

23 FY 2003 Study Report on the Japanese Economic Structure from a Competition Policy Perspective —Disclosure of Technology-based Intangible Assets—

Amongst recent policy focusing on intellectual property, companies have been required to work on “intellectual property management,” in which business strategy, R&D strategy, and intellectual property strategy are unified, by using intellectual property as a source of competitiveness. On the other hand, market players are expected to appropriately value the value and future growth potential of companies that are putting “intellectual property management” into practice. Therefore, it was necessary to enhance communications about intellectual property between companies and the market by promoting disclosure of information on intellectual property through clarifying the methods of information disclosure that are beneficial to both parties.

This research discussed the desirable disclosure of information on intellectual property from the viewpoint of companies and the market respectively, on the basis of the results of trial implementation by companies of the “Pilot Model for Disclosing Patent and Technical Information” published in March 2003, while taking into account the results of a questionnaire survey to institutional investors. By summarizing the discussions, the “Draft Guideline for Intellectual Property Information Disclosure” were then formulated as requested in the “Strategic Program for the Creation, Protection and Exploitation of Intellectual Property.”

Introduction

This research superseded research by the “Group on Disclosure of Technology-based Intangible Assets” in FY 2002, and aimed to consider desirable information disclosure that enables companies strategically working on intellectual property management in which business strategy, R&D strategy, and intellectual property strategy are unified to be appropriately valued in terms of their business competitiveness and future growth potential through communication with market players, and to formulate and present to industry the “Draft Guideline for Intellectual Property Information Disclosure” as appropriate guidelines.

I Background and Significance of Intellectual Property Information Disclosure

1 Strategic Program for Intellectual Property

Amid concern about the declining international competitiveness of Japanese industry, Japanese companies are being required to shift from the conventional business model based on processing, assembly, and mass production to a high-value-added model. The government compiled the “Intellectual Property Policy Outline” in July 2002 in order to promote adding high value to products and services by strengthening intellectual property and thereby revitalize the Japanese economy. Moreover, the government also published

the “Strategic Program for the Creation, Protection and Exploitation of Intellectual Property” on July 8, 2003 that requests all ministries and agencies put specific measures into practice. This Strategic Program stated that “For the purpose of improving interaction between intellectual property and securities markets, by the end of FY 2003, the GOJ will formulate feasible guidelines for promoting disclosure of information on intellectual property according to the “Pilot Model for Disclosing Patent and Technical Information” prepared by the Ministry of Economy, Trade and Industry.”

2 Pilot Model

The “Pilot Model for Disclosing Patent and Technical Information” published by the Ministry of Economy, Trade and Industry in March 2003 was formulated on the basis of results of discussions at the Study Group on Disclosure of Technology-based Intangible Assets in the previous fiscal year, with the aim of establishing a best practice that elicits the internal value of intellectual property possessed by companies through disclosure of patent and technology information and thereby enables the appropriate valuation of companies and the continuous improvement of corporate values. This Pilot Model recommended the preparation of an intellectual property report focusing on the 10 items listed in Chapter IV.

II Business Strategy, Research and Development Strategy, and Intellectual Property Strategy

In order for Japanese companies to enhance their industrial competitiveness, it is important for them to position intellectual property as a source of competitiveness in their management strategy and actively perform intellectual property-backed management in which business strategy, R&D strategy, and intellectual property strategy are unified. In addition, market players have come to recognize that intellectual property is becoming increasingly important as a factor that determines the profitability of companies. Thus, there have been growing needs for disclosure of intellectual property-related information.

Even if intellectual property is exploited as a source of high profits within a company, if its information is not disclosed to the outside, market players can determine the future growth of the company only based on the numeric values in financial statements, which is not sufficient for investors who actually modify the presumption of the future based on non-financial information. Therefore, it is desirable for companies to disclose the implementation status of their intellectual property strategy to the market in a form usable for making investment decisions. On the other hand, market players are expected to incorporate this kind of information into elements used for valuating corporate values for appropriate valuation if they are disclosed.

