Marketing, Technology Challenge

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The Kyosei Initiative in Japan is central to creating country's intellectual property policy in next era

First, I shall write on the possible growth of the market economy under the new plan of "Kyosei Initiative." Next, on the fact that one of the main pillars that supports this Kyosei initiative is the intellectual property-oriented management. And lastly, on the fact that the intellectual property-oriented management needs to be conducted under a long-term vision, and it has to be pursued in a consistent manner.

MARKET ECONOMY AND THE KYOSEI INITIATIVE

In the market economy, people who have paid a great effort, and people who have ability will be rewarded. This gives people great motivation, and for this reason, people do work very hard on their job and compete freely in the marketplace. In the market economy, the market judges the value of product or service, and those who provide better service, better product, become the winner. In the market economy, such fundamental structure of competition encourages the industry, to grow, encourages development of technology and it also vitalizes the economy and at the end, those activities combined makes a richer nation.

However, at the same time, as people pursue for more competition, this creates conflict between people and people, and it also brings about the destruction of nature. This competition in the marketplace to pursue affluence spreads to monopolization of the market by human race, by certain people, by particular tribes, by a religion and by one ideology. And this tendency seems to be increasing severe competition. This sometimes exceeds what one can call conflict and becomes a real fight. At the same time, natural destruction related to this conflict is happening in a great degree.

The Mission of Industry and Technology

Some people say industry and technology cause conflict among people and the destruction of nature by people. Indeed, industry and technology does create technology and tools that are used for such conflict. It also gives some reason for waste in the use of natural resources, and also gives some reason for destroying the environment. So some people view industry and technology as the enemy of human beings, and the development of industry and technology needs to be stopped. There are some arguments that we should create a society or we should bring the society back to a stage that the development of human society needs not to depend on industry and technology. Here, I would like to review the history of technology and industry and find out the real core of them so that we can find out the future direction of industry and technology.

When one looks back upon the history of industry and technology, the earliest case of men to create what we call Industry and Technology was with agriculture. Until then, Men lived on plants and animals picked or hunted from the natural world. Men lived through the fierceness of nature, and fought against it. They repeatedly fought each other for food. Men emerged from the primitive age by inventing the industry and technology of agriculture. With this invention, men managed to obtain the means to have rich and stable harvest, by harmonizing with nature despite fluctuations in climate conditions. This invention also helped reduce petty disputes. Industrial technology was born with the desire to develop harmony between human and nature, and to assist the harmonization of human society.

Thereafter, men have pushed ahead with industrialization, in the pursuit of more affluent lives. Industrialization began with the industrial revolution, and with the development of the information-oriented society, the age of fully matured industrial technology has come. Men have certainly acquired abundance. However, this abundance has intensified the fight between men, for more wealth and abundance, allowing nature to be destroyed by men, and men abuse of natural resources. Have we not made any mistakes? Having reached this stage, it is necessary to return to the starting point of industry and technology. It is now time to reflect on why industry and technology started.

As we approach the 21st century, the trend must include a return to the starting point of industry and technology. Streams of industry and technology must be created that aim at achieving the original mission of industry, to assist harmonization of the human society, and to develop harmony between man and nature. The core technology of these streams is ecological technology, and an industrial structure needs to be created centering on this technology.

