

The Impact of Innovation Efficiency on the Production of New Knowledge: A Manufacturing Firm Level Perspective

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Abstract : The present paper examines the effect of innovation efficiency on the production of new knowledge from a firm level perspective. It resorts to the Greek version of community innovation survey (CIS 2012-2014 microdata) and employs 1274 firms of the manufacturing, which constitutes the main sector of examination. It assumes a knowledge production function (KPF) and finds that R&D spillovers related to the expenditures on innovation activities, internal R&D, external R&D, skilled labor, and the expenditures in the acquisition of machinery have a positive and significant effect on the production of new knowledge when OLS techniques are applied. However, innovation efficiency comes from a Banker and Morey (1986) data envelopment analysis (DEA) with categorical variables has a statistically insignificant impact on the production of new knowledge measured by firm's turnover.

Keywords : firms, innovation efficiency, production of new knowledge, R&D spillovers

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