

عنوان مقاله:

Analysis of Multi Attribute Decision Making Problems by Using of Data Envelopment Analysis Technique

محل انتشار:

مجله بین المللی تحقیقات کاربردی در مهندسی صنایع، دوره 1، شماره 4 (سال: 1393)

تعداد صفحات اصل مقاله: 10

نویسندگان:

Saeid Nasrollahi-Sebdani - *Department of Industrial Engineering, Najafabad Branch, Islamic Azad University, Najafabad, Iran*

Majid Esmaelian - *Department of Management, Isfahan University, Isfahan, Iran*

Daryush Mohamadi-Zanjirani - *Department of Management, Isfahan University, Isfahan, Iran*

خلاصه مقاله:

Data Envelopment Analysis (DEA) is used for calculating of relative efficiency and then ranking of decision making units (DMU) subject to inputs and outputs in a continuous decision making space. In this paper, DEA models, Cook and Kress Model and Belton-Vickers model have been applied as a multi attribute decision making (MADM) tool and compared analytically to other MADM models such as simple additive weighted (SAW) and technique for order preference by similarity to ideal solution (TOPSIS). For this purpose, after simulating some decision making matrixes and replacing DMU with alternatives, outputs with criteria to be maximized, inputs with criteria to be minimized, alternatives will be ranked by these models. The results of this study show that incorporating decision maker value judgments into the DEA models (restricted DEA models) provide comparable results to traditional MADM models (such as SAW and TOPSIS that are applied more than others). So, restricted DEA models seem to be an advantageous tool for solving MADM problems.

کلمات کلیدی:

Data Envelopment Analysis, Multi Attribute Decision Making, Efficiency

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/350779>

