

Patent Information Search

Chapter 4: Patent Information Management

Patent information comprises of extensive information accumulated over a long period of time. It is technology information enabling the acquisition of new information in relation to idea collection and research progress when searching for new R&D themes. Also, exclusive right is protected over a specified period enabling the prevention of entrance by competitors, and as a right to receive royalties through license agreements it is a means to create management profits through royalty revenues and prevention of overlapping research by determining the technology & merchandizing trends of competitor corporations. It should be utilized and managed as management information to secure product competitiveness using the monopolistic market control over the period for which the right is valid.

1. Utilization of Patent Information

A. Usage in Technology Development

Patent information comprises of extensive information accumulated over a long period of time, so it is technology information enabling the acquisition of new information in relation to idea collection and research progress when searching for new R&D themes. Although the technology is announced after 18 months in accordance with the application announcement system, it enables determination of technology trends and standards of similar firms in a particular field, and makes possible the theme selection, discovery of missing technology, and adjustments in development process of one's firm.

B. Usage of Rights Acquisition & Utilization

When constructing the specifications, one's own scope of right can be confirmed by taking the rights details and prior technology of other firms into consideration, and a decision in relation to patent acquisition can be reached. Patent rights of other companies can be obstructed or their scope of right reduced through information provision, submission of objections, invalidity judgments etc.

By acquiring a patent, exclusive right is protected over a specified period enabling the prevention of entrance by competitors, and royalties can be received by permitting the right to exercise to other companies in accordance with license agreements. When providing the right to exercise to another company, a corresponding right to exercise can be gained from that company in a cross-licensing arrangement.

C. Utilization in Management Information

It is a means to create management profits through royalty revenues and prevention of overlapping research by determining the technology & merchandizing trends of competitor corporations. It should be utilized and managed as management information to secure product competitiveness using the monopolistic market control over the period for which the right is valid.

2. Understanding Patent Information

A. System Understanding

With the patent system, much effort has been contributed in operating as a single worldwide system

centered on WIPO, and at present various systems are being operated based on the understanding between countries in accordance with the principle of independence of the Paris agreement, so there needs to be more understanding between countries including Korea, Japan, USA, Europe, China etc. in relation to the patent systems.

B. Technological Understanding

To determine the technology flow in relation to the relevant technology field, understanding the aspects apart from technology information is also especially important, and the differences in technology terms between different countries must also be determined. When performing searches of patent information, it is important to conduct the search of cited and citing references in relation to the search results to raise the preciseness of the search.

C. Language Understanding

Not only the differences in technology terms relating to identical technologies due to the language factor of each country but also the standards for Korean indicators of foreign terms must be confirmed and remembered to enable sufficient understanding of synonyms of technology terms used in applications.

D. Understanding D/B Characteristics

D/B accumulation status, data renewal period, usable operators & different number systems between countries etc. must be determined and utilized in patent search management.

3. Patent Information Search Methods

A. Bibliographic Search

As the researcher is already aware of the patent number and the inventor's name, the research can be conducted very simply and quickly. The point of this kind of research is to find out what is protected by a particular patent number, and what patent is possessed by a particular patent. Bibliographic search can be performed as personal background search, history search, and chronological search.

B. Patentability Search

Patentability search is the most general. This search is to determine whether it is a subject that can be patented, whether it is valid, whether it is original, and whether it is self-explanatory. Therefore, it is advisable that the patentability search be conducted before the development of the invention. The purpose of this search is to determine whether a prior patent (prior technology) exists. The inventor can search useful prior data in preparing for patent application.

The search of invention ideas or prior technology in relation to patents already applied can enable the application decision after confirming the possibility of acquiring the rights, and is the most fundamental