3 Modalities for the Employees’ Inventions System

The decision delivered by the Tokyo High Court on May 22, 2001 presented the interpretation that the “reasonable remuneration” in Section 35 of the Japanese Patent Law may not be unilaterally determined by an employer through a “service regulation or other stipulation” and that the inventor employee can claim from the employer the balance due for his invention. This has caused rapidly growing concern about the modalities for the employees’ inventions system, the attribution of rights, and the “reasonable remuneration” to be paid to inventors. In the employees’ inventions system, it is now coming to be regarded as an important issue for strengthening the industrial competitiveness of Japan that it will help reduce costs for intellectual property management in a company by avoiding troubles that may arise between the employer and an employee, and at the same time it encourages the creation of more ingenious inventions.

In this study, we conducted basic research aiming to contribute to the investigation on the modalities for the employees’ inventions system required in the “Chitekizaisan Taiko” (Intellectual Property Policy Outline). More specifically, we surveyed the current situation of employees’ inventions systems of Japan, European countries and the United States and then studied the results from the standpoints of patent law, civil law, labor law and economics. We also investigated the issue of inventorship.

Introduction

In recent years, lawsuits on employees’ inventions have attracted attention, and concerns have increased about the attribution of right to an employee’s invention and how an inventor should be compensated. On May 22, 2001, the Tokyo High Court delivered the decision that the “reasonable remuneration” in Section 35 of the Japanese Patent Law may not be unilaterally determined by an employer through service regulations, etc. and that the inventor employee can claim from the employer the balance due for his invention. This decision prompted companies to review their rules on the treatment of “remuneration” for employees’ inventions.

It is necessary to investigate the modalities for the employees’ inventions system from the viewpoint of strengthening the industrial competitiveness of Japan, by avoiding any trouble that may arise between an employer and an employee, thus reducing the costs for intellectual property management in individual companies, and at the same time encouraging the creation of more ingenious inventions.

In this study, as a basic research aiming to contribute to the “reconsideration of the employees’ inventions system” stipulated in the “Intellectual Property Policy Outline”, we conducted a survey of the current situation of employees’ inventions systems of Japan, European countries and the United States and then studied the results from the standpoints of the patent law, civil law, labor law and economics. We also investigated the issue of inventorship.

enabled the right to pass to the employer in accordance with contracts or service regulations that had been made in advance.

This provision has been carried over to the same effect into Section 35 of the current law through the 1965 revision of the Patent Law, which provides that if an employee has obtained a patent on his service invention, the employer has the right to a non-exclusive license without consideration, and if the employee has assigned the patent right or other right with respect to his service invention, he is entitled to a “reasonable remuneration.” Furthermore, the amount of such remuneration shall be decided by reference to the profits that the employer will make from the invention and to the amount of contribution that the employer made to the making of the invention. (Secretariat)

2 Results of Research on the Situation of Companies and Inventors in Japan

(1) Actual situation of the treatment of employees’ inventions in companies

In this study, we conducted a survey on the treatment of employees’ inventions by sending out a questionnaire to 2,087 companies, and out of the 601 valid responses (valid response ratio 28.8%), we analyzed the responses from 550 companies (363 large companies and 187 small and medium enterprises) that had made patent applications in recent years. As the results, many companies answered that the incentive for researchers regarding R&D activities is positional promotion and improved treatment, and about 80% of the large companies considered that reward (compensation) money increases an incentive for researchers regarding R&D activities; in the case of reward (compensation) money being raised significantly, there were many companies which answered that the sense of unfairness among other employees would be increased. Regarding the necessity of amendment of Section 35 of the Patent Law, around 40% of the large companies consider no amendment necessary, if the interpretation of the law accepting a certain condition for conditional approval is, “preparation of the environment for the employer and employee to negotiate on an equal basis”, and the overwhelming objection was raised, “from the standpoint of protecting employees considering the difference in negotiating power”). (Secretariat)

(2) Researchers’ awareness concerning employees’ inventions

In FY 2002, Hatsumei Kyokai (the Japan Institute of Invention and Innovation) conducted their own inventor-questionnaire survey directed to 93 recipients of the National Commendation for Invention (46 valid responses, valid response ratio 49.5%) and other 6,973 inventors (2,394 valid responses, valid response ratio 34.3%). As the results, many researchers answered that an improvement of corporate performance or fair evaluation of researchers’ achievements is the incentive for R&D activities, and as for the evaluation of R&D results, the answers said that reward (compensation) money, bonuses or positional promotion, etc. are preferable. About 60% of the researchers answered that reward (compensation) money was a great or some incentive; in the case of reward (compensation) money being raised significantly, there were many researchers who answered that morale would be boosted, but there were also many researchers who answered that the sense of unfairness among other employees would be increased.

