

Asian Foreign Investment in the US: A Firm-Level Study of Technology Transfer Project Summary

The primary purpose of this project is to examine the knowledge acquisition processes of Asian manufacturing and information technology subsidiaries that have recently entered the US market via foreign direct investment (FDI). A secondary objective is to examine the factors that influence the location of these technology-seeking firms. The inquiry focuses upon four of the fastest growing suppliers of inward FDI to the US from industrializing Asia (Taiwan, South Korea, Hong Kong, and Singapore). Our central proposition is that the subsidiaries of Asian companies have been using FDI as a means of capturing knowledge spillovers from US firms and institutions. We also contend that these subsidiaries have established branch facilities in the US to tap the resources of other foreign firms located in specific US regions. By locating branch facilities in high-technology environments, Asian subsidiaries are able to access a wide range of positive externalities. These externalities (e.g. tacit knowledge) represent strategic inputs that support innovation and growth, giving Asian firms an opportunity to absorb best-practice manufacturing and marketing procedures. Rather than wait for technology transfer via US outward investment to Asia, a new model is emerging in which Asian companies proactively seek state-of-the-art technology or know-how by establishing production facilities inside the US itself. This represents a radical departure from previous models of international technology transfer.

We propose to test these propositions by conducting a national survey of Asian subsidiaries from South Korea, Singapore, Hong Kong, and Taiwan. Our preliminary database indicates that close to 600 subsidiaries from these four nations exist within the US. A four-stage research effort is envisaged. In the first stage, a standardized survey instrument will be mailed to the entire known population of subsidiaries. The purpose of the postal survey is to gather establishment-level information on: (1) the motives that encouraged FDI; (2) locational and site-level decision-making; (3) actual versus expected levels of technology acquisition; and (4) parent-subsidiary relationships. Our principal expectation is that locally acquired technology or market intelligence is transferred back to the FDI source in Asia, where manufacturing costs are lower. The second research phase will involve a large-scale follow-up inquiry (telephone survey) to obtain additional information on the extent of subsidiary-to-parent knowledge transfer. Here, the goal is to identify the mechanisms that deliver tacit knowledge from the US to Asia, and to ascertain the role of geography in influencing the technology-seeking behavior of firms. In the third research phase, we propose to conduct semi-structured personal interviews with a subsample of subsidiaries across the four nations represented in the study. This is a particularly important part of the inquiry, in that interviewees will be given a chance to inspect and respond to any patterns uncovered via the postal survey. Finally, we propose to interview a subsample of parent companies in Asia. Here, the goal is to fine-tune our assessment of the motives, techno-market benefits, and organizational attributes of the Asian investment thrust.

The academic significance of the proposed inquiry stems from the fact that most of the literature on technology transfer deals with parent to subsidiary flows through the FDI initiatives of US, European, or Japanese multinational firms. Theoretical insights on technology acquisition have therefore drawn largely from the behavior of early internationalizers and predominantly "Western" firms. This study is concerned with a newer model of technology transfer in which firms from late industrializing nations move directly to the technology source (rather than wait for the source to come to them). The study also has implications for the business literature on international competitiveness, as well as for the geographic literature on technological spillovers. For instance, the model described above meshes with Porter's (1990) contention that the competitive advantage of any given nation can be enhanced by tapping the specific factor environments of more technologically advanced or competing nations. In terms of geographic spillovers, moreover, the proposed study promises to shed light on the ways in which firms access and absorb positive externalities at the regional level. Overall, then, this proposal seeks to integrate three distinct themes that have not been synthesized before in the literature on economic geography (i.e. technology transfer via outward FDI, international competitive advantage, and geographically localized spillovers).