

Knowledge Spillovers from Patent Citations: Evidence from Swiss Manufacturing Industry

Authors : Racha Khairallah, Lamia Ben Hamida

Abstract : Our paper attempts to examine how Swiss manufacturing firms manage to learn from patent citations to improve their innovation performance. We argue that the assessment of these effects needs a detailed analysis of spillovers according to the source of knowledge with respect to formal and informal patent citations made in European and internal search, the horizontal and vertical mechanisms by which knowledge spillovers take place, and the technological characteristics of innovative firms that able them to absorb external knowledge and integrate it in their existing innovation process. We use OECD data and find evidence that knowledge spillovers occur only from horizontal and backward linkages. The importance of these effects depends on the type of citation, in which the references to non-patent literature (informal citations made in European and international searches) have a greater impact. In addition, only firms with high technological capacities benefit from knowledge spillovers from formal and informal citations. Low-technology firms fail to catch up and efficiently learn external knowledge from patent citations.

Keywords : innovation performance, patent citation, absorptive capacity, knowledge spillover mechanisms

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