

## 21 Group on Disclosure of Technology-based Intangible Assets

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*This report aims to provide basic materials for formulating the guidelines concerning disclosure of information on intellectual property, which has been sought in the Intellectual Property Policy Outline, by studying the items that should be disclosed and investigating and analyzing the best practices in the United States and Japan. In addition, a pilot model of an intellectual property report was created, recommending autonomous disclosure of information on technology-based intangible assets, securing the formulation of intellectual property strategy by companies, and serving as one type of reference material for determining investment in the market.*

*Through such disclosure of information, investors would be able to predict the future performances of a company without depending solely on its past performances, thereby achieving a more legitimate stock price.*

### Summary

This report aims to encourage companies to introduce intellectual property into their management strategies as a source of competitiveness in line with the purport of the Intellectual Property Policy Outline, and to achieve due appreciation of corporate intellectual property-related activities in the market through the effective disclosure of information, thereby enabling companies to increase their profitability and corporate value. This report recommends preparation of an “intellectual property report” as a part of efforts to accomplish those purposes.

Chapter I “Background of the Disclosure of Information on Intellectual Property” states the background to the necessity in Japan to disclose information on any intellectual property focusing on technology-based intangible assets. Taking a look at the current competitive environment surrounding Japanese companies, a new model for growth that is suited to the creation of high-value added intangible assets has been sought as a replacement for an economy that focuses on the conventional system oriented toward processing, assembly and mass production (Intellectual property Policy Outline [2002]). Intellectual properties, especially technology-based intangible assets that are specific results of corporate research and development, are expected to play the most important role in this model for growth.

Japanese companies have lost their international competitiveness in manufacturing products that have become commodity or bulk items, and their international industrial competitiveness is now the subject of strong concern. On the other hand, some of them are demonstrating their international competitiveness in the fields of high-value added products and services. However, generally speaking, there are many problems to overcome in terms of Japanese companies’ intellectual property strategies. For example, Japanese companies do not necessarily

have strategic views—technological development while circumventing other companies’ patents and obtainment of patents for the results of the technological development. In addition, they are not considered to be working on the management and exploitation of patents after obtainment as strategically as European and U.S. companies. After all, investment in research and development is not always associated with profitability and corporate value.

The Intellectual Property Policy Outline presents a plan to design various guidelines based on the actual corporate conditions for the purpose of maximizing profitability and corporate value by positioning intellectual property as a source of competitiveness in management strategy and introducing it in business activities and for the purpose of designing a strategic program for strategic, global obtainment and management of intellectual property. In the above outline, the guidelines concerning disclosure of information on intellectual property are included.

“Intellectual Property Policy Outline” (abstract)  
Chapter 3 Specific Action Plan

3. Promotion of Exploitation of Intellectual Property

(2) Strategic exploitation of intellectual property by companies

2) Disclosure of information on intellectual property

The GOJ will design guidelines concerning disclosure of information on intellectual property by the end of FY 2003 for the purpose of due appreciation of corporate intellectual property-related activities and increase in profit and corporate value. It will also consider introducing intellectual property reports (The Ministry of Economy, Trade and Industry).

This aims at a due appreciation of corporate intellectual property-related activities in the market

through effective disclosure of information and an increase in corporate profitability and value.

Chapter II "Global Trend of Regulation and Corporate Practices" reviews regulations on disclosure of technology-based intangible assets, the Regulation FD that evoked discussions on disclosure of not only technology-based intangible assets but also other intangible assets, and corporate trends, with a focus on the United States, which has been promoting the pro-patent policy.

In the United States, it has also been pointed out that profit to be gained by companies that actively invest in research and development tends to be under-evaluated. On the other hand, the Securities Exchange Committee (SEC) recommends the analysis of future events (potential future events) and provides analysis for risks in the "Management's Discussion and Analysis: MD&A," which consists of the part of Form 10-K, requested by the committee to be submitted by companies from the standpoint of sound market operations. However, even in the United States, companies have not been active in such disclosure to the public from the very beginning. Many companies had disclosed risk analysis since it is "provided," but they hardly had disclosed future events in fear of a risk of being sued in the case that described events have not happened, despite there is the safe harbor rule.

