

Interview No.28

How can "innovation" create a new Japan?

Prescription for strengthening industrial competitiveness through Intellectual Property strategy (Part I)

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In February 2013, The Intellectual Property Committee of Keidanren (Japan Business Federation) submitted recommendations intended to formulate an "Intellectual Property policy vision". The Committee also outlined a prescription for strengthening Japanese industrial competitiveness through Intellectual Property strategy and better use of available finance. Mr. Botaro Hirosaki, a chairman of the Planning Department of the Committee; and Mr. Takashi Sawai, a director of the Intellectual Property Strategy Research Center who is familiar with Intellectual Property in the industrial sector, discussed the background behind the recommendations and the anticipated achievements. The experts also discussed the general aspirations of the Japanese Intellectual Property system and industrial sector.

Mr. Botaro Hirosaki, a chairman of Intellectual Property committee, Planning Department of Keidanren (Japan Business Federation) (special advisor of NEC)

Mr. Takashi Sawai, a director of the Intellectual Property Strategy Research Center (a vice president of Miyoshi & Miyoshi)

---Why did you submit your recommendations at this time?

Hirosaki: There are two main motivations. Firstly, there has been a shift in the world's industrial competition. Japan should be universally recognized as "a major manufacturing country" but almost without realizing it, the center (hub) of the world's manufacturing has been transferred to China. In addition, the US has successfully managed to secure the field of IT (information technology) to form a hub and Europe has secured status as a hub of international standards thanks to the voting rights of the member countries. Accordingly, we plan to raise a flag to mark Japan as the future "innovation hub" of the world. By moving this idea forward and reflecting it in our corporate management we aim to strengthen competitiveness in the whole country. But in order to attain this, we have to make a system for collating management resources like manpower and money. We aim to open the door to a broader view of finance and Intellectual Property that has been rarely discussed in Japan and encourage the whole industrial sector to study what Japan should do from a strategical

standpoint in the future.

Secondly, the Japan Intellectual Property head office started in 2002 and has therefore just arrived at the critical juncture of its 10th anniversary. During the last 10 years, Japan setup a pro-patent system 10 years later than the US. For example, the Intellectual Property High Court has been established and the Japan version of "Bayh-Dole Act"



has been formulated. We need to consider what we will do for the next 10 years. This is "pro-innovation". We need to combine intellectual property and industrial competitiveness to create a place where all the Japanese wisdom can be collected. The industrial sector needs to play a leading part and behave more positively than ever before.

Sawai: The word "innovation" recalls the "Innovate America" report (commonly known as "Palmisano Report") announced in December 2004. In Japan, industrial structure was successfully divided during the high growth postwar period; for example, manufacturing companies and operations companies functioned effectively together. However, the situation of Japanese industrial structure being primarily engaged in manufacturing has come to a dead end and we need to introduce a new concept using innovation as the axis. We then need to consider how Intellectual Property can contribute to this.

"Editing" technology and giving it new value

Hirosaki: Two years before "Palmisano Report" was announced, Mr. Henry W. Chesbrough published a book titled "Open Innovation". The US raised "innovation" as its next mission and made it a common theme. The US experts realized that a single technology such as semiconductors or communication leads only to a commodity, and no matter how much they are innovated, economic value cannot be fulfilled. Even a major company like IBM Corp. in the U.S. tried to establish a mechanism for gathering external wisdom and "editing" various elements of its technology to give it new economic value.

On the other hand, Japan could not completely escape from its product focused culture. A symbol of this is the electrical communication business. When NTT (Nippon Telegraph and Telephone Public Corporation at the time) was privatized in 1985, Japan divided companies based on device ownership. On the other hand, the FCC (Federal Communication Commission) in the US divided the communication sector according to types of services. This difference is significant, and introducing the US concept of value in Japan without modification will not necessarily produce success.

So, what are Japan's strong points? Firstly, on-site capability. Long cherished and skilled

craftsmanship together with subcontractor knowhow are stronger than anywhere in the world. Next, basic science capability. Japan has strong science capability, enough that the Japanese could have acquired two or three times as many Nobel prizes than they have. However, a mechanism for connecting these two skills has been lacking. Although Japan has the advantage of basic science at the headstream and on site capability at the downstream, the business processes connecting them have not been always sufficient. My hope is that obtaining innovation will result in Japan realizing its "innovation hub".

---What will actually be targeted?

Hirosaki: There are many types of innovation. A typical example of technical innovation is an electric car. Not only changing the energy source from gasoline to electricity but also the mechanism for transmitting motive energy to wheels was necessary. This was solved through electrical wiring and motors attached to wheels to generate driving, and this requires innovation of operability, cost calculation, transaction structure, etc.

Additionally, there is innovation in the way to use technology. For example, Intel Corp. in the U.S. injects a large amount of money to a top-level university in the world in order to maintain the most advanced technology for microprocessors. But this is not the direct source of the benefits, instead it resides in the way the technology is used. Technology is often formed as a black box, with only its interface and core usage disclosed. But it is then possible to teach a board-maker how to incorporate interfaces on a board, which may allow boards for personal computers to be made at lower prices. A large-scale economy moves in such a way. Collection by such economy of scale while putting a large amount of money into the most advanced technological development, is also innovation in a sense.



Sawai: There is no country other than Japan where high level companies from materials to systems are gathered on such a narrow land. How about considering this more? Japanese companies have been succeeding in raising Japan's potential as a technical unit but combining technologies successfully will be important in the future. Moreover, importance of standardization should be discussed, but it has been pointed out that Japan appears to have failed in this in the past. Although Japan advanced standardization, the expectation was that Japan would also perform the manufacturing. Actually Korea and China have taken up the manufacturing and the benefits have been grabbed by these foreign countries. As the example of Intel shows, standardizing everything does not always produce success.

Hirosaki: The past success was too good, which is one of the reasons for Japan's defeat. Although various businesses successfully combined together, the lack of capability to "edit" technology means vertical expansion of all types of business has reached a limit. Japan has long followed a model in which initiating and standardizing technology flowed back to product development and brought benefits. However, the business environment has changed, and a structure has been created in which products can be manufactured at overwhelmingly lower costs in Korea and China.

---To be continued to the next issue---

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In 1987 Chief of research and development planning division, technological research and development department

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In 2001 Operating officer and manager of optical network business department

In 2004 Operating officer and managing director, manager of Intellectual Property business department

In 2006 Operating officer and executive managing director

In 2008 President and operating officer vice president

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