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### Opinion

# Making Use of Artificial Intelligence (AI)

# in Patent Practice

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### 1. Introduction

Recently, generative AI represented by ChatGPT has evolved innovatively, and using it in various scenes has been proposed. Further, machine translation using AI is also significantly improved in accuracy.

Patent offices are also promoting improvements in operations using AI, and use of AI is considered not only in clerical work but also work by patent attorneys, such as preparing specifications. When AI is used, information input thereto is used to train a learning model, and accordingly, it is necessary for patent offices handling classified information to carefully handle AI in view of security.

Nonetheless, for efficient operations and reduced cost, use of AI is also considered to be an inevitable issue for patent practice in the future.

In this article, I would state my personal opinion about matters that a patent attorney should be aware of when he/she uses AI in his/her practice.

### 2. Utilization of AI in Preparing a Specification

When a request is received to prepare a patent specification in a new field of art or a field of art which has not been handled previously, it is often the case to refer to prior art applications already filed in the field of art, documents relevant to the field of art, or the

like. In addition, for fields of art for which such requests are continuously received, contents of applications previously prepared in the patent offices and filed may be cited or used with modification.

AI is good at searching for similar or relevant documents. If an appropriate document can be retrieved in a short period of time, it is expected to significantly improve efficiency for operations.

Meanwhile, using generative AI to create text for specifications is also being considered. As an example, when a summary of a virtual invention is input to a generally published generative AI and a request is issued thereto to prepare an introduction for a specification and a claimed scope for the virtual invention, the generative AI uses terms in the range of the text of the input summary to output text of expressions close to a specification.

While the text generated by the AI is natural Japanese expressions that are smooth to some extent, it is undeniable that the text is no more than simply connected words. As a matter of course, this is also partially attributable to trained level of the AI. By training the AI on more relevant documents and inputting more information to the AI, the AI may be able to add further information based on the enormous stored database information to create more elaborate text. However, preparing a patent specification also includes a section that AI is not good at.

In general, a patent specification is required to describe a logical relationship between a "Technical Problem," "Solution to the Problem" and "Advantageous Effects of Invention" based on a technical theory (or principle). This part of preparing a specification is one of the most important points in doing so, and even an experienced patent attorney consumes a long period of time to accurately grasp the relationship and present it in text. Such a logical relationship would also be an essential part for an invention, and is determined in view of social backgrounds and inventors' positions, further improvements and business strategies in the future, and other information that cannot be explicitly indicated as training data for a model and input to AI.

AI infers based on past data used for training and data used for input, and thus cannot provide an inference result considering information that the AI cannot obtain. Therefore, it would still be difficult to use AI for a scene in which such information that cannot be input or information that is not input must be considered. Further, AI infers using past findings and is thus unsuitable for an invention based on a new concept which has not been made in the past, such as breakthrough technology. Furthermore, even if object or device configuration is the same, there may be a case where means in opposite directions means should be adopted due to different times and backgrounds. In such a case, there is also a scene in which past findings may not be utilized. Thus, there is a limit to the range in which AI can infer, and accordingly, it is necessary to be aware that AI does not necessarily output a correct result.

Although this is an acutual case in the United States, there is an example in which when an AI was used for a document used in a court, the AI output a precedent which was not made in the past. Blindly accepting AI's output result may cause irreparable damage. When using an AI, it is necessary to have an eye capable of determining whether the AI generates authentic content, and it is also important to verify that the AI generates correct content.

In this sense, even if AI is widely used in the future in preparing specifications, it would be difficult to leave such an essential part for an invention entirely to AI. Therefore, human intervention would still be required.

### 3. Utilization of Machine Translation Using AI

Machine translation using AI has also been significantly improved in accuracy and has already been widely used in many areas of patent practice. In particular, when reading a language without knowing its grammar, machine translation is very convenient as it allows one to generally understand the language.

However, while it has been improved in accuracy, machine translation is not always accurate. For example, there are still many cases where erroneous translation is made due to an original text's deficiency or ambiguity or with unintended modifications. Further, while an original text uses different terms (or words) or expressions, they may be translated into the same term (or word) or expression. Thus, simply reading the translation may not allow one to understand the original text's meaning or nuance.

Accordingly, when machine translation is used for a language generally used in patent practice, in particular English, it is necessary to finally return to and confirm the original text. Relying only on content of machine translation may result in misunderstanding an Examiner's original intention in an office action or failing to understand the original significance of an invention described in a specification (or an implicit meaning which is not explicitly indicated in text), which would result in mishandling.

Translation can also be regarded as a "telephone game" between different languages. Normally, in this game, it is often the case that even in a single language (or Japanese) an intention is incorrectly communicated. It is therefore foreseeable that it is even more difficult to communicate the true meaning between different languages.

Accordingly, as in conventional practice, it is important to have an ability to accurately understand what original text means without relying on machine translation. In addition, it is also necessary to have a proficiency in finding deficiencies in machine-translated contents. Thus, even if machine translation is further widely used, a conventional or higher level of English proficiency would be required.

### 4. Conclusion

As AI is developed, AI will be exploited in more areas of patent practice in the future. It is necessary, however, to utilize AI while being aware of the fact that AI is not necessarily omnipotent, as well as its advantages and disadvantages. It is expected that, in both preparing a specification and using machine translation, excessively relying on AI would result in having an impaired ability to perform these tasks. Accordingly, selftraining would be more important than ever to maintain and improve one's ability to do so.

# Article

# **Comparative Study of Substantive Requirements** of AI-Related Inventions

Difference Among Countries and Regions in Assessment of Invention Including Non-Technical Feature

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### 1. Introduction

With the recent development of artificial intelligence (AI)-related technologies, consumers are more familiar with various services using AI. With such tendencies, an increasing number of patent applications directed to utilization of results of analysis and learning of data by AI have been filed.

In general, AI is implemented by the execution of software on computers. Therefore, inventions relating to the utilization of AI can be regarded as a kind of computer-related inventions. Mathematical models used for analysis and learning of data by AI or business methods implemented by utilization of AI can be non-technical features in computer-related inventions. Therefore, AI-related inventions may include both of a technical feature and a non-technical feature.

With the increasing number of AI-related patent applications, the tendency to globally obtain patents is expected to grow. On the other hand, criteria for assessment of the substantive requirements of inventions including non-technical features are different among countries and regions. It may be important for an applicant who considers obtaining global patent rights to know the difference in criteria for assessment of the substantive requirements, in particular, assessment of the substantive requirements of inventions including non-technical features, among the countries and regions.

This article will explain the criteria for assessment of the substantive requirements of AI-related inventions including non-technical features in Japan, the United States, Europe, China, and Korea, and also explain some points in global filing of patent applications in consideration of the difference among the countries and regions.

### 2. Japan

### 2.1 Patent Eligibility

According to the Japan Patent Act, an invention to be patented is defined as "a highly advanced creation of technical ideas utilizing the laws of nature" (Article 2, Paragraph 1). Therefore, regardless of the technical field of the invention, the claimed invention should fall under the "creation of technical ideas utilizing the laws of nature."

Since the mathematical model for implementing the AI or the business method itself does not utilize the laws of nature, it does not fall under the "invention" as defined in the Japan Patent Act. Combination of an algorithm for processing information in accordance with the mathematical model and a computer for executing the algorithm, however, can meet the requirements for the "invention" as defined in the Japan Patent Act. In other words, when information processing by the AI can be performed by cooperation between software and the computer, an invention utilizing the AI can meet the requirements for the "invention" as defined in the Japan Patent Act<sup>1</sup>.

