

EconWorld2017@Paris

A Comparative Efficiency Analysis of Public Expenditures On R&D in Selected OECD Countries / Seçilmiş OECD Ülkelerinde Ar-Ge Faaliyetlerine Yönelik Kamu Harcamalarının Karşılaştırmalı Etkinlik Analizi

Sibel Selim¹, Sibel Aybarç¹¹Manisa Celal Bayar University, Turkey

ABSTRACT

It has experienced radical changes in economic and social structure with the development of information and communication technologies which are the basic dynamics of globalization and switched to an information society from the industrial society. The driving force enhancing sustainable economic growth and international competitiveness of countries in the process of change has been R&D activities. R&D activities play a dominant role about in particular increasing the innovation capacity, providing technological development needed of the national industry, developing of high value-added products, the technology transfer process and the national income and prestige increase. The aim of this study is to examine the R&D efficiency of the public spending using Stochastic Frontier Inefficiency Model in the 23 OECD countries. According to the findings, fully efficient countries in terms of R&D activities are Denmark, France, Spain, Sweden and the UK. The country with the lowest efficiency was Ireland. Turkey ranks 18th with the technical efficiency value (0.292). In the Stochastic frontier inefficiency model, the effects of number of publications, R&D staff and share of GDP allocated to R&D of the private sector R&D expenditure variables on technical efficiency are positive. There is no a significant effect on technical efficiency of public funding transferred directly to private sector R&D activities variable.

KEYWORDS R&D Activities; Stochastic Frontier Inefficiency Model; Technical Efficiency

JEL C51, H4, H5