



## Asia-Pacific Research and Training Network on Trade

**Can India become an export platform for  
global operations of Japanese and American  
multinational corporations affiliates?**

*Nobuaki Yamashita*

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# Can India become an export platform for global operations of Japanese and American multinational corporations affiliates?

*Nobuaki Yamashita*<sup>\*\*</sup>

## Abstract

This paper examines various indicators of the economic activities of Japanese and American multinational corporation (MNC) affiliates in India compared to the case of China, using the unique affiliate-level data. The study shows that Japanese MNCs in India follow the typical MNC expansion strategy in that rapidly growing emerging economy with a focus on the transport equipment industry, whereas United States counterparts are concentrated more in information technology-related services, thus strengthening service-led growth of the Indian economy. However, the author remains sceptical of the expectation that India will grow as an export platform similar to China because of the former country's unique FDI experiences and rising domestic market potential.

**Keywords:** production networks, multinational corporations, FDI, India, China

**JEL Codes:** F14, F23, O53

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## Introduction

One of the most important developments in international trade and foreign direct investment (FDI) in Asia during recent years has been the rapid growth of cross-border production networks, driven by widespread multi-plant operations of multinational corporations (MNCs), and their extensive use of outsourcing and intra-firm trade in parts and components (Athukorala and Yamashita, 2006; Jones and Kierzkowski, 2001; Jones 2000).

In this context, China and India, the two most dynamic emerging economies, have so far had contrasting experiences in attracting MNCs engaged in global production networks. On the one hand, China has emerged as a prime export base for assembling a wide range of manufactured goods. As a result, the bulk of China's manufacturing exports contain imported parts and components. This suggests that China's participation in production networks has been high (Dean, Fung and Wang, 2011). India, on the other hand, has a poor track record for attracting this type of FDI, which is possibly one of the reasons for its lacklustre export performance during past years (Athukorala, 2008; Srinivasan, 2004). Despite India's huge potential for hosting larger-scale FDI, the country is still generally lagging behind China and other Asian countries in this area, with the exception of its success in attracting FDI for back-office business processing and software service industries.

Although the literature at large has pointed out possible reasons for India's under-performance in attracting FDI (Srinivasan, 2004; Athukorala, 2008), previous studies have mainly drawn inferences from a macro-view of FDI statistics. Instead, this study explores a uniquely constructed operation-based dataset of Japanese and United States' MNC affiliates in India from an international comparative perspective, using China as a comparison. Specifically, this study compares various indicators of economic operations of Japanese and United States' MNC affiliates in order to capture any systematic differences. An analysis is conducted in the context of India's ongoing economic and business reforms since 1991. In particular, the recently signed Japan-India Free Trade Agreement is seen as an important step that may help to change the perceptions of India among Japanese investors. In fact, the latest survey conducted by the Japan Bank of International Cooperation (JBIC), ranks India for the first time as the most promising country for the next 10 years or so for Japanese manufacturing MNCs.

Section 1 of this paper develops the analytical context of the distinctive specialization and operations of MNC affiliates in a host country, while section 2 provides an overview of trends and development of United States and Japanese FDI patterns in China and India. Section 3 takes a closer look at the operational characteristics of United States and Japanese MNC affiliates in India and China. Section 4 summarizes the key findings and puts forward policy implications.

## 1. MNCs in production networks: An overview

The creation of production networks has been one of the underlying competitive advantages for manufacturing multinational firms in industrial countries since the late 1960s (Helleiner, 1973; Grunwald and Flamm, 1985). MNCs break up the vertically integrated production process into finer stages and the relocation each stage to the most suitable area beyond an MNC's own borders.<sup>1</sup> United States-based MNCs initially engaged in international fragmentation of production in order to gain cost competitiveness in the world market. This practice was encouraged in the United States' electronics and garments industries by the Offshore Assembly Programme (OAP), a special government scheme where tax-exemption was granted to re-imported products, comprising United States value-added after offshore assembly (Finger, 1975). This practice subsequently spread to other heavy industries such as the automobile industry and to MNCs of other industrial countries (Watanabe, 1972). In addition, several important factors, including technological progress as well as the continuous reduction in transportation and communication costs, made the option of cross-border fragmentation of production more attractive and profitable through further cost reductions. While intra-firm trade by MNCs still dominates the international exchange of production processes, the emergence of "arm's-length" contract manufacturers has facilitated international transactions. Overall, production networks have gradually begun to spread, involving developing countries at different stages and types of production.