### 2.2 Inventive Step

Inventive step of the invention is assessed in four processes including (1) specifying the claimed invention, (2) specifying primary prior art, (3) determining identical features and differences between the claimed invention and the primary prior art, and (4) reasoning as to ease in arrival at the invention by a person skilled in the art based on other prior art and the common general technical knowledge. In specifying the invention in step (1), all matters described in the claims are taken into consideration. Therefore,

https://www.jpo.go.jp/e/system/laws/rule/guideline/patent/handbook\_shinsa/document/i ndex/app\_b1\_e.pdf

inventive step of the whole invention including non-technical features is assessed, without distinction between the non-technical features and the technical features.

The Japan Patent Office (JPO) has published cases of patent examination in AI-related technologies<sup>2</sup>. These cases include both of cases where inventive step is affirmed and cases where inventive step is denied. Therefore, these cases relating to inventive step can be guidelines for understanding the criteria for assessment of inventive step in AI-related inventions in Japan.

In the published cases, inventions directed to mere utilization of the AI, such as an invention in which tasks performed by humans are simply replaced by AI processing and an invention in which existing estimation means for estimating output data from input data is simply replaced with the AI, are assessed as lacking inventive step, because such utilization could have readily been derived by a person skilled in the art. Lack of inventive step is pointed out also when a noticeable effect is not produced by change of training data to be used for machine learning, because such change is merely combination of well-known data. On the other hand, inventive step is affirmed when a noticeable effect is produced by addition of new data to training data to be used for machine learning or by training of a neural network by specific pre-processing on training data.

### 3. United States

### 3.1 Patent Eligibility

In the United States, we should pay attention in particular to patent eligibility of a claimed invention. According to 35 U.S.C. 101, "whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor." In order for the claimed invention to be granted a patent, the invention is required not only to belong to any category defined under 35 U.S.C. 101 but also to satisfy additional conditions.

An approach to assessment of patent eligibility is defined in §2106 of the Manual of

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https://www.jpo.go.jp/e/system/laws/rule/guideline/patent/handbook\_shinsa/document/i ndex/app\_a5\_e.pdf

Patent Examining Procedure (MPEP). This approach is applied to any type of inventions. According to MPEP § 2106, patent eligibility is assessed in multiple steps. Initially, in step 1, to which of the categories defined under 35 U.S.C. 101 the claimed invention belongs, is determined, including processes, machines, manufactures, and compositions of matter. When the claimed invention belongs to one of these categories, the assessment process proceeds to step 2A.

The assessment process in step 2A is further branched into Prong 1 and Prong 2 (MPEP § 2106.04). In Prong 1, whether the claimed invention falls under "judicial exception" is assessed. The judicial exception specifically includes laws of nature, natural phenomenon, and abstract ideas. Unless the claimed invention falls under one of the judicial exceptions, that invention is assessed as being eligible for patent. When the claim is assessed as reciting the judicial exception, assessment in Prong 2 is made. In Prong 2, whether the claim recites an additional element that integrates the judicial exception into a practical application is assessed. When such an additional element is recited, the invention is determined as being eligible for patent. When no such an additional element is recited, assessment in step 2B is made.

In step 2B, whether the claim recites an additional element that amounts to significantly more than the judicial exception is assessed. If there is a specific limitation "other than" what is well-understood, routine and conventional in the technical field of the invention, the claimed invention is assessed as amounting to "significantly more" than the judicial exception and hence assessed as being eligible for patent (MPEP 2106.05(d)).

When an AI-related invention includes a non-technical feature such as a mathematical model or a business method, the non-technical feature may be regarded as the "abstract idea" that falls under the judicial exception. Therefore, for the invention including such a non-technical feature, sufficient attention should be paid in drafting claims such that the primary feature of the invention is not regarded as an abstract idea or features of the invention as a whole amount to more than the judicial exception.

### 3.2 Inventive Step

Inventive step (non-obviousness) of the invention is assessed in steps below (MPEP  $\S$  2141): A. Determining the scope and content of the prior art; B. Ascertaining the differences between the claimed invention and the prior art; C. Resolving the level of

ordinary skill in the pertinent art; and D. Analyzing secondary considerations.

In assessment of the differences between the claimed invention and the prior art, whether the claimed invention as a whole would have been obvious is assessed (MPEP  $\S$  2141.02). For example, in an invention including an abstract idea such as a business idea, matters relating to the idea can be a part of the assertion for non-obviousness. On the other hand, combination of known techniques in accordance with known methods doing no more than yielding predictable results or mere substitution of a known element for another known element is assessed as being obvious. Therefore, we should note that, for example, if utilization of the AI is assessed as mere substitution of the existing technology, the invention may be regarded as being obvious.

### 4. Europe

### 4.1 Patent Eligibility

The European Patent Convention (EPC) does not define an "invention" but lists what do not fall under European patents. The definition under the EPC excludes a computer program as such from patentable subjects. An apparatus that uses the computer program and a method of using the computer program, however, can be granted a patent because they are found to comprise technical features.

The European Patent Office (EPO) adopts an assessment approach referred to as "Two Hurdle Approach" in the examination of a computer-implemented invention. According to this approach, in order for the claimed invention to be granted a European patent, the claimed invention is required to clear the first hurdle, that is, comprising technical features, and then to clear the second hurdle, that is, fulfillment of inventive step. Therefore, even when an AI-related invention includes a non-technical feature, the invention can clear the first hurdle by including recitation of a "computer", a "computer-implemented method," a "computer readable medium," etc. in the claim.

### 4.2 Inventive Step

In the European practice, the invention is required to include unobvious means for solving a technical problem. Therefore, the EPO uses an approach established by the EPO technical boards of appeal in the COMVIK case (T641/00) as the approach to

assessment of inventive step of an invention consisting of a mixture of technical and nontechnical features (mixture invention)<sup>3</sup>. According to this approach, among features included in the mixture invention, only features which contribute to the solution of the technical problem are taken into account in inventive step assessment, whereas features not contributing to the solution of the technical problem are not considered.

In the European practice, inventive step of the invention is assessed in conformity with a problem-solution approach. In the case of the mixture invention, the problem-solution approach is applied only to technical features in the invention as below<sup>4</sup>:

(i) The features which contribute to the technical character of the invention are determined on the basis of the technical effects achieved in the context of the invention;

(ii) A suitable starting point in the prior art is selected as the closest prior art with a focus on the features contributing to the technical character of the invention identified in step (i); and

(iii) The differences from the closest prior art are identified. The technical effect(s) of these differences, in the context of the claim as a whole, is(are) determined in order to identify from these differences the features which make a technical contribution and those which do not.

In the invention directed, for example, to the business method using the AI, the problem of the business method solved by the invention may be non-technical. In such a case, only a hardware configuration may be regarded as the technical feature of the invention. When the hardware configuration is general, the invention may highly likely be assessed as being obvious.

In the EPO practice, we should note that, in the invention of the application of the AI to such a non-technical field as the business method, inventive step only of the technical feature of the invention may be assessed, and when the technical feature falls under the general hardware configuration, lack of inventive step of the invention may highly likely be pointed out.

