

---(Slide 0)---Welcome to the lecture on "Inventive Step."



---(Slide 1)---

Here is the outline of this lecture.

- 1. Overview of Inventive Step
- 2. Procedure of evaluating Inventive Step
- 3. Examination Guidelines in JPO



---(Slide 2)---

First, let's look at the overview of inventive step.



---(Slide 3)---

According to the PCT Guidelines, if the claimed invention is not obvious to a person skilled in the art based on the details of the prior art, the invention is determined to involve an inventive step.

There are three important keywords for determining inventive step: "prior art," "obviousness," and "a person skilled in the art."

Please refer to the text on "Novelty" for a description of what "prior art" is. In this lecture, I will explain the terms "a person skilled in the art" and "obviousness."

First, let me explain "a person skilled in the art."

The PCT Guidelines define a person skilled in the art as "a hypothetical person presumed to have average knowledge and ability of the technology related to the invention and to be aware of what was common general knowledge in the art as of the standard date of the claimed invention."

The term "standard date" as used here refers to the international filing date or priority date of the claimed invention.

The next keyword is "obviousness." The PCT Guidelines consider an invention to be obvious if a person skilled in the art is motivated or facilitated in producing the claimed invention by substituting, combining, or modifying the prior art. I will give you a further explanation of the word "obviousness" later.



---(Slide 4)---

Now, let's look at the procedure of evaluating inventive step.



---(Slide 5)---

Determining inventive step can be seen as having the same meaning as considering whether the claimed invention is obvious to a person skilled in the art.

When the examiner considers the inventive step of the claimed invention, the PCT Guidelines state that two or more examples of prior art are allowed to be combined, if the combination is obvious to a person skilled in the art.

Whether a claimed invention is novel or not is determined by comparing the claimed invention with a single item of prior art, whereas whether a claimed invention involves an inventive step or not is determined based on one or more prior art references.



---(Slide 6)---

I will now explain the actual procedures for determining the existence of an inventive step.

Please look at this slide.

First, the scope of the claimed invention is determined.

Next, the primary prior art which is the closest to the claimed invention is selected through prior art search.

Then, the claimed invention is compared to the primary prior art.

If there are no differences between them, the examiner determines that the claimed invention lacks novelty.

If the examiner determines that there are one or more differences between them, the claimed invention is novel. For the next step, the examiner will determine whether the claimed invention has an inventive step in consideration of the primary prior art and secondary prior art.

So how is inventive step determined?

By way of example, imagine a case where Structures A and B of the claimed invention are disclosed respectively in Prior Art 1 and Prior Art 2.

Can we combine the disclosures of Prior Art 1 and Prior Art 2 unconditionally to conclude that the claimed invention has no inventive step?



---(Slide 5)---

As shown in slide 5, the PCT Guidelines state that the examiners are allowed to combine two or more examples of prior art to deny inventive step for the claimed invention, if the combination is obvious to a person skilled in the art.

In other words, the combination of prior art is not allowed unconditionally. We have to consider what the motivations are for combining them.



---(Slide 7)---

The PCT Guidelines list some examples that may be motivation for combining prior art, as shown in this slide.

If prior art belongs to an identical or similar technical field or if each case of prior art relates closely to the problem of the claimed invention, they can be a motivation to combine said prior art.

The fact that the combination of the two or more prior art references is obvious for a person skilled in the art is also one of the motivations to do so.

Furthermore, if the prior art is publicly well-known technology, such as being indicated in textbooks or dictionaries, this fact may also be a motivation to combine the prior art references.



---(Slide 8)----

In addition, the PCT Guidelines list examples where the claimed invention is considered to be obvious.

The first example is the case where the claimed invention is a selection of specific parameters from among a limited range of possibilities.

In this case, the selected parameters are included in the prior art and it is obvious that a person skilled in the art would conceive the claimed invention by applying routine trial and error or normal design procedures.

The second example is the case where the claimed invention would be conceived based merely on simple assumptions and a direct method using the known art. For example, there is the case where the claimed invention is characterized only by specifying the minimum content of an ingredient disclosed by prior art and where the minimum content can be obtained by generating a correlation graph of the efficacy disclosed by the prior art by changing the content of the ingredients. In this case, the claimed invention can be conceived simply by using known art from among the prior art. The third example is the case where the claimed invention is merely composed of juxtaposed characteristics.

In other words, it refers to a case where there is no functional relationship between the combined characteristics and the claimed invention is a mere compilation among prior arts and cannot achieve new technical results.

Outline	
. . .	Overview of Inventive Step Procedure of evaluating Inventive Step <u>Examination Guidelines in JPO</u>
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---(Slide 9)---

Next, let's look at the examination guidelines in JPO.