Furthermore, about 50% of researchers were in favor of or conditionally in favor of the determination of a reasonable remuneration being left to free negotiation between the employer and employee (No.1 reason for approval is, “because it is preferable to determine through agreement taking various factors into consideration”, No.1 condition for conditional approval is, “preparation of the environment for the employer and employee to negotiate on an equal basis”, and the overwhelming objection was raised, “from the standpoint of protecting employees considering the difference in negotiating power”). (Secretariat)

3 Site of R&D Activities

(1) Research Activities at Universities

In FY 2001, Meijo University conducted an awareness survey directed to full-time teachers of science related subjects. More than 30% of the respondents had experienced a patent application, and cited, as the merits of obtaining patents, economical benefits, advantages in conducting research, clarification of the ownership of the right and socio-industrial contribution, etc. The reasons for not filing a patent application were the unfamiliar and cumbersome procedure and costs, etc. More than 70% of the respondents answered that they give preference to presentation in academic society over filing patent applications.

As problems with industry-university joint research, they raised the necessity of detailed agreements, an insufficient support system,
difficulties with the practical application of the outcome and others. About 50% of the respondents answered that a Technology Licensing Organization (TLO) within the university is necessary as a system for obtaining patents.

In order to increase the number of patents from universities, it is necessary to have a clear evaluation standard and a system to manage and maintain patent applications. For the evaluation of the contribution by students, faculty members' awareness and fair evaluation by a third-party institution will be necessary. An investigation on the method of returning the revenue from patent licenses to the inventors is also desirable. (Hiroshi Amano)

(2) R&D at companies

Suppose a researcher conducts an experiment in accordance with an order of a supervisor, and if an abnormal phenomenon arises from an erroneous operation, the supervisor could investigate the cause of the phenomenon and write a paper or get a patent on it as a new phenomenon. In such a case, it is often difficult to determine who should be regarded as the inventor.

Many people can be involved in the process of research, development and commercialization of a product. The company will commend those who were in charge of the development and production, and deal with all people involved by positional promotion, wage raises and bonuses. In recent years, compensation (reward) money for inventions is becoming higher, but, from the standpoint of the company, it is not desirable to allow only compensation (reward) money for inventions to be prominent.

In order to reduce disputes over remuneration (compensation money) in the future, companies are required to make clear the calculation method for remuneration, and obtain inventors' agreement on the calculation method. When inventors are not satisfied with the calculation method, appropriateness of the method may be disputed before the court. (Eiichi Maruyama)

4 Identifying the Inventor in Japan

(1) Identifying the Inventor in Japan

In the Japanese Patent Law, there is no provision defining an “inventor”, but it provides that an inventor shall have the right to obtain a patent, such right being transferable and that the name of the inventor shall be indicated in the application for patent, laid-open application publication, patent publication and letters patent.

In the case of a joint invention, the right to obtain a patent shall be co-owned by the joint inventors and none (except all) of the joint owners can file an application and obtain a patent. None of the joint owners of a patent right or a right to obtain a patent may either transfer his share or grant licenses without the consent of all the other joint owners, but any of them may work the patented invention without the consent of the other joint owners.

A person who is not the true inventor or has not succeeded to the right to obtain a patent for an invention is not allowed to file an application and obtain a patent (misappropriated application), and if a patent has been granted on the patent application, the patent is to be invalidated.

In academic theory, a (joint) inventor shall be determined in light of the creation of technical ideas, and a person who has not participated in the creation itself (e.g. a mere manager, orderer, adviser, assistant, investor or sponsor/entruster, etc.) will not be recognized as an inventor.

