

## Chapter 8

# Communities of Practice as Tool of Enhancing Competitiveness in Rising Economies: Lessons Learnt from the Chinese Company

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### ABSTRACT

*Many firms realize that opening up traditional firm-centered innovation processes holds enormous advantages and are also trying to tap these benefits. The open oriented management means that firms are able to enhance their external collaboration ability by acquiring knowledge from external sources, as well as benefit financially by using external paths to market for internally generated technologies. In this model firms pay particular attention to the connections between the results of Research and Development (R&D), the technological potential of the external stakeholders and the environmental opportunities. This chapter adopts structural analysis examining the role that communities of practices may play as a tool for the implementation of the open-mode of innovation in the specific case of China. Current studies on Chinese innovation process are in the beginning and the Chinese firms face the question how to organize the open model and the exchanges with external environment in the global technological competition. This study examines if the communities of practices are their place in Chinese innovation system in an example of a relevant case study.*

### INTRODUCTION

A company's capacity to innovate has been viewed as a source of sustainable competitive advantage of the Chinese firms and their successful integration in the international technological landscape. China is determined to enhance the global competitiveness of the national firms in order to be defined as an «innovation-oriented» country by 2020 and a «leading science power» by 2050 (Chen and Li-Hua 2011). Since 2006 Chinese government has emphasized the strategic innovation policies under lighting two major

DOI: 10.4018/978-1-5225-0013-1.ch008

ways to successfully transit towards global technological park (Wang and Li-Ying 2014). First, Chinese firms should develop their internal R&D activities in order to build the sufficient absorptive capacity for innovation. Second, they need to actively interact with external environment obtaining access of advanced technologies and diffusing their own technologies. The recent literature debates the relative importance of different tools at macro level for the Chinese innovation system expansion (Huang 2010; Liu 2010). But is still little known about the innovation model adopted by the Chinese firms and the organization of the interface with the environment facilitating the improvement of the internal innovation capacities.

The recent researches dedicated on the Chinese innovation system point out that the traditional staged caching-up model mainly developed by the new industrialising countries is not applicable to China (Chen and Qu 2003). Liu (2005) recommends the implementation of the alternative “open model” in order to access the latest technologies and exchange with advanced foreign partners. In the same vein, Wang and al. (2012) emphasise that the boundaryless alternatives have their place in Chinese firms employing various ways to interact with environment, especially in-licensing, strategic alliances, collaborations with universities, research institutes and local industrial community. While these investigations are interested on global use of these open modes, this chapter draws how Chinese firms implement concretely the boundaryless model. In particular, we focus on the organization of the links with external environment examining if the communities of practices could be considered as an organizational tool for implementation of the open innovation model in the Chinese firms. The accent is put on the external and internal driving forces for the communities of practices in order to support the opening of the innovation process. In other words, the main purpose is to illustrate how Chinese firms introduce open innovation management and if the communities of practices are their place in Chinese innovation system.

The chapter is organized as follow. The first part gives the theoretical background on communities of practices around the open innovation model. The second part proposes the overview of Chinese innovation system and the analysis of one selected case study. The third part presents the discussion concerning the development of communities of practice in China as an open innovation tool.

## **LITERATURE REVIEW**

R. Rothwell (1994) identifies five generations of innovation model since Schumpeter's linear process, from the chains linking markets and inventions (Kline and Rosenberg, 1986) to extensive networking. In 2003, Chesbrough introduced the concept of open innovation – which offers an alternative to the closed innovation model centred on in-house research results that are very expensive and long to obtain – in the form of an open model based on both internal and external knowledge sources. In reality, not many firms followed a fully closed innovation approach, supposed to generate their own innovation ideas, and then develop, build, market, distribute, finance all innovation process on their own. Boundaryless innovation model is wide spread with the increasing changes in social, economic and technological characteristics of institutions and markets, in consequence of globalization and rise of competition which have fostered collaboration (Antikainen et al. 2010). This model became an integral part of the innovation strategy with two complementary aspects (Chiaroni et al. 2010). The first, inward open innovation refers to the acquisition of knowledge from external sources in the aim to complete their R & D activity. In opposite, the outward open innovation is the practice of establishing relationships with external organizations with the purpose of commercially exploiting their internal technological knowledge. In this case the open model related to the technological transfer and commercialization of the knowledge on the

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