III Idea about Intellectual Property Information Disclosure

1 Idea of Investor Relations

Investor relations (hereinafter referred to as “IR”) represents a combination of financial affairs, marketing and communication activities directed to capital markets, and is a strategic issue that company managements should address and assume accountability for while anticipating a proper valuation in marketplaces and augmentation of their corporate value.

The disclosure of information on intellectual property indicates the intellectual property-backed management of companies. It is based on two-way communication between the senders of information and market players, and is not always intended to be forced by law or rules. Therefore, it is adequate to think of the disclosure within the scope of IR including voluntary disclosure.

Information disclosure is accompanied by the transmission of information on uncertainties, such as future prospects. However, there is the safe harbor rule, i.e. the senders of information are

exempted from the responsibility for risks from uncertainties by writing cautionary statements about the risks. Therefore, the senders of information can avoid such responsibility. A disclosure policy may compose a pair with the said safe harbor rule. That is a policy regarding who disclose the information with responsibility under what specific rule, with what kind of contents as a company at the time of disclosing information. For example, “Not to disclose any information which is highly indefinite,” “Not to disclose any information accompanied by confidential obligation,” or “Not to disclose details of any information which is strategically important” can be a part of a disclosure policy.

2 Scope of Intellectual Property

“Intellectual property” is defined in Chapter I, Article 2 of the Intellectual Property Basic Law. Of types of intellectual property defined there, the draft guidelines considered models for disclosing patents and other intellectual properties in the manufacturing industry as well as research and development-related information based on the relationship among three strategies—business strategy, R&D strategy, and intellectual property strategy.

IV Recognition and Valuation of the Pilot Model

1 Items of the Pilot Model

Out of companies’ strategic activities focusing on intellectual property, the Pilot Model lists 10 items, of which information is in especially high demand by institutional investors as items to be disclosed, according to the architecture of companies.

- (i) Core technology and business model
- (ii) R&D segment and direction of strategy
- (iii) R&D segment and outline of intellectual property
- (iv) Marketability of technology and analysis of market advantage
- (v) Organization chart for R&D/intellectual property, and research and development alliance
- (vi) Policy regarding the obtainment and management of intellectual property, the management of trade secrets, and the prevention of outflow of technology (including the implementation of the guidelines)
- (vii) Profits and costs concerning intellectual property
- (viii) Counting of a group of (specific) patents
- (ix) Policy regarding intellectual property portfolio
- (x) Risk information

2 Results of Trial Implementation of Pilot Models by Individual Companies

(1) Items of Pilot Models

Summarizing the results of trial implementation of pilot models by companies, a considerable degree of information in items (i) to (v) above is already disclosed through financial reports, annual reports, websites, and so on. In addition, companies said that they could disclose information in (vi) and (ix) and could also disclose information in (x) if the degree of importance of risks to be disclosed becomes clear. However, companies said that it would be difficult to disclose specific numeric values in relation to (vii) "Profits and costs concerning intellectual property" and (viii) "Counting of a group of (specific) patents" because such information is originally likely to be related to the trade secrets of companies and because there is no established method for objectively explaining the degree of contribution of patent rights possessed by companies to businesses in specific numeric values.

Therefore, discussions were held after asking corporate members to make specific proposals about the details of information disclosure that indicates the contribution of intellectual property to businesses, as alternatives to (vii) and (viii). In the process of the discussions, it was confirmed that these two items are the indicators of the results of intellectual property management of each company and that it is not always necessary to disclose both. As a result, it was concluded that it is appropriate that companies, whose main strategy is to obtain direct income from license fees by exploiting intellectual property, actively disclose patent income in (vii) above to get publicity for their competitiveness in intellectual property while companies, which adopt a strategy of exploiting intellectual property to ensure the advantage of their business and thereby make profits in business, disclose the specific degree of contribution to business in (viii) in one way or another.