Regulation FD (Fair Disclosure) triggered changes in the attitudes of U.S. companies. This is the "regulation that discourages selective disclosure of material nonpublic information," and is explained in the "Selective Disclosure and Insider Trading: Release Nos. 33-7881, 34-43154, IC-24599." The regulation requests that when one intentionally or negligently discloses material nonpublic information to certain enumerated persons, it must promptly make public disclosure of the information. Due to this request, many companies abolished the informal provision of information and made clear their policy of disclosure/nondisclosure, and thus have come to disclose more future information to the public. The Regulation FD is not applied to Japanese companies, but it should be recognized that the regulation has already exerted its influence on the Japanese capital market.

This chapter also states that the Financial Accounting Standards Board (FASB) and the National Investor Relations Institute (NIRI) have been studying measures for promoting disclosure of non-financial information (non-financial factors that may bring value to companies) in close contact with each other. They have been conducting the study from the viewpoint of promoting communications with investors through disclosure of non-financial, descriptive information.

Chapter III "Investors' Views" states views on technology-based intangible assets of institutional

investors and analysts who use information to value companies.

Investors value the value of investment in stocks to weigh the decision to invest. In order to value investment value, they need to arrange qualitative information in one numeric value. Investors convert disclosed information, etc. into numeric information and value whether or not the current corporate value is fair, on the basis of a corporate valuation model. Although various corporate valuation models are used, the discount valuation model serves as a basis. In the model, a future cash flow forecast is made and corporate value is quantitatively found based on the forecast.

Ordinarily, the valuation of company starts with finding a trend value based on a specific company's performance. The trend value is analyzed, and the results are used for future estimate. "Using for future estimate" means, for example, setting parameters for such indicators as sales growth rate and ratio of profit to sales. If a company gets excess profits, it is necessary to consider by what the profits are produced and how long they will continue to exist. Thereby, the way of setting parameters will change.

The existence of strong technology-based intangible assets is recognized as a cause of production of excess profits. In other words, for the thesis "how information on technology-based intangible assets should be associated with an investment valuation model," investors' information needs exist in the following points: what technology produces excess profits; how long the profits will continue to exist; how the profitability of the technology will change when a new technology is created in the future; and how much influence the new technology will have. In this sense, investors should highly appreciate opportunities to obtain excess profits based on technical capability.

From the standpoint of the duration of excess profits, it is necessary to consider when the term of a patent expires and when a company, which has technical capability that serves as management know-how but is not patent-protected, is caught up with by others and returns to being an average company. In short, the continuity of the parameter of profit rate is important, and when and at what stage the profit rate should be returned to an ordinary rate is also important in terms of valuation. However, since the disclosure of information on profit rate and continuity of profit rate is insufficient at present, it is hard to utilize the investment valuation model effectively. If it is difficult for companies to disclose information directly on these points, the disclosure of even peripheral information is desired.

What is important in disclosure is to disclose companies' value driver of which the managers are aware. For investors, there is no point in focusing

on matters of which the managers are not aware and following up on such matters. Investors hope for the appropriate disclosure of information on technology-based intangible assets of which managers can be aware for the purpose of increasing their own profitability and corporate value and which can be introduced in their own corporate valuation model.

Chapter IV “Companies’ Views” describes corporate research and development as well as strategies for the obtainment and exploitation of intellectual property in the form of case study. In addition, the chapter describes the outline of investor relations (IR) necessary for carrying information on such activities to the market to gain due valuation in the market, and cites an IT company as an example of companies’ view on IR.

Major problems that companies face in relation to research and development and intellectual property are the diversification of research and development and the selection and concentration of intellectual property. Among these problems, the diversification of research and development is a big problem in intellectual property management. In other words, along with the multilateralization from the 1970s, companies have been shifting from self-contained research and development to joint development and research in cooperation with third parties (domestic and foreign companies, universities, research institutes, etc.), which is unavoidable for dealing with increased investment in research and development and the necessity of speeding up. In addition, if the technology that companies require has already been completed by a third party, they introduce the completed technology as it is. Such technology is sometimes used at the intermediate stage of the production process. While such situation brings a big advantage in corporate growth, it causes legal problems arising from mutual exchanges of technology with third parties, a fusion of in-house technology, an outflow of technology to local employees due to globalization, and other problems.

