

Drivers for International Research and Innovation Activities in Developed and Emerging Countries

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January, 2009-1-14

Abstract

This paper analyses the drivers for international R&D and innovation activities as well as the propensity to perform different innovation activities in various regions and countries of the world. Using the concept of internationalization by Dunning (1981) this paper observes the influence of organizational advantages, location advantages and internalisation advantages on the likelihood to execute different steps of the innovation process abroad (R&D, Design/Conception, Manufacturing of innovative products, Implementation of new processes, Sales of innovations). In a second model the driving forces are used to observe their impact on the decision to locate R&D, Design/Conception, Manufacturing of innovative products and the Implementation of new processes in China, India/China, Asia, Eastern Europe, Western Europe and North America. As database the Mannheim Innovation Panel (MIP), the German part of the European wide Community Innovation Survey (CIS), is used. We retrieve a sample of about 1200 firms to analyse the first step regarding the drivers to internationalize the different steps of the innovation process. For the second model we have about 700 observations for the country analysis. The results show that the decision to perform R&D and other innovation activities abroad is mainly driven by organizational capabilities such as absorptive capacities and international experience. The decision to perform the conception/Design of new products abroad and R&D abroad is also driven by existing international experience (exports) and a certain technological strength of the firm. The manufacturing of innovative products is spurred by location disadvantages in the home country and the competitive environment influences the implementation of innovative processes abroad. The results for the country analysis show that international experience through international cooperation experience is one of the most important capabilities for the execution of innovation activities in nearly every country/region. It shows that export experience and technological advantages of firms performing innovation and R&D activities in India/China, Asia or North America are relevant. The competitive environment of the firm in the home country influences firms with innovation activities in Easter Europe positively. Price competition in the home market has a negative effect on innovation activities in China. Location disadvantages of the home country have a significant effect for firms that innovate in Asian and Marginalized countries.

Keywords: Internationalisation of Innovation, Absorptive Capacities, Market Structure, China, Asia, Emerging countries