9 Quality Management System that Takes into Consideration the Evaluations Made by Patent Applicants and Agents

The purpose of this survey research is to conduct a survey as a means to analyze patent examination objectively and cross-sectionally on various technical fields, and apply to improve the quality management system based on the analysis results. This research, which focuses on applicants' and agents' evaluations of the quality of patent examination, consists of the following three parts: (1) Research on the current quality management systems of foreign patent offices, (2) Trial questionnaire-mailing survey on applicants and agents, and (3) Interview survey on applicants and agents to obtain their evaluations of patent examination and their opinions on survey methods. Based on the findings of this research and surveys, we identified and analyzed issues concerning a quality management system that takes into consideration the "evaluations by applicants and agents" and explored measures to solve those issues. We were pleased to find that the response rate of this trial survey was extremely high in comparison with that of other similar surveys conducted by foreign patent offices. The fact that many interviewees subject to the interview survey expressed positive views on the questionnaire survey suggests that many applicants and agents recognize the need for this type of survey. It is therefore important for us to conduct such a survey on a regular basis, while making efforts to further improve the questionnaire based on the findings from the analysis and examination carried out in this survey research.

I Introduction

In an effort to improve the speed and efficiency of patent examination, the Minister of Economy, Trade and Industry issued the Advanced Measures for Accelerating Reform toward Innovation Plan in Patent Examination (AMARI Plan 2007). The Plan focuses on, among other things, how to enhance quality management in order to maintain and improve the quality of patent examination.

The global trend of sharing the results of prior art searches and patent examinations is accelerating especially among trilateral offices, namely the JPO-USPTO-EPO triad, and the JPO-SIPO-KIPO triad. These patent offices are all faced with the same challenge of establishing a system and procedure to high-quality patent examination, is a prerequisite for successful information sharing. In the meantime. within the framework of Patent Cooperation Treaty (PCT), provisions concerning requirements for quality improvement of international search and preliminary examination were established (so-called PCT Quality Framework) in Chapter 21 of the PCT International Search and Preliminary Examination Guidelines ("PCT Guidelines"). Under these provisions, Preliminary Examination Authorities and International Searching Authorities are required to improve their quality management systems.

The JPO manages the quality of patent the **PDCA** examination based on (Plan-Do-Check-Act) cycle. The newly established Quality Management Office is in charge of analyzing the results of patent examination objectively and cross-sectionally on various technical fields. The analysis results are utilized to ensure continuous improvement of the quality of JPO's patent examination as a whole.

In this survey research, we focused on applicants' and agents' evaluations of the quality of patent examination and examined the current quality management systems of foreign patent offices. Furthermore, we conducted a trial survey by sending

questionnaires to applicants and agents as well as an interview survey to obtain their evaluations of patent examination and their opinions on survey methods. Based on the findings from these surveys, we identified and analyzed issues concerning a quality management system that takes consideration the "evaluations by patent and applicants agents" and explored measures to solve those issues.

II Survey on Foreign Patent Offices

We sent questionnaires to foreign patent that mostly consisted of PCT International Preliminary Examination Authorities and International Searching Authorities. The questionnaire contained questions about a quality management system takes into consideration that (patent applicants' and/or customers' agents') evaluations of the quality of patent examination. As described below, all of the patent offices that responded to the survey had already introduced a system to obtain customers' evaluations.

(1) United States: United States Patent and Trademark Office: USPTO

The USPTO issued the 2007-2012 Strategic Plan, which lists "Optimize Patent Quality and Timeliness" as the most important strategic goal. Under the Plan, the USPTO has been implementing a comprehensive quality system for patent examination.

The USPTO conducts a Customer Panel Quality Survey by sending a quarterly questionnaire to the users. All technical fields are subject to the survey. The respondents are requested to answer, on a scale. detailed questions designed measure their evaluations ofpatent examination conducted in the preceding three months. The survey results, which are not available to the public, are sent to the Office of Patent Quality Assurance (OPQA) of the USPTO, which analyzes the results by comparing them with the results of internal review and so on.

(2) Europe: European Patent Office: EPO

In 2005, the EPO reorganized and restructured itself to improve its quality management system. The EPO conducts the User Satisfaction Surveys by calling users every two years if possible. The survey is conducted on customers who are randomly selected from among those applications were examined within a certain period in the selected technical field (joint clusters: JC). Both search procedure and examination procedure are subject to the survey. The survey is conducted on various aspects of these procedures that the EPO monitors to determine whether its quality management system meets certain criteria. These aspects subject to the survey include Timeliness, Thoroughness, Clarity, Validity, and overall customer satisfaction level observed in the EPO's handling of a specific application in the course of the search procedure. The survey results are analyzed statistically and further examined in combination with other quality management data (Quality Audit, Operational Quality Control, Complaints, etc.). The results of the analysis and examination, which are not available to the public, are taken into consideration by the EPO management in modifying those procedures.