Since many Japanese companies adopt the latter strategy, it was questioned whether it is possible to create an indicator or standard that enables the horizontal comparison of contributions to business among companies. Then, discussion was held about quantifying the number of patent applications and the number of obtained patent rights by type of business, technology, or patent classification and by the nature of the patent in a matrix form. On the other hand, there was also the following idea: Since the methods for exploiting patents differ for each unit, i.e. by industry, by company, and by segment in a company, it is difficult to quantitatively value specific contributions to businesses under a unified standard, so it is better not to clarify the detailed matters to be described, such as the contents and scope of disclosure, but to

leave them to the free discretion of companies.

In light of these discussions, for items to be disclosed as stated in the draft guidelines, the titles of eight items except (vii) and (viii) almost followed those in the Pilot Model, but (vii) and (viii) were changed to "Significance of the Licensing Activities to the Company's Business" and "Significance of the Patent Portfolio to the Company's Business," respectively. As examples of the contents to be disclosed, desirable contents to be disclosed were described for companies in which income from patent licensing occupies an important place and those which emphasize the in-house exploitation of patents, respectively.

(2) Basic Stance on Information Disclosure

Before implementing the Pilot Model on a trial basis, some companies had decided their basic stance on disclosure of information on intellectual property. The examples of basic stances are "actively disclosing valuable information on intellectual property of which disclosure is desired by investors and analysts in order to achieve appropriate valuation in the market" and "continuously and voluntarily disclosing accurate and valid information in order to improve corporate value." The clarification of basic policy before information disclosure is important to companies' facing market players.

(3) Difficulties Seen in the Field of Advanced Composite Technology

There was the opinion that the degree of contribution is difficult to determine either absolutely or relatively in the advanced composite technology-based industry because the degree of contribution of patents to business income or corporate value is relative and is determined based on the patent portfolios, scale of business, etc. of companies concerned, and is also constantly changing.

(4) Results of a Questionnaire Survey on the Trial Implementation of the Pilot Model

As a result of a questionnaire survey targeting 13 companies that participated in the trial implementation, the following was reported: (1) There is concern that numeric values will have wings when numeric information is disclosed and that the disclosure of quantitative numeric values concerning future prospects will become misleading; (2) Disclosure is difficult because the method for counting a group of patents has not been established; (3) There is data that cannot be disclosed due to the confidentiality obligation under agreements, etc.

Regarding these points, it was confirmed that the aim of IR is originally to communicate with the market to prevent information from having wings or causing misunderstandings and that it is appropriate, as the starting point for communication, for companies to assess what information is considered

to be truly useful by market players and disclose such information.

3 Market Players' Opinions on the Results of Trial Implementation

Market players' opinion was that they need qualitative information, such as the manager's stance on intellectual property, from the macro viewpoint and that the disclosure of quantitative data is useful as evidence of the manager's management strategy and intellectual property strategy.

With respect to misleading information for which companies expressed concern, market players said that it is better to refrain from disclosing information that may become misleading and that if information disclosure is considered likely to cause misunderstanding, it is appropriate to disclose information after preparing Q&A and deciding a handling routine. Regarding the degree of risk information subject to disclosure, some market players pointed out that the disclosure regulations of the Tokyo Stock Exchange stipulates that companies shall describe "matters that are recognized as being likely to severely affect the business management and financial condition of the company in the future" in the column of "problems that the company should deal with" in the statement of accounts, and that it is appropriate to refer to this stipulation. Market players also explained that the degree of risk information subject to disclosure is easy to understand by using, as specific standards, the viewpoint of whether the risk causes a surprise when it becomes actual or whether the risk will make cash flow forecasts, measured by investors, swing.

A problem from the investors' viewpoint is that investors will not have any information for decision-making and must make investment decisions without information on intellectual property if companies do not disclose information. It is probably necessary for companies to consider information disclosure from the investors' standpoint based on the recognition that information disclosure has the proposition of minimizing investors' risks.