<sup>&</sup>lt;sup>3</sup> Guidelines for Examination, Part G - Patentability, Chapter VII - Inventive step 5. Problem-solution approach 5.4 Claims comprising technical and non-technical features

### 5. China

### 5.1 Patent Eligibility

In China, in order for a claimed invention to be granted a patent, an invention should not meet one of the conditions for exclusion from patents (the Patent Law, Article 25, Paragraph 1 (2)) and the invention should fall under an invention as defined under the Patent Law.

The China Patent Law defines an invention as "new technical solutions proposed for a product, a process or the improvement thereof" (Article 2, Paragraph 2). Therefore, the claimed invention should provide some kind of technical solutions. Specifically, in order for a claimed invention to be granted a patent, the invention has to obtain the "technical effect" with "technical means" for solving the "technical problem."

China newly established regulations for the examination of AI-related inventions in the Examination Guideline enforced from 2020. The Guideline emphasizes that the whole contents described in the claim should be considered without separation of features such as algorithm features or business method features from technical features. When features included in the AI-related invention fall under the mathematical model or the business method, the features themselves fall under "a rule or method of mental activity" as listed examples of exclusion from patents. An invention, however, can be protected under the Patent law if it can solve any technical problem by execution of the algorithms or the business rules with specific technical means.

Assessment of patent eligibility in China can thus be concluded as being characteristic in that the technical problem and the technical features for solving the problem are considered.

### 5.2 Inventive Step

Inventive step of the invention is assessed in the order of (1) determining the closest state of the art, (2) determining the distinguishing technical feature of the invention and the technical problem to actually be solved, and (3) determining whether the claimed invention is obvious for a technician in the field of the art (the Examination Guidelines (Part II, Chapter 4) 3.2.1)<sup>5</sup>. This method is similar to the problem-solution approach in Europe. In China, however, for the mixture invention including technical and non-technical features, there is no stipulation indicating that the non-technical feature is not considered in assessment of inventive step of the invention.

The guideline that "the whole contents" including the technical and non-technical features "be considered" may apparently be different from the approach to assessment of inventive step of the computer-related invention in Europe. Attention should be paid, however, to the fact that the technical feature of the invention is substantially preferentially considered in each step of assessment of inventive step.

### 6. Korea

The Korea Intellectual Property Office published the Examination Guidelines specially directed to AI-related inventions in January 2021. The Examination Guidelines define the "AI-related inventions" as inventions requiring the machine-learning-based technology when they are carried out<sup>6</sup>. Examination of the AI-related inventions, however, basically follows the Examination Guidelines of the computer-related inventions.

### 6.1 Patent Eligibility

The approach to assessment of patent eligibility is similar to the approach in Japan. Initially, the claimed invention is required to utilize laws of nature. Whether or not the invention utilizes the laws of nature is assessed in consideration of the whole invention.

In computer-related inventions, when information processing by software is specifically implemented by hardware, the invention is assessed as being eligible for patent.

### 6.2 Inventive Step

Inventive step of the AI-related inventions is assessed similarly to the inventions in

https://www.jpo.go.jp/resources/report/takoku/document/zaisanken\_kouhyou/2021\_01.pd f

<sup>&</sup>lt;sup>5</sup> https://www.jetro.go.jp/ext\_images/world/asia/cn/ip/law/pdf/section/20100201.pdf

other technical fields; whether or not the invention falls under exercise of ordinary creativity of a person skilled in the art is assessed. According to the Examination Guidelines for examination of AI-related inventions, when data pre-processing, a machine learning method, or a training completed model is specifically identified among technical features described in the claims and when the technical features produce effects more than effects expected in the prior invention, the invention does not fall under exercise of ordinary creativity of an ordinary technician. On the other hand, the Examination Guidelines explain that (1) simply adding the AI technology known prior to filing of an application, (2) systemizing the business operations or the business methods performed by a person with the known AI technology, (3) simple design change involving the specific application of the AI technology, and (4) simply adding well-known or commonly-used means or substitution with an equivalent fall under exercise of ordinary technician.

### 7. Comparative Study

Japan, the United States, Europe, China, and Korea are common in criteria for assessment of patent eligibility, that is, consideration of the whole invention. Even when an invention includes a non-technical feature, so long as the invention is technical as a whole, the invention is eligible for patent in these countries and regions. Criteria for "being technical," however, is different among the countries and regions. In particular in the United States, the claimed invention is required to "amount to significantly more than the judicial exception" and patent eligibility of the invention is assessed in accordance with its own assessment process. In this regard, the United States adopts the strictest criteria in assessment of patent eligibility.

For assessment of inventive step, Europe and China adopt stricter criteria. In Europe, only features contributing to solution of the technical problem are considered in assessment of inventive step. China may also preferentially consider the technical feature for assessment of inventive step of the invention.

For informational purposes in connection with the examination practices in these countries and regions, the web pages of the Patent Offices in Japan, the United States, Europe, China, and Korea disclose charts where laws and regulations, examination guidelines, and case examples are compiled<sup>7</sup>. In addition, the JPO and the EPO made comparative studies on software-related inventions and published the results in a report. The report shows that the approach to assessment of inventive step of the same AI-related invention is different between the JPO and the EPO<sup>8</sup>. We can understand also from this information, the difference in examination practices among the countries and regions.

Based on such information, we should understand that assessment of patent eligibility is stricter in the US, while assessment of inventive step of the invention is stricter in Europe and China.

### 8. Conclusion

What would be favorable for patent applicants who desire to globally obtain a patent right is that the invention be examined under the same criteria in all countries and regions. The criteria in each country or region, however, are based on the laws or the judicial precedents of the jurisdiction. Therefore, it is actually difficult to adopt a unified criterion.

When a patent application is filed globally, the application is filed normally in other countries and regions, with claiming priority for the patent application in one country or region. Therefore, from the point of view of claiming the priority, the applicant cannot change the contents of the specification for each country or region.

In this regard, at the stage of drafting a specification of an application in Japan, the applicant should expect filing of the application in other countries or regions and draft the specification in consideration of the difference in criteria for each country or region. For example, in order to be ready for addressing an office action which may be issued in a country or a region stricter in criteria than Japan, measures for improving the description in the specification such as specifically describing embodiments or describing many modifications may be more important so that we can address the office action by making claim amendments.

<sup>&</sup>lt;sup>7</sup> https://www.jpo.go.jp/news/kokusai/ip5/gochou\_ai.html

<sup>&</sup>lt;sup>8</sup> https://www.jpo.go.jp/news/kokusai/epo/software\_201903.html

### Article

# **Case Example of Apple and "Understand Current State" in Intellectual Property and Intangible Asset Governance Guideline**

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### 1. Introduction

Recently, I had an opportunity to review open & closed strategies of Apple and the like and a patent (bounce scroll patent) used in the lawsuit of Apple v Samsung.

Although it might not be a timely topic, I would like to provide another analysis among many analyses having been already made with regard to Apple.

Meanwhile, under the Cabinet Office Intellectual Property Strategy Headquarters, "Intellectual Property and Intangible Asset Governance Guideline (hereinafter, referred to as "Intellectual Property Guideline")<sup>1,2</sup> is published in order to facilitate understanding as to how a company should disclose investment and utilization strategies for intellectual properties and intangible assets and should build a governance system in order to receive appropriate evaluations from investors and financial institutions.

In addition to the analysis on the example case of Apple, I would like to also introduce my analysis on the first action of seven actions in the Intellectual Property Guideline, "Understand Current State".