(3) United Kingdom: UK Intellectual Property Office: (UKIPO)

The **UKIPO** conducts Customer Satisfaction Survey by sending questionnaires. It also conducts face-to-face interview surveys and online surveys on its website. In addition, it carries out these surveys on patent applicants and agents selected from among the non-individual customers whose applications were examined in the previous year. The survey is not about specific applications, but about the UKIPO services in general (such as customer evaluations of the quality of patent examination and proposals for improvement). The survey results, which are publicized through its website, are used by the UKIPO to identify problems and explore measures to solve them.

(4) Germany: German Patent and Trade Mark Office: GPTO

The GPTO conducted its first customer satisfaction survey in 2005. The next survey is scheduled for around 4 years later. In the **GPTO** the sent different survey, questionnaires to patent applicants and agents respectively, while the two types of questionnaires contain almost the same questions on the quality ofpatent examination. The questionnaires contain detailed questions about patent examination. Many questions require respondents to answer on a scale. The survey results are compiled for each question and disclosed through the website.

(5) Spain: Spanish Patent and Trade Mark Office: SPTO

The SPTO has an external institution conduct an annual customer satisfaction survey on PCT applicants and agents.

Applicants are questioned about specific applications, while agents are questioned about patent examination in general. Both applicants and agents are requested to answer questions about the details of international search reports and written opinions, search examiners' capabilities, etc., by evaluating the level of their satisfaction with and significance on each item.

The survey results are utilized by the SPTO within the framework of its quality management system in order to eliminate the causes of quality defects and problems pointed out by customers and explore remedial measures. If necessary, survey results are directly sent to examiners.

Given the low response rates (Agents: 30.76%, Applicants: 14.07%), the SPTO is considering ways to raise the rates.

(6) Sweden: Swedish Patent and Registration Office: PRV

The PRV conducts the Customer Survey about every two years by sending questionnaires in order to measure the overall level of satisfaction of major customers. Any customer who filed two or more patent applications in the preceding 18

months would be subject to the survey.

Each respondent must evaluate, on a scale, the search reliability, description clarity, and timeliness of both national application and PCT application procedures.

The PRV analyzes survey results and identifies issues that would greatly affect the overall quality of patent examination. Such issues may often indicate the areas to focus on. The survey results, which are available to the public, are used by the PRV to improve its patent procedure and develop training programs.

(7) South Korea: Korean International Property Office: KIPO

The **KIPO** conducts ล customer satisfaction survey, a part of which is devoted to measuring customer satisfaction with the patent examination procedure. The KIPO conducted this survey twice in 2007 by calling 1,000 randomly-selected domestic customers. All technical fields are subject to the survey. The survey items include the understandability of notifications of reasons refusal, timeliness ofprocedures. accuracy of examination, fairness in the course of examination, level of examiner's understanding, manner ofhandling customers, and overall level of satisfaction in the course of examination. Answers must be given on a scale. The survey results are analyzed by an external institution and publicized through its website.

The results are also used by the KIPO to improve its system and raise the level of customer satisfaction.

(8) Australia: IP Australia: IPA

The IPA has an external institution conduct a customer satisfaction survey on Patent Attorneys, Patent Corporate bodies, and Patent Individuals/Subject Matter Experts every two years. All technical fields and the entire examination procedure are subject to the survey. The purpose of the survey is to measure the overall level of customer satisfaction with its search and patent examination services.

The survey results are fed into an

improvement log and/or business area operational plans for implementation.

(9) Finland: National Board of Patents and Registration of Finland: NBPR

The NBPR conducts a customer satisfaction survey on major customers every two years. The examination procedures for domestically filed patent applications, PCT applications, and utility model applications, regardless of their technical fields, are subject to the survey.

The same questions are asked to every respondent, who is requested to evaluate the timeliness, realibility, proficiency, clearness, understandability of search reports and written opinions.

The survey results are publicized on its website and also sent to customers for follow-up discussions.

(10) Other agency (which requests to remain anonymous)

It conducts a customer satisfaction survey by sending questionnaires annually to those who were selected randomly for the survey. Domestically-filed patent applications, regardless of their technical fields, are subject to the survey, which covers the first-time search and examination.

