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# The Study of an Effective Technology Transfer Model, which will Contribute to the Establishment of an Intellectual Property Trade Surplus of JAPAN: Approached from the viewpoint of knowledge Science

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After World War II, JAPAN industrialized, introducing licensed intellectual property from foreign countries continuously, and now JAPAN has built up its international status as a large scale trading country, which exports more value-added goods and services.

But JAPAN has paid licensing fees of intellectual property continuously to foreign countries, as the price of introducing licensed intellectual property, and its trade balance of intellectual property had been in a deficit continuously; however in 2003, its trade balance went into the black, with a surplus of \$7,729 million (exchange rate is \$1=100yen) in 2007.

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The reason for this is that Japanese companies have expanded their overseas direct investment actively.

This thesis considers the value- added technology transfer model, which can gain more loyalty and gain foreign currency, from the viewpoint of knowledge Science.

As effective technology transfer models, which will contribute to the establishment of a trade surplus of intellectual property for JAPAN, this paper has proposed the two models, below, the “Basic Model” and the “Evolution and Development Model”.

**【Basic Model】 “Joint Model of Explicit Knowledge and Tacit Knowledge”**

By combining Explicit Knowledge and Tacit Knowledge effectively, not separating them.

The company

- ① transfers the value- added technology to a subsidiary (that is to say, parent firm can gain high loyalty in return, due to subsidiary firm’s high profit)
- ② holds a dominant position of competitiveness (that is to say, combining a dominant technology (explicit knowledge) and tacit knowledge to make imitation by other companies difficult )

**【Evolution and Development Model】 “Technology Transfer Cycle Model”**

In this case, the company uses feedback for improvement based on experience and knowledge after technology transfer.

The company

- ① uses feedback for improvement based on experience and knowledge, accumulates new knowledge, and then creates new knowledge (“R&D”)
- ② repeats technology transfer continuously, and gains loyalty in return continuously, at the same time, pursuing long-term stable loyalty, for example, by constructing a contract scheme.

This paper has proposed the above two models, and has tested them by investigating two cases of parent-subsidary firm relations, specifically the cases of “Oracle Corp and Oracle Japan” and “VeriSign Inc and VeriSign Japan”.