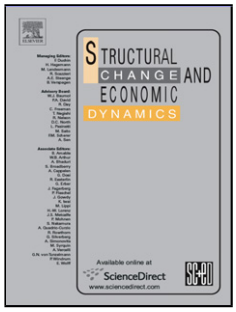

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PII: S0954-349X(17)30148-0
DOI: http://dx.doi.org/doi:10.1016/j.strueco.2017.05.002
Reference: STRECO 660

To appear in: *Structural Change and Economic Dynamics*

Received date: 12-10-2015
Revised date: 9-5-2017
Accepted date: 13-5-2017

Please cite this article as: Rota, Mauro, Schettino, Francesco, Spinesi, Luca, Key Inventors, Teams and Firm Performance: The Italian Case.Structural Change and Economic Dynamics http://dx.doi.org/10.1016/j.strueco.2017.05.002

Key Inventors, Teams and Firm Performance: The Italian Case

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Highlights:

- Employing Hill's estimator to patent data, key and normal inventors are identified
- OECD-EPO patents data are merged with Italian firms data (AIDA dataset)
- Total number of patent applications positively affects the value added per worker
- The presence of key inventors does not significantly affect the productivity
- Lower concentration of patents in R&D-Labs increases the value added of Italian firms

Abstract

This paper investigates the existence and nature of knowledge-spillovers at the micro-level and, in turn, the capacity of firms to absorb new ideas generated in R&D laboratories. It evaluates the merits for a firm of attracting or retaining "key" inventors, or assembling a wide team of inventors. First, using the EPO-OECD data, we identify "key" and "normal" inventors by means of the Hill's estimator. Then, we test the hypothesis that the presence of one "key" inventor in a firm's R&D laboratory would have a positive effect on the Italian firms output. Our results are threefold: 1) the patent portfolio positively affects the value of production; 2) the simple presence of "key" inventors in a R&D laboratory does not significantly affect the output; 3) for a given number of patent applications by firm, a less concentrated patents distribution across inventors employed in the same R&D laboratory makes a positive impact on the production.

Keywords: Patents, Inventive Productivity, Firm Performance, Hill's estimator

JEL Codes: O31, O32, L25