

## **Summary in English**

### **The Determinants of Localization and Location Choice:**

#### **Evidence from Japanese Multinationals**

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Developing and developed countries both use certain incentives and try to attract FDI, especially developing countries, because they increasingly see foreign direct investment (FDI) as a catalyst for industrial and economic development. FDI may raise productivity through improved resource allocation, increased competition, and the expansion of local capabilities through technology transfer and spillovers (Caves 1995; Wang and Blomström 1992).

The successful achievement of technology transfer and spillovers not only depends on the multinational enterprises (MNEs)'s integration with host economy (the degree of localization), but also is determined by the host countries' economic condition and absorptive capability. In addition, investment motives affect the inclination of foreign firms to choose a particular location and to achieve localization. Technology transfer and spillovers, localization, and the location choice of MNEs are closely related and affect one another.

The purpose of this thesis is to examine the theme of MNEs' localization, location choice, and the relation of these with investment motives, by focusing on the example of Japanese MNEs. The degree of localization and the location choice of Japanese multinationals are of interest because

one of the most important characteristics of Japanese affiliates is that they are less localized than affiliates from other countries, as many earlier studies have shown (Belderbos 1997, Maruya 2000). The second reason is that the distribution of Japanese FDI by industry and region has changed significantly since the 1980s. Another reason is the economic importance of the activities of Japanese multinationals in Southeast Asian countries. Japanese manufacturing has played a principal role in the economic development of Southeast Asian countries, prompting trade, creating employment and developing supporting industry. This thesis is composed of 6 chapters as the following.

In **chapter 1**, the motivation and the structure of this thesis are outlined. At the same time, related previous studies on the determinants of localization and the determinants of location choice of Japanese MNEs are surveyed. And an overview of Japan's FDI, including local sales and procurement patterns as well as MNEs' investment motives is provided.

In **chapter 2**, an empirical analysis of the determinants of local procurements is conducted using data on Japanese affiliates in 25 countries covering the period from 1994 to 2000. Backward vertical linkages of MNEs, measured by local procurements, are increasingly attracting the interest of host countries and source countries because of the potential benefits derived from local procurements. It is important to identify the determinants of the backward linkages of multinationals.

What distinguishes this study from the one previous study conducted by Belderbos,

Capannelli, and Fukao (2001) is that it employs a more rigorous theoretical framework and differs in important ways. First, it estimates local backward linkages by regressing affiliate demand for local inputs based on a translog function. Second, it analyses the determinants of local procurements by industry, taking into account unobservable affiliate heterogeneity, which is not done by Belderbos, Capannelli, and Fukao (2001). Third, it uses a set of panel data that is superior to the data used in any of the previous studies and is constructed from METI's survey on foreign affiliates in manufacturing covering the period from 1994 to 2000. These differences mean that the results obtained here differ from those of Belderbos, Capannelli, and Fukao (2001). Findings include the following. The characteristics of the affiliates as well as host countries have an important impact on local procurements. First, unobserved affiliate-specific characteristics explain a large part of the variation in backward linkages among foreign affiliates. This suggests that unobserved affiliate-specific characteristics such as local supply-chain networks may play an important role in the formation of backward linkages of foreign affiliates. Second, experience, which is measured by the length of operation, has positive and sometimes non-linear effects on local procurements of affiliates, especially in the Southeast Asian countries and in China. Third, local procurements are high for affiliates with strong local sales. All these findings have important policy implications for host countries.

**Chapter 3** addresses the determinants of localization of management. Employment

patterns at Japanese overseas affiliates are analyzed using firm-level micro data and the determinants of management employment are discerned for eight job classifications (chief executive officer (CEO), deputy CEO, labor management, accounting, sales, purchasing, research and development (R&D), and planning). Defining employment localization as the case where responsibility of a task such as top management, sales, or labor management, is given to local staff rather than Japanese staff, it is found that top management localization has been achieved only at a limited number of affiliates, while labor management localization has been achieved at many affiliates. Comparing affiliates in different regions, localization of management has been relatively more extensively achieved at affiliates in Europe, while it has been relatively limited at affiliates in the ASEAN countries. An examination of the determinants of employment localization reveals that the length of operation of affiliates and the quality of labor in the host country have a significant positive impact in the case of affiliates in Asia. These observations highlight the importance of providing an FDI-friendly environment in which MNEs are likely to stay for a long period as well as the importance of improving the quality of human resources through education and training in order to promote the employment localization of management positions.

**Chapter 4** investigates the determinants of location choice taking MNEs investment motives into account. While there already is quite an extensive literature on the location determinants of Japanese multinationals, previous studies do not consider the effect of the type of

investment – vertical or horizontal – on the location decision. Vertical FDI typically is undertaken to take advantage of international factor-price differences, while horizontal FDI often aims at avoiding trade barriers that make it costly to serve a particular market through exports. To explore the determinants of Japanese multinationals' location decision by type of FDI, the analysis focuses on MNEs' location choice among 117 host countries during the period 1989–to 2002. The analysis looks at eight host country characteristics: labor costs, market size, labor quality, quality of infrastructure, Japanese firm agglomeration, distance from Japan, tariffs, and country risk.

The main findings are that the most important determinant for horizontal FDI is a large market, whereas labor costs play a significant role in the case of vertical FDI. Concerning the effect of tariffs, geographical distance, and labor quality on the location decision, this study obtains results that differ from those of previous studies on the determinants of location choice of Japanese multinationals. First, tariffs and distance have opposite effects on the location decisions in the case of horizontal and vertical FDI. Second, labor quality has a positive effect only on the location decision of horizontal FDI.

**Chapter 5** looks at differences in the determinants of location choice between Japanese FDI and US FDI in China. A great innovation of this study is that it employs Chinese city-level data, allowing a more exact analysis of the determinants of FDI location choice of Japanese and US MNEs than province-level data. The empirical comparison of location determinants for Japanese and

US multinationals is conducted using a conditional logit model and data of 63 cities covering the period 1984–1996.

The results indicate that the location determinants for Japanese and US FDI in China's cities bear similarities as well as differences. The relatively low labor costs in China (plus cheap raw materials and other production inputs) and the market potential of China attracted both Japanese and US investors. Moreover, cities with a higher GDP, a higher level of accumulated FDI stock, and better infrastructure attracted relatively more FDI inflows. At the same, FDI location decisions of Japanese and US multinationals differ in the following respects: first, firms from the two countries tend to concentrate FDI in different regions. Japanese firms concentrate more on northeastern China, while American firms concentrate more on southern China. Second, they invest in different sectors. Before 1996, Japan's FDI was export-oriented and mostly focused on labor-intensive sectors, while US FDI was market-oriented and more focused on capital-intensive sectors when compared with Japanese FDI. Third, the location choice of Japanese FDI is more sensitive to Chinese preferential policies designated in all economic zones than that of US FDI. Finally, both in the manufacturing and in the non-manufacturing sector, US firms attach greater importance to the educational level.

The results obtained in this chapter differ from previous research using province-level data. Crucially, Japanese and US multinationals choose cities where wages are higher but labor quality is also higher. This explains why their FDI in China is concentrated in the major cities.

## Reference

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