The questionnaire asks the same questions to all respondents, requesting them to evaluate the detailed aspects of patent examination.

The survey results, which are not available to the public, are utilized to explore implementation plans to resolve problems.

III Trial and Analysis of a Quality Management System That Takes into Consideration the Evaluations of Patent Applicants and Agents

(1) Purpose

As part of this survey research, we implemented a quality management system on a trial and used the trial results as a basis to figure out how to reflect user evaluations in the JPO's patent examination quality management policy.

(2) Response rates

We carried out a survey (trial) to measure customer satisfaction with the patent examination procedure. The survey was conducted on patent applicants and agents (Applicants: 604 (2,302 applications), Agents: 360 (360 applications)) who were randomly selected from among those whose applications completed the patent examination procedure (decision to grant a patent, decision of refusal, or disposition of abandonment or withdrawal of patent application was rendered) in August 2007. At the same time, we conducted an inquiry survey in order to identify issues concerning the trial survey. The rates of response from the applicants and agents were 62.3% and 53.3%, respectively, in terms of the number of respondents and were 65.6% and 52.8%, respectively, in terms of the number of patent applications subject to the survey. These high rates indicate their great interest in the quality of patent examination.

(3) Analysis of the customer satisfaction with the examination procedure

Regarding procedures in general such as the patent examination procedure and the international search procedure, about 80% of both applicants and agents evaluated the as"Appropriate." Regarding procedures individual cases of patent examination, about 90% of both applicants and agents evaluated the way a notification of reasons for refusal was written as "Appropriate," while about 85% of the applicants and about 80% of the agents evaluated the way a notification of examiner's decision of refusal was written as "Appropriate." Regarding the communication with examiners in interview or by telephone or fax and suggestions for amendments, more than 90% of both applicants and agents evaluated them as "Beneficial," indicating that they the JPO's satisfied with advice and suggestions.

In slightly less than 30% of the cases of

patent examination subject to the survey, an applicant's or agent's evaluation of the way a notification of reasons for refusal was written differed from each other even if those notifications were given for the same patent application, while in many cases, an applicant or agent evaluated both notifications as "Appropriate."

When asked to list important factors that should be taken into account in measuring customer satisfaction with patent examination, both applicants and agents answered that the following four factors were especially important: "Accurate prior art search," "Uniform decision that does not vary by examiner," "Notification of reasons for refusal written in an appropriate manner," and "Technical understandings of examiners."

These survey results revealed that, in order to further raise customer satisfaction with a notification of reasons for refusal, we need to explain in more detail the reasons why an examiner found that the invention does not involved novelty and/or inventive step and also need to indicate the cited places of cited documents more appropriately.

(4) Analysis of the results of the inquiry survey on the survey method

In this inquiry survey, respondents were asked whether they were willing to cooperate if this type of survey is periodically conducted in the future. Most respondents, both applicants and agents, answered positively, indicating their strong interest in the quality of patent examination.

When asked whether the questionnaire contained questions that were difficult to understand or answer, most respondents, both applicants and agents, answered "No," while some of them pointed out that they found it "difficult to prepare answers" to the questions that required them to identify the application numbers of the applications that they considered to have been examined appropriately orinappropriately. They attributed difficulty to the trouble of identifying the application numbers and to their hesitation in disclosing specific application numbers.

Regarding individual cases of patent examination, many respondents suggested that any cases where the applicant failed to respond to a notification of reasons for refusal and where an examiner decided to grant a patent without sending a notification of reasons for refusal should not be subject to the survey.

IV Interview Survey in Japan

We conducted an interview survey on 19 applicants and 8 agents who were selected from among those subject to the survey described in Chapter III. This interview survey was conducted to ask how they evaluated the examination procedure in general, individual cases of patent examination, and the system to obtain applicants' and agents' evaluations of patent examination including the trial survey.

(1) Examination procedure

The interviewees' evaluations of the examination procedure were almost the same as those obtained in the trial survey.

The interviewee pointed out that the following four factors were especially important in determining their evaluations of the way a notification of reasons for refusal was written: whether the notification refers to "the specific sources of the cited documents," "the reasons for the lack of an inventive step," "the reasons of for imperfection of the application," and "the evidence for the existence of a well-known art or design."

Furthermore, the interviewees responded that the following three factors were especially important in determining their evaluations of the JPO's manner of handling customers in interview or by telephone or fax: "The reasons for rejecting a request for an interview," "An examiner's attempt to contact customers," and "The record of an interview."