Various court decisions judging (joint) inventorship are introduced in the report of this study. (Secretariat)

Reference: Identifying the Inventor in the United States

In the United States also, the Patent Law has no provision defining an inventor. The status of an applicant is not assignable and, in principle, the actual inventor (joint inventors) has to file the application for patent in his/her own name and when filing an application, the inventor has to turn in an oath or declaration that he/she believes the named inventor(s) to be the original and first inventor(s) of the invention. Joint inventors must


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apply for a patent jointly (except when the other joint inventor refuses to join in the application for patent or cannot be found or reached).

If the inventor is incorrectly named in an application for patent through error, the application may be amended to name only the actual inventor. If the incorrect inventor is named with a deceptive intention, the patent shall be invalidated. For identifying the inventor, reduction to practice itself is irrelevant and an inventor must have contributed to the conception of the invention.

Various decisions judging (joint) inventorship are referred to in the report. (Secretariat)

(2) Cases of companies in the electrical/ machinery field

A questionnaire survey was conducted with several companies about the identification of inventors in Japan. As a typical tendency, they identify inventors in line with the general standard. However, even if they have a guideline for identifying inventors, such guideline is not so well known to inventors. Inventors are identified among persons involved in the invention without any special examination for the true inventorship. In identifying joint inventors, the degree of contribution has come to be taken into consideration.

The fact that the identification of a true inventor has not been strictly examined may also come from Japanese people’s tendency toward a low sense of entitlement.

When the indication of the inventors is incorrect, the patent can be invalidated if the application is misappropriated, and it can bring incorrect, the patent can be invalidated if the identification of the corresponding patent. After filing an application for patent through error, the application may be amended to name only the actual inventor. If the incorrect inventor is named with a deceptive intention, the patent shall be invalidated. For identifying the inventor, reduction to practice itself is irrelevant and an inventor must have contributed to the conception of the invention.

Various decisions judging (joint) inventorship are referred to in the report. (Secretariat)

5 Characteristics of Japanese Employer-Employee Relationship and Employment Environment

In the Japanese traditional long-term employment system, employees’ career development is led by the employer, and a company-society has an organized labor form. Wage and promotion management is strongly tinged with the seniority system and keeping employment of employees is the principle of management or a social consensus. Employees consider their service inventions as just fulfilling their assigned duties and do not assert their rights to the inventions without any immediate monetary payments as long as they are to be compensated by wages, bonuses, retirement allowances and R&D expenses and others.

However, in recent years, the long-term employment system has been undergoing changes such as personalized human resource management, ability and performance-based pay system and selective/personalized employee education, etc. With the progress of diversification in the manner of work based on the qualification and ability of individual employee, the ground is prepared for inventor employees to require compensation according to achievement based on the quality of their jobs or their ability. In addition, in the environment of increasing job changes, there is a possibility that inventors may raise their voices and call for their share of the profits from the service inventions. (Fumiko Obata)

6 Clarification of Economics of Employees’ Inventions

From the standpoint of economic theory, in the method of sharing the results of an R&D activity which is a joint work of the company and employee, there are the aspects of allocation of ownership and allocation of monetary achievements.

As to the allocation of monetary achievements, there are two aspects. The first is the aspect of risk sharing, in light of which it is desirable that the compensation to the employee would not fluctuate depending on the success or failure of the R&D results. The other is the aspect of incentive, in light of which the differences in compensation among inventor employees are desirable to be greater.

The current provision on service invention in the Japanese Patent Law seeks balancing by giving a “reasonable remuneration” to the inventor employee when the patent is assigned to the company. However, in calculating a “reasonable remuneration” in current practice, consideration from both aspects mentioned above cannot be said to have been adequately given, and therefore, it is necessary to conduct more detailed analysis or investigation on these points.

Further, the judgments by the courts on “reasonable remuneration” have become ex post facto judgments, which tend to be more easily

distorted than ex ante agreements. This could have an adverse effect on the incentive to engage in R&D. Therefore, as for the sharing method, it is desirable to work out a system that reflects an appropriate level agreed upon by both parties at a slightly more ex ante stage. (Noriyuki Yanagawa)

Employees’ Inventions Systems in Foreign Countries

1 Employees’ Inventions in the United States

Although the Regulation of the Economic Agency, Department of Commerce provides for the handling of inventions made by government employees (37CFR501), there is no provision on employees’ inventions in the Patent Law.

