

The Efficiencies of R&D Process in OECD Countries

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Abstract

The purpose of this paper is to evaluate the efficiencies of R&D processes in OECD countries. The main contribution of the study is to evaluate the efficiencies of R&D processes by using stochastic frontier analysis. Therefore, this study not only supplies an evaluation about R&D processes in OECD countries, but also it suggests a new approach for evaluation about R&D processes. The paper investigates the effects of research and development expenditure, expenditure per student (tertiary), adjusted savings (education expenditure), researchers and technicians in R&D on patents. Also we consider the effects of scientific and technical journal articles, labor force with tertiary education, school enrollment (tertiary), GDP per capita, and information and communication technology expenditure in the context of technical inefficiency. The paper also offers a short comparison of the efficiencies of R&D processes between Turkey, EU and OECD countries.

Keywords: R&D Process, Technical Efficiency and Stochastic Frontier Analysis, Patents

Jel Codes: O32, C33, O57