---(Slide 10)---

Let me ask you a question first.

Why do you think the requirement of an inventive step is necessary as part of the patentability requirements?

Isn't the requirement of novelty alone enough?

The Japanese Patent Act states in Article 1 that its objective is to contribute to the development of industry.

Most of the patentability requirements, including the requirement of inventive step, are stipulated to achieve the objective of the law.

If a patent right is granted to an invention that has no inventive step, what will happen?

Granting a patent right, which is an exclusive right, to an invention that a person skilled in the art would have been easily able to conceive does not promote the progress of technology in society, but prevents it instead.

The requirement of the inventive step aims to eliminate these inventions as subject to patent rights.

This is clearly described in the JPO Examination Guidelines.

Another positive ground for the requirement of inventive step is considered to be the encouragement of advanced inventions, in other words, promoting the development of the industry by stimulating rapid progress in technology.

Therefore, the requirement of inventive step gives inventors an incentive to make advanced inventions so that they can overcome the hurdle of inventive step.



---(Slide 11)---

This slide shows the simple flow of determining inventive step as indicated in the JPO Examination Guidelines.

Details will be explained later.

First, the examiner identifies the subject matter of the claimed invention.

Next, one of the most suitable documents for the reasoning to deny inventive step is selected from among the candidates among prior art, and is identified as the primary prior art.

Then the claimed invention and the primary prior art are compared to identify the points where they are identical and where they are different.

After that, the factors for denying inventive step based on the points of difference are considered.

By following these procedures, starting with the selection of a primary prior art, the examiner determines whether it is reasonable to assume that a person skilled in the art would easily conceive the claimed invention.

If the examiner determines that it is reasonable to deny inventive step, the examiner then considers whether the claimed invention has any advantageous effects which would be positive factors to affirm inventive step.

Then the examiner determines again whether it is reasonable to deny inventive step in consideration of the positive factors.

You can see that the JPO's procedure for determining inventive step are similar to the PCT Guidelines that I explained earlier in slide 6.



---(Slide 12)---

Now, let's look at the procedure in detail.

First, if the claimed invention is determined to lack novelty, the examiner naturally determines that the invention has no inventive step.

Next, I will explain the basic idea for determination of inventive step if the claimed invention is determined to have novelty.

When determining inventive step, the examiner assesses whether a person skilled in the art would easily conceive the claimed invention based on prior art.

In this process, the examiner comprehensively considers the factors for denying the inventive step and the factors for affirming inventive step.

As I explained before, the examiner first compares the claimed invention and the primary prior art and identifies points where they are identical and those where they are different.

Then the examiner examines inventive step based on the points of difference.

Examples of factors for a lack of inventive step are shown on the left side of the slide. One of the examples is that there is a motivation in the primary prior art to apply the secondary prior art.

There are four examples of this motivation.

The first example is the relationship of the technical field.

The second example is the similarity of the problems to be solved.

The third example is the similarity of operations and functions.

And the fourth example is a suggestion in the content of the prior art.

Other examples of factors for denying the inventive step are changes to designs of the primary prior art and mere aggregations of prior art.

If it is impossible to give enough reasons that a person skilled in the art would easily conceive the claimed invention starting from the primary prior art after examining said factors for denying inventive step, the claimed invention is determined to have an inventive step.

On the other hand, if it is possible to give reason for denying inventive step, the examiner examines the factors for affirming inventive step in the next procedure. Examples of factors for affirming inventive step are shown on the right hand of the slide.

One of the factors for affirming inventive step is that the claimed invention has advantageous effects. In other words, unexpected results.

Another ground for affirming the inventive step is that there is an obstructive factor when combining prior art. In other words, teaching-away.

An example of an obstructive factor is the case where the application of secondary prior art to the primary prior art is against the purpose of the primary prior art.

If the reason for denying the inventive step cannot be maintained after consideration of the factors for affirming inventive step, the claimed invention is determined to have an inventive step.

On the contrary, if the reason for denying the inventive can be maintained after examining the factors for affirming the inventive step, the claimed invention is determined to lack inventive step.



---(Slide 13)---

Next, I will give a more detailed explanation of the motivation for applying the secondary prior art to the primary prior art from among the factors for denying inventive step.

Regarding examples of motivation as shown in the previous slide, which are (1) Relation of the technical field, (2) Similarity of problems to be solved, and (3) Similarity of operations and functions, it is necessary to have a relationship between the primary prior art and the secondary prior art and to have similarity between them.

Here, I would like to make a further explanation on the similarity of problems to be solved. The problems to be solved are problems that are obvious to a person skilled in the art as of the filing date.

