1 Desirable fee system and description requirement for claims (*)

With the globalization of economy, there has been an increase in the number of cases where an inventor files patent applications for the same invention in many countries. However, since the description requirement varies from one country to another, the users are considered to be required to prepare claims in accordance with the requirements of each country. Furthermore, since each country has a different fee system for claims, the number of claims acceptable to users, cost-wise, could differ from one country to another. Consequently, it is quite likely that the global patent acquisition procedure has become increasingly complicated and expensive.

This research project was carried out in order to analyze the users' needs for international harmonization of the description requirement and fee system for claims and to collect information on the systems in other countries in order to provide a basis for discussions as to how to promote international harmonization. As a part of this research project, we conducted a questionnaire survey and an interview survey on domestic companies, universities, patent firms, etc. and also an interview survey on foreign IP Offices and foreign companies, etc. in other countries. We established a committee for this research and had the committee members discuss the findings of these surveys.

Ⅰ Introduction

1 Background and purpose of this research project

With the globalization of economy, there has been an increase in the number of cases where an inventor files patent applications for the same invention in many countries. It would be desirable for users to be able to easily obtain patents on a global scale at low costs. However, since the description requirement for claims currently differs from one country to another, users are expected to prepare different claims in accordance with the requirements of each country. Furthermore, since each country has a different fee system for claims, the number of claims acceptable to users, cost-wise, could differ from one country to another. Consequently, it is quite likely that the global patent acquisition procedure has become increasingly complicated and expensive.

Therefore, it would be important and meaningful to make it simpler and cheaper for users to file patent applications in foreign countries and also to discuss how to promote international harmonization of the description requirement and fee system for claims in order to promote global patent acquisition activities.

In this research project, we analyzed the users' needs for international harmonization of the description requirement and the system for claims and collected information on the systems in other countries in order to provide a basis for discussions as to how to promote international harmonization.

2 Method of this research

(1) We established a committee consisting of a total of six persons, namely, one person with knowledge and experience relevant to this research, four persons from IP departments of companies and one patent attorney. The committee held a meeting four times in order to discuss related issues by having committee members examine and analyze the issues and give advice from the perspective of experts.

(2) We examined, organized and analyzed literature useful for this research and collected information on major countries including Japan by using statistics, books, academic papers, research papers, Council's reports, online information, etc.

(3) We conducted a domestic questionnaire survey in order to collect information about users' needs for international harmonization of the description requirement and fee system for claims. For this survey, we selected 242 private companies that file a large number of foreign applications (including 30 small-and-medium-sized businesses (SMBs)). In addition, we selected 21 universities that file a large number of PCT (Patent

(*) This is an English summary by Institute of Intellectual Property based on the FY2013 JPO-commissioned research study report on the issues related to the industrial property rights system.

Cooperation Treaty) applications and 50 patent firms that handle a large number of applications in foreign countries. In total, 313 organizations were subject to this questionnaire survey, of which 157 organizations responded (Response rate: 50.2%).

(4) We conducted a domestic interview survey with reference to the results of the domestic questionnaire survey in order to examine the users' needs in more detail based on the results of the domestic questionnaire survey. The interview survey was conducted on 15 private companies (including two SMBs), three universities and two patent firms.

(5) We conducted an interview survey on the USPTO, EPO and KIPO with regard to the historical background and current state of the existing description requirement and fee system for claims. Also, we conducted an interview survey similar to the domestic interview survey on a total of 12 organizations (six organizations in Europe, three in the U.S., two in China and one in South Korea) such as companies and patent firms that file a large number of applications and other procedural documents with major IP Offices.

Ⅱ Description requirement and fee system for claims of other countries and institutions

We made a comparison between Japan, Europe, the U.S., China, South Korea and PCT in terms of the current description requirement for claims as well as the unity of invention. Regarding the forms of description for claims, Europe and China recommend the use of the two-part form, which describes the "preamble" part separately from the "features" part. No restrictions are imposed in Japan and South Korea. The U.S. does not impose any restrictions either, but uses some customary forms of expressions. While each country accepts multiple dependent claims, only Japan and Europe accept multiple-multiple dependent claims. Regarding the unity of invention, the related legal provisions in Japan, Europe, China and South Korea are basically similar to the related provisions of the PCT. However, the legal provisions in the U.S. are slightly different from those of the PCT.

