



Usage of modified dea models for optimization of the production structure of agricultural enterprises in Czech Republic

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This contribution is focused on adjustments of Data Envelopment Analysis models in order to improve the production structure of agricultural enterprises respecting their production possibilities and the current market conditions. For evaluation of the enterprises and obtaining recommendations we have chosen Generic Directional Distance Model (GDDM) and Weighted Slack-based measures. The advantage of the mentioned models is a possibility of affecting the recommended changes by weights or directional vectors. In addition, both models can be modified for working with the negative outputs we often meet in the practical use. As this projection on the efficiency frontier is generally non-radial, we propose a method to compute an efficient score too. One of additional objective of this work is to choose the model that gives more realistic recommendation. In the application part, the article is focused on agricultural enterprises farming in a potato growing region, which covers the sizable part of arable land in the Czech Republic.