While the rise of production networks is a general phenomenon, it has been suggested that the nationality of MNCs characterizes the functions of production networks (Sturgeon, 2003). For example, in the electronics industry, the Japanese electronic networks have been a relatively closed system with a tightly controlled buyers-suppliers linkage excluding outsiders (Hackett and Srinivasan, 1998). Japanese production networks have developed based on the social relationship of "trust" and "reputation". Product and process specification remain relatively tacit, and involve intensive

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<sup>1</sup> The semiconductor industry provides an illustrative example (Grunwald and Flamm, 1985; Brown and Linden, 2005). One of the most important semiconductor products is an "integrated circuit" or "chip", which is a network of tiny wires fabricated on surfaces connecting transistors that switch processing data on and off in a binary code. The manufacturing process of the chip consists of three primary discrete value-chain activities: design; wafer fabrication; and test and assembly (Brown and Linden, 2005). In this process of specialization in the value chain, the design is the most skill-intensive, requiring a very high standard of sophisticated technology and highly-skilled labour. The next step, wafer fabrication, needs to be performed in an extremely clean location, but requires relatively lower skills than the design process. The fabrication stage also entails a huge fixed investment to build a plant (called a fab) that holds a wide variety of expensive equipment. Finally, assembly is typically the process of cutting the wafer into delicate individual chips (or dyes) and packaging them with the intensive use of manual labour. Among these three value-added activities, assembly is likely to be relocated first in order to benefit from cheaper labour costs overseas, while fabrication is likely to be moved next. Design activities are likely to remain inside the home country. For example, in 2002, the world's leading chip maker, the United States' Intel Corporation, found assembly locations and testing facilities mostly in developing countries such as China, Costa Rica, Malaysia and the Philippines. The other sophisticated and high-end value processes, such as wafer fabrication, design and manufacturing of chips are still concentrated in the United States.

information flows between firms and suppliers; this leads to greater asset specificity and relation-specific investment. In electronics, this form of inter-firm production network relies heavily on technology-intensive components (sound display, memory chips, microprocessors, power and mechanical components, or advanced design and development) supplied by related Japanese suppliers; simpler and non-strategic components are sourced from unaffiliated suppliers, usually for the previous generation model (Borrus, Ernst and Haggard, 2000). This procurement arrangement essentially blocks outside vendors from becoming involved with Japanese production networks and supply chains.

On the other hand, United States electronic firms are often characterized by the full integration of modularity and the heavy use of contract manufacturers (Sturgeon, 2003).<sup>2</sup> This system is facilitated by highly standardized inter-firm links that require less frequent and less intense interactions. The functions of contract manufacturers are highly modular in nature, being accessed and shared by a wide array of “lead firms”, thus increasing flexibility (Borrus, Ernst and Haggard, 2000). While acknowledging this difference in characteristics, it has been argued that, with the passage of time, operations of MNCs of different nationalities become similar as the ongoing process of globalization forces MNCs to emulate international best practices in global business operations. Hence, a common evolution between Japanese and United States MNCs in a given host country should be expected (Encarnation, 1993; Dunning, Kim and Lee, 2007).

In sum, these contrasting structures between Japanese and United States production networks may contribute to the distinctive specialization and operations of MNC affiliates in a host country. They may also be influenced by the development process of global business operations.

## 2. FDI patterns

To begin with, a look at some of the issues concerning the quality of FDI data is in order. First, it is well-known that FDI data reported from China and India are somewhat inflated, because of round-tripping FDI through Hong Kong, China to China, and through Mauritius to India (Wei, 2005). Second, FDI outflows from Japan and the United States may not be comparable. According to the standard definition, the three

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