The Framework of Market Competition

Although industry and technol-

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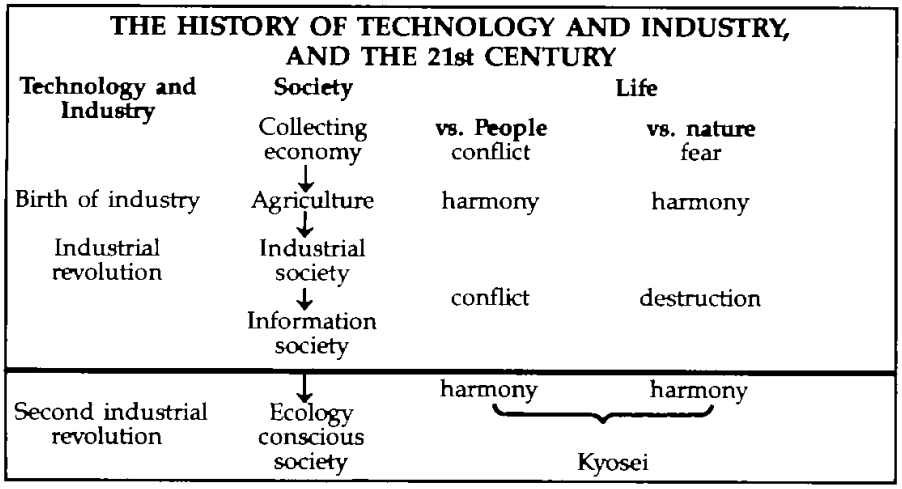

ogy may return to its original mission as described so far, unless the consciousness of people who use these technology changes, people will still continue to fight against each other and the destruction of nature by people will continue.

It is necessary to reform people's consciousness so that business activity itself changes to ecology conscious management.

However, that in itself is not sufficient. This is because to win the severe competition in the market, it is possible that people only consider about themselves and they may do anything regardless. What is allowed, however, is only competition. Conflict and fight are not allowed. Further, we should clearly note that war is not option. In every competition, as it is so in sports, there are rules. If there is a competition without a rule, we can no longer call this a competition. It is more a conflict or fight.

Therefore, the second change in consciousness is to have a rule that puts emphasis on "sensitivity that considers about the opponent" and "to put emphasis on the means rather than the goal." Earlier I mentioned the tendency that people might take at the time of competition, but this change in consciousness is just the opposite of what I mentioned.

The Kyosei Initiative

So far, in order to develop a healthy market economy that achieves both the harmony of people and people, people and nature, and the market competition, I mentioned that it is necessary to establish competition that puts value on ecology-conscious management, sensitivity, and competition that emphasizes means rather than the goal. In our case, such activity together with partners that share the same view, positively done, is called Kyosei initiative. Kyosei is a Japanese word. If we translate this to English, it means live together or symbiosis. But we put more positive meaning in the term Kyosei initiative. We believe the Kyosei initiative ought to be the leading philosophy of the 21st century.

KYOSEI INITIATIVE AND INTELLECTUAL PROPERTY-ORIENTED MANAGEMENT

Here I would like to write about what role Kyosei initiative plays for the harmonization of people and people, and people and nature, step-by-step. During this procedure, I would like you to understand how intellectual property oriented-management supports the Kyosei initiative.

At the Place of Harmony Between People and People

When one follows the Kyosei initiative first from the ecology conscious management point of view, it is important to avoid unnecessary friction, unnecessary competition.

And how do people avoid unnecessary friction in the market. First, people should not copy other people. For example, let us assume that other company introduces a product that is first in the industry and the product makes good sales. If one brings a full copy of this product or makes some minor improvement and introduces the product in the marketplace as a follower or introduces the copy product at the reduced price, surely it will be possible to gain certain proportion of the market. One may say that this approach is a safe approach.

However, if it is a similar product, it is inevitable that price competition will start. So, in order to reduce the cost of such product, all competitors rush and make a large capital investment in order to make mass production. This will result to overproduction, and a large inventory. In many cases, it will also result to a large-scale write off.

In the Kyosei initiative we do not repeat the pattern that happened in the past. We research and develop product and product category that has never been explored — the technology and the product categroy that did not exist in the past, the category that others have not entered into. To make this happen, we do require a long period of time and a large amount of expense. Therefore, to recover the investment and to put new investment for further development, it is necessary to secure the originator's profit. It is necessary to guard the edges with intellectual property rights so that other companies may not copy the product easily and other companies may not freely enter the product category that we created. In other words, by originality and intellectual property rights, we try to segment the business domain.

