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## **Guest Editorial**

# **'Technology, innovation and knowledge: An Asian perspective': Introduction**

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Technology, knowledge and innovation play a crucial role in explaining the competitive potential of firms and countries in today's globalised world. With lowered barriers to international activities, firms develop technological competencies abroad, either internally or through inter-firm collaboration. The role of location, particularly in Asia, is emphasised, notably through cross-border and cross-region initiatives in the innovation process, and with countries establishing themselves as core centres for the development of technological excellence.

This Special Issue presents contributions on the role of national innovation systems and government innovation policies, factors explaining innovation activities, technological competencies of countries and companies, R&D activities by foreign affiliates, and intra- and inter-firm collaboration for development of technological competences in Asia. The articles have been selected through a rigorous review process: the original manuscripts were chosen from the highest-rated articles presented at the EAMSA Annual Meeting in Lausanne, Switzerland, in September, 2009, and sent out for review, following the normal peer-review process for *ABM*.

The first contribution, by Robert Pearce, compares and contrasts ways through which multinational enterprises (MNEs) and host economies (with a focus on China) aim for sustainable development through the generation and application of new knowledge, both independently and interactively. MNEs combine global and local sources of innovation, which can be internally or externally developed and sourced. Also focusing on host economies, the article explores the evolution of the national system of innovation (NSI), through key stages including basic research, applied research, product development and product adaptation. The interaction between MNEs and the local innovation system can be mutually beneficial, and MNEs may, depending on subsidiaries' strategic intent, contribute to the capacity of a national innovation system to support sustainable development. The mutual interaction is discussed in the context of China, as this country has attracted substantial levels of foreign direct investment (FDI), and the Chinese government is committed to the strengthening of its NSI.



The second contribution, by Deng, Jean and Sinkovics, introduces the concept of international innovation performance in Chinese manufacturing firms; in other words, the potential for firms to learn and adapt to international marketplaces through new product development. The article argues that internal resources and capabilities, external network relationships and exporting activities influence international innovation of Chinese firms positively, while local competition has a negative impact (which could be attributed to inadequate institutional infrastructure in China). The article further suggests that technological capabilities and human resources are not sufficient for firms to be successful in international innovation. Findings also suggest that internal capabilities and local competition interactively influence international innovation.

The third contribution, by Giroud, Ha, Yamin and Ghauri, is concerned with the influence of various types of innovation policies in South Korea on foreign subsidiaries' innovation performance. Following the Asian crisis, the South Korean government liberalised FDI policies, and increased public budgets towards innovation policy; yet little is known about the impact of such policies on foreign subsidiaries' innovation. The article differentiates between subsidiaries with competence creation and others. Using firm-level survey data, the article argues that the host country's innovation policy does have an influence on foreign subsidiaries' innovation performance, although a subsidiary's strategic role is more prominent in explaining technological value creation. It is found that not all types of policy influence subsidiaries' innovation performance similarly, with technical support and tax incentives having the strongest effects.

The fourth contribution, by Chie Iguchi, focuses on the activities of Japanese firms' subsidiaries in South-East Asian nations, namely Singapore, Malaysia and Thailand. The role of subsidiaries in the region has evolved over time with a gradual shift from simple roles of assembly in a manufacturing process to complex roles such as R&D. The article considers the speed with which Japanese firms decentralise value-chain activities, especially R&D. Ten case studies, of firms operating in the electrical and electronics, food and beverage, and automotive sectors, are analysed. The data suggest that the evolution of subsidiary roles and R&D laboratories is influenced by the firm's own competence level and TNC group, as well as level of autonomy.

The fifth contribution, from Freeman, Daniel and Murad, considers strategies for knowledge and network development of service firms seeking to enter emerging Asian markets. Contrary to expectations, firms place a higher priority on enhancing their operational knowledge, rather than market-focused knowledge, before entry. The authors analyse data from a survey conducted with Australian firms exporting services to 10 Asian markets, namely Bangladesh, Cambodia, China, India, Indonesia, Malaysia, Thailand,



Pakistan, Philippines, and Vietnam. Issues of firm network, level of foreign experience, and barriers to entry are addressed. The article finds that psychic distance between markets influences the types of knowledge firms seek. Service firms are found to favour networks and information sources situated in their local context when entering a new emerging Asian market.

In conclusion, this Special Issue addresses the need to better understand the process of innovation and the importance of technology and knowledge, for both firms and countries, in Asia, combining views from Asian economies themselves (two articles focus on China, one on the Republic of South Korea, one on South-East Asian economies), and those of MNEs with operations across Asia (while two articles analyse MNEs from various origins, one focuses on Japanese MNEs and another on Australian internationalising firms). The articles in this Special Issue demonstrate that Asia is no longer attractive solely for cost advantages. It has moved up the value chain and established itself as an innovation and technology leader. We, therefore, hope you enjoy reading these articles and gain insight into technology, innovation and knowledge management issues in the Asian context.

Axèle Giroud  
Manchester Business School,  
University of Manchester,  
Manchester, UK  
E-mail: [axele.giroud@mbs.ac.uk](mailto:axele.giroud@mbs.ac.uk)

Christopher L. Tucci  
Chair in Corporate Strategy &  
Innovation École Polytechnique Fédérale de Lausanne,  
(EPFL), CH-1015 Lausanne, Switzerland  
E-mail: [christopher.tucci@epfl.ch](mailto:christopher.tucci@epfl.ch)