### 2. Apple

### (2-1) Open & Closed Strategy of Apple

As you may already know, in "White Paper on Manufacturing Industries 2013"<sup>3</sup> from the Ministry of Economy, Trade and Industry, the open & closed strategy is defined as "reviewing and selecting which part of intellectual properties should be kept secret or should be protected (closed) by exclusive rights such as patents and which part of intellectual properties should be released or licensed (opened) to other companies in order to gain an increased benefit".

According to Koichi Ogawa "Open & Closed Strategy - Conditions for Reviving Japanese Companies, Enlarged and Revised Edition", Apple, Intel, and others are introduced as representative case examples of companies having succeeded in the open & closed strategy.

In view of the case examples of Apple and other companies, at least the following three points are considered to be important:

(i) To have multiple closed technological strengths.

(ii) To take conditional open strategies by effectively using legal contracts.

(iii) To have a unique way of building partnerships.

Regarding (i), the closed technological strengths of Apple are considered to be at least CPU design, kernel OS and user interface, for example. Apple has maintained the values of its products by advancing these technological strengths.

((ii) and (iii) are not directly related to this analysis and will not described here.)

### (2-2) Litigation of an Apple Patent

US 7,469,381 (corresponding to Japanese Patent Number No. 4743919) has been known as a representation patent used by Apple for a patent infringement lawsuit against Samsung.

This patent is directed to an invention regarding a user interface of a smartphone or the like, and is also called "bounce scroll patent" in Japan.

The following explains my understanding of the overview of the invention of the patent in view of the disclosure of the specification. (Although US claim 19 is allegedly a representative claim, the wordings of the claim do not necessarily correspond to the below-described explanation.)

For example, assume that scrolling down an e-mail list with a finger or the like is stopped when the end of the list is reached. On this occasion, the user may be unable to know whether the application is frozen or the end of the list is reached.

To address this, for example, after the end of the list is reached, a white-colored portion

("3538" in Fig. 6C) or the like is displayed at a portion contiguous to the end of the list. When the finger or the like for the scrolling is separated from the display, the displayed list is moved in a direction opposite to the scrolling direction and is then stopped at the position of the end of the list (Fig. 6D; I added the thick line arrow). It is described as an example that the end of the list is elastically returned in the direction opposite to the scrolling direction.

The invention of this patent is widely used in current iPhones.



<US 7, 469, 381>

One of the features of this patent, which is directed to a user interface, lies in that the content of the invention is relatively easy to understand, is likely to be accepted by users, and is likely to be adopted once the problem is noticed. Thus, it is imagined that problems are likely to arise with regard to novelty or inventive step.

Actually, in the reexamination in the US Patent and Trademark Office, important claim 19 once rejected as lacking novelty, but was finally judged as being a valid claim<sup>5</sup>.

Moreover, the article "Intellectual Property Strategy of Apple"<sup>6</sup> in Intellectual Property Management magazine provides an analysis of the intellectual property strategy of Apple.

The article indicates that Apple recognized the importance of the bounce scroll patent in advance in view of the following facts: a provisional application, an accelerated examination, and two continuation applications were made; and the filing date is the same as the date of start of sales of iPhone.

Further, the article describes "Apple is willing to secure differentiation technology for "defensive rights" by brushing up even parts of its product that are not explained in catalog specifications".

In view of the bounce scroll patent, it can be said that Apple took the following actions: - The important invention (quasi-catalog specifications), which does not appear in the catalog specifications but is related to the performance of the product and is noticeable in implementation, was searched for and discovered.

- The application thereof was prepared just before the start of sales of the product.

### 3. Analysis of Case Example of Apple

I often hear opinions such that the case example of Apple is too good and is not immediately applicable to all the companies. Also, questions arise as to whether analyses with hindsight are useful for future business. Further, the case example of Apple may be unable to be readily applied to different business fields.

Even though the case of Apple may be applicable to limited business fields, I think that the case example of Apple can be applied to some cases as a successful example.

Specifically, the following two points are considered:

(a) Multiple Technological Strengths, i.e., to have multiple (closed) technological strengths related to one another; and

(b) Quasi-Catalog Level, i.e., to concentrate on applications of inventions (quasicatalog level) or the like which do not appear in the catalog but are close to the catalog level, are highly needed, and are noticeable in implementation.

### (a) "Multiple Technological Strengths"

As described in the above-described section (2-1) "Open & Closed Strategy", the representative examples of the multiple technological strengths of Apple are considered to be CPU design, kernel OS and user interface. These are considered to be important factors that determine the performance and function of smartphones, are technologically closely related to each other, and distinguish Apple from other companies as they are developed by Apple itself.

The existence of only one technological strength would result in severer development competition among competitors. When there are multiple technological strengths but they are the same as those of the competitors, it would be difficult to continuously win. It is therefore considered desirable to have a combination of technological strengths different from those of other companies.

(It should be noted that in some business fields, due to future advancement of globalization and division of labor, a competitive advantage might not be necessarily created by having multiple technological strengths.)

### (b) "Quasi-Catalog Level"

Each company usually introduces its products or technology in a catalog or a HP. The actual product, however, may include a technology that is not described in the catalog but is noticeable in implementation.

In view of the Apple's attitude that the application was filed on the date of release of the product, it is considered that Apple intended file the invention to coincide with the release of the technology used in the actual product. Rather than initially intended technology, new technology or modified technology may be adopted in the final stage of preparing products. It may be desirable to re-check technology noticeable in implementation on or before the date of release of the product.

Moreover, for example, the article "Utilization of Rights by Japanese Companies from the View Point of Overseas"<sup>7</sup> in Intellectual Property Management magazine discusses qualities of US patents of Japanese companies, and describes as follows: "In some cases, hardware components or the like are described in detail too much. In these cases, the scope of right is narrowed or it is difficult to recognize an infringement. Hence, the value of the patent may be estimated to be low".

This suggests that when patents are classified into, for example, three categories, i.e., a catalog level patent (hereinafter, referred to as "catalog level") as described in a catalog or the like, a quasi-catalog level patent (hereinafter, referred to as "quasi-catalog level") such as the bounce scroll patent, and a patent with details of hardware components or the like (hereinafter, referred to as "detail level"), Japanese companies have small numbers of catalog level patents (which may not be in the case of Apple) and quasi-catalog level patents, which are useful in terms of exercise of right.

### 4. Intellectual Property Guideline and Analysis of Current State

### (4-1) Intellectual Property Guideline

The Intellectual Property Guideline Ver. 1.0 was published in January 2022, and the Intellectual Property Guideline Ver. 2.0 was published in March 2023.

The Intellectual Property Guideline describes "In the Intellectual Property Guideline, each of the companies is requested to construct investment strategies to maintain and reinforce intellectual properties and intangible assets of the company in order to promote investment and utilization of the intellectual properties and intangible assets, by accurately understanding the current state (As Is) of the company, defining a future state (To Be) to be achieved, and checking them against each other".

Also, the Intellectual Property Guideline describes "It is expected to achieve innovation by conducting the seven specific actions to promote investment and utilization of intellectual properties and intangible assets".

A schematic view of the seven specific actions is shown below.

### Seven Actions in Companies

Each of the companies is requested to construct a strategy in a "back cast manner" by defining a future state to be achieved and defining a strategy for investment and utilization of intellectual properties and intangible assets in order to bridge the gap between the current state and future state.