In reverse, if the case is that the other companies have technologies and products that nobody have entered into, and we want to sell the product through our own sales network, we will talk to such company so that it can come up with the arrangement that we sell the product. We never copy somebody else's products and manufacture them ourselves. This is the way of the Kyosei initiative.

Further, with the same company by it selling our original product such as the product that I mentioned sometime ago, the product that we can segment the business domain with, then the company will become a partner.

Once we create the segmentation of business domain and partnership, we can avoid waste in duplication of using our own resources. And we can inject our own resources where it is most required. We can also make effective use of the partner's resources.

There are many advantages of this arrangement and it will contribute to ecology conscious management.

In the business area of LBP, our company is the originator. Our company was the first to enter the market. For that reason, we were able to form the partnerships with companies like HP and Apple to have a strong ability to develop printer software and also have a strong sales organization. By becoming their OEM supplier for LBP printers, our printer business has grown to capture 70% of the LBP printer market.

In reverse, we are marketing HP and Apple equipment, their advanced PCs and superb WSs. In Japan, Canon is Apple's largest distributor for its Macintosh computers.

◄ Partners Benefit ►

This Kyosei initiative benefits both partners. The printer business of both Canon and HP has grown to a very large scale. And for both companies this business sector has become the largest.

Therefore, one can say that the Kyosei initiative is the strategy to win the market competition. The the key to the success of this strategy is the support given by intellectual property rights.

The next case that I would like to explain is the case that the competition cannot be avoided.

I have already mentioned that the way of the Kyosei initiative is to put high value on a competition rule that emphasizes both the sensitivity and the means. Such a rule for competition has great similarity with the rule in the sports.

Rule No. 1 is that competition needs to be done with fairness. For example, including the intellectual property rights, it is important to obey international laws and regulations. This is a basic requirement for the market economy to function in a global standard. As mentioned, particularly in a Kyosei initiative, intellectual property rights plays a very important role. Therefore, infringement needs to be strictly acted upon.

Rule No. 2. In competition for those who are relatively weak there needs to be some protection and support action in place. For example, there needs to be some consideration to be made on the execution of intellectual property rights in the developing countries. However, this does not mean that one will allow the infringement of intellectual property rights. Proper consideration to grant license at an adequate royalty rate is necessary, in case the inventor does not have the implementation plan of the invention in the market, or after the inventor earned exercising profit from the market to match his original investment.

Rule No. 3 is the investment for infrastructure.

Just as the sporting people try to have the stadium in the right condition, for those engaged themselves in the market competition, it is necessary for the participants to assist the local community to improve the infrastructure. By doing so, the competition would be more active.

For example, in developing countries the intellectual property rights system is an important social infrastructure. As this system becomes more popular and works properly as the social infrastructure, it could encourage more technology transfer to happen and it could also become an encouragement for developing new technologies for local corporations. This would make the industry and economy develop and it will make the nation and the people more rich. Therefore, I am of the opinion that we should support every effort that developing countries are undertaking for spreading and exercising the intellectual property rights system in the community.

I have covered that at the place of Harmony between people and people and when one follows the Kyosei initiative there will be a new framework for market competition established and that intellectual property rights will play a big role. We should all act so that intellectual property rights will play an important role.

At the Place of Harmony Between People and Nature

Next, I would like to write on Harmony between people and nature, which follows the Kyosei initiative.

Here, technology and industry are reformed by ecology technology. Likewise, business activity is reformed by ECM. More specifically, the content will be as follows:

First, there will be a big change in the basic activity of manufacturing industries, such as product plan and business plan. Changes in product plan can be expressed in a key word form: first, from Best Seller to Long Seller; second, from User's needs to Human needs; third, from benefit series to Eco series.

Rather than a best seller that sells remarkably for a short time, like first works, a long seller that sells steadily and constantly is more preferred. This is because long sellers require less investment for production facilities, are easier to plan stable production and stable sales for, and thus are less likely to pile up obsolete stock and end up with a write off.