We made a comparison between Japan, Europe, the U.S., China and South Korea in terms of the patent application fees and found that each country has the following characteristics: Japan and South Korea have a system of charging an additional fee for every claim in addition to the examination fee and the patent fee; The U.S. has a system of charging an additional fee for each independent claim after the number of independent claims surpasses three, a system of charging an additional fee for the use of a multiple dependent claim, and a system of collecting patent fees in three installments; Europe has a system of collecting an application maintenance fee and charging an additional fee for each claim based on the number of excess claims, while the fee is designed to increase in two stages; and China has a system of calculating patent fees at the time of application filing.

Ⅲ Foreign applications

1 Results of the domestic questionnaire survey

The largest percentage (69.6%) of respondents said that, in the case of a typical foreign application, they file an application in three to five countries. Some pharmaceutical companies said that they file foreign applications in 20 countries or more. The U.S. (66.2%) and China (19.9%) were the two top countries (regions) where the respondents filed the largest number of applications including the PCT applications that entered the national phase.

2 Results of the interview survey

In the interview survey on domestic companies, most of the respondents said that they have already increased the number of applications filed in foreign countries or that they would continue to do so. Universities are selectively filing applications in foreign countries due to budgetary restraints. All of the three European companies that were subject to our interview survey in foreign countries said they consider foreign applications very important.

Ⅳ Summary of the responses from users

In this research project, we conducted a domestic questionnaire survey, a domestic interview survey, and an interview survey in foreign countries to collect information on the

following eight items that should be discussed from the perspective of international harmonization.

"Item 1: Restrictions in terms of form of description of claims," "Item 2: Restrictions in terms of form of citation of claims," "Item 3: Other restrictions in terms of expressions of claims," "Item 4: Differences among countries as to the treatment of unity of invention," "Item 5: Subject matters eligible for patent protection (Reasons for not granting a patent)," "Item 6: Differences among countries as to the patentability requirements other than novelty, inventive step and disclosure, and description requirements other than those related to claims such as the support requirement," "Item 7: Differences among countries as to fee systems related to claims," and "Item 8: Other problems with patent systems."

We asked the respondents to choose up to three items that they find problematic when filing foreign applications. The item chosen by the largest number of respondents was Item 2 (73.2%), followed by Item 4 (49.0%), Item 6 (27.4%), Item 7 (24.2%) and Item 1 (19.1%). An industry-specific analysis of the ratio of selecting each item has revealed that most of the pharmaceutical companies chose Item 5, which shows the great difference between industries in terms of the level of awareness.

Ⅴ Restrictions in terms of form of description of claims (Item 1)

1 Domestic questionnaire survey

The number of respondents who said that the two-part form is problematic was relatively small (16.6% of all the respondents) in comparison with other items. Many of the respondents who chose "the interpretation of the preamble part as prior art (58.8% of the respondents) said that the two-part form could become very problematic depending on the case and should be regarded as very problematic in terms of quality. Regarding the Markush-type claims, a small percentage of the respondents found them problematic (13.3% of all the respondents), while many of them found such claims very problematic in terms of quality. Many respondents requested international harmonization of the forms of description of claims (53.3% of the respondents) and the narrowing of the difference among countries (30.0% of the respondents). Many respondents said that not only the two-part form but also all forms of description of claims should be made permitted (56.7% of the respondents).

2 Results of the interview survey

In the domestic interview survey, many respondents said that the issue of two-part form is not so problematic either quantitatively or qualitatively. However, some respondents pointed out that it would be difficult to prepare two-part claims depending on the nature of the invention. On the other hand, some respondents said that, since the preamble part is sometimes interpreted as prior art at the time of exercising rights or in the phase of USPTO examination, it is necessary to prepare claims with great care. Regarding Markush-type claims, some respondents said that embodiments are required in China in some cases. Five out of the seven respondents who chose Item 1 said that it would be desirable to abolish the restrictions on the form of description so as to allow the preparation of uniform claims.

In an interview survey conducted in Europe, some respondents supported the two-part form, by saying that it would facilitate the understanding of patents. Some other respondents opposed the two-part form, by saying that the two-part form is not appropriate in some cases.