V Investors' Viewpoint

1 Results of a Questionnaire Survey Targeting Investors and Analysts

A questionnaire survey was conducted about the means of obtaining information on intellectual property and the recognition of disclosure of information on intellectual property, targeting fund managers and buy-side analysts.

Of 185 respondents, more than 150 market

players cited "information on the core technology of the company," "business model of the company," and "corporate/business strategy" as information on which they place most emphasis. This reveals that market players first focus on whether intellectual property activities are implemented in a manner unified with business strategy and R&D strategy.

Next, it was revealed that market players place emphasis on information about the main business and core technology and that regarding information on intellectual property, they place emphasis on portfolio information, such as the number of intellectual property rights possessed in the competitive field that will bear the future of companies, though they are also interested in license income, etc.

2 Items of Which Disclosure Is Requested by Investors

The following are cited as items that are highly utilized by investors or have not been sufficiently disclosed despite investors' needs. In developing IR that includes information on intellectual property, companies are expected to disclose information with attention to these points (matters corresponding to the Pilot Model in Chapter IV are described).

○ Items that are very highly requested by investors

- 1) Outline of the core technology of the company: Can be described in (i), (ii), and (viii)
- 2) Corporate/business strategy: Can be described in (i), (ii), (viii), and (ix)
- 3) Risk information concerning intellectual property such as the terms of basic patents and the whole stories of legal actions: Can be described in (x)

○ Items that are highly requested by investors

- 1) Proportion of the sales of the main product (and the basic patent) to total sales: Can be described in (iii) and (vii)
- 2) Analysis and discussion by the manager on the marketability and market advantage of technology: Can be described in (iv)
- 3) Company's business model: Can be described in (i)

3 Disclosure of Information on Intellectual Property Valued by Analysts and Institutional Investors

Information that market players want companies to disclose includes both qualitative information and quantitative information.

The qualitative information includes business objectives, management strategy, business strategy and R&D strategy for each main segment, intellectual property strategy interlocking with these strategies, intellectual properties that are considered to be important from the management

viewpoint, the competitive advantage of intellectual properties, policy regarding the exploitation of intellectual property, and incentive schemes for inventors.

The quantitative information includes sales, profits, profitability, share, numerous values in medium and long-term business plans, the amounts of capital investment and R&D investment, the efficiency of R&D and that of obtainment of patents based on the analysis of the relationship between investments and earnings, incomes from and expenditures for intellectual properties, the counting of a group of patents, and the term of basic patents.

Market players highly valued companies' attempts to hold intellectual property briefing sessions for analysts. Discussing intellectual property as one of themes at explanatory meetings focusing on intellectual property or in IR activities such as results briefings will attract attention from market players. In addition, out of companies that implemented the Pilot Model on a trial basis, market players valued those which clearly showed their stance emphasizing intellectual property by slogans such as "patents rather than papers" and "patent first."

Incidentally, although attention tends to be given to the disclosure of positive information, the daring disclosure of information that seems negative would impress investors with the sincerity of the company, the appropriateness of the content of information disclosure, and transparency, leading to gaining credibility from investors in some ways.

VI Desirable Intellectual Property Information Disclosure

1 Reference Guideline for Intellectual Property Information Disclosure

In light of the above recognition, the Group repeatedly discussed proposed matters to be disclosed and prepared the "Draft Guideline for Intellectual Property Information Disclosure." The draft guidelines formulated by this Study Group was finalized through deliberations at the Management and Information Disclosure Subcommittee of the Intellectual Property Policy Committee of the Industrial Structure Council. The draft guidelines were published by the Ministry of Economy, Trade and Industry as the "Reference Guideline for Intellectual Property Information Disclosure."

It is expected that companies that actively exploit intellectual property will be appropriately valued by market players and increase their corporate value by strategically disclosing information on the actual conditions of intellectual property management, which will increase the intellectual property-based industrial

competitiveness of all of Japan, thereby making Japan an intellectual property-based nation.

