

CHANGING TECHNOLOGY TRANSFER STRATEGIES IN A NON-PROFIT ORGANIZATION – AN EXAMINATION OF ITRI

BENJAMIN WANG¹, JOSEPH Z. SHYU², CHIH CHIANG CHENG²
AND CHIH HUNG HSIEH^{3,*}

¹Industrial Technology Research Institute
195, Section 4, Chung-Hsien Road, Hsinchu, Taiwan
bywang@itri.org.tw

²National Chiao Tung University
1001 Ta-Hsueh Road, Hsinchu, Taiwan
joseph@cc.nctu.edu.tw; 01322@ems.hccg.gov.tw

³Yuan Ze University
135, Yuan-Tung Road, Chung-Li, Taiwan

*Corresponding author: john@saturn.yzu.edu.tw

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ABSTRACT. *With the emergence of global competition, a non-profit organization (NPO) must adapt its strategies of technology transfer to suit the change of global economic environment so as to enhance benefits of technology transfer. The Industrial Technology Research Institute (ITRI) is the leading non-profit R&D organization in Taiwan. This research studies ITRI's strategies of major technology transfer and then divides these strategies into three stages in accordance with Taiwan's stages of industrial development. This paper aims to measure the strategic changes employed every decade and assesses the impact level of each strategy at each stage. This research applies Fuzzy and AHP theories to survey ITRI's technology transfer strategies over the past three decades and to analyze the future strategy for technology transfer. The authors conclude that a new pattern of technology transfer strategies has served as a means for more balanced innovative capabilities among sectors. Furthermore, the IP business and spin-offs are the most important strategies for future technology transfer when Taiwan evolves toward knowledge economy era. In addition, an open innovation model for future technology transfer is proposed and discussed in this paper.*

Keywords: NPO, Technology transfer, Strategy, AHP, Fuzzy

1. ITRI – The Leading NPO in Taiwan. In the 1960s, Taiwan was an important sugar exporting country, but it is now a high-tech manufacturing center for integrated circuits (ICs), TFT/LCDs, PCs and notebook, computers. ITRI played an essential role in transforming this island nation from an agricultural based economy to an industry-oriented economy. It is believed that without ITRI, rapid development of the semiconductor and information industries would have been impossible in Taiwan. Despite ITRI's noteworthy contribution to the above mentioned industries, ITRI's technology transfer strategies have been scarcely researched. Therefore, this paper applies seventeen important strategies of technology transfer, Fuzzy and the Analysis Hierarchy Process (AHP) and Fuzzy theory to measure these strategies in ITRI from the 1970s to the present, and to the future.

ITRI was established in 1973 as a non-profit organization through an act promoting industrial technology in Taiwan. Currently, ITRI is Taiwan's leading R&D organization employing a staff of 6000, working in its eleven research organizations sponsored by the