3 Direction of international harmonization

One of the forms of description of claims, the two-part form, tends to be subject to a high risk of inappropriate interpretation of claims such as the interpretation of the preamble part as prior art. For this reason, the international harmonization of interpretation of the rights granted based on two-part claims has been requested. Furthermore, it would be inappropriate to adopt the practice of requiring a rewrite of claims into two-part claims. Also, it would be desirable to harmonize examination practices in terms of whether the preamble part should be regarded as prior art. In the case of Markush-type claims, which cause such problems as limited interpretation in connection with embodiments, the harmonization of the disclosure requirement has been requested.

Ⅵ Form of citation of claims (Item 2)

In this research project, we collected information about (i) restrictions on multiple-multiple dependent claims, (ii) China's

restrictions on the dependence on multiple independent claims, and (iii) the EPO's restrictions on the number of independent claims within the same category

1 Domestic questionnaire survey

- Restrictions on multiple-multiple dependent claims

More than half of the respondents said that multiple-multiple dependent claims should be accepted in countries that currently do not accept such claims (53.0% of the respondents). However, many respondents said that the acceptance of such claims would be convenient, though not indispensable (39.1%). Less than 20% of the respondents (16.3%) said that the refusal of multiple-multiple dependent claims is very problematic in many cases and requires a drastic rewrite. Many respondents (59.6%) said that the refusal of multiple-multiple dependent claims would not be so problematic quality-wise.

- China's restrictions on the dependence on multiple independent claims

Many respondents (31.7% of the respondents) said that such restrictions cause problems in some cases and become very problematic quality-wise because it necessitates a drastic rewrite, etc. Also, many respondents pointed out the risk that such restrictions could affect the scope of rights (the narrowing of the scope of rights).

- The EPO's restrictions on the number of independent claims within the same category

Some respondents (39.1% of the respondents) requested the abolishment of such restrictions, by saying that such restrictions are often problematic because they have to make an amendment, file divisional applications, etc. after receiving a notice of reasons for refusal. Some other respondents (37.4%) said that, although they have not received any notice of reasons for refusal, it would be desirable to abolish such restrictions. This shows that many respondents are aware of this issue and find such restrictions very problematic quality-wise because it necessitates a drastic rewrite, etc. (46.6%). Also, many respondents pointed out an increase in the costs due to the filing of divisional applications.

- International harmonization of forms of citation of claims

Some respondents requested international unification of forms of citation (73.9% of the respondents) and the narrowing of the difference among countries (20.9%). This shows that many respondents hope to see international harmonization. Regarding the future direction of international harmonization, respondents requested the abolishment of the restrictions on forms of citation (55.7%), the abolishment of restrictions on multiple-multiple dependent claims (54.8%), the abolishment of the EPO's restrictions (42.6%), the abolishment of China's restrictions and the improvement of treatment in Europe and the U.S (35.7%) (multiple answers). This shows that the respondents had various needs.

2 Results of the interview survey

- Restrictions on the multiple-multiple dependent claims

Many respondents said that they use multiple-multiple dependent claims in countries that accept such claims. A small number of respondents said that they do not use such claims. The respondents who need to use multiple-multiple dependent claims (4 out of 20 respondents) showed their concern that restrictions on such claims would increase the number of claims and would consequently raise the costs. Among the respondents of this interview survey, 2 out of the 4 respondents who responded that multiple-multiple dependent claims are indispensable and 7 out of the 8 respondents who responded that the acceptance of such claims would be convenient but not indispensable said that restrictions would not cause serious problems as long as any problems related to fees, amendments and international harmonization are solved.

In an interview survey conducted in Europe, respondents said that one of the merits of the use of multiple-multiple dependent claims is the capability to express a wide range of extensive combinations. All of the respondents said that the use of such claims makes it easier to understand inventions as a group. On the other hand, a patent firm in South Korea said that the use of such claims makes it difficult to understand the scope of rights. A patent firm in the U.S. said that multiple-multiple dependent claims are not

particularly necessary under the U.S. system. In China, respondents said that multiple-multiple dependent claims are sometimes intentionally used in order to reduce application costs by decreasing the number of claims.

- China's restrictions on the dependence on multiple independent claims

In the domestic interview survey, some respondents showed their concern that such restrictions would narrow the scope of rights. Also, some respondents said that such restrictions should be abolished because their occasional dependence on multiple independent claims necessitates the filing of divisional applications in some important cases, which results in an increase in the costs.

European Company said that the restrictions would prevent simplification of claims and could result in the payment of unnecessary costs if the filing of divisional applications becomes necessary. A patent firm in South Korea expressed its concern that such restrictions would narrow the scope of rights.

