

Support for the universities and SMEs in Japan

2023 March 4

Nao Kuji
Japan IP Association

Cooperation between universities and SMEs by Japanese companies

Japanese companies are traditionally good at R & D, and in the past, they have had many successful experiences with products developed by themselves.

However, the world's situation has changed, and **innovation that creates new value** for society has become more important than development that creates invention by itself.

In order to create innovation, it is effective to create by cooperating with various partners and combining various value and information.

Global Companies have therefore become more active in working with universities and SMEs.

The difference between invention and innovation

Invention refers to technological inventions for IP rights.



For the existing company, inventions to strengthen its IP rights is sufficient, and the company will deepen its technology toward the existing markets, for instance, smaller and smarter products.

Innovation is the creation of new value for the new market.



It is often made with a totally different technology or a different concept, for instance, from mechanical clocks to quartz clocks, from paper magazine to online magazine.

If R&D is conducted only within a company, there is a limit by the past experience and information.

This leads to the need for industry-academia collaboration and/or collaboration with venture companies and SMEs.

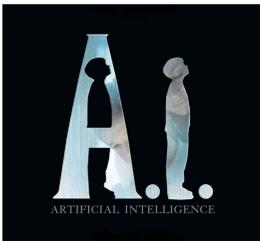
Now is the era of Innovation



Steve Jobs

Creativity is nothing more than a connection.

He connected cellphone, camera and PC and made smart phone concept.



AI

To piece together is where AI excels.

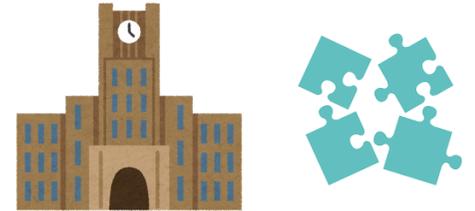
The time has come when big data, cloud, and AI all come together.

Combine business sector experience, university wisdom and venture challenge is the key to the next innovation

Industry-Academia collaboration approach

There are two types (from my experience at Honda Motor)

(1) Basic contact to Japanese universities



Maintain a basic relationship with professors, but not big research collaborations. As a hidden reason, after graduation, Japanese students will join Japanese companies. The company wants to find excellent students.

(2) Actual collaboration with universities in the world

When a company thinks new research, it tries to find a university who can perform it.

The company send letters to several universities in various countries. Those universities are selected from the past partners having already established relationship and/or universities having accumulated technology concerning the research subject.

When a university wants to be entrusted with the research, it will send back their proposal to the company. **It includes :**

See proposals from universities and decide to ask

- The researchers list
Name, their past achievements (papers, patents, etc.)
- Budget
A detailed estimate including investment, subcontractors, etc.
- Schedule
Separate milestones from the overall schedule as intermediate steps.
- Guarantee
For instance, they will clear the target, and more challenge that exceed the target.
- Conditions for handling IP
Additional payment in the case IP is monopoly or in the case IP is non-monopoly, etc.



Benefits of Collaboration Results

- For the company
Get the research result. Advertise the relation with the university in that country.
- For Universities
Get an investment. Advertise the relation with the global company.

Venture capital business in Japan



Venture investment in Japan is low compared to the United States

In 2020, venture capital investment in the United States was 130 billion US\$ with 1.23 million projects and in Japan 1.5 billion US\$ with 1200 projects.

Japan's venture capital firms lack the ability to develop venture companies and their human resources.

The reason is that in history Japanese banks have mainly provided low-risk, low interest in-direct financing.

Venture capital business is a high-risk, high-profit direct finance business, so Japanese financial sectors need to study more how to evaluate IP.

They need more experience.

Do Japanese business companies expect innovation with venture companies or SMEs ?



A Japanese business company has,

- many researchers
- Information of the market
- Large number of in-house new development program
- Stable budget

However, those are in the existing field and market.



This means that the company is always focusing on its core business development.

Therefore, when collaboration with venture companies or SMEs, Japanese companies expect innovation in totally new field and new markets.

Challenges by Japanese companies to seek venture companies and/or SMEs of the world



1. Information gathering branch (if name it for convenience, "Honda type")

Information is gathered at Honda branches of the world.

Such Information Centers have been established in various cities around the world to collect information and contact venture companies.

Fuji film has also such branches in various cities of the world.



2. Get information at the time of License out ("Toyota type")



Obtain Information of licensee by a contract when providing patent license, for instance, vehicle electrification technology free of charge. Toyota gets information about market trends, technological level of licensees, maturity of suppliers, patent superiority, etc.

3. Seek new business at the time of License out (“Panasonic type”)

Panasonic



Change the field of patents from an existing filed to a new field. For instance, use human sensing technology (biometric identification, iris recognition, line-of-sight detection, speech and emotion recognition, etc.) to fish farming field. In such case, licensee is a challenging venture business.

4. Make an innovation place (“Takeda Pharmaceutical type”)



Takeda made an alliance place at Kanagawa prefecture. The name is “Shonan Health Innovation Park” where many pharmaceutical venture business companies gather.

Thus, IP activities now include works for invention and innovation.

1. Be familiar with the overall content of a company's intellectual assets

IP includes IP rights, know-how, trade secrets, trade names, brands, contractual rights, government approvals, licenses, goodwill, corporate value, group synergies, market-specific characteristic rights, data, business solutions, platform networks, business models, partnerships, open innovation, and corporate culture.



2. Obtain information on external new technologies and markets

Decide whether innovate in-house or innovate collaboratively.

3. Strengthen its own position through invention (IP) in a collaborative business

end

