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A multiple criteria approach to data envelopment analysis. (English) Zbl 0953.91022
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Summary: In this paper, we present a multiple criteria data envelopment analysis model which can be used to improve discriminating power of DEA methods and also effectively yield more reasonable input and output weights without a priori information about the weights. In the proposed model, several different efficiency measures, including classical DEA efficiency, are defined under the same constraints. Each measure serves as a criterion to be optimized. Efficiencies are then evaluated under the framework of multiple objective linear programming. The method is illustrated through three examples in which data sets are taken from previous research on DEA's discriminating power and weight restriction.

MSC:

[91B38](#) Production theory, theory of the firm
[90C29](#) Multi-objective and goal programming

Cited in **37** Documents

Keywords:

[data envelopment analysis](#); [multiple criteria](#); [discriminating power](#); [weight restriction](#)

Software:

[DEA](#)

Full Text: [DOI](#)

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