- EPO's restrictions on the number of independent claims within the same category

In the domestic interview survey, some respondents said that such restrictions would be problematic because it would necessitate the filing of divisional applications and would consequently increase the costs. They said that such restrictions should be abolished. On the other hand, many respondents said that such restrictions have not caused serious problems.

In the interview survey in Europe, respondents pointed out some merits, by saying that such restriction would make it easier to understand patents as a group and prevent claims from becoming too complicated. On the other hand, respondents pointed out some demerits by saying that the filing of divisional applications would be required even if many independent claims need to be placed in the same category.

3 Direction of international harmonization

- Restrictions on multiple-multiple dependent claims

From the perspective of global patent acquisition, multiple-multiple dependent claims have not been actively used nowadays. The active use of such claims would bring about such merits as acquisition of comprehensive rights. However, such merits should be regarded not as enormous but as merely convenient. From the perspective of global patent acquisition, if every country accepts the same form of citation, the related costs would decrease as a result. Therefore, it is considered that there is a great need for international harmonization of the handling of multiple-multiple dependent claims. However, in this research project, the number of respondents who said that multiple-multiple dependent claims should be accepted internationally was not necessarily high. Therefore, as a possible direction of international harmonization, restrictions may be imposed on multiple-multiple dependent claims. When pursuing international harmonization, it would be necessary to discuss comprehensive issues such as the possibility of increasing the freedom of amendment by relaxing the amendment requirements.

- China's restrictions on the dependence on multiple independent claims

In the domestic interview survey, some respondents said that such restrictions in China would increase the costs and become greatly problematic. Also, in the questionnaire survey, many respondents found such restrictions very problematic quality-wise. The discussion on the future direction of international harmonization should cover this issue of China's restrictions.

- EPO's restrictions on the number of independent claims within the same category

In the domestic interview survey, some respondents said that, since this issue related to the EPO sometimes requires the filing of divisional applications, many respondents found it very problematic cost-wise. Also, in the questionnaire survey, many respondents said that this issue is very problematic quality-wise. The discussion on the future direction of international harmonization should cover this issue of EPO's restrictions.

Ⅶ Other restrictions (Item 3)

1 Domestic questionnaire survey

Only a small number of respondents chose Item 3 (10.8%). More specifically, respondents said "Claims were refused because they contained

vague or relative expressions" (64.7% of the respondents), "Claims were refused because they contained indirect expressions such as parameters" (52.9%), and "the failure to describe in the claims all of the technologically indispensable features of an invention was sometimes found problematic" (41.1%). Many of the respondents who chose this item found this issue very problematic, although the actual number of such respondents was small. In particular, many respondents pointed out problems with regard to the examination practices in China.

2 Results of the interview survey

In the domestic interview survey, some respondents said that, since the EPO sometimes requires a statement of reference numbers of the forms of embodiments, it would be necessary to request improvement of the operational practice because the scope of rights could be limited to the embodiments when the rights are exercised. Some other respondents said that, since China, which very strictly limits claims to embodiments, would not accept any claims that do not contain the description of embodiments and would limit the scope of rights, improvement to the operational practice should be requested.

3 Direction of international harmonization

As far as the restrictions in terms of expressions of claims are concerned, since the issue lies not in the difference of laws or regulations but in the difference of examination practices between countries, it would be desirable to pursue harmonization of examination practices.

Ⅷ Treatment of unity of invention (Item 4)

1 Domestic questionnaire survey

Many respondents said that they have such specific problems as "In the U.S., due to the restriction requirement, they are forced to file divisional applications or select claims" (77.9% of the respondents) and "the significant difference in the utility judgment criteria between countries" (40.3%). More than half of the respondents who chose either of these two answers consider it very problematic quality-wise. This indicates that the respondents are aware of the importance of the issue of utility of invention. Some respondents pointed out that, if they commit a violation of the requirement of the unity of invention, it would result in the narrowing of the scope of rights and an increase in the related costs as a result of the filing of divisional applications. Most of the respondents hope to see international harmonization (59.7% of the respondents) or a less strict treatment (29.9%). The answer most frequently chosen by respondents is " compliance with the PCT" (63.6% of the respondents), followed by " improvement of the treatment in the U.S." (18.2%).