For the concentration and selection of intellectual property, the form of exploitation must be considered by type of rights. For example, it is appropriate for a company to establish patents in terms of rights for the technology that it is exploiting, to carry out licensing, form a business partnership or create a joint venture in cooperation with exclusive partners in terms of rights in a totally new product field in which it cannot cultivate a market by itself, and to assign or dispose of rights of which no potential for in-house exploitation can be found.

While overcoming these problems, companies are promoting research and development strategies and strategies for the obtainment and exploitation of intellectual property and are also running management. However, IR is necessary to give

these corporate activities recognition in the market and due appreciation. IR includes both a disclosure required by the system and a disclosure that companies autonomously conduct, and it is an activity consisting of three elements—corporate finance, marketing (in the capital market) and communication (with investors). Through such IR, companies can be valued in consideration of not only immediate financial performance but also their potential in the market, including descriptions of their strategies and systematic activities. However, the transmission of information by IR carries various risks. In order to reduce these risks, there is the safe harbor rule, i.e., writing cautionary statements. Especially, information on technology-based intangible assets involves large uncertainty, so the safe harbor rule is necessary. For example, an advanced composite technology company indicates the safe harbor rule on the top page of its Web site. Information on future prospects involves risks and uncertain factors. The factors mean “such figures are found on certain conditions”; for example, performance changes if economic information or consumption trend changes or if the exchange rate changes.

As a counterpart of the safe harbor rule, there is the disclosure policy. This is the corporate policy on the disclosure of information: “who will responsibly disclose certain contents based on certain policy.” Even now, some companies clearly state their policy that material information that involves confidential matters will not be disclosed in detail. In other words, they do not disclose all information but disclose information with a note that they “withhold the disclosure of details that are important in terms of their business and strategy.” In particular, pharmaceutical companies clearly state their policy of disclosure both in English and Japanese.

In IR activities, there is a relatively clear distinction between what corporate intellectual property divisions can disclose and what they cannot. For qualitative information, the outline can be disclosed in principle. However, its individual, specific details cannot be disclosed. Even so saying, the disclosure of such details is possible for new products, new technology and results on the condition that intellectual property rights are secured. For example, if a condition such as having filed an application for patent is met, it is considered possible to disclose information on individual, specific technology.

As for quantitative information, it is possible to disclose public information and information that is generally not assessable but is objectively verifiable (number of applications filed within a certain period). Other than these, the approximate number and total number can be disclosed but individual, specific figures cannot.

Moreover, companies, as issuers, are

concerned that their information will come to mislead investors despite their lack of intention to do so and that the information will become invalid after a few months. Even when there is a safe harbor rule, companies are in danger of afterwards being considered to have betrayed institutional investors or shareholders. Companies need to deal with these problems through timely correction by IR.

Chapter V states what matters institutional investors consider important in terms of information on technology-based intangible assets at present and whether they introduce such matters in their corporate valuation models. For this purpose, the study group conducted a questionnaire survey to all institutional investors in Japan (excluding those that do not deal with shares). Consequently, it has been found that institutional investors attach importance to various types of information on technology-based intangible assets of companies and are utilizing such information in the present circumstances.

The questionnaire includes 64 questions concerning corporate research and development and intellectual property strategy. These questions were allocated to groups, such as "market advantage of technology" and "strategy and organization that support technology," for convenience, and a questionnaire was created in which check marks were to be placed according to the degree of importance attached by investors in deciding investment. In addition to questions about technology-based intangible assets, points to which attention should be paid in viewing the overall industry and such points for the overall company were addressed as open questions.

Incidentally, individual questions were selected from matters that are disclosed in the annual reports or materials for IR explanatory meeting of Japanese/U.S. companies (especially Japanese companies) and matters of which importance was confirmed through questionnaire surveys to analysts which were conducted in Japan or foreign countries. In addition to the questionnaire, the study group investigated the annual reports of Japanese/U.S. companies that were in Fortune's top 50 list for sales. In the questionnaire, the technical area was classified into an advanced simplicial technology field (biotechnology, pharmaceutical, specialty chemical, etc.), advanced composite technology field (information technology, electronic, fuel cell, etc.) and matured technology field. Respondents were then asked to answer questions with the specific image of a company in charge for each technology classification.

