

A new perspective for Ranking under a DEA cross-evaluation setting

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Data envelopment analysis (DEA) is among the most potent tools for ranking decision making units (DMUs). We present a new perspective for ranking DMUs under a DEA peer-evaluation setting. The proposed approach exploits the property of multiple weighting schemes generated over the cross-evaluation process in developing a methodology that yields not only robust ranking patterns but also more realistic sets of weights for the DMUs. The robustness of the proposed methodology is evaluated using OWA combinations involving different minimax disparity models and different levels of optimism of the decision maker. We show that discrimination is boosted at each stage of the decision process. As an illustration, our approach is applied to ranking a sample of manufacturing systems.

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