

## ABSTRACT

This study aims to provide understanding about inter-firm technology transfers in the Thai automotive industry. Its importance lies in the fact that Japanese automakers rely on local part procurement in automobile assembly, which creates backward linkages with local part suppliers. As a result, Japanese automakers have transferred technologies to them to enable them to improve their production processes.

According to previous literature, technologies involved in product development, process engineering, and production stage are transferred to first-tier suppliers under close supervision and with the technical guidance of Japanese experts (bilateral relationship). However, this study finds that one Japanese automaker, namely Toyota, has improved the pattern of inter-firm technology transfer involved in the production stage to become more effective. More precisely, Toyota has not only provided technological assistance to its first-tier suppliers (bilateral relationship), but it has also encouraged them to play a more active role in the learning process by sharing knowledge among members involved in the network, (multilateral relationship).

In addition, this study could add significantly to the literature on inter-firm technology transfer when considering the relationship between first-tier and lower tier suppliers. This study finds that a competitive environment and stringent requirements, e.g. high quality and effective cost from the automakers, are the factors influencing first-tier suppliers to provide technological assistance to lower tier suppliers. In addition, the type of products manufactured by lower tier suppliers is a factor influencing technology transfers to them. This study reveals that a group of lower tier suppliers producing and transforming raw materials into simple finished parts, used specifically for the automotive industry, will be provided technological assistance by first-tier suppliers.

Furthermore, it is shown that the pattern of inter-firm technology transfer between first-tier and lower tier suppliers occurs within a bilateral relationship, wherein technology is transferred by first-tier suppliers. First-tier suppliers tend to deal with a limited number of suppliers, while lower tier suppliers produce

technologically relatively simple components. Consequently, the necessity of having a network facilitating technology transfer is slight.

Finally, the study finds that there are three channels of technology transfers between first-tier and lower tier suppliers, which are sending technicians on training visits to lower tier plants, organizing seminars at first-tier plants, and sending manuals. However, sending technicians on training visits is the channel that facilitates tacit knowledge to lower tier suppliers because they will be provided with close supervision and technical advice by representatives of first-tier suppliers. Besides, each lower tier supplier has a different technological capability. Therefore, relying on this channel allows technicians to solve lower tier supplier's problems on a case-by-case basis.