The question of the attribution of patent right in the employment relationship is under regulation by State law and State case law precedes Federal case law. Under the case law, an employee’s invention belongs to the employee in principle, but an invention made by an employee employed without a specific agreement.(9) When an employee makes an invention that relates to his job or falls within the scope of the employer’s business using facilities that belong to the employer, the employer shall be entitled to a non-exclusive license (Shop Right) to implement the invention without any extra consideration. As theoretical grounds for the shop right, implied license theory, estoppel theory, and equity theory are advocated.(10)

An employer can obtain a patent on an employee’s invention based on the agreement with the employee.(11) While, under the principle of freedom of contract, employees’ pre-assignment of inventions to the employer can be arranged, some states have regulations on the scope of invention that can be assigned.(12)

As for the consideration for the assignment of an employee’s invention, employment itself or a continuing employment is considered to suffice. According to a survey conducted in 1990,(13) U.S. companies generally have employees’ inventions assignment contracts and half of the companies give monetary rewards in addition to salary. However, they are mostly fixed amounts.

In the United States, bills for the amendment of the system taking after Japan or Germany have been submitted to the Congress, but they have not passed the Congress. (Ryoko Iseki)

2 Results of Overseas Research

(1) Employee’s Inventions in Germany

In Germany, the Employees’ Inventions Law was legislated in 1957, and in 1959, the Guidelines for Remuneration prepared by the Federal Minister of Labor was published.

Under the current law, among inventions made during the period of employment, those that result from the obligatory activity of the employee or are based on the experiences or activities of the company are called service inventions, and others, free inventions. The employer can, by limited claim of right, acquire a non-exclusive right to the utilization of the service invention, and by unlimited claim of right, can succeed to all the rights to the service invention with the obligation of filing an application for domestic protective right and remunerating the inventor. If there is a dispute over an employee’s invention, either party can ask for a settlement before the Board of Arbitration set up at the Patent and Trademark Office.

There are opinions(15) on the current law that it is complicated and cumbersome with
considerable administrative burden and that the limited claim of right has been of little use, and therefore, in the 2001 draft revision by the Federal Ministry of Justice simplifications of the procedure for rights assignment and the method of calculation of remuneration are proposed. Industry is mostly in favor of the draft, but the employees’ side is unsatisfied with the amount of primary remuneration. (Secretariat)

(2) Employees’ Inventions in France

In the Patent Law of 1978, the employees’ inventions system was introduced, but remuneration for an employee’s invention was not compulsory under the law. The revision of Patent Law in 1990 made remuneration payment obligatory.

Under the current Intellectual Property Code, an invention arising from a work contract comprising an inventive mission or from studies and research explicitly entrusted is categorized as a service invention, inventions made, during the employee’s functions, in the field of activities of the employer or using resources of the employer, are categorized as “inventions outside mission and assignable to the employer,” and all others are classified as free inventions.

A service invention primarily belongs to the employer, and the employee has the rights to be remunerated as determined by the collective agreements, company agreements and individual employment contracts. An invention outside mission and assignable to the employer belongs to the employee, and if the employer succeeds to the rights, the employee shall be entitled to obtain a fair price based on the agreement between the parties. Any dispute as to the classification of an invention or the amount of remuneration can be brought up by either party to the conciliation board, and if the conciliation is unsuccessful, they can go to court.

Although amendments to the current law have been discussed, a specific draft amendment has yet to be presented. (Secretariat)

(3) Employees’ Inventions in the United Kingdom

The principle of employees’ inventions has been developed through case laws. The Patents Act of 1949 had provisions for dispute settlement concerning employees’ inventions but had no provisions for attribution of the right or the obligation of compensation.

Under the current act, an employee’s invention shall primarily belong to the employer only when the invention was made in the course of the normal duties of the employee or specifically assigned to him and an invention might be expected to result from the carrying out of his duties, or when the invention was made in the course of the duties and the inventor has a special obligation to further the interests of the employer’s undertaking. When the invention primarily belonging to the employer is patented and is of outstanding benefit to the employer, on an application, the court or the comptroller of the Patent Office may award him an amount of compensation. When there is a collective agreement, the court or the comptroller of the Patent Office shall not make such a ruling. Although there have been various cases disputing attribution of the right or compensation, no decision has been reported that admitted a claim of compensation.