2 Desirable Disclosure

The key points of the "Reference Guideline for Intellectual Property Information Disclosure" are as follows.

(1) Strictly Voluntary Disclosure

The guideline established as a benchmark from a viewpoint of industrial policy and intellectual property policy, in the expectation that intellectual property-backed management will be promoted and companies practicing it will be valued properly, and is not intended to force or regulate disclosure by market players. Accordingly, any disclosure implemented in accordance with the guideline is strictly on a voluntary basis, which functions as a common language of communication, so to speak, between companies and markets on the subject of intellectual property.

(2) Manifestation of "Intellectual Property-backed Management"

What markets want is information on intellectual property-backed management or the lack thereof, i.e., whether three strategies on business, R&D and intellectual property are formulated and implemented as one entity, and not a trade secret in itself, such as technical information prior to patent application filings and production know-how, as discussed above. The objective of the guideline is to present a true picture of corporate intellectual property management, premised upon such demand of the market. The mission of the Guideline is to provide a gauge with which to determine whether or not messages delivered by top management in the course of their IR activities are credible, and to correctly communicate to the market whether or not a particular company has the potential for sustained growth.

(3) Substantiation with Underlying Assumptions and Quantitative Data

Patents and technologies differ from personal and real properties that are accounted for in financial statements in one major respect: the former are difficult to value, due to the absence of objective external markets. It is therefore crucially important to make interpretation of information on intellectual property that is disclosed. The market finds it difficult to accept disclosed information unless it is substantiated with assumptions and quantitative data that support the information. Some corporations expressed their concerns during the course of deliberation on the guideline that furnishing quantitative substantiation might mislead the market. However, this committee holds a view that it is more desirable that disclosure is accompanied by underlying assumptions and

quantitative substantiation as much as possible in order to avoid any misinterpretation and entice an appropriate valuation.

(4) Disclosure on a Consolidated and Segment-specific Basis

In corporate accounting, disclosure is made both on a consolidated basis, which includes subsidiaries and affiliates, and on a segment-by-segment basis, which represent true units of business operation. It would benefit investors' understanding to structure the disclosure of intellectual property information on similar basis.

In disclosures on a consolidated basis, such inter-company items as licensing income among subsidiaries and affiliates are mutually offset, which is important in the sense that the actual profit-earning capability of the group is revealed. On the other hand, in terms of revealing the profit-earning capacity of individual business units, disclosure of information regarding individual segments, which are the genuine units of business operation, is also desired to augment information disclosure strictly for the formality of the company as a unit.

It is further desired that, in the event that segment-by-segment disclosure is made in addition to disclosure on a consolidated basis, consistency be maintained in the format and assumptions with respect to the information that is disclosed about individual segments and the corporate group as a whole so that understanding by investors who are the recipient of such information is facilitated.

(5) Effectiveness with Small-, Medium-sized and Startup Companies as well as with Major Corporations

For the purpose of creating the Guideline, discussions have been held with a focus on major companies that participated in the study group. However, the effectiveness of intellectual property information disclosure is certainly not constricted by the company size. It is equally useful for small- and medium-sized corporations and startup companies. In many instances, intellectual property information disclosure actually works more effectively for small- and medium-sized corporations and startup companies because intellectual property accounts for a large part of the managerial assets in many of these companies. In fact, more than a few of these companies already disclose a substantial amount of their intellectual property information to facilitate their financing.

