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A METHOD FOR FINDING COMMON SET OF WEIGHTS BY MULTIPLE OBJECTIVE PROGRAMMING IN DATA ENVELOPMENT ANALYSIS

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Abstract. This paper presents a multiple objective programming procedure for finding a common set of weights in Data Envelopment Analysis (DEA). DEA is a mathematical programming approach for assessing relative efficiencies within a group of Decision Making Units (DMUs). An important outcome of such an analysis is a set of virtual multipliers or weights accorded to each factor taken into account. These sets of weights are, typically, different for each of the participating DMUs. In this paper, by means of solving only one problem, we can determine common set of weights for all DMUs and their efficiencies. Finally, we employ this method for a group of real data to express its adventages comparing to other methods.

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