

Title: DEA by sequential exclusion of alternatives

Abstract: Data Envelopment Analysis is a well-known non-parametric technique of efficiency evaluation which is actively used in many economic applications. However, DEA is not very well applicable when a sample consists of firms operating under drastically different conditions. Generally, it is difficult to define to what extent the analyzed sample is heterogeneous. We offer a new method of efficiency estimation based on a sequential exclusion of alternatives and standard DEA approach. This allows to assess efficiency in the case of heterogeneous set of firms. We obtain a connection between efficiency scores obtained via standard DEA model and the ones obtained via our algorithm. We also evaluate 28 Russian universities and compare results obtained by two techniques.