3 Items of Disclosure of Information on Intellectual Property

The following is the description of the desirable items of intellectual property information disclosure and disclosure examples (including expected effects) that are beneficial to investors in making

investment decisions:

(1) Core Technology and Business Model

- Specification of core technology (a source of competitive advantage)
- Segment-specific R&D investment expenditures (projection of corporate growth and its orientation)
- R&D visions and business models (projection of corporate growth and its orientation, confirmation of a profit-earning structure)

(2) R&D Segment and Business Strategy Orientation

- Overview and orientation of the business strategy for each R&D area (recognition of future cash flow sources and projection of growth potential)

(3) R&D Segment and Intellectual Property Overview

- Types of core intellectual property and their current or potential use (projection of future cash flow growth potential)

(4) Analysis of Marketability and Market Advantage of Technology

- Information showing the accumulation of intellectual property and technologies in has areas of competitive advantages (projection of future cash flow and its timing and growth potential)
- Use of technologies, potential customers, market growth possibility (same as above)

(5) R&D and Intellectual Property Organizational Chart, R&D Alliances

- R&D Organizational chart and intellectual property management Organization (confirmation of the orientation of future corporate growth and strategic intellectual property management, expectation regarding the pace of commercialization from R&D)
- Strategic R&D alliances (confirmation of strategic intellectual property management)

(6) Intellectual Property Acquisition and Management, Trade Secret Management, Policies on Technology Leakage Prevention (Including Guideline Implementation)

- The fact that a certain guideline is implemented in light of the business strategy (projection of soundness of the corporate operation process)

(7) Significance of the Licensing Activities to the Company's Business

- 1) In the case of a company whose incomes from patent licensing, etc. have a more significant weight in its operation than other incomes
 - Licensing incomes and expenditures by main segment or area of technology, their strategic rationale (confirmation of actual cash flows, projection of stability)
- 2) In the case of a company that applies a strategy focusing more on its own use of patents

○ Strategic patent licensing policy, cross-licensing, etc. (confirmation of actual cash flows, projection of stability)

(8) Significance of the Patent Portfolio to the Company's Business

1) In the case of a company whose incomes from patent licensing, etc. have a more significant weight in its operation than other incomes

○ Number of acquired patents by main segment or area of technology and their strategic rationale (confirmation of cash flow sources, projection of stability)

2) In the case of a company that applies a strategy focusing more on its own use of patents

Disclosure examples

○ Number of acquired patents classified by main segment or area of technology, as well as by use (patents currently in use by the company, patents scheduled for future commercialization, defense patents and other patents) and their strategic rationale (confirmation of cash flow sources, projection of stability)

* For "classification by use," when the company has some strategic or any other compelling reasons to do so, following options may also be taken i.e., simplified classification consisting of two categories of "patents currently in use by the company" and "other patents," or not showing any use-based classification.

(9) Policies on Intellectual Property Portfolio

○ The fact of portfolio-based intellectual property management (reduction of opportunity cost, expectation for economic value creation)

(10) Information on Risk Countermeasures

○ Legal actions against intellectual property infringement (offense and defense)

○ Impact of changes in patent and licensing agreements and relevant laws and regulations on cash flows, and measures to apply on such occasions (projection of duration of the period of competitive advantages, projection of establishment of a risk and crisis management structure)

4 Intellectual Property Report

The Group recommends that each company prepare an "Intellectual Property Report" on the basis of the above "Guidelines for Intellectual Property Information Disclosure."

Companies are expected to select media for disclosure appropriately in consideration of the contents of disclosure. Possible media for disclosure are settlements of accounts, business reports, annual reports, explanations in materials for IR explanatory meetings, verbal explanations, and websites. However, since investors have a strong demand for disclosure in a list in which the direction of company's intellectual property management is simply summarized, it is desirable that each

company prepares an "Intellectual Property Report" that includes information scattered in several materials, such as annual reports, in a form organized from the viewpoint of intellectual property-backed management.

Information disclosure based on the guidelines is not forced as a system. Therefore, when disclosing information, companies are expected to devise media and methods according to their strategic decisions in consideration of convenience for persons concerned.

In the end, IR is a matter for which managers should be responsible. Thus, companies are requested to take organizational actions to guarantee the consistent disclosure of information on intellectual property based on a certain policy.

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