For Companies						
Understand	Identify	Construct	Construct	Construct	Disclose	Brushing Up
Current	Important	Value-	Strategy for	System for	and Inform	Strategy
State	Issue and	Creating	Investment	Constructing	Investment	through
	Clarify	Story	and	and Executing	and	Communication
	Strategical		Resource	Strategy and	Utilization	with Investors,
	Positioning		Allocation	Construct	Strategy	etc.
				Governance		

<Guideline Ver.2.0 for Disclosure of Investment and Utilization Strategy for Intellectual Property and Intangible Asset and Governance (overview), p.7>

### (4-2) First Action "Understand Current State" in Seven Actions

For "Understand Current State", utilization of the IP landscape is introduced (Ver.1.0, p.p.31-33) in the Intellectual Property Guideline. It is considered to be very effective because overview of the current state can be obtained.

On the other hand, although it might be a bold assumption, I consider that there is a certain advantage in making an approach from the viewpoint of relevance with a currently published product and technology by analyzing the product and technology shown in the HP or catalog (hereinafter, referred to as "HP analysis").

It is considered that the patents and the like of a company can be analyzed in a relatively short period of time in terms of quality to some extent, for example. Hereinafter, let me introduce the HP analysis.

### (A) HP analysis

A product or technology shown in a HP or catalog is considered to make an appeal from a company to customers, and is presumed as a representative product or technology of the company.

It is considered that for such a representative product or the like, efforts for intellectual properties have been made as a technological strength.

I consider that this can be useful in analyzing the current state of the company although this, of course, reflects only a part of strengths in intellectual properties of the company, rather than a whole or true nature of the strengths in intellectual properties of the company.

It should be noted that when many products or the like are disclosed in the HP or the like, it may be desirable to analyze a particularly representative product or a product into which great efforts have been put.

For example, specifically, it is considered to analyze the following matters.

(i) How many patent applications or the like are filed or how many patent applications are patented?

(ii) Are patent applications or the like filed continuously and are patents granted continuously? (Are patent applications or the like filed over years?)

(iii) Which one of the catalog level, the quasi-catalog level, and the detail level is the content of a patent application or a patent categorized into? In addition, how many applications are filed for each of the categories?

(iv) Is the content of an application or patent or the like applicable to a current product or products in future generations (medium to long term perspective)?

(v) Is there any know-how other than applications and patents?

By conducting the HP analysis in the above-described manner, the current state of a company in a certain range is relatively readily understandable.

### (B) Correspondence with Case Example of Apple

The following describes correspondence between the case example of Apple and the HP analysis.

### - "Multiple Technological Strengths" in Section (3) (a)

When the HP analysis reveals that there are multiple technological strengths, these technological strengths are related to one another to realize an intellectual property portfolio intended for a business strategy, and these technological strengths are different from those of competitors, the result of analysis can be used in the next step (Identify Important Issue and Clarify Strategical Positioning) of the seven actions.

On the other hand, when the intellectual property portfolio intended for the business strategy is not realized, reviews and discussions can be made in order to bridge the gap between the current state and the intended intellectual property portfolio.

- "Quasi-Catalog Level" in Section (3)(b).

Consider a case where there are a larger number of detail level patents than catalog level patents or quasi-catalog level patents in the HP analysis. Specifically, assume that the portfolio is in the form of a pyramid as shown in the lower left diagram. In the figure, the width direction represents the number of patents. Such a portfolio in the form of a pyramid may be undesirable as a portfolio for utilization of patents in view of the case example of Apple, although it depends on the number of cases. To address, it is one option to change the portfolio to, for example, the form of a building as shown in the lower right diagram, although you might think that this is an extreme measure. It should be noted that this may not be applicable depending on a business field or position in business life cycle.



### 5. Conclusion

- I made a belated analysis on the case example of Apple to discuss the first action of the seven actions in the Intellectual Property Guideline, "Understand Current State".

- In view of the analysis on the case example of Apple, it is important to (a) have multiple (closed) technological strengths related to one another and (b) put efforts into patent applications of inventions (quasi-catalog level) that do not appear in a catalog but are close to the catalog level, are highly needed, and are noticeable in implementation.

- Regarding "Understand Current State" in the Intellectual Property Guideline, the relatively simple HP analysis is introduced.

- It is considered desirable to satisfy the above-described conditions (a) and (b) of Apple in the HP analysis.

Finally, although I do not belong to any business company now and am therefore in a
position different from those of people who are in actual intellectual property operations,
I wish your success with business models utilizing intellectual property strategies.

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https://www.kantei.go.jp/jp/singi/titeki2/tyousakai/tousi\_kentokai/governance\_guideli ne\_v2.html

<sup>3</sup> Ministry of Economy, Trade and Industry "White Paper on Manufacturing Industries 2013", Chapter 1, Section 3

<sup>4</sup> Koichi Ogawa "Open & Close Strategy - Conditions for Reviving Japanese Companies, Enlarged and Revised Edition" (SHOEISHA, 2015)

<sup>5</sup> https://patentcenter.uspto.gov/applications/90012304/ifw/docs?application=

<sup>6</sup> Intellectual Property Management magazine "Intellectual Property Strategy of Apple", Vol. 63 No.5 2013 p.699-712

<sup>7</sup> Intellectual Property Management magazine "Utilization of Rights by Japanese Companies from View Point of Overseas", Vol. 65 No.4 2015 p.496-507

https://www.kantei.go.jp/jp/singi/titeki2/tyousakai/tousi\_kentokai/governance\_guideli ne\_v1.html

# Article

# Trends and Future Prospects of Trademark Protection for 3D Shapes of Building/Interior Spaces

After the 2020 revision of the Enforcement Ordinance of the Trademark Act/In particular, shops' current business situation and the need to expand protection

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### 1. Introduction

The following provides trends and future prospects of trademark protection for the 3D shape of a building/interior space, particularly from the viewpoint of store/shop business entities. The main types of intellectual property that are relevant to the 3D shape of a building/interior space are design and trademark. Due to space limitations, however, the focus of this article is now given to trademark.

### 2. Introduction of the new 3D trademark system

The so-called new 3D trademark system was introduced on April 1, 2020. The new 3D trademark system is also called a system for "partial 3D trademark." This system originated from the former 3D trademark system and practice, through the revision of the Enforcement Ordinance of the Trademark Act, for the purpose of enabling appropriate protection by a 3D trademark, particularly for providing more appropriate protection to business entities and the like for the exterior/interior of their store/shop or a complicated shape of their product, for example. More specifically, the revised ordinance allows a 3D trademark applicant to submit an application form including "Detailed Description of the Trademark" as required (the Enforcement Ordinance of the Trademark Act, Article 4-8 (1)(iii), Article 4-8 (2)(iii)). It also allows a 3D trademark applicant to depict a

claimed 3D shape in solid line and the remaining portion in broken line, for example (the Enforcement Ordinance of the Trademark Act, Article 4-3 (1)(iii)). Moreover, if an end of the claimed 3D trademark goes beyond the specified space of the application form due to spatial limitations, the configuration and features of the 3D trademark shall be identified based on the one shown within the specified space.

The revisions of the 3D trademark system were introduced at the same time as the enforcement of the 2019 revised Design Act that allows registration of a design of a building/interior. In the actual commercial market, business entities trying to gain protection of the shape of their single article, which is not limited to a building or the like, adopt an inclusive IP strategy of using both the design system and the trademark system. It thus appears that the new revised 3D trademark system for the 3D shape of a space was introduced to conform with the revised Design Act expanded to further protect space designs.

