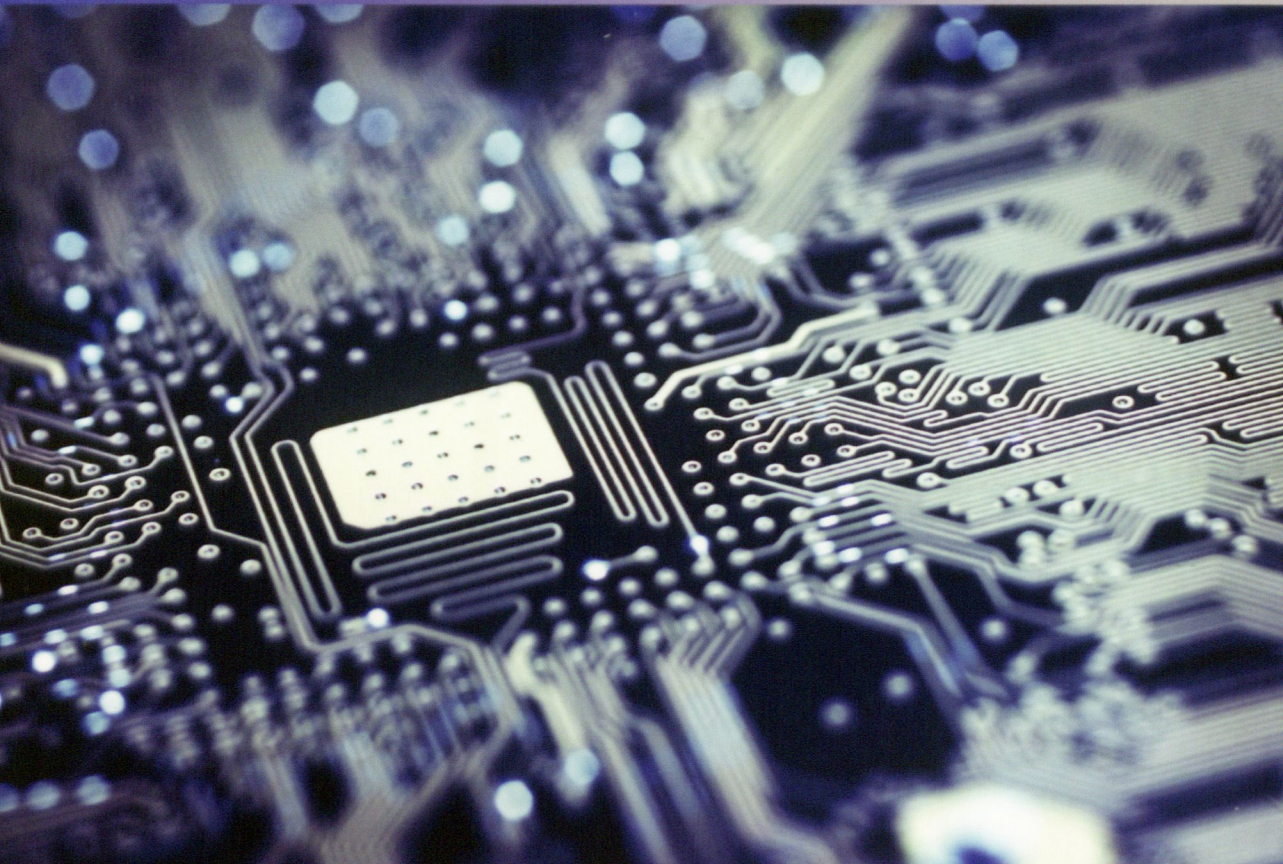


Inter Firm Technology Transfer In International Joint Ventures and Local Firms' Performance



INTER FIRM TECHNOLOGY TRANSFER IN
INTERNATIONAL JOINT VENTURES AND
LOCAL FIRMS' PERFORMANCE

By

SAZALI ABDUL WAHAB

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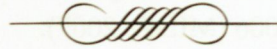
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CHAPTER
1

INTRODUCTION



1.1 Introduction

This chapter provides a brief account of the work beginning with the background of the work followed by an overview of inter-firm technology transfer (TT) via international joint ventures (IJVs). Next, this chapter presents the problem statement, research questions and objectives of the work followed by the significance of work and operational definitions of key terms. The organization of the work is presented at the end of this chapter.

1.2 Background

For the past three decades, Malaysia has experienced tremendous economic growth which transformed the agriculture or resource-based economy into an industrial economy (The Ninth Malaysia Plan, 2006). Intensified efforts by the Malaysian government have gradually turned the national economy from labor intensive to capital intensive. The growth of Malaysia's economy is mainly backed by the early success in developing its industrial sectors through direct import of low technologies especially from United States (U.S), Japan and Europe (Ministry of International Trade and Industry (MITI), 2004). With the transformation of the national economic policy, the Malaysian government is determined to develop its industrial sector to boost the national economy. As a result, this policy has attracted many foreign investors to invest in Malaysia through foreign direct investments (FDIs).

During 1996-2005, the total FDI inflows are registered at RM121.8bn as compared to RM73.4bn in 1986-1995 (The Third Industrial Master Plan, 2005). FDIs in terms of value of fixed asset of foreign-owned firms have increased from RM43.8bn in 1996 to RM68.2bn in 2002, an increase of 39%; and for the same period FDIs account for 14.5% of the GDP growth as compared with private domestic investments which is 26.8% (Third Industrial Master Plan, 2005). Thus, FDIs are expected to assume its significant role as the main source of foreign technology in generating the country's growth. In 2006 (Table 1.1), FDIs in the Malaysian manufacturing sector have increased from RM13.65bn in 2005 to RM14.7bn in 2006 (MIDA, 2007).

