Industry 4.0 Performances of OECD Countries: A Data Envelope Analysis

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Purpose – The aim of the study is to make a comparative analysis of Industry 4.0 performances of OECD countries.

Design/methodology/approach – In this study, Data Envelopment Analysis, Bootstrap Data Envelopment Analysis and Malmquist Total Factor Efficiency Index methods were used for 2013, 2014, 2015 by using Industry 4.0 indicators of 25 OECD countries whose data were available.

Findings – As a result of the study, while Austria, Belgium, Czech Republic, Denmark, France, Germany, Japan, S. Korea and Sweden were generally effective and there was no overall improvement in the country's efficiency scores over time, some countries such as Canada, Latvia, Slovakia, Estonia and Sweden, had increased their effectiveness in time.

Discussion – Considering the studies in which the comparative analysis of Industry 4.0 performances in the countries was analyzed, it was reached that the variables used in the studies and the results obtained from the analysis were similar. In this respect, the findings of the study were consistent to the literature.