

Finding Data Envelopment Analysis Target Using the Multiple Objective Linear Programming Structure in Full Fuzzy Case

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Abstract : In this paper, we present a multiple objective linear programming (MOLP) problem in full fuzzy case and find Data Envelopment Analysis (DEA) targets. In the presented model, we are seeking the least inputs and the most outputs in the production possibility set (PPS) with the variable return to scale (VRS) assumption, so that the efficiency projection is obtained for all decision making units (DMUs). Then, we provide an algorithm for finding DEA targets interactively in the full fuzzy case, which solves the full fuzzy problem without defuzzification. Owing to the use of interactive methods, the targets obtained by our algorithm are more applicable, more realistic, and they are according to the wish of the decision maker. Finally, an application of the algorithm in 21 educational institutions is provided.

Keywords : DEA, MOLP, full fuzzy, target

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