The examiner determines the existence of motivation to apply the secondary prior art to the primary prior art comprehensively in consideration of four perspectives: (1) Relation of technical fields, (2) Similarity of problems to be solved, (3) Similarity of operations or functions, and (4) Suggestions in the content of the prior art.

In other words, it is not enough to make a determination by focusing only on one perspective; it is necessary to consider multiple perspectives for comprehensive determination.

The first example of motivation to apply the secondary prior art to the primary prior art, the relation of technical fields, has a special instruction.

That is, when determining the existence of motivation by focusing on the relation of technical fields, the examiner needs to consider the similarity of the problems to be solved and other perspectives together.

In other words, the examiner should not determine the existence of motivation to apply the secondary prior art to the primary prior art by focusing solely on the relation between the technical fields.



---(Slide 14)---

Next, I will explain the factors for affirming inventive step.

The first is the case where the claimed invention has an advantageous effect.

If the advantageous effect of the claimed invention corresponds to the following cases (i) or (ii) and if it is significant and exceeds the extent predictable based on the state of the art, the claimed invention has reasons for affirming inventive step:

(i) The claimed invention has an effect different from that of the prior art and the effect is unpredictable by a person skilled in the art based on the state of the art as of the filing date; or

(ii) The claimed invention has similar effect to that of the prior art, but has distinguished effects and the effect is unpredictable by a person skilled in the art based on the state of the art as of the filing date.

The second factor is an obstructive factor.

For example, if there is an obstructive factor to apply the secondary prior art to the primary prior art as stated in the following (i) through (iv) cases, it is considered that there is an obstructive factor to prevent giving reasons to deny inventive step, and it will support affirming the existence of inventive step:

(i) The case where the application of the secondary prior art to the primary prior art contradicts the purpose of the primary prior art;

(ii) The case where the application of the secondary prior art to the primary prior art will cause the primary prior art not to function;

(iii) The case where the application of the secondary prior art is excluded by the disclosure of the primary prior art and there is no way for the secondary prior art to be adopted; or

(iv) The case where the secondary prior art discloses an example which is inferior to other working examples with respect to the problem to be solved by the primary prior art and a person skilled in the art usually does not think of applying an inferior example of the secondary prior art to the primary prior art.

If there is an obstructive factor as in these cases, the examiner usually considers that it is impossible to apply the secondary prior art to the primary prior art.



---(Slide 15)---

Next, I will explain the notes for determination of inventive step.

The first note for determining inventive step is that the examiner must avoid hindsight as indicated in (i) or (ii) in this slide when making a determination on inventive step after acquiring knowledge of the claimed invention.

Hindsight means, for example:

(i) The examiner assumes that a person skilled in the art would have easily conceived of the claimed invention; or

(ii) The examiner is affected by the claimed invention when identifying the cited prior art.

The second note for determining inventive step is that the examiner should usually select the primary prior art which is in the same or similar technical field or that has the same or similar problem as the claimed invention.

This is because if the primary prior art is in a different technical field or has a problem that is very different from the claimed invention, it is likely to make it difficult to find the reasoning.

In this case, the examiner is required to give more careful determination of the fact that a person skilled in the art would easily conceive the claimed invention starting from the primary prior art.



---(Slide 16)---

The third note for determining inventive step is that the examiner should not omit a consideration on reasoning only because the well-known art that is used as cited prior art for this reasoning and as grounds for a design change, for example, is well-known art.

For example, even in cases of applying well-known art, the examiner must not omit consideration of whether there is an obstructive factor, and other aspects.

The fourth note for determining inventive step is that the examiner may consider commercial success and the fact that it has been desired for the invention to be achieved for a long time as the secondary consideration for assuming that there are supporting grounds for affirming inventive step.

However, the examiner may consider them only in cases where the examiner is convinced by the applicant's argument and evidence that said success is based on the technical features of the claimed invention, but not based on other grounds, such as sales skills and advertisements.



---(Slide 11)---

In closing, I will summarize what I have explained so far.

The determination on inventive step explained in Slide 11 is performed as follows. First, identify the subject matter of the claimed invention.

Second, select and identify the primary prior art from among the prior art.

Compare the claimed invention and the primary prior art and identify points that are identical and different between them.

Then, examine the different points to see whether it is possible to give a reason for denying inventive step, such as whether there is a motivation for combining the primary prior art and the secondary prior art.



---(Slide 15 & 16)---

When giving this reason, it will be determined in consideration of the notes indicated in Slides 15 and 16.

Even if reasons are given, it is necessary to determine if the reason for denying the inventive step is possible to be maintained once again with simultaneous consideration of the factors for affirming inventive step, such as the advantageous effects of the claimed invention and an obstructive factor.

By following these procedures, the final determination on inventive step will be made.