

## Chapter 23

# Channel for Vertical Spillovers: The Effect of MNCs Training Activities in Stimulating Local Suppliers Innovative Capacity

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### ABSTRACT

*The objective of this study was to fill a research gap, where the channels through which technology and knowledge were transferred remained unexplored in the existing Foreign Direct Investment (FDI) knowledge transfer literature. A case study method was adopted as it is appropriate for exploring the complex process of knowledge transfer. The findings obtained from the case studies were able to demonstrate a positive relationship between MNCs and local innovation where knowledge and technology can be diffused through training programmes offered by MNCs to local suppliers. It provides an understanding as to the extent to which MNCs, through linkages with local firms, may facilitate the innovation activities of said local firms. Policy implications are subsequently discussed and future research suggestions are then put forth.*

### INTRODUCTION

Researchers have long been focused on the study of Foreign Direct Investment (FDI) as the main vehicle for technology and knowledge spillovers (Branstetter, 2000; Keller & Yeaple, 2003; Giroud, 2003; Ivarsson & Alvstam, 2005; Liu & Buck, 2007; Blalock & Simon, 2009; Liu, Wang & Wei, 2009; Du, Harrison, & Jefferson, 2011; Hale & Long, 2011). Knowledge spillover from Multinational Firms (MNC) to local firms were created through inter-firm relationship with indigenous firms (buyer-seller) relationship (Javorcik, 2004; Ivarsson & Alvstam, 2005; Giroud, 2007; Ivarsson & Alvstam, 2009 and 2011). The transfer of knowledge takes place through the demonstration effect (Kokko, 1992; Wang & Blomström, 1992), labor movement between firms (Fosfuri, Motta, & Ronde, 2001; Glass & Saggi, 2002;

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Meyer, 2004; Spencer, 2008) and the transfer of knowledge from MNCs to their suppliers (Ivarsson & Alvstam, 2009 & 2011). Moreover, business transaction between MNCs' subsidiaries and local firms may also vital in increasing the likelihood of knowledge and technology spillovers (Blalock & Gertler, 2008; Keller & Yeaple, 2009; Blalock & Simon, 2009). Through this vertical relationship MNCs may encourage technology and knowledge sharing between their subsidiaries and suppliers workers through labor training, innovations, quality management, production process, managerial skills and manufacturing management systems (Agosin & Mayer, 2000; Ivarsson & Alvstam, 2005; Giroud, 2007).

Despite the growing body of research on the topic and the belief that FDI may act as catalyst for technology and knowledge transfers, knowledge spillovers are still treated as a 'black box'. There is little evidence on how and in what ways through labor training, technology and knowledge were diffused. Local employees may increase their knowledge not just through formal training, but through on-the-job training, learning by doing, or learning by observing. Knowledge transfer may also take place through simple interactions between MNCs and local firms' workers who perform similar tasks. Hence, this study goes beyond the existing research in the area of FDI spillovers by investigating on what types of training offered by MNCs' subsidiaries to local firms' employees and how and in what ways these trainings could enhance technology and knowledge diffusion. This study focuses on MNCs as the generators of spillovers and local suppliers as receivers through vertical linkages and business relationships. Although a number of surveys exist on the role of technology transfer between foreign MNCs and their local suppliers in developing countries, many of these are either theoretical contributions, e.g. identifying various types of technology linkages (for reviews, see Dunning 1993; UNCTAD 2001, 2002), or empirical analyses focusing on FDI spillover effects on host-economies using aggregate industry-level data (see Blomström *et al.* 2001). Thus, the aim of this paper is to add to this small number of empirical analyses and contribute to an increased understanding of the extent to which MNCs' training activities could facilitate innovation activities among local suppliers in a developing country. Moreover, it analyses to what extent, and in what ways, MNCs through their formal and informal training programs could provide their local suppliers with different types of assistance, and discusses to what extent the linkage has a beneficial impact upon the innovation activities of their local suppliers.

## **FOREIGN DIRECT INVESTMENT AND KNOWLEDGE TRANSFER**

It is clearly recognised that multinational firms are widely acknowledged as having firm-specific advantages that allow them to overcome a potentially disadvantageous position with respect to domestic counterparts in foreign markets (Blomström & Sjöholm, 1999). Such advantages typically take the form of knowledge-based assets such as proprietorial information relating to product or process technology, managerial know-how, the quality of the workforce, the company culture, use marketing and branding and so on. A firm's decision to invest instead of pursuing other forms of internationalisation such as exporting or licensing results from internalisation and is due to investment being the most efficient strategy for exploiting their firm-specific assets. It has been widely acknowledged that such inward-investment offers potential indirect benefits to domestic firms, via enhanced productivity levels and/or productivity growth (Blomström, 1986; Haddad & Harrison, 1993; Görg & Greenaway, 2004). However, MNCs can also take on local firms with superior knowledge of local markets, consumer preferences and business practices because they possess superior intangible productive assets, such as managerial skills, reputation, or technological know-how (Blomström & Sjöholm, 1999; Liu, Wang & Wei, 2009; Du, Harrison, &

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