

Summary of Thesis

**TECHNOLOGY TRANSFER AND THE ROLE OF COORDINATION:
CASE OF JAPANESE FIRMS IN MALAYSIA**

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Technology transfer (TT) through multinationals corporations (MNC) is an important source in developing the indigenous technology capability of a country like Malaysia. However, TT is not an automatic byproduct of foreign direct investment (FDI) especially if the main concern is the external benefit of TT. MNCs' investment in one country based on many reasons but mostly for economic reasons such as cheap labor or attractive fiscal incentives. Indigenous technology development has not been cited as one of those important factors. In such situation, for a country like Malaysia, which is entangled between the need for attracting as much FDI as possible and the need for regulating these MNCs to include intensive TT in the FDI, to find the right approach is very critical issue. On one hand, the introduction of flexible policies and attractive incentives will not necessarily influence the MNCs' business strategies if it is not implemented based on a well-structured host government intervention with a targeted objective of developing local technology capability. On the other hand, too rigid state interventions may disturb the market and consequently affect the influx of foreign investments.

Malaysian, despite recorded a high number of technology transfer agreements especially from Japanese companies, is found to be much less developed technologically in comparison to its neighboring countries such as Singapore and South Korea and Taiwan. Reasons for the differences raise an important question that needs to be addressed appropriately: Is Malaysia at a comparative disadvantage to other attractive developing countries or is it a lack of coordination among the main institutional actors in the country?

In search for the answer, this thesis has analyzed the issues using coordination framework based on institutional approach. The main argument of the thesis is that the conflicts of technology transfer in Malaysia are attributable to the problems in 'management of the interactions process among the actors involved in the technology transfer institution'.

Adopting the evolutionary economic perspective of technology development to argue for market enhancement roles of state intervention, the thesis analyzes the case

of Japanese technology transfer to Malaysia. Detailed investigation of Malaysian government direct and indirect coordination mechanisms - policies, incentives and technology development support programs - is carried out against the firms' technology transfer strategies and activities.

The study finds that the interactions process between firms and the host governments that determine the extent of technology transfer have been weakly coordinated. Direct interaction between firms and host government agencies took place at very minimal level. Firms' participation in the technology development programs was very low to contribute to more intensive technology transfer. Most of the policies and regulations that are supposed to facilitate and monitor firms' technology transfer activities are yet to achieve their objectives. More interestingly, some of the regulations become hindrance for more intensive TT.

Comparatively, the incentives, funds and grant offered to stimulate firms TT activities are found to have played better roles than the policies. Firms' interactions based on these financial incentives contribute more significantly in improving the extent of TT. However, some of them have not recognized the actual needs of firms TT activities. This factor and also administrative problems have impeded the better function of these financial incentives.

Based on these findings, the study concludes that despite of various government efforts to promote TT activities, factor of lack of coordination has constrained the better function and achievement of these efforts. Therefore, the study strongly recommended improvement in several areas such as introduction of a specific Technology Transfer Policy. At the same time it is obviously important that the government improve the efficiency and effectiveness of the present policies and incentives. It is also important for these policies to recognize that technology transfer not as a general process but to approach it based on specific stage of transfer.

By applying the coordination framework this study hopes to contribute to expand the knowledge in understanding the complex process of technology transfer.