عنوان مقاله:

Estimating right and left returns to scales using hyperplanes in data envelopment analysis

محل انتشار:

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خلاصه مقاله:

This research theoretically explores estimating right and left returns to scales (RTSs) of efficient decision making units (DMUs) using hyperplanes in data envelopment analysis. In this current study, we propose a multiplier model approach for determining the type of right and left returns to scales of efficient DMUs.The important advantage of our proposed approach is that our approach is always feasible for all DMUs under assessment while Golany and Yu's RTS method is not always feasible. It is necessary to mention that, since an inefficient decision making unit (DMU) has more than one projection on the empirical function thus different types of right and left returns to scales can be obtained for projections of the inefficient DMU, using our proposed method. At last, our approach is applied to real world data set to illustrate purpose and then some conclusions are drawn.

کلمات کلیدی:

Data envelopment analysis (DEA), Right and left returns to scales (RTSs), Efficiency

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