### 3. Usage of the new system

According to the Japan Platform for Patent Information (J-PlatPat), 45 3D trademark applications have been filed for buildings and interiors, of which four have been registered (including two that were granted a decision of registration), since the introduction of the new 3D trademark system on April 1, 2020 (\*1). Of these applications, 18 3D trademark applications for buildings and interiors rely on the new 3D trademark system, of which only one has been registered (\*1). Most of the 18 applications were filed by retail business entities, service providers, and food and beverage business entities, for a 3D trademark of the exterior/interior of their store/shop.

Meanwhile, under the new design system introduced at the same time as the new 3D trademark system, 1336 design applications have been filed for buildings, of which 893 have been registered; 907 design applications have been filed for interiors, of which 569 have been registered (\*1). Among these design applications for buildings, design applications for houses are the largest number of applications, and those for office buildings and commercial facilities are the next largest number of applications. Most of the applicants/design patent owners are house manufacturers and construction business entities. In the case of the interior design applications, most are design applications for office interiors and house interiors, and most of the applicants/design patent owners are

furniture/facilities manufactures and house manufacturers.

Due to the difference in jurisdiction between trademark and design and the difference in what is actually protected, simple comparison therebetween may not be effective. In terms of the number of applications, however, it is seen that the new 3D trademark system has been utilized less positively than the new building/interior design system, at least for the 3D shape of a space of a building/interior.

### 4. Distinctiveness of 3D trademark for building/interior

A principal reason why the new 3D trademark system has been utilized less positively may be the difficulty in gaining registration of a 3D trademark. For example, Culture Convenience Club Co., Ltd. filed on April 1, 2020, the day the new 3D trademark system was introduced, four applications for partial 3D trademarks for the interior of a building, including the following one.



(Fig. 1 Trademark Application No. 2020-35438, from the Japan Platform for Patent Information (J-PlatPat))

These applications were all rejected during examination for lack of distinctiveness (Trademark Act, Article 3 (1)(iii)), for the reason "its 3D shape aims at contributing to the functionality and/or the aesthetic quality of the facility, and is therefore merely the shape of the object used for providing the service." Two of the four applications have already been given a decision of rejection. Currently (on October 31, 2023), the remaining two applications "Trademark Application No. 2020-35438" and "Trademark Application No. 2020-36012" are each pending in an appeal case against the decision of rejection. In each appeal case, many arguments have been submitted as Written Argument (details are not given here). The Examiner, however, based the decision of

rejection on the following reasons: the shape itself of the interior is merely the shape that may be used usually, and the manner in which it is used, the number of times it is used, the period for which it is used, and the region where it is used are not sufficient for registration. In response, the applicant has appealed against the decision of rejection, submitted further documents as exhibits, and developed strong arguments by submitting numerous documents, particularly to establish the fact, for example, that many mass media have exposed the interior, many persons have used it, and many persons have seen it. The appeal will soon be completed. What decision will be made?

The following four 3D trademark applications for buildings/interiors have been registered since the introduction of the new 3D trademark system (including applications that do not rely on the new 3D trademark system):

"3D graphics + toyoko-inn.com 東横 INN" (registration No. 6411928)

"3D graphics + § KALDI∞COFFEE/FARM" (registration No. 6535338)

"3D graphics + coin laundry cleaning  $\infty$  nc  $\mathcal{I} \bigtriangleup \overline{\mathcal{I}}$ " (trademark application No. 2020-086503, granted decision of registration)

"3D graphics + coin laundry cleaning∞nc ノムラ" (trademark application No. 2020-086504, granted decision of registration)



(Fig. 2 Registration No. 6535338, from the Japan Platform for Patent Information (J-PlatPat))

These applications all include characters in their 3D trademarks where the characters appear to have distinctiveness. In contrast, 14 3D trademark applications were rejected, of which 8 3D trademark applications for only the 3D shape of a space including no characters or the like were rejected for lack of distinctiveness, citing the reasons: "it is predictable that it was employed for the purpose of contributing to the functionality and/or the aesthetic quality" and "it is merely the shape itself of the object used for providing the service."

In my experience, in a trademark application for a single 3D trademark, I had a personal interview with the Examiner after receiving a Notice of Grounds of Rejection for lack of distinctiveness. The Examiner stated, "no character is included in the 3D trademark" and "any character would be helpful if included." From these facts, a 3D trademark for a building/interior including no character or the like does not appear to be allowed to be registered in principle. Then, if a 3D trademark for a space including characters having distinctiveness is successfully registered, it is doubtful whether or not the 3D trademark effectively prevents others from using only the 3D shape without permission. For this new 3D trademark system, the Examination Guidelines Working Group says: "Recently, companies have increasingly branded the exterior/interior of their store/shop by characterizing it to provide a service and/or sell products, and the exterior/interior may acquire the distinctiveness serving as an identifier of the source of the service/products, which should be protected under the trademark system," and "we have reviewed the system and practice of the 3D trademark for appropriate protection of the exterior/interior of a store/shop or the like under the trademark system." However, if actual examination is conducted as set forth above, there could be a gap between the desired practice and the actual practice.

Any store/shop business entity trying to devise the 3D shape of its store/shop space would naturally aim at enhancing the functionality and/or the aesthetic quality of the store/shop building. Meanwhile, the 3D shape of the space may have its intrinsic distinctiveness that enables customers to identify the service provider from the characteristic shape or the like, or may acquire its distinctiveness through repeated use of the space. If, however, the 3D trademark for the shape of a store/shop is rejected, without exception, for lack of distinctiveness for the reason: "it is employed for the purpose of contributing to the functionality and/or the aesthetic quality" or "it is a predictable modification or decoration of the shape for the sake of the functionality or the aesthetic quality," there appears to be room for consideration about whether such lack of distinctiveness is reasonable or not. Regarding this issue, in a suit against the board decision rejecting the 3D trademark for a chocolate bar (IP High Court, June 30, 2008 (2007 (Gyo-Ke) 10293)), the Court says: "the defendant (JPO Commissioner) asserts that it is only a peculiar shape of goods irrelevant to the functionality or aesthetic quality of the goods that distinguishes the goods from others, and any trademark composed of only marks that express the shape of goods in a commonly used manner is not regarded as a trademark under the Trademark Act, Article 3 (1)(iii). In light of the fact that the essential value of goods resides in the functionality and/or the aesthetic quality of the goods, it should be almost impossible to conceive of a shape of goods that satisfies such a condition for trademark. The defendant's position excessively limits the significance of the 3D trademark system, and is therefore unreasonable."

### 5. Identity of trademark

When a trademark applicant for a building/interior is to prove its distinctiveness acquired through use of the trademark, there may arise a question of whether or not the trademark filed with the Patent Office is identical to the trademark which is actually used. In the case of a trademark for food/beverage chain stores, the stores may not necessarily have the same exterior as the trademark depicted in the trademark application form as filed, even if the basic shape, the decorations, the colors, and the like of the exterior of the store are based on a specific concept common to the chain stores. The reasons for this include the following. Stores are often developed using existing buildings. The creation/development of the 3D shape of a store is subject to various restrictions, such as the shape of the land and/or the shape of the building itself in which the store is to be constructed, the ownership of the building, the intention of the building's owner/manager, the fire safety regulations, and the landscape regulations, for example. Because of this, it is almost impossible to construct chain stores that are completely identical to each other. Moreover, the 3D shape of a store may partially be replaced appropriately with a new one for repair or the like. In such a case, identity of chain stores may not be evidenced even when many facts of use of the trademark are submitted, because the trademark as used is not exactly identical to the trademark depicted in the trademark application form, and such facts may not be accepted as evidence.

