

5 A Desirable Registered Search Organization System and Specified Registered Search Organization System^(*)

A system was introduced in 1990 to outsource prior art document searches to designated search organizations (public interest corporations) that have been designated by the JPO Commissioner, and to use the search results for patent examination. However, there were growing concerns that the examination backlog would increase due to such factors as the shortening of the examination request period, an increase in the number of patent filings, and a rise in the examination request rate.

Thus, in 2004, with an aim to use the abilities of the private sector, the government introduced a registered search organization system, which has removed the requirement of the public interest corporation status from the designated search organization system. In addition, it introduced a specified registered search organization system that allows not only patent examiners, but also applicants, etc. to use the abilities of registered search organizations.

At present, the bump of examination requests has been resolved. With a decrease in the number of patent filings and examination requests, the number of outsourced searches is shifting from a period of expansion to a period of convergence to a constant volume. Currently, the specified registered search organization system is not being used sufficiently.

Thus, the author conducted interviews with registered search organizations, private search companies, overseas patent offices, etc. and made a study on desirable systems in the future.

I Introduction

In order to expedite patent examination, the Japan Patent Office (JPO) had introduced a system in 1990 to outsource prior art document searches to outside organizations designated by the JPO Commissioner (designated search organization limited to public interest corporations), and to use the results of the prior art document search conducted by designated search organizations in the patent examination carried out by patent examiners.

In 2003, the examination backlog exceeded 500,000 applications, as a result of yearly increases mainly due to an increase in the number of patent filings and a rise in the examination request rate, and the examination waiting period reached 25 months. Since the number of examination requests temporarily surged with requests for patent applications subject to a seven-year request period coinciding with those for applications subject to a three-year request period (a bump in examination requests), there were concerns that the examination backlog would further increase by 300,000 applications.

Accordingly, the government set a long-term target to reduce the examination waiting period to

11 months by 2013, and took the following measures in 2004 to achieve expeditious and accurate patent examination:

- The government drastically reinforced the examination system by hiring fixed-term examiners in addition to additional ordinary examiners.
- The government revised the Act on Special Provisions for Procedures related to Industrial Property Right (Special Provisions Act) to abolish the requirement for designated search organizations to be public interest corporations and to introduce a registered search organization system in which private companies satisfying specific requirements can enter into the outsourced search operations, thereby further expanding the search outsourcees.
- The government also introduced a specified registered search organization system in order to develop an environment for encouraging applicants to make efficient examination requests by allowing them to use the services of registered search organizations. Under this system, registered search organizations can be specially registered by the JPO Commissioner as specified registered search organizations that can also undertake prior art searches from

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patent applicants, etc. In response to requests from patent applicants, etc., these organizations are able to conduct prior art searches with regard to patent applications for which examination requests have yet to be filed, and issue search reports of the results obtained.

The number of outsourced searches undertaken by registered search organizations has been increasing annually, with the number expanding from about 178,000 searches in 2004 to about 233,000 in FY2009.

The bump of examination requests has been resolved since the examination request period expired for all applications subject to a seven-year request period at the end of September 2008. In 2009, due to an increase in the number of applications withdrawn or waived, the number of applications examined temporarily exceeded the number of examination requests, causing the examination backlog to decrease from 888,000 applications at the peak time to 717,000 applications as of the end of 2009. The examination waiting period is also expected to gradually turn to a decline.

The number of patent filings has declined from the 2006 level and the number of examination requests has declined from the 2008 level. In addition, the deadline for achieving the target set for the examination waiting period is approaching. The number of outsourced searches is shifting from a period of expansion to a period of convergence to a constant volume. Given this background, this research was conducted with an aim to create basic material for considering policies for building a desirable registered search organization system and specified registered search organization system.

II Survey Outline

In this research, data for considering the following matters was collected through an interview survey, and was analyzed:

- (i) the environment for entry of registered search organizations;
- (ii) registered search organizations' awareness of current problems and business vision;
- (iii) the environment for entry of specified registered search organizations;
- (iv) opinions on the specified registered search organization system;
- (v) the prior art search market; and
- (vi) the situation overseas.

An interview survey was conducted by selecting sample organizations that are suitable

for collecting the respective data of (i) through (vi) above.

Data on the following matters were collected through interviews from all nine registered search organizations that currently engage in outsourced search operations: "the environment for entry of registered search organizations," "the registered search organization's awareness of current problems," "the registered search organization's business vision," and "the environment for entry of specified registered search organizations."