2 Results of the interview survey

In the domestic interview survey, many respondents requested improvements to the restriction requirement and election requirement imposed in the U.S. They requested less strict treatment in the U.S. and compliance with the PCT. They said that the filing of divisional applications would be very problematic because it would increase the procedural as well as monetary burdens. Some respondents said that universities are having difficulty newly filing divisional applications due to budgetary constraints. European companys found it problematic because they often receive notifications of the restriction requirement and the election requirement in the U.S. Also, a patent firm in South Korea said they often receive notifications of the restriction requirement and the election requirement. A patent law firm in Europe said that the very strict EPO restrictions on the number of independent claims within the same category requires the filing of divisional applications due to a violation of unity of invention.

3 Direction of international harmonization

In the domestic questionnaire survey, more than half of the respondents who find this issue problematic said "very problematic." Also, in the domestic interview survey, most of the respondents said that this issue is problematic in terms of the procedural and monetary burdens caused by the filing of divisional applications. This indicates that the treatment of unity of invention is an important issue that should be covered in the discussion about international harmonization. Regarding the treatment of unity, many respondents pointed out issues related to

the treatment of unity in the U.S. This suggests that the treatment of unity in the U.S. should be enhanced in such a way that it will comply with the PCT.

Ⅸ Subject matters eligible for patent protection (Item 5)

1 Domestic questionnaire survey

A small number of respondents said that there are some problems with regard to the subject matters eligible for patent protection (14.0%). Many respondents said that "they are unable to prepare uniform claims because the subject matters eligible for patent protection differ from one country to another" (68.2% of the respondents). Many pharmaceutical and chemical companies pointed out problems and found this issue very problematic because it necessitates a drastic rewrite, etc. Many respondents requested international harmonization.

2 Results of the interview survey

In the domestic interview survey, three respondents (in the pharmaceutical and chemical fields) who chose Item 5 pointed out the difference in the treatment of use claims between countries. They found it very problematic that each country treats use claims differently. For example, in the U.S., a second use claim is not permitted for any product. In Japan, a second use claim is not permitted for any medical treatment. In Europe, a second use claim must be made for an invention of a product. Respondents said that the treatment should be harmonized among PCT Contracting States to a certain extent.

3 Direction of international harmonization

In both the domestic questionnaire survey and the domestic interview survey, respondents found the issue of subject matters eligible for patent protection very problematic in the pharmaceutical and chemical fields. This issue is likely to have great effects on the registration and exercise of rights. It is necessary to discuss this issue in order to harmonize the difference in treatment between countries. We hope that more concrete measures will be taken in the future.

Ⅹ Other patentability requirements and description requirements other than those related to claims

1 Domestic questionnaire survey

Regarding this item, many of the respondents chose "novelty and inventive step" (69.8% of the respondents) and "support requirement" (65.1%) (multiple answers). A large number of respondents said that the difference in patentability requirements is more problematic than the difference in description requirements and fees (27.9%). Regarding novelty and inventive step, many respondents said that they have faced problems in China and the U.S. Regarding the support requirement, most respondents found China's practice of limiting claims to embodiments problematic.

2 Results of the interview survey

In the domestic interview survey, many respondents considered it problematic that there is a great difference between Japan and the U.S. in terms of the judgment criteria for novelty and inventive step. Regarding the support requirement, many respondents said that China's practice of limiting claims to embodiments is too strict and that it could lead to a narrow interpretation of the scope of rights when exercising the rights. Regarding the U.S., some respondents said that the criteria for the fulfillment of the support requirement are too relaxed and they are greatly different from the Japanese criteria. A European electric company said that, regarding the support requirement, China's strong requests for embodiments could limit the scope of rights.

3 Direction of international harmonization

In the domestic questionnaire survey and the domestic interview survey and the foreign interview survey, many respondents pointed out the significance of this issue. With the advancement of globalization, it would increase the burdens on applicants to take different measures for each country even if the same description and the same claims are filed for the same invention in a multiple number of countries. It would be desirable to promote international harmonization of the judgment criteria and method for novelty and inventive step and the

judgment criteria for the fulfillment of the support requirement by narrowing the difference in judgment between countries, not at the level of laws and regulations, but at the level of operational practices.

