

University Entrepreneurship and Technology Transfer in Japan

by

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In 1998, the Japanese government directed its efforts for the promotion of strategies that tries to establish the management of intellectual property in universities. The main goal of the policy was to transfer the inventions produced inside the university context through commercialization. With the promulgation of the Technology Transfer Law through a joint initiative between MEXT (Ministry of Education, Science and Technology) and METI (Ministry of Economy, Trade and Industry), efforts were made to create a symbiosis between universities and industries for the promotion of an innovation strategy. This resulted also in the establishment of TLOs (Technology Licensing Offices), adapting the US model used in the 1980's and 1990's. The two government branches complemented one another in the policy establishment, because while all of the Japanese universities were under MEXT jurisdiction, the METI promoted financial support of approximately ¥ 30 million annually to the TLOs establishment. In July of 2004, thirty seven TLOs were established in Japan, and after the end of METI financial support, they have become financially independent. Recently, there are two types of TLOs, internal and external to the university. The TLOs established outside of the universities generally deal with many educational institutions. In 1999, the Japanese version of the United States Bayh-Dole Act was institutionalized, and the intellectual property was transferred from the inventors to the universities. The MEXT solicited also the establishment of intellectual property office in all of the universities through the period of February to April 2003, forty three centers for intellectual property were established, through an investment of ¥2.4 billions. The main activity in these offices is to manage intellectual property of the universities, especially on property transfer from inventors to the universities, and also to serve as consultants for related questions of negotiating intellectual capital.

Since the 1980's, a large number of studies about the Bayh-Dole Act and Intellectual Property were produced and the creation and the use of intellectual capital has been established as an important asset in the entrepreneurs discussions. These factors lead to strengthen economic paradigm about creation of wealth from the

intellectual capital. However, it was also verified that the necessities were not always comprehended and wisely replicated. During the months of October to December 2006, we conducted a series of semi-structured interviews with the directors of TLO's and IP Offices in Japanese universities. The selected sample was composed of ten universities that had the highest number of patent applications during the period of 2000 to 2004 in Japan. The participation in this research was completely voluntary and in a total of 15 invitations between TLO's and IPO was sent; we had an adhesion of 70% in this study, in a total of ten interviews. Additionally, a questionnaire application was also done with closed questions and an attitude measurement using Likert scale. Our intention was to enlighten a critical vision about these recent events and the effects of the current policy and its possible implications. Among our preliminary conclusions we attested that the establishment of TLOs in Japan was a step on trying to increase innovation capacity in companies although there was no verified increase in applied research or the decrease of basic research. The patentability and immediate commercialization was mentioned as important factors, expressing a strong market orientation. However, regional developments through start-up companies and the perspectives of research grants are unnoticed. It is certain that patenting is a legal mean of intellectual protection, nonetheless, universities should be capable of managing their own knowledge freely, without pressure directed to its commercial use only, hence the benefits of medium to long term use also should occupy the agenda of technological managers, extrapolating a simple sample of results. This search for commercial results may lead to an effect known as the anti-common tragedy, where the assets that should circulate freely will diminish with increase of privatization of research. This still may not happen yet, but aren't we giving steps into this direction?

Technological transfer between universities - industry should count on the support of social academics capable of understanding the implications and evaluating the risks, as well as collaborating with an enlargement of discussions about properties of scientific knowledge created by universities.