This issue may also arise even after trademark registration. If a 3D trademark for the exterior of a store/shop has been registered and a third party files an appeal for cancellation of registration for non-use of the trademark, the registered trademark is effective as long as the store/shop has continuously been run actually. However, while the store/shop business may have continued for a long period, stores/shops may be opened and closed repeatedly under various circumstances. In such a case, among chain

stores, some stores having the registered trademark may have been closed already and use of the trademark may not be evidenced, while other stores may have an exterior that is regarded as being different from the registered trademark.

As seen from the above, during actual business activities of a store/shop business entity, a 3D trademark for the exterior/interior of stores/shops is under special circumstances different from general trademarks, i.e., use of the same trademark as the one depicted in the trademark application form regardless of where the stores/shops are located, or permanent use of the trademark, is difficult in some cases. If the trademark system for trademark protection requires that a trademark to be filed and registered can include only the one exterior of a store/shop depicted in the drawing on the trademark application form, and requires that the trademark prior to being registered should be identical to the trademark after registration, such a system itself is not suitable for the actual use of store spaces by business entities. The new 3D trademark system allows a trademark to be depicted in solid line and broken line for claimed and non-claimed portions respectively and allows the applicant to describe this in the Detailed Description of the Trademark, which leaves a certain room for interpretation of the identity. However, in a trademark application form, it is only a single specific three-dimensional object that can be described, and therefore, the specific shapes of parts, arrangement thereof, and/or the ratio between the parts depicted in solid line are uniquely determined. Therefore, the identity of a trademark is still difficult to ensure.

### 6. "Spatial product" and "theatrical space"

There are a variety of businesses that make use of "the 3D shape of a space of a building/interior" and there are also a variety of specific spaces to be exploited. Examples of such space include the exterior/interior of a house constructed by a house manufacturer, the exterior/interior of a commercial building constructed by a building constructor, interiors of an office building prepared by a furniture/fixture manufacturer, the exterior/interior of a restaurant, the exterior/interior of a retail store, as well as symbolic structures serving as landmarks. I think that the 3D shapes of these spaces are classified into "spatial product" and "theatrical space" by the use of the space and/or the purpose of exploitation of the space. A "spatial product" is one having a 3D shape that is directly traded as it is.

manufacturer, for example, is classified into this. For house manufacturers, the 3D shape of a space having the exterior/interior exploited and created through their daily business activities for the sake of conformity of the house, convenience of use thereof, its beauty, and the like, is one of the outcomes of their business activities, and serves as the value of the product to be appealed to customers. Then, the 3D shape of the space is, by itself, a product to be traded with customers, and can therefore be called a "special product" to be paid for.

As for "theatrical space," typical examples are the exteriors/interiors of restaurants, retail stores, and the like. The 3D shape of a space with the exterior/interior of such a store differs from that of "spatial product," in that the "theatrical space" is not directly traded between the business entity and customers. In this case, the value of the business is the service offered in the store, specifically the menu, the quality of foods, customer service, and the like in the case of restaurants, and goods for sale, display of goods, selection of goods, customer service, and the like in the case of a restaurant/retail store is the 3D shape of a space where the business entity offers its service, namely the 3D shape of "theatrical space" where the service provider presents its performance.

"Spatial product" and "theatrical space" are essentially different from each other in terms of the purpose of development. They appear to be different from each other in terms of the intention of the developer before a newly developed 3D shape is opened to the public. In other words, they appear to be different in terms of the time when the developer starts considering whether they seek intellectual property protection of the 3D shape. Business entities such as house manufacturers have greater concerns about the risk that their newly developed "spatial products" are copied/stolen by other business entities. Once the 3D shape of a space that has been developed with their efforts, cost, and time is opened to the public, others may copy the shape against the developer's intention. In order to prevent such a risk, business entities such as house manufacturers consider whether intellectual property protection, typically design protection, is necessary before their product is opened to the public, namely before novelty is lost, and file a design application for the product as appropriate. This appears to be the background of the fact that most of business entities that file a design application for a building/interior are business entities such as house manufacturers of "spatial products."

As for "theatrical space" of food and beverage business entities, at the time the exterior/interior of their new store/shop is opened to the public, they are less concerned about whether to seek intellectual property protection for the 3D shape of the space, relative to business entities of a "spatial product." This is for the reason that for business entities providing services through their "theatrical space," it is critical to provide their services in the "theatrical space," and the "theatrical space" itself is not traded with customers. While "theatrical space" is one of the elements of branding for the business entities that provide services through their store/shop, the 3D shape is not itself a value to be appealed independently to customers, at the time the new store/shop is open. At the time a new "theatrical space" is opened to the public, the business entity is less concerned about the risk of copy by others, relative to the business entity of a "spatial product." As a result, most business entities providing "theatrical space" do not have much concern about the loss of the opportunity to file a design application, resultant from loss of novelty. This may have influenced the relatively smaller number of design applications for the building/interior of food and beverage business entities.

Regarding "theatrical space," continuation of business using a store/shop having "theatrical space" may motivate customers to select the service provided in the store/shop. More specifically, once a business is continued for a long period providing services through a store/shop having "theatrical space" with an exterior in a specific shape and/or colors, or an interior having decorations in harmony with each other, the "theatrical space" gradually becomes widely known among customers, so that the theatrical space itself may act as an identity of the service provider. For food and beverage business entities and store/shop business entities such as retailers, the risk that the "theatrical space" is copied by others becomes high around the time when the publicity of the space becomes wider. It is often at this time that the business entity of "theatrical space" begins to consider the necessity of intellectual property protection of the "theatrical space" and how it can be protected.

At this time, however, novelty has already been lost, and it is therefore impossible to file a design application for this "theatrical space." A possible approach then, is trademark protection. Once the "theatrical space" becomes an identity of the source of the service for customers, it is the trademark that protects the reliability of the business, and the trademark system is effective for protection of the building/interior. Under the new 3D trademark system, even partial 3D trademarks are required to have a high degree of distinctiveness, like normal 3D trademarks. In order to gain protection under the Trademark Act, Article 3(2) on the basis of distinctiveness acquired through use, wide publicity across the whole country has to be evidenced. For local chain store business entities, the distinctiveness condition under Article 3(2) is extremely difficult to satisfy.

### 7. Protection of spatial shape after novelty is lost

Under the industrial property system, any created 3D shape, which is not limited to "theatrical space," is in principle not protected at all for the period from the time when the opportunity to file a design application is lost due to opening to the public and resultant loss of novelty, to the time when the created 3D shape acquires a high enough degree of distinctiveness to be protected under the Trademark Act, Article 3(2). In other words, once leaving "the Novelty Harbor of the Design Continent," one cannot return to this harbor and has to continue a long journey until reaching "the Article 3(2) Harbor of the Trademark Continent."

During such a journey, if one cannot rely on the design or trademark system and their 3D shape of a space is imitated by others relying on the Unfair Competition Prevention Act is only option available. The following are typical cases handled before courts under the Unfair Competition Prevention Act, where the 3D shape of a space of a building/interior, particularly the exterior/interior of a store space classified as the above-defined "theatrical space," is copied by others.