XI Fee systems related to claims (Item 7)

1 Domestic questionnaire survey

Regarding the U.S. patent prosecution system, the problem most frequently pointed out by respondents (69 out of 157 respondents) is "additional fees for multiple dependent claims" (about 44% of all of the respondents), which is followed by "additional fees for excess independent claims" (39 out of 157 respondents) (about 25% of all of the respondents). Regarding the EPO's patent prosecution system, many respondents said that "the application maintenance fee is problematic" (103 out of 157 respondents) (about 66% of all of the respondents) and "fees are high in general" (87 out of 157 respondents) (55% of all of the respondents). Regarding the U.S. patent fee system, it would be desirable if fees can be paid on an annual basis and if the basic fee is reduced from the current level (81 out of 157 respondents) (about 52% of all of the respondents). Regarding China's patent fee system, many respondents said that "it would be desirable to calculate patent fees at the time of registration as is the case in other countries" (58 out of 157 respondents) (about 37% of all of the respondents).

2 Results of the interview survey

In the domestic interview survey, regarding the fees charged in the course of patent prosecution, many respondents requested that Japan should introduce a system of charging a fixed rate unless the number of claims passes a certain threshold. Also, many respondents pointed out such problems as various additional fees charged in the U.S. and the expensive application maintenance fee and generally high costs in Europe. Regarding patent fees, many respondents requested the U.S.'s permission for annual payment of patent fees and China's calculation of patent fees not at the time of application filing but at the time of registration.

In the interview survey in foreign countries, some respondents said that the establishment of a uniform system would be desirable, while some other respondents said that they do not pay much attention to fee systems because the total costs are more important. Regarding the U.S., some respondents said that the three-stage payment of patent fees is desirable because it reduces procedural burdens, while some other respondents said that the permission of annual payment would be more desirable. Many respondents pointed out that the application maintenance fee in Europe is problematic and that various fees are expensive in Europe.

3 Direction of international harmonization

Various opinions were submitted with regard to a desirable fee system. It is difficult to determine which system is the best. Comprehensive discussions would be necessary based on the various opinions from the interested parties in consideration of the possible effects that the change in the fee system would have on the number of claims and the number of applications, the costs for patent administration activities such as patent examination, the possible effects that the description requirements described in Chapters IV to X would have on the number of claims and the number of divisional applications, and the influence mutually produced by those effects and the fee system on the amount of costs shouldered by the applicants. It would be desirable to request a reconsideration of both the application maintenance fee in Europe and the additional fees charged for multiple dependent claims in the U.S.

XII Overview of international harmonization

1 International harmonization in general

Regarding international harmonization, domestic users could take either of the following two approaches: they could seek international harmonization even if the description requirement becomes stricter in Japan, like in other countries, or they could stop seeking international harmonization to avoid such a negative effect. However, it is difficult to determine which approach is more reasonable in the end because the goal of international harmonization varies depending on which perspective you take. For example, if the issue of international harmonization is discussed from the perspective of "unity," the latter approach would be more appropriate since many users hope to

see the restrictions in the U.S. relaxed to the level of other IP Offices including the JPO. On the other hand, the former approach would be more appropriate if the issue of international harmonization is discussed from the perspective of "multiple-multiple dependent claims" since domestic users hope to see harmonization of systems even if restrictions become stricter.

Meanwhile, in the domestic interview survey, most respondents said that international harmonization is necessary because industrial globalization will continue. A relatively large number of respondents were aware of the inevitability of suffering a certain degree of inconvenience as a result of international harmonization because stricter restrictions would be enforced in Japan. Many respondents said that, if an internationally harmonized system is established, it would not be difficult for them to comply with it and that the use of such a uniform system would be more desirable than the continuous use of the current non-uniform systems. Some respondents pointed out that, if only Japan is forced to make compromises, it would damage its national interests and therefore that international harmonization should be pursued with a clear awareness as to what compromises Japan would make and what compromises Japan would request other countries to make.

Therefore, it is important to discuss how to pursue international harmonization in consideration of the users' opinions that stricter restrictions would be inevitable and that Japan's national interests need to be protected to a certain extent.

2 Necessity for international harmonization

The results of the questionnaire survey have revealed that priority should be given to the international harmonization of "multiple-multiple dependent claims," which is covered by the item "Restrictions in terms of form of citation of claims," which was chosen by the largest number of respondents.

