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PRODUCTIVITY DEVELOPMENT OF COMPANIES OF THE CZECH CHEMICAL INDUSTRY

Abstract:

This article studies the performance of selected companies of the Czech chemical industry. Data from financial statements are used for the analysis. The initial data is processed by the Data Envelopment Analysis (DEA) method. Furthermore, the authors use the Malmquist Productivity Index (MPI) to analyze changes in the productivity of companies, and the bootstrap method tested the statistical significance of these indexes. The authors examined the development of selected data over a longer time horizon in order to identify changes, for example, in the period before and after the COVID 19 epidemic. The findings of the study not only show the development of productivity, but also reveal the causes of the development.

Keywords:

Chemical industry, data envelopment analysis, Malmquist productivity index, bootstrapping, financial statements

JEL Classification: C10, D20