Some companies are positive about employees’ inventions, but most companies are not positive enough to have an incentive scheme.

There were discussions in the past on the amendments of the current act and recently the Consultation Paper has indicated the points for amendments and public opinions are called for about them. (Secretariat)

Industry Opinion on Section 35 of the Patent Law

1 Modalities of the Employees’ Inventions System in the Age of Global Competition

The standpoint for considering the employees’ inventions system is to strengthen the industrial competitiveness of Japan in the global market. From this standpoint, a desirable system would be one that facilitates the formation of independent patent strategies by creating highly ingenious inventions in addition to and without affecting the creation of inventions at the stage of development in which Japan has shown great strength.

The process of creating intellectual property in companies has diversified: e.g. even in the case of creating an invention that can be completed within a company, the inventors carrying it out may be under various patterns of employment. Cases of creating intellectual property outside a company by research contract or joint research have increased. This diversification should be taken into account when considering the modalities of the incentive


Devising an incentive scheme should take into consideration the relation between an invention and a patent, a patent and a product, a patent and profits, etc., and the form of incentive could be salary, commendation, promotion, improvement of research environment, monetary award and a variety of others.

The current provision for employees' inventions has adverse effects on industrial competitiveness, and particularly the negative effects that are not to be overlooked would be on the predictability of corporate profits, the burden of risk in R&D investments, R&D activity by teamwork, securing right on and commercializing an invention and the diversification of corporate business.

The amendment of Section 35 of the Patent Law is necessary so that contracts and the incentive system in a company, which have been established through a reasonable process, aiming to enable the company to give an appropriate incentive to inventors at the development stage and those with higher creativity, in line with its management policy, financial conditions and the salary system, are respected while avoiding an intervention by law or courts regarding their contents. (Giichi Marushima)

2 Proposal by Japan Intellectual Property Association regarding Employees' Inventions System and Background Problems

Looking through the judicial precedents, the calculation method for the “reasonable remuneration” stipulated in Section 35(3) and (4) of the Japanese Patent Law is ambiguous and unreasonable. One idea that has been raised is to establish an evaluation guideline for remuneration, but judging from the current situation in Germany where they have set up such guidelines but have many disputes and companies are suffering tremendous costs, such an idea cannot be said to be desirable.

Considering the changes in social situation, as for the method of giving incentive to inventors, it should not be regulated by law in a single uniform way but is desirable to be left to companies’ latitude as part of a management strategy to survive in global competition.

Under the current system, while disputes may increase in number along with the diversification of business activities, if a company seeks to avoid legal risks, it will be forced to incur additional costs, which is undesirable from the standpoint of strengthening competitiveness. Additionally, measures to avoid legal risks may not necessarily work to give incentive to inventors.

Many companies have developed various incentive systems, operating them flexibly and appropriately depending on the contents of inventions, and continuously trying to improve those systems. Further, the level of remuneration paid by Japanese companies is never lower than those in other countries.

As radical deregulation is being promoted, interventions by law to individual company activities should be confined to matters indispensable in terms of public order and morality, etc. (Kazumasa Abe)

Consideration from the Standpoint of Legal Interpretation

1 Consideration of Section 35 of the Japanese Patent Law from the standpoint of Legal Interpretation Theory

The purport of legislation for Section 35 of the Japanese Patent Law can be said to be the reconciliation of interests between the employer, etc. and the inventor, i.e. the employee, etc. Here, the employee, etc. includes contractual employees and executive officers of a legal entity, and for the handling of employees temporarily transferred, it should be judged by the fact which company directed or ordered for the creation of the invention.

An employer can succeed to the right to an employee’s invention by a unilateral manifestation of intent such as service regulations, etc. As for a reasonable remuneration for the succession, in recent court precedents, the courts have judged the amount of “reasonable remuneration” in their own way based on evidence without any judgment on the reasonableness of the service regulations, etc.

A “reasonable remuneration” should be decided within a reasonable scope of certain range since it is not of the nature that would allow a uniform and objective determination. Therefore, it is a difficult question for the courts to decide properly, and even if they try to judge reasonable remuneration based on limited evidence, it cannot be denied that the judgment would tend to be distorted easily. The principle for the courts to adopt may be to pay attention for securing the rights of the employee, etc. while respecting the remuneration rules set by companies.