However, it is easier to preach about long seller than to practice. I point out several conditions for a product to qualify as a long seller. The first condition is a clear lead in technologies employed in the core and fundamental part, function, or role of the product. The second is that the technical development for cost reduction must be advanced so that it takes two to three years for others to catch up. These requirements are essential.

The next issue is about the needs. Our customers are of course human beings, before being the user of our products. They ought to fulfill the basic requirements needed for human beings as they live in this world. When I say basic requirements, I mean the customers would want to see the beautiful world and its natural environment maintained, they would view the natural resources wasted in a serious manner. In other words, we should not view the customers as just users who are

appreciative or thankful about the convenience of the machines. The future products need to satisfy these two personalities that the customers have.

Third, the existing products need to be replaced to eco-series products, which put the environment, use of resources, and comfort first, on top of the users' benefit. It goes without saying, that it will not use harmful material and it will not produce anything harmful. In addition, it will be energy saving. It will be material saving. Also, we can think of products made of recycled material and product itself will be replaced to a more easy-to-recycle form. It is also important to consider producing less noise for a more comfortable operation.

◄ Business Plan ►

The next issue is the business plan. Here we will have a business that will more directly relate to Harmony between people and nature.

The first among them is clean-material business. An example is the re-manufacturing and recycling business. In re-manufacturing, we will try to use as many parts as possible from the collected used products as in its original form. By replacing a few parts to new ones, we will be able to put the used product back into the second-hand market.

In recycle, we will put those parts that are no longer reusable for its original purpose back to the material level so that it can be reused. The products that are recycled are sold in the market as new product. Both recycling and re-manufacturing will become a big business. Naturally, technical development and intellectual property rights will be handling these new business areas.

The second is clean process. This starts with the review of the manufacturing process, for the purpose of making the existing process clean. The seeds for such business can be found in businesses that the process were said to be dirty.

If I may point out one example, the process for lens manufacturing was regarded as a dirty process. Because lead is included in the conventional glass element during the process there remains sludge, which is the mixture of glass powder including lead and polishing material. However, by replacing the lead component with titanium in the glass, the process became clean.

The third is clean energy. An example is the solar cell using an amorphous silicon. Once the cost of these cells is reduced to US$1 for 1w., it is said that we will see solar cell power generation stations taking place of the existing power generation.

The fourth example as business is business based on the premise of being collected. For example, rather than selling equipment machinery to the customer, we will lend or lease these products. And depending on the usage of the function of these products the customers will pay certain charges. This will become the structure. This structure, as the machine no longer belongs to the customer, it will be easier to collect them.

So far I have discussed that there is at the place of Harmony between people and nature and when one follows the Kyosei initiative, much technology, and various products, different services, business, and industries will be born. This in turn will enable one to acquire intellectual property rights.

The company that is contributing to Harmony between people and nature from an early stage has, of course, spent a large sum of money in the form of expense. However, the intellectual property rights that could be awarded to these advanced corporations can be seen as the return that they can get against the expense that they have spent in the past.

INTELLECTUAL PROPERTY-ORIENTED MANAGEMENT

Finally, I would like to draw on the 50-year postwar history of Japan as an example to tell you how a consistent effort based on a long-term vision needs to be made to enable Intellectual Property-Oriented Management. The 50-years for Japan is by all means the history of a country growing from a developing country to a developed country. I believe that to overview how intellectual property rights were treated through this period will be very useful, and it is easy to understand.

The Streams of Postwar Manufacturing Industry in Japan

The first step to becoming an advanced, developed nation started after World War II ended in 1945. The situation for a country that does not have natural resources, importer of resources, the only thing that could be counted on was human brains. Import resources, process them into products, export them, earn foreign currency. With the earned foreign currency, import food and also import more natural resources. This cycle was continued. In the meantime, we started to learn the technology and the advanced product from Western Europe and America. We absorbed these technologies and we fully digested these technologies. In other words, this was *the era of nationalization.*

Next, from around 1955, we began to see activities to improve products, to produce international level product, so that we could promote export. For that purpose we introduced methodology that was regarded most advanced in the United States about quality control, productivity and business management theory. Once these were fully digested and fully Japanized, numbers of different international products were born. I call this period as *the era of quality.*

Since then the progress differs from corporation to corporation. Some companies started earlier in their change, some not as early. Around 1975, Japan entered *the era of originality.* In those days, many original technologies were created. Once we entered the era of originality, I believe that Japan, in the most fundamental sense, became a developed nation.