This interview survey allowed us to understand in detail what factors would determine the level of customer satisfaction with the examination procedure.

(2) Survey method

Most interviewees evaluated this trial survey as "Appropriate in general." Regarding a survey method, most interviewees mentioned that they did not have a strong preference about a survey method, while some of them preferred a digital-format survey or a web-based survey.

As the results of the trial survey showed, some interviewees complained that they found it "difficult to prepare answers" to the questions that required them to identify the application numbers of the applications that they considered to have been examined appropriately α r inappropriately. Furthermore, many interviewees suggested that any cases where the applicant failed to respond to a notification of reasons for refusal and where an examiner decided to grant a patent without sending a notification of reasons for refusal should not be subject to the survey.

Regarding the survey method, many interviewees requested more opportunities to exchange opinions directly with the JPO and an option of selecting cases of patent examination by themselves to state their opinions.

V Analysis of Issues Concerning a Quality Management System that Takes into Consideration the "Evaluations by Applicants and Agents"

Applicants' and agents' evaluations of patent examination, which function as the "evaluations by outsiders," would significantly enable the JPO not only to directly monitor customer satisfaction with the quality of patent examination but also to measure and improve the effectiveness of the quality management system. Many patent offices in other countries have recognized the importance of such a system and have begun to make efforts to establish and improve their quality management systems. The JPO is also needed to create a system that allows

the JPO to obtain applicants' and agents' evaluations effectively and sufficiently.

(1) System to obtain "applicants' and agents' evaluations"

(i) Survey method

Some foreign patent offices conduct a telephone survey or a web-based survey. These survey methods require the patent office to contact the target applicants and agents several times, causing additional work for the patent office. Currently, the questionnaire-mailing method is considered to be the simplest way to conduct a survey.

It may be convenient for respondents that they can select the way to respond to the survey either by handwriting or by electronic means. For example, the questionnaires mailed to the applicants and agents subjected to a survey indicate a website address allowed to download the questionnaire in a digital format.

(ii) The types of people and individual cases subject to the survey and the scale and the frequency of the survey

This trial survey was conducted on both applicants and agents, as is the case with the surveys conducted by many foreign patent offices. The survey results revealed that it was important to check both applicants' and agents' evaluations of various aspects of patent examination. The more questions sent to applicants share with those sent to agents, the easier to compare and analyze their responses.

The questions about individual cases of examination were beneficial in that we could understand the grounds for applicants' and agents' evaluations based on a particular case of examination. However, since the respondents referred to specific patent applications, they pointed out the need to keep their responses a secret. Their concerns deserve careful consideration.

Some respondents mentioned that they found it rather difficult to select specific cases by themselves to make a point and that it would be easier for them to make comments if the JPO selects specific cases for them in advance.

While the questionnaire contained questions about individual cases of patent examination, this trial survey was conducted about four months after the completion of the examination of the patent applications subject to the survey. Despite this time lag, most respondents found the timing of the survey "Appropriate." However, we believe that questionnaires should be sent as soon as patent examination is completed because applicants and agents tend to dispose of related documents or lose an accurate memory as time goes by.

If possible, a response period of one month or longer should be given to respondents because some of them might have rather many individual cases subject to the survey.

The EPO prepares Joint Cluster (JC)-specific questionnaires, inserting technology-specific questions into each questionnaire. The possibility of introducing such a survey method should be considered into the JPO's future survey.

The scale of the survey should be determined in consideration of the expected response rate as well as the type of analysis, such as technology-specific analysis, scheduled to be conducted based on the survey results. The response rate of the trial survey was extremely high in comparison with the rates disclosed by some foreign patent offices. The continuous efforts should be made to maintain such a high rate.

The frequency of the survey does not have to be so high because outsiders' evaluations of patent examination do not change greatly within a short period of time. The survey should be conducted at a regular interval determined in consideration of the frequencies of the surveys conducted by foreign patent offices, requests from applicants and agents, burdens on respondents, etc.

(iii) Utilization, publication, and feedback of the survey results

Many applicants and agents subject to this trial survey and interview survey requested feedback of the survey results. Most of them expressed deep concern over "careless handling of security." Many foreign patent offices said that they especially paid careful attention to security. From the perspective of confidentiality protection, the survey results that could lead to the identification of individual cases of patent examination should not be publicized. Feedback should be limited to statistical data about the survey results. Careful handling of data would prevent identification of individual applications or respondents and encourage applicants and agents to respond to a survey without worrying about any negative effect on subsequent examination of their applications.

