness of an internal auditor to thoroughly monitor the former to reveal the possible fraud. They find that the possibility of whistle-blowing reduces the manager’s willingness to act fraudulently only in the case, when the whistle-blower’s expected pay-off is unknown to her and the efficacy of internal audit is sufficiently low. Also, the existence of possible whistle-blowing is found to reduce the intensity of the internal audit.

In the fourth article, Eichner and Pehtig address the endogenous coordination of national tax policy within the context of harmful capital tax competition. They derive conditions under which either a non-grand tax coalition of a subgroup of countries or the grand coalition are stable, and determine the impact thereof on the degree of inefficiency of non-cooperative Nash tax policy. While a stable grand coalition eradicates inefficiency, they find that a stable non-grand coalition tends to be rather small and reduces inefficiency to a minor extent.

Diser and Hofmann consider in manuscript no. 5 incentive contracts of CEOs, when they may engage in private trading in the stock of peer firms to aim at reducing their systematic compensation risk. Given a relative performance evaluation, it is found that such a contract may forbid private hedging even in the case there are neither technological interdependencies nor strategic interactions to peer firms. In view of the characteristics of such contracts, they establish that whether or not private hedging is forbidden depends on the design of the accounting benchmarks and on features of peer firms.

Grunewald et al. discuss in the sixth contribution multi-item single-source ordering conditional upon transportation capacities in the context of a multi-period container loading problem. While intertemporal cost saving considerations may trigger investments in inventory, they show that, for a large number of operating conditions, and to a large extent independent of the shipping volume, cost savings are possible as compared to period-by-period planning or two benchmark capacity models. Their approach turns out to be most advantageous for mid- to long-distance transports, while, given short-distance transports, this is the case only if inventory costs are not too large.

In the seventh and last article, Billing et al. analyze optimal order selection in the context of delivering ready-made vehicles from a logistics location to the dealer. In this context, the delivery request occurs dynamically, and is not presented to a logistics partner beforehand, such that the latter is granted a certain time lapse to comply with it. They discuss the potential of employing historical data on these incoming requests to adapt the routine business to decide when to send vehicles ready for delivery. This probabilistic approach is further utilized to establish a heuristic for optimizing delivery routes, and a case study application provides some information on its value for planning processes.

Taken together, the seven articles in this double special issue offer new and very interesting insights into selected and relevant fields of decision making in economics. We hope these theoretical works will contribute to the growing fields of the different optimization problems in economics and that they offer important goals of decision making analysis.

Ultimately, we would like to thank all authors and reviewers for their contribution to create this double special issue.

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