Today, I believe that Japan should enter *the era of unexplored.* This era is the time that we will try to invent the unexplored technology that nobody else has discovered, and we will try to find unexplored needs that are not known to people today.

Intellectual Property Rights Policies in Each Period

So far, we have reviewed the

THE STREAMS OF POSTWAR MANUFACTURING INDUSTRY IN JAPAN

'45	'55	'65	'75	'85	'95
The era of national-ization	The era of quality		The era of originality		The era of unexplored
Introduce and digest the technology	Improve the technology Introduce and digest methodology		Create original technologies		Unexplored technologies and needs
The era of developing country			**The era of developed country**		

INTELLECTUAL PROPERTY RIGHTS POLICIES IN EACH ERA

'45	'55	'65	'75	'85	'95
◄ The era of developing country — —The era of developed country—					
Nation level Protect the domestic industry					
Company level					
The era to recognize	The era to encourage		The era of Strategic application of patents		
"Read patents"	"Write patents"		To the era of cooperation between the strongs		To the era of Kyosei initiative
The best technical paper	The monument for engineer		Bargaining power		Segmentation The guardian angel of new Kyosei business The bases of pursuing Kyosei initiative

progress of the past 50 years. Appropriate patent policies were employed by both the nation and the private sector.

For example, during the era of nationalization from around 1945, there were government approval for arranging licensing agreements to introduce patents and know-how, a high impact tariff for importing foreign products, limitations posed by allocation of foreign currencies, and restriction of foreign capital to engage in manufacturing in Japan. These policies were all intended to protect domestic industry.

Also, during this period, companies deepened their recognition on patents. A number of researches were made on patents for the purpose of learning the technology. However, it was still the cradle period for us to apply for patents.

Just about this time, there was a slogan at Canon that said, "Read patents, rather than technical papers!" Patents are, of course, written by the specialist of the discipline. Therefore, patents have descriptions of the progress of the technological development of the field, and have detailed comments on where the disadvantage of the technology used to be, and how this patent tried to overcome this. It turns out that patents were the best technical paper to fill up the past years of technical vacuum.

As we entered the era of quality, from around 1955, the industrial policy of the nation remained to be that of protecting the domestic industry. On the other hand, the private sector already started to promote application of one's own patents. At this time, Canon started to encourage their engineers by the following two slogans: "Write patents, rather than technical papers!" and "Patents are the monument for engineers!" It is true that the approval of a patent is a big monument for an engineer, as the public institutes of the world recognize that the technology included in the new patent has new and advanced points.

As Japan entered the era of originality from around 1975, the Japanese corporations started strategic application of patents. Some companies started early, some late. Canon believed that in the future the day would come when "cooperation between companies who have strength in patents will be made," and started strategic application of patents.

Products will become more and more complicated, and rather than single technology based, products will only be completed when compound technologies are used. So, there will be the time that patents owned by single company will no longer be sufficient to make a product. When such time comes, what counts is a good patent, one that the oppenent really wants. An opponent may not license technology just by paying a license fee. They will propose exchange of technology and exchange of patent. Even if they may agree to a simple monetary arrangement, the license fee ratio may be that high, most of the profit may be spent there. Thus, in order to succeed in business, it is a must to bring to the negotiation a free of charge cross-license arrangement.

By the mid-1980s, "segmentation" was stressed in Canon under the Kyosei initiative. It is to guard our own product category through strong patent network, so that the originators' profit can be secured. Patents are viewed with more importance. It forms the basis of pursuing Kyosei initiative.