Also data on the following matters were collected through interviews from 20 sample prior art search companies selected from the lists of patent information providers published on the JPO website: "the environment for entry of registered search organizations from the viewpoint of a private prior art search company," "specified registered search organizations from the viewpoint of a private prior art search company," and "forms of business of prior art searches." Moreover, data on the following matters were collected through interviews from three companies that have used search reports of specified registered search organizations: "specified registered search organization from the viewpoint of a user," "the status of implementation of prior art searches," and "the status of use of private prior art search companies."

Prior art searches are also being outsourced in other countries. Therefore, data on the following matters were collected through interviews from two prior art search organizations that undertake searches from the Korean Intellectual Property Office (KIPO) and the United States Patent and Trademark Office (USPTO): "search outsourcing systems overseas" and "outsourced search operations overseas." Furthermore, data on the following matters were collected through an interview from an overseas global company: "the status of implementation of prior art searches" and "the status of use of private prior art search companies." An interview was also conducted with another prior art search company to ask about "forms of business of prior art searches."

III System and Practice Outline

1 System

Laws and regulations on registered search organizations include the following: the Special

Provisions Act, the Order for Enforcement of the Special Provisions Act, the Ordinance for Enforcement of the Special Provisions Act, and the Order on Fees Related to the Patent Act, etc.

Article 37, paragraph (1) of the Special Provisions Act provides that, when an application for registration has been filed and the application satisfies all requirements for registration, the JPO Commissioner shall register the applicant as a registered search organization.

Article 37, paragraph (1), item (i) of the Special Provisions Act specifies the required qualifications and the minimum number of those who implement the search operations at a registered search organization as requirements concerning search staff. Specifically, the Act provides that those who implement the search operations should have a specific level of academic background and job experience, and should have completed a specific training program, and provides that the minimum number of such staff members should be ten per search category. Article 37, paragraph (1), item (ii) of the Special Provisions Act prescribes computers and the necessary programs as requirements concerning the equipment that a registered search organization should have. Articles 39-2 through 39-5 of the Special Provisions Act stipulate about registration of specified registered search organizations. Specified registered search organizations are registered for each relevant registration category of registered search organization, and are not subject to any new requirements when they are registered as specified registered search organizations.

Applicants who request an examination by presenting the search results of a specified registered search organization can enjoy a reduced examination request fee, which is 134,900 yen plus 3,200 yen per claim for each application. Applicants need to pay a search fee when they request a specified registered search organization to conduct a search.

2 Practice

(1) Outsourced search operations by a registered search organization

Patent examiners can only outsource searches with regard to patent applications that are laid open.

Search staff use an F-term search program installed on a search terminal. In principle, using such search key as the F-term and File Index (FI) is essential, and a full-text search alone is

unacceptable. With regard to category 30 (organic compounds), a chemical structural formula search is conducted in addition to an F-term search. Search staff conduct searches of patent and utility model gazettes issued by the JPO and published Patent Cooperation Treaty (PCT) international applications filed in the Japanese language. The data to be searched are published documents that could constitute prior art under the provisions of Article 29, 29-2, or 39 of the Patent Act. Foreign patent gazettes and non-patent documents are not subject to searches in outsourced search operations. When a search has been completed, a registered search organization delivers a written search report, etc. in electronic data and in paper to the JPO. In the case of outsourcing of an interactive search, a searching staff member explains such matters as the details of the technology claimed in the application concerned, the search policy, the search results, and the details of the technology disclosed in the presented documents to a patent examiner at the JPO through a dialogue. If the examiner instructs a supplementary search during the dialogue, the search staff member conducts within the JPO a search of the scope of documents specified by the examiner, and also explains the results of such supplementary search.

(2) Operations by a specified registered search organization

Prior art search operations can be conducted for laid-open applications for which an examination request has yet to be filed for the registration category. To ensure fair and neutral operations, specified registered search organization cannot conduct prior art searches for patent applications filed by themselves or by their subsidiary companies. When specified registered search organizations conduct prior art searches, they must have their search staff carry out the searches. An applicant can enjoy a reduced examination request fee if he/she indicates the search report number in the written examination request. A search report is submitted by a specified registered search organization to the JPO, and an examination requester does not need to submit it when they make an examination request.

As of January 18, 2011, nine organizations were registered as search organizations, and one organization was registered as a specified registered search organization.

IV Results of Interviews on the Registered Search Organization System

1 Environment for entry of registered search organizations

According to the results of interviews with registered search organizations, the difficulties they faced when entering into the business were securing personnel, dealing with the initial investment costs, and receiving the statutory training at INPIT. Among these, the difficulty of securing personnel was mentioned by many organizations. The results of interviews with private prior art search companies showed that they similarly faced difficulties in securing personnel and dealing with the initial investment costs.

The period of the statutory training is almost two months. Therefore, some interviewed organizations indicated that, in order for a searcher in an existing business to receive the training, he/she needed to substantially reduce the time of being engaged in the existing business. Because of this, organizations could not use the personnel engaged in an existing business as the search staff, and needed to launch a business separate from the existing business by hiring new personnel in order to enter into the business of outsourced search operations.

2 Registered search organizations' awareness of current problems

With regard to personnel, some organizations mentioned that registered search organizations were effectively functioning as a place for reemployment of retired engineers, while other organizations showed concerns about aging of staff due to the difficulty of employing relatively young workers.

Multiple organizations voiced desires for the statutory training at INPIT to also be held at locations other than Tokyo. There are calls for the statutory training to also be provided in regional areas since the training period is relatively long and the training imposes a large financial burden on the organizations and physical and mental burdens on the trainees if their location is far from the venue.

As for the search system, the following problems were indicated to occur in line with specification changes, due to the high cost of the system:

- If a search system is installed with only a short period remaining until the next specification change, the cost of the search system increases, and the search outsourcing cost also rises as a result.

- There is periodical risk that investment in a search system would become unrecoverable.

Many organizations also voiced concerns about the intensifying competition between registered search organizations and about orders becoming unstable in the future. Some organizations expressed anxieties about not only the intensification of competition at present, but also how the resolution of problems related to the examination backlog and the examination waiting period in the near future would subsequently affect the outsourced search business. In the public offering of outsourced search operations in FY2011, the number of publicly offered operations decreased from the previous year for the first time since the 2004 revision of the Special Provisions Act, suggesting that the competition between search organizations will further intensify in the future.

V System and Practice of Search Outsourcing in Other Countries

1 Outline of search outsourcing in South Korea

Searchers are required to have a specific level of academic background and to have completed a training program. The minimum number of searchers required is ten persons per technical field. The training is an 80-hour online education consisting of introductory lessons on patent information, lessons on prior art search theory, and practical training on prior art search.

There are three designation categories of specialized organizations: machinery, metal, and construction; science and biotechnology; and electrical, electronics, information and communications.

There is no designated search tool for outsourced search operations, allowing search organizations to choose a search tool of their preference. Specialized organizations are required to possess databases containing patent/utility model documents of South Korea, Japan, the United States, the EPO, and WIPO, or to have an environment to constantly access and search databases containing such documents. The prior art to be searched includes South Korean patent/utility model gazettes (laid

open/published), Japanese patent/utility model gazettes (laid open/published), U.S. patent documents, EPO patent documents, and published PCT international applications, and if necessary, non-patent documents such as treatises.

Specialized South Korean organizations are used by the private sector for the purpose of preferential examination (equivalent to the accelerated examination in Japan). An applicant who submits a search report of a specialized organization to the Patent Office can receive a preferential examination.

The organizations designated as specialized are the Korean Institute of Patent Information (KIPI), WIPS Co., Ltd., and IP Solution Co., Ltd. All three have received designations for all designation categories. Only KIPI undertakes outsourced search operations of PCT international searches.

2 Outline of search outsourcing in the United States

The USPTO does not adopt a registration-based search outsourcing system. The relationship between search outsourcees and the USPTO is specified by contract.

The only outsourced search operations conducted for the USPTO is PCT international searches. The searches for the search reports set forth in Chapter I of the PCT are 100% conducted by search outsourcees.

Outsourced search operations are conducted by private search companies that have been selected as search outsourcees through a request-for-proposal (RFP) process.

An RFP issued by the USPTO in 2006 expressly states that contractor search companies are obligated to create a PCT international search report (Form 210) and a written opinion of the international searching authority (Form 237). As a result of the RFP in 2006, contracts were concluded with two outsourcees. The two outsourcee organizations are Landon IP and Cardinal IP. A new RFP is to be announced in the first half of 2011.

The responsibility of selecting searchers and ensuring the quality of search reports lies on the outsourcees. The RFP does not specify the number of searchers. Outsourcees are responsible for furnishing the personnel that satisfy the contractual requirements and that are sufficient for processing the number of searches actually assigned by the USPTO.

The USPTO's outsourced searches are divided into eight technical categories. At present, one of the two current outsourcees has concluded contracts for all eight technical categories, and the other outsourcee has concluded contracts for four technical categories.

No search tool is designated. Each outsourcee is responsible for implementing searches in accordance with such criteria as those set forth in the PCT International Search and Preliminary Examination Guidelines issued by WIPO. Search outsourcees have access to data including the USPTO's public version of Web-based Examiner's Search Tool (PubWEST). The data to be searched is not designated, but search outsourcees are obligated to discover the best prior art.

VI Results of Interviews on the Specified Registered Search Organization System

In order to perform the operations of a specified registered search organization, an organization needs to separately furnish a search system and an area for conducting the searches separately from those for outsourced search operations. In the interviews with registered search organizations, many expressed their wishes to be able to carry out the operations of a specified registered search organization by using the facilities already furnished for the outsourced search operations.

In the interviews with private prior art search companies, there was a company that viewed specified registered search organizations as its competitors and indicated concerns that their presence would affect its business.

The interviews with applicants that have used search reports by specified registered search organizations revealed that they highly evaluate the search quality.

There was also an opinion that, even with the measure for reducing the examination request fee, the search fee charged by specified registered search organizations is higher than that of private prior art search companies, and the current amount of reduction in the examination request fee does not serve as an incentive for using the specified registered search organization. Hopes were also voiced that specified registered search organizations, which currently only conduct searches for laid-open applications, will also conduct searches before the filing of applications or before the laying open of

applications. There was also an organization pointing out that applicants need to request searches after selecting applications, because a search request can only be filed with a specified registered search organization for applications of which technology falls under the search organization's registration category.

VII Prior Art Search Market

1 Forms of business of private prior art search companies

There were 11 search companies dealing with searches in all technical fields, and there were five search companies dealing with almost all technical fields except for any of the medical, biotechnology, and chemical fields. Four search companies were specialized in specific technical fields.

There were 20 private search companies whose total number of searchers was 2 to 80 persons. Many search companies had fewer than 30 searchers, indicating the small number of searchers they have in contrast to the extensive technical fields they deal with. At present, each searcher deals with a broad scope of technology.

The interviews revealed that customers of search companies included regular large corporations (15 companies), regular SMEs (two companies), SMEs subject to the SME search support project (one company), patent firms (one company), and public organizations. The results show that most search companies have regular large corporations as their main customers.

Of the technology trend searches, prior art searches, invalidity searches, and patent clearance searches that are included in the search business, a comparison was made between the percentage of prior art searches in the total number of searches and the percentage of sales of prior art searches in the total sales of searches. As a result, for many search companies, prior art searches constituted a large percentage of the total number of searches, but not such a large percentage in the total sales of searches. While the percentage of prior art searches exceeded 80% of the total number of searches for three companies, the percentage of prior art searches exceeded 50% of the total sales of searches for only one company. Search companies secure the sales of their search business by undertaking not only prior art searches, but also various other types of searches such as technology trend searches, invalidity searches, and patent

clearance searches.

As a result of a survey on applicants' needs with regard to the timing of prior art searches, searches prior to the filing of domestic applications accounted for the highest percentage in the total number of searches for 11 prior art search companies, searches prior to an examination request accounted for the highest percentage for five prior art search companies, and searches prior to the filing of foreign applications accounted for the highest percentage for one prior art search company. When including cases where searches prior to the filing of domestic applications do not account for the highest percentage, 17 companies were undertaking searches conducted prior to the filing of domestic applications. With regard to prior art searches based on private-private contracts between applicants and prior art search companies, search companies were undertaking searches for highly confidential inventions prior to the filing of domestic applications.

2 Needs for prior art search companies

The results of interviews with companies are as follows:

<Domestic companies>

- While emphasis is placed on in-house searches, outside search companies are also used to resolve the man-hour shortage of search operations of in-house personnel.
- Outside search companies are used to reconfirm the results of in-house searches. Search companies are used in order to make use of their high search abilities.
- Outside search companies are used to reduce the costs for implementing searches using in-house resources.

<Overseas companies>

- All outside search companies are outsourced in order to ensure the objectivity of searches, and deal with the man-hour shortage of in-house personnel.
- All prior art searches are outsourced to outside search organization due to the search skill shortage and the search man-hour shortage of in-house personnel.
- Prior art searches are sometimes outsourced when in-house personnel cannot implement searches due to a lack of time, expert knowledge, or foreign language skills.

VIII Summary

1 Desirable registered search organizations in the future

(1) Securing personnel

<From the viewpoint of the environment for business entry>

At least from the viewpoint of whether or not search organizations can deal with searches as an organization, it is necessary to prescribe an appropriate number of searchers to be employed by a search organization as the minimum number of searchers required. In addition, if the number of searching staff of a business operator is insufficient, the proportion of indirect costs will grow, which has a disadvantageous effect on outsourcing costs. Thus, when considering a revision of this requirement, the above viewpoints need to be taken into consideration.

(2) Initial investment costs for a search system

<From the viewpoint of the environment at the time of entry>

A study should be made on providing more affordable hardware for outsourced search operations. Considering the ease of entry, more affordable hardware could be provided as an option even with lower specifications than those of JPO examiners' terminals.

<From the viewpoint of the environment after the entry>

There is a problem related to the fact that the search systems of registered search organizations are renewed once in approximately four years in line with specification renewal of JPO examiners' terminals. Since the search system needs to be changed every four years at the longest, the costs related to the outsourced searches would differ between the case of installing a search system at the time new specifications have been established, and the case of installing a search system a few years after that. Also, since search orders are not guaranteed institutionally, the risk that the installed search terminals would be an excessive investment will arise every time the specifications are changed. This problem could also be resolved by providing affordable hardware with lower specifications. If the current conditions for use of search systems remain "as is," another possible measure would be for the JPO to provide the search systems on a rental basis.

(3) Training

<From the viewpoint of the environment for business entry>

The current period of statutory training is long, making it difficult for organizations to enter the business by using the workers of an existing business as search staff. When entering into the business, organizations would need to hire all search staff anew or substantially reduce the time their staff consumes for an existing business to have the staff receive the training. There is room to consider developing statutory training that can also be taken by workers engaged in other operations, also for the purpose of gathering personnel from a broad range of age groups.

<From the viewpoint of the environment after the entry>

At present, two organizations implement outsourced search operations at locations other than Tokyo. In order to activate entry of search organizations located in regional areas into the business in the future, it is essential to consider holding the statutory training in regional areas as well. Although no special opinions were expressed in the interviews about desirable training at the time of registering for additional categories, many search organizations have indicated a plan to expand their registration categories as a future business vision of a registered search organization. Thus, there may be a need to consider simplifying the statutory training if the search staff that has already completed statutory training receives training for a different category. A measure to make it easier for organizations to make registration for additional categories is also expected to have an effect to activate entry into this business.

(4) Future competition environment

At present, consideration is under way to lower the examination request fee, and the demand for cost reduction is likely to grow further. For example, one option could be to set a unit price for outsourcing as a condition for undertaking outsourced searches. In order to do so, however, the problems that registered search organizations are currently aware of, such as changes in the handling of search systems and the method for assigning the number of outsourced searches, need to be addressed promptly. Favorable competition only occurs under an appropriate competition environment. It is important to develop a good environment for competition so as not to demotivate private companies from entering the business of

registered search organizations.

2 Desirable specified registered search organizations in the future

(1) Search systems

<From the viewpoint of the environment for business entry>

Many organizations opinioned in the interviews that they hoped that they would be able to implement the operations of a specified registered search organization by using facilities that are already installed for outsourced search operations (the search system and the area for conducting the searches). Accordingly, a study should be made about allowing use of search systems for outsourced searches in implementing the operations of a specified registered search organization.

(2) Promotion of use and the problems involved

<Registration categories of specified registered search organizations>

Since there is only one organization that currently serves as a specified registered search organization, there is a problem that only specific applicants can use the organization. This problem could be resolved by promoting organizations' entry into the business of specified registered search organizations. Since registered search organizations are currently making efforts to expand their registration categories, if their entry into the business of specified registered search organizations becomes active, inaccessible categories are likely to decrease gradually.

<Promotion of use leveraging on the search quality>

Searches of a specified registered search organization are equivalent to outsourced searches that are of high quality. It may be possible to promote more active use than at present by identifying searches that require high quality. A specified registered search organization only conducts searches for laid-open applications at present. However, searches for highly confidential applications prior to the filing are outsourced to private search companies based on private-private contracts. Accordingly, the use of specified registered search organizations could be promoted if their scope of search could be expanded to applications prior to the laying open or to those prior to the filing.

<Competition with private prior art search companies>

Many private search companies indicated that specified registered search organizations are their competitors. When promoting the use of specified registered search organizations by further reducing the examination request fee, consideration should be given so as not to impede competition with private search companies.

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