

## عنوان مقاله:

A new proposed method of restricted malmquist productivity index by correlation coefficients for ranking decision making unites

## محل انتشار:

دومین کنفرانس ملی ریاضی: مهندسی پیشرفته با تکنیک های ریاضی (سال: 1396)

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## خلاصه مقاله:

Data Envelopment Analyses (DEA) is a linear programming based method which evaluates relative efficiency of Decision Making Units (DMUs). Since in evaluating by traditional DEA models, many decision making units (DMUs) are classified as efficient, it is necessary to achieve a full ranking of the DMUs. To the best of our knowledge, none of the ranking methods have used the restricted Malmquist Productivity Index (MPI) for ranking efficient DMUs. Hence this paper introduces a new method for ranking DMUs, which is based upon the omission of the efficient DMUs from the Production Possibility Set (PPS) in two time periods  $t$  and  $t + 1$  and measuring the magnitude of their influence on the MPI's other DMUs. Also, one of advantages of the presented approach is ranking extreme and non-extreme DMUs simultaneously in many cases. A numerical example is provided

## کلمات کلیدی:

Data envelopment analysis; Malmquist Productivity Index; Ranking; Correlation; Weight restriction

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/622047>

