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An Investigation into Enablers and Barriers of Reverse Technology Transfer

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Abstract: Technology is the most valued possession for a country or an organization. The economic development depends not on stock of technology but on the capabilities how the technology is being exploited. The technology transfer is the best way how the developing countries have an access to state-of- the-art technology. Traditional technology transfer is a unidirectional phenomenon where technology is transferred from developed to developing countries. But now there is a change of wind. There is a general agreement that global shift of economic power is under way from west to east. As China and India are making the transition from users to producers, and producers to innovators, this has increasing important implications on economy, technology and policy of global trade. As a result, Reverse technology transfer has become a phenomenon and field of study in technology management. The term "Reverse Technology Transfer" is not well defined. Initially the concept of Reverse technology transfer was associated with the phenomenon of "Brain drain" from developing to developed countries. In the second phase, Reverse Technology Transfer was associated with the transfer of knowledge and technology from subsidiaries to multinationals. Finally, time has come now to extend the concept of reverse technology transfer to two different organizations or countries related or unrelated by traditional technology transfer but the transfer or has essentially received the technology through traditional mode of technology transfer. The objective of this paper is to study; 1) the present status of Reverse technology transfer, 2) the factors which are the enablers and barriers of Reverse technology transfer and 3) how the reverse technology transfer strategy can be integrated in the technology policy of a country which will give the countries an economic boost. The research methodology used in this study is a combination of literature review, case studies and key informant interviews. The literature review includes both published as well as unpublished sources of literature. In case study, attempt has been made to study the records of reverse technology transfer that have been occurred in developing countries. In case of key informant interviews, informal telephonic discussions have been carried out with the key executives of the organizations (industry, university and research institutions) who are actively engaged in the process of technology transfertraditional as well as reverse. Reverse technology transfer is possible only by creating technological capabilities. Following four important enablers coupled with government active and aggressive action can help to build technology base to reach to the goal of Reverse technology transfer 1) Imitation to innovation, 2) Reverse engineering, 3) Collaborative R & D approach, and 4) Preventing reverse brain drain. The barriers that come in the way are the mindset of over dependence, over subordination and parent-child attitude (not adult attitude). Exploitation of these enablers and overcoming the barriers of reverse technology transfer, the developing countries like India and China can prove that going "reverse" is the best way to move forward and again establish themselves as leader of the future world.

Keywords: barriers of reverse technology transfer, enablers of reverse technology transfer, knowledge transfer, reverse technology transfer, technology transfer

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