If the Supreme Court is only to confirm the theory in those court precedents, it will be necessary to keep the possibility of amendment to the law also in perspective. (Minoru Takeda)

2 Consideration on Remuneration for Employees’ Inventions

The reason that Section 35 of the Japanese Patent Law takes it as desirable for a patent to
belong to the employer as its final place is considered to be based on the policy judgment that in this modern society with highly advanced technological innovations, without providing companies with an incentive to invest in inventions, it is difficult to realize the promotion of invention. On the other hand, the reason the law gives the employee the right to “a reasonable remuneration” may be explained as that if the rule making is fully left with the employer’s unrestricted discretion, there may be a possibility that the remuneration given to the employee would become so small that it may bring about a situation that runs also counter to the incentive to invent.

As for “the profits the employer, etc. will make” provided in Section 35 (4) of the Japanese Patent Law, judicial precedents\(^{19}\) regard them as profits from the position that enables the employer to exclusively carry out an invention, and more specifically, taking into consideration the license fee that may be received if the employer grants a third party a license on the invention for consideration. On the other hand, “the amount of contribution the employer, etc. made to the making of the invention” is determined by taking into consideration the circumstances in which the invention was made while the employee was on duty and employer’s facilities or staff were utilized. (Yoshiyuki Tamura)

3 Consideration on Employees’ Inventions System from the Standpoint of the Labor Law

Section 35 of the Japanese Patent Law regulates the relation between the employer, etc. and the employee, etc. concerning a work condition has been continuously and repeatedly adopted without any objection from the standpoint of the Labor Law, that, if a treatment concerning a work condition has been continuously and repeated without any objection from either of the parties, such treatment will amount to an implied agreement, and comprises the content of the employment contract. It is questionable that a recent court decision\(^{20}\) conducted an all-out judicial review concerning “a reasonable remuneration” for an assignment of an employee’s invention. Even if Section 35 (3) of the Japanese Patent Law is a forcible provision, the judgment whether remuneration is reasonable or not should be made through the judgment on the reasonableness of the invention rules of the company.

As for the legislative idea, while the current subsections (2) to (4) of Section 35 of the Japanese Patent Law should be maintained unchanged including the forcibility of subsections (3) and (4), one idea is, in light of the importance of procedural regulations, to add a provision imposing an obligation on an employer to give information or explain about the employees’ inventions system including reasonable remuneration, accompanied by another provision that a remuneration determined through such a substantial negotiation shall be regarded as a “reasonable remuneration.”

(Michio Tsuchida)

4 Consideration on Employees’ Inventions System from the Standpoint of the Civil Law

Freedom of contract is a basic principle of the Civil Law, which is to respect an agreement reached by a meeting of declaration of intention of both parties. The effect of a contract is denied for the reason of injustice of the content, except based on a forcible regulation, only when it is offensive to public order and morals (Section 90 of the Japanese Civil Code). Other than that, the Consumer Contracts Act legislated in 2000 provides for special regulations aiming to compensate the structural gap in information and bargaining power between consumers and companies, expanding the situations that would invalidate a contract.

If Section 35 is deleted from the Japanese Patent Law, an examination based on the Japanese Civil Code may be necessary. In this case, the assignment of the rights to an employee’s invention by an individual agreement will be effective in principle. However, if there is a mistake on the part of the employee or deception or duress by the employer in the process of making a contract, the contract can be invalidated or canceled under Section 95 or 96 of the Japanese Civil Code. Additionally, while it is not certain whether the Consumer Contracts Act is applicable to a contract for the assignment of right to an employee’s invention, if it is the case, the possibility of cancellation under the Act should also be kept in consideration.


\(^{20}\) supra note 1 decision.
If Section 35 (3) and (4) are deleted from the Japanese Patent Law, the pricing for the rights assignment will be subject to the regulation for public order and morality under the Civil Law. Specifically, the lower the amount of remuneration, the more sincere and specific an agreement by the employee may be required. The stipulation of the remuneration will become invalid without such agreement. To the contrary, the higher the amount of remuneration, the higher the possibility the contract will be held as effective with a low level of agreement by the employee. (Keizo Yamamoto)

(Senior Researcher: Takeyuki Iwai)