Table 1.1: Foreign Direct Investment in the Manufacturing Sector

Country	2006	2005
Japan	RM4.4 billion	RM3.7billion
Netherlands	RM3.3 billion	RM1.7billion
Australia	RM2.6 billion	RM155.9million
USA	RM2.5billion	RM5.2billion
Singapore	RM1.9billion	RM2.9billion

(Source: Malaysian Industrial Development Authority (MIDA), 2007)

In the context of a developing country, technology is viewed as an important catalyst of corporate success and national economic growth (Millman, 2001). Due to lack of resource capacities such as weak research and development (R & D) base, limited investment in R&D, production and manufacturing capability, weak infrastructure and technological disadvantage (Lado and Vozikis, 1996; Tepstra and David, 1985), Malaysia like other developing countries, depends mainly on FDIs from the multinational corporations (MNCs) as its primary source of technology to enhance the technological capabilities and competitiveness of local industries (Lee and Tan, 2006). This is because MNCs own, produce and control the bulk of world technology in which they undertake nearly 80% of all private R&D expenditures worldwide (Dunning, 1993).

Therefore, to realize its aspiration to become an industrialized and developed nation in 2020, Malaysia must develop and sustain its own technology through appropriate TT strategies and initiatives. Through the Third Industrial Master Plan 2006-2020, Malaysia aims at leveraging the country's existing strength and resources to enhance its competitiveness and resilience to achieve global competitiveness. On the other hand, The Ninth Malaysian Plan 2006-2010 stresses on the importance of developing human capital to strengthen the country's technological capability and capacity to support local innovation through knowledge acquisition and utilization (The Ninth Malaysian Plan, 2006).

In order to achieve this primary objective, foreign technologies are greatly needed by Malaysian firms and industries to build their technological capacity, strengthen their core competencies and expand into technological fields that are critical for maintaining and developing market share (Wagner and Yezril, 1999). Realizing the need for foreign technologies in Malaysia, the MITI has accelerated the imports of technology, especially explicit technology, by focusing on investments in high value-added and technology intensive industries since 1995. From January 1995 to August 2001, MITI has approved a total of 779 technical and technology agreements of which 429 were technical assistance agreement, 172 licensing and patent agreements, 74 trade mark agreements, 27 service agreements, and 26 know-how agreements (MITI, 2004).

Between this period (1995-2000), the payment for technology acquisition royalties and fees for procurement of the franchises, use of international brand names, and procurement of license for the utilization of new and improved technologies increased from RM932 million to RM1.6 billion in 2001. Japan was the major source of technology with 443 technical/technology agreements approved, followed by the USA (120), Germany (57), Singapore (24), Korea (18), France (16), Taiwan (13), Australia (13), Switzerland (11), and Netherland (5) (MITI, 2004).

Past studies have acknowledged the important role of MNCs as the main source of technology. MNCs are regarded as the most efficient vehicle for transferring technology and knowledge across organizational borders through FDI and IJVs (Tihanyi and Roath, 2002; Kagut and Zander, 1993). Past literature also shows that those foreign MNCs in Malaysia have successfully transferred

1998; Simonin, 1999a; Lane, Salk and Lyles, 2001; Simonin, 2004). Many of the social perspective studies emphasize on the relationship and trust between the IJV partners; where knowledge underlying technology is embedded not only in the capabilities but also in the social relationships between the IJV partners (Dhanaraj, Lyles, Steensma and Tihanyi, 2004; Inkpen and Currall, 2004; Grandori and Kogut, 2002; Kogut and Zander, 1992).

When compared to various forms of strategic alliance such as distribution and supply agreements, research and development partnerships or technical and management contract, IJVs are considered as the most efficient formal mechanism for TT to occur through inter-partner learning between foreign MNCs and local firms (Kogut and Zander, 1993; Inkpen 1998a, 2000). Learning in IJVs is being regarded as "a means of knowledge acquisition and gaining collaborative know-how and collective experience" (Liu and Vince, 1999; Hau and Evangelista, 2007).

IJVs are viewed as the most efficient mode to transfer technology or knowledge which is organizationally embedded and difficult to transfer through licensing agreements (Kogut, 1988; Mowery, Oxley and Silverman, 1996). Knowledge, as an important element underlying technology, can be learned and transferred between IJV partners. IJVs provide both MNCs and local partners an appropriate vehicle to facilitate the transfer of organizational knowledge, particularly for knowledge which is hard to be transferred without the setting up of a JV such as institutional and cultural knowledge (Harrigan, 1984).

Other studies have argued that JV is appropriate when technology can be easily learned and diffused to local partners who possess sufficient skills and expertise to manage the imported technologies (Lado and Vozikis, 1996; Zander and Kogut, 1995). JVs allow the MNCs and local partners to 1) share their different skills and knowledge bases in creating unique learning opportunities for both parties (Inkpen, 1998a), 2) access knowledge which is not yet widely distributed or exploited (Zack, 1999), and 3) provide learning opportunities and potentials for value creation (Berdrow and Lane, 2003).