- "TORIKIZOKU" vs "TORIJIRO" (Osaka District Court, Unfair Competition Prevention Act, 2015)

- "MARUGEN RAMEN" vs "NIKUJIRO RAMEN" (Osaka District Court, Unfair Competition Prevention Act, 2015)

- "KOMEDA COFFEE SHOP" vs "MASAKI COFFEE SHOP" (Tokyo District Court, Unfair Competition Prevention Act, 2016)

- "KANI DORAKU" vs "KANI SHOGUN" (Osaka District Court, Unfair Competition Prevention Act, 1987)

- "MAIDO OOKINI SHOKUDO" vs "MESHIYA SHOKUDO" (Osaka District Court, Unfair Competition Prevention Act, 2007)

- "NISHIMATSUYA CHAIN CO., LTD." vs "ION RETAIL CO., LTD." (Osaka District

### Court, Unfair Competition Prevention Act, 2010)

Businesses using stores/shops such as food/beverage, retail, and service businesses are often started usually from a single store/shop and extended gradually to open chain stores initially in neighboring regions. Stores/shops except for mobile catering vehicles are usually opened using a building constructed at a specific geographical location, and the stores/shops themselves are never moved or delivered physically. As such, the location where a trademark acting as "theatrical space" is used is only a single location where the store/shop is located. Even when the service provided in the store/shop becomes popular, customers receiving the service are usually limited to residents around the store/shop. Unless the building of the store/shop is a tourist landmark famous across the whole country, the geographical range in which the "theatrical space" of the store/shop is well known should inevitably be limited to regions around the store/shop. In order for a store/shop to become famous across the whole country, business must be extended to chain stores across the whole country.

Thus, there may be a situation where "theatrical space" such as the exterior of a store has already been known across a single local region while it has not yet been known across the whole country. Under such a situation, however, customers' trust in the business, i.e., "theatrical space" should have been built up and this theatrical space should therefore be protected. If protection by a design patent is impossible and protection by a trademark is also impossible due to the fact that it is not famous across the country, there is a possibility of infringement by a third party copying the theatrical space. In this case, no strategy for infringement prevention is left, except for the Unfair Competition Prevention Act. While it would be easy to recommend that a design application for the 3D shape of the space be filed before it is opened to the public, or that protection by a trademark be sought under Article 3(2) if applicable, remedies for infringement should be available under the Industrial Property Right System.

### 8. Combined trademark and required distinctiveness

As seen from the above, actual chain stores are inevitably different from each other in specific shape, size, proportion, arrangement, and the like, even when the business entity managing the chain stores tries to make all the stores completely uniform in terms of the specific shapes, decorations and the like of their roofs, walls, furniture and the like. Moreover, a certain store located at a certain geographical location cannot be moved, which limits the geographical range in which the store's exterior/interior acts as a trademark. Thus, an effective protection system for "theatrical space" is necessary in view of the peculiar nature of "theatrical space."

Under the existing 3D trademark system, only a single trademark is allowed to be depicted in a trademark application form (in a 3D trademark application, multiple trademark drawings can be filed, which, however, are drawings of a single trademark viewed at different angles for defining the specific shape of the trademark). In view of the above, I propose a new approach of specifying and combining individual elements of a trademark for the exterior/interior of a store/shop (elements such as 3D shape, graphics, colors, and basic arrangement thereof), for example, and filing the whole combination as a single trademark. More specifically, this is an approach of individually extracting elements identified as specific sources by customers seeing "theatrical space" having been well known to a certain extent, i.e., extracting visual characteristics representing specific sources of a specific atmosphere generated from the exterior/interior of the store/shop, and specifying them as elements of the trademark in the application form. I also propose to require the applicant to describe the arrangement of the elements in the Detailed Description of the Trademark, and allow the applicant to file a reference view showing a state in use of the trademark. It thus appears possible for the trademark system to flexibly adapt to the circumstances in which it is difficult to make all chain stores completely uniform in terms of the 3D shape of the stores, by allowing a trademark composed of a combination of individual elements acting as characteristic parts of the spatial shape, which are arranged to have a certain relation therebetween, rather than being limited to a single trademark drawing indicated in the trademark application form.

In the 2018 Research Project on Differences in the Industrial Property Right System between Countries, "Report of Research on the System/Practices Concerning Store's Exterior or the Like (Trade Dress)"

(\*https://www.jpo.go.jp/resources/report/takoku/document/zaisanken\_kouhyou/ 2018\_01.pdf) says that one of the revisions of the trademark system for store's exterior/interior "allows registration and protection of a trademark that is a combination of only 3D trademarks, position trademarks, and colors, for example, as a trademark of new type." This report may be taken into consideration to devise a specific method of creating "a single trademark from combined elements."

In the Komeda Coffee Shop case (December 19, 2016, Tokyo District (Case No. 2015 (yo) 22042)), it was decided for the first time that a shop's exterior (exterior decoration, configuration in the shop, and interior) is identified as "indication of goods or business" under the Unfair Competition Prevention Act. The decision states "while the exterior/interior of a shop is not usually selected for identification of the source of the business, it may be selected for creation of an image of the business entity's shop," and identifies the Komeda Coffee Shop's exterior and the like as an "indication of goods or business," and identifies the following characteristics:

the shape and the design of the linear decorations,

the shape and the pattern of the bay windows and the brick wall, respective positions of the gable roof, windows and the like, and the color tone, etc.



(Fig. 3 Komeda Coffee Hirakata Minami Shop, from the Komeda Coffee's homepage)

The above-identified characteristics may provide a hint for extracting characteristic elements of the shop's exterior/interior that contribute to the distinctiveness of the shop.

The shape of the bay windows, the shape of the brick wall, the gable roof and the like may each be only a part of the building, decoration, construction material, furniture or the like, may be employed for contribution to functionality and aesthetic quality, and may merely be a product for providing service. Therefore, it may often be inappropriate for a private person to have each shape exclusively as a trademark. However, if it is evidenced that a combination of these characteristic elements arranged in a certain manner has some distinctiveness as a whole, such a combination may deserve to be protected. There should be no circumstances where it is the sole option for a third party to select the combination of the characteristic elements, from numerous methods for creating the 3D shape of the space. Even if such a combination is given an exclusive right, the third party's options for selecting a trademark will not be narrowed significantly. If the combination has already acquired distinctiveness, use of the same 3D shape as the combination should be avoided.

Regarding the distinctiveness of "theatrical space" of a shop/store, the particularity of use of a trademark for the shop/store should be taken into consideration, namely the shop/store business is run at a geographical location. For example, the condition under the Trademark Act, Article 3(2), namely that the trademark shall be known across the whole country, should be alleviated, like a condition that it shall be known across a single geographical region.

The foregoing is a proposed new strategy for protection of "theatrical space." Whatever strategy is adopted, the strategy should facilitate trademark search by third parties, and provide a clear indication of whether similar or not, for example, so that the whole system does not influence designing of a building/interior by a business entity.

### 9. Conclusion

In order to make it possible for the 3D shape of a building/interior such as the abovedefined "theatrical space" to be protected appropriately by a 3D trademark, further reforms of the system as well as positive use of the system are desired.

<sup>\*1:</sup> applications on and after April 1, 2020, available on October 2, 2023