As a result of the survey, it was found that special importance was attached to qualitative information that indicates relationships with strategy and organization among information on technology-based intangible assets. This result has

revealed a fact that is different from the general trend, which is that institutional investors are requesting the disclosure of the appraisal value of technology-based intangible assets that was calculated by an objective method. Needless to say, institutional investors give relative close focus to the fact that companies internally carry out research and development as well as patent management by a counting-based method. For information on strategy, institutional investors do not request information on trade secrets, and even if companies disclosed detailed information, they had difficulty in introducing such information in their corporate valuation models. For information on the organization system, institutional investors highly value having established guidelines (as their internal rules) for preventing the outflow of trade secrets and technology or those for obtaining and managing intellectual property; and they also value the operation of these rules. Incidentally, counted matters are slightly different depending on the institutional investor's investment period and the type of technology, but matters to which institutional investors generally attach importance became clear as indicated below.

- Manager's proper analysis of own company's advantage and duration in terms of technological development
- Understanding potential customers and properly analyzing market size in terms of development of new technology and products
- Ratio of the sales of a new product in the total sales
- Being able to understand the use of new technology and products and analyzing the scale and growth potential of the customer market
- Establishing guidelines for preventing the outflow of technology and trade secrets and those for obtaining and managing intellectual property, as internal rules
- Link between corporate strategy and research and development/technological development
- Organization that manages and strengthens intellectual property in the core business
- Consistently analyzing research and development, strategy and domain
- Outline of intellectual property portfolio
- Distinctiveness of the core technology
- Period of accumulation of unique technology in the field in which the company has competitive advantage
- Strategic obtainment of patents, including peripheral patents
- Reflecting advanced know-how and technology on product price
- Appropriately managing technology transfer for globalization
- Clearly demonstrating vision and strategy concerning research and development as well as technology

- Income from patent rights and its change
- Degree of dependence of income on the development of new products

Chapter VI studied the general idea of cost benefits from disclosure (risk of loss from disclosure and benefits the company is expected to enjoy) and cost benefits specifically from disclosure of information on technology-based intangible assets, in order to discuss whether it is appropriate to make all companies disclose the above-mentioned items without exception.

Generally, benefits that companies enjoy from disclosure are as follows.

① Effect of risk management

Through continuous communication with the capital market, companies can achieve the effect of risk management, and can prevent erratic fluctuation in the share price due to a rumor, etc. to a significant degree.

② In relation to suspicion of moral hazard

Disclosure ensures that managers do not create any moral hazard. If there is insufficient information, companies may be valued as being at higher risk than they really are.

③ In relation to a reduction of the information gap and uncertainties

Divergence between market's view and managers' view will lessen, and corporate value is expected to become appropriate in the long and medium terms.

④ Governance structure that increases corporate performance

Companies can introduce a mechanism for corporate governance that will increase corporate performance. A checks and balances system in the market is effective in establishing a governance structure that contains discipline and ideas in the market.

On the other hand, the following points are expected in terms of the whole economy.

① In relation to appropriate allocation of resources

In the market, resources are allocated through a decision to invest based on corporate information. If information is not sufficiently disclosed, there is the risk that resources will not be allocated to promising fields but will be allocated to fields that are not necessarily promising.

② In relation to the revitalization of economy

Funds will be collected into the market and the economy will thus be revitalized. If resources are appropriately allocated to promising fields, companies in such fields will exert their potential, thereby the economy will be revitalized. In addition, this will induce sound competition and is expected to bring about continuous corporate innovation.

On the other hand, compulsory disclosure can bring the following losses in addition to costs for preparing information.

① Loss in terms of competition

In a questionnaire survey that was conducted to companies out of Japan, it was confirmed that if disclosure were made compulsory, there would be a high risk of loss in terms of competition. These cost benefits may be considerably obvious in relation to information on matters that bring competitive advantage to companies, i.e., information on technology-based intangible assets.

Chapter VII describes matters to which institutional investors attach importance when valuating companies, in the order of business architecture, while taking into consideration these cost benefits from disclosure. This study group is proposing it as a form of "intellectual property report" and recommending its preparation.

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