In the questionnaire survey, the "treatment of unity" was the item chosen by the second largest number of respondents. The percentage of respondents who found this item very problematic was larger than the percentage of respondents who found "multiple-multiple dependent claims" very problematic. In the interview survey, many respondents also requested international harmonization. Therefore, "treatment of unity" should be given the same level of priority as that given to "restrictions on multiple-multiple dependent claims."

In the questionnaire survey, "Differences among countries as to the patentability requirements and description requirements other than those related to claims such as the support requirement" was the item chosen by the third largest number of respondents. The total number of respondents who chose this item became high because this item covers various elements. In the interview survey, some respondents said that they found it difficult to choose this item in consideration of the purpose of this research. This suggests that, in order to discuss the issue of international harmonization from the perspective of this item, it would be necessary to conduct another research project from a viewpoint different from the one adopted for this research. However, it would be necessary to conduct further discussions on this item because respondents showed a certain level of awareness about the related issues despite the fact that the subject matter of this research is "claims."

The item "Restrictions in terms of form of description of claims" was chosen by the fifth largest number of respondents, which accounts for one-fifth of the total number. Therefore, this item should be given low priority in this research project because this item is often about matters of formality and is relatively easy to deal with.

Regarding the item "Details on the subject matters eligible for patent protection," priority should not be determined because this research project covers the users as a whole. Since this research project has revealed that pharmaceutical companies and chemical companies find this issue very problematic, separate discussions would be necessary. Since this research project has revealed that respondents support international harmonization, specific measures should be taken on this issue.

The item "Other restrictions in terms of expressions of claims" was chosen by the smallest number of respondents in this questionnaire survey and should therefore be regarded as low in priority.

To achieve the international harmonization of systems, no country should be forced to make compromises unilaterally. It is necessary for every country to make necessary adjustments to achieve such harmonization.

Regarding the item "Fee systems related to claims," comprehensive discussions should be made in consideration of the effects of any change

to the fee systems on the number of claims and the number of applications from the perspective of the cost of patent administration activities such as patent examination.

3 Conclusion

There are several approaches to pursuing international harmonization. For example, Japan might choose to bring its systems in line with those of the U.S. and China, where many applications are filed from Japan. If a small number of IP Offices are using unique systems different from those of the majority of IP Offices, those minority IP Offices might choose to bring their systems in line with those of the majority IP Offices.

When it comes to multiple-multiple dependent claims, such claims are not accepted in the U.S. and China, where many applications are filed from Japan. Some people are concerned that the adoption of multiple-multiple dependent claims would make it difficult to grasp the combinations of claims in detail and would increase the burden of examination. Also, many people have pointed out that the active use of multiple-multiple dependent claims would bring about such merits as the acquisition of comprehensive rights, although such merits should be regarded not as enormous but as merely convenient. On these grounds, it would be reasonable to choose the former approach and to introduce restrictions on multiple-multiple dependent claims in Japan, like in the U.S. and China, from the perspective of global patent acquisition.

On the other hand, regarding the treatment of unity, the systems in Japan, Europe, China and South Korea emulate the PCT, while the U.S. system is different from the PCT and is capable of imposing the restriction requirement and the election requirement. In this respect, many respondents pointed out problems in the domestic questionnaire survey, the domestic interview survey and the foreign interview survey. Therefore, to carry out international harmonization from the perspective of unity, the latter approach should be taken. In other words, the U.S. should bring its system in line with the PCT, like the systems of Japan, Europe, China and South Korea.

Regarding the items other than multiple-multiple dependent claims and unity, it may be summarized as follows.

Regarding the two-part form, which is one of the description forms of claims, it would be desirable to pursue international harmonization from the perspective of whether the preamble part can be regarded as prior art or not. Regarding Markush-type claims, some people are concerned about such problems as limited interpretation in connection with embodiments. Therefore, harmonization of disclosure requirements for descriptions would be necessary.

Moreover, with regard to China's restrictions on the dependence on multiple independent claims and the EPO's restrictions on the number of independent claims within the same category, the relaxation of those restrictions would be desirable.

In the pharmaceutical and chemical fields, in particular, it is necessary to discuss international harmonization of the handling of the subject matters eligible for patent protection. The necessity for international harmonization was already pointed out in a past research project. We hope that specific measures will be taken with regard to this issue.

It would be desirable to promote international harmonization of the judgment criteria and method for novelty and inventive step and the judgment criteria for the support requirement by narrowing the difference in judgment between countries, not at the level of laws and regulations but at the level of operational practices.

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