(2) Questionnaire for the trial survey

(i) Comparison between overall evaluations and case-specific evaluations

Respondents' evaluations of the way the first notification of reasons for refusal were written were higher than those of the recent patent examination as a whole, indicating that their overall evaluations were not necessarily the same as their case-specific evaluations. Their overall evaluations could be influenced by their evaluations of some individual cases that left a strong impression on them. This influence should be taken into consideration in the analysis of the survey results.

(ii) Comparison between the evaluations given in the trial survey and those given in the interview survey

Respondents' overall evaluations given in the trial survey differed from those given in the interview survey due to the difference in the number of respondents between the two surveys. Since an interview survey helps us understand the real intentions of respondents, an interview survey should be conducted to supplement the data from a questionnaire-mailing survey.

(iii) Comparison between the evaluations made by applicants and those made by agents When asked about a specific case of patent examination, both the applicant and agent gave almost the same evaluations on the way a notification of reasons for refusal and a notification of examiner's decision of refusal were written. There were, however, some areas where their evaluations did not match. Since applicants and agents have different perspectives in some respects, the two groups might have different needs concerning patent examination. Therefore, a survey should be conducted on both groups.

(iv) Questionnaire to measure overall evaluations of patent examination, international search, etc.

If the questionnaire contains any question to measure the respondent's overall evaluations, a questionnaire may be needed to state clearly whether the respondent is expected to give answers on a staff level or on a company-wide level.

If the questionnaire contains any question that requires the respondents to include specific patent application numbers in their answers, we should give a prior notice of survey to alleviate the burdens on them because many respondents of the trial survey and interview survey expressed their concerns about the "trouble of identifying the application numbers."

The responses to the questions to measure applicants' and agents' satisfaction with patent examination revealed that they considered the following four especially important: "Accurate prior art search," "Uniform decision that does not vary by examiner," "Notification of reasons for refusal written in an appropriate manner," and "Technical understandings examiners." It would be beneficial to conduct a further survey specifically on these factors in order to analyze in more detail the levels customer satisfaction with examination in general and individual cases of patent examination.

(v) Questionnaire to measure customer satisfaction with individual cases of patent examination

Many respondents of the trial survey and interview survey suggested that any cases where the applicant failed to respond to a notification of reasons for refusal and where an examiner decided to grant a patent without sending a notification of reasons for refusal should not be subject to the survey. However, some comments made respondents about these particular cases were beneficial. If these cases are subjected to the survey, a questionnaire will be needed to contain questions such as respondents will be able to answer easily.

Regarding the questions to measure customer satisfaction with the way a first notification of reasons for refusal and a notification of examiner's decision of refusal were written, most respondents who could not perceive the reasons in the written notification chose answers from the options provided, indicating that these options were appropriate.

Regarding the questions about suggestions for amendments, we should have distinguished suggestions given in interview or by telephone or fax from those given in a notification of reasons for refusal and devised questions specifically for each type of suggestion in order to ensure easier and more effective analysis.

The questions concerning examiner's decision to grant patent were free-answer questions. It might be beneficial to devise multiple-choice questions based on the opinions presented in the trial survey.

Regarding the questions to compare individual applications subject to this survey with the corresponding applications filed with foreign patent offices, most of the answers were sent from applicants. This was probably because agents who had been involved only in nationally-filed applications found it difficult to answer such questions. Some interviewees subject to the interview survey pointed out that a simple comparison between an application filed in Japan and the corresponding application filed in another country in terms of the scope of claims would be meaningless because the two applications do not necessarily contain

the same claims. In order to make an accurate comparison, the cases where corresponding patents have been filed with foreign patent offices should be carefully selected for enough statistic population as individual cases subjected to the survey.

(3) Others

Since the JPO is expected to make reliable examination results available to foreign patent offices, a survey should be conducted on foreign applicants as well in order to measure their satisfaction with JPO patent examination. To obtain their evaluations, it is an effective way to conduct a survey on agents who handle applications from other countries or on applicants via these agents.

(4) Conclusion

The trial survey enjoyed exceptionally high response rate despite the fact that the survey was conducted by mailing questionnaires containing freeanswer questions. This high rate suggests that applicants and agents recognize the need for a customer satisfaction survey. It is therefore important to conduct such a survey on a regular basis, while making efforts to further improve the questionnaire based on findings from $_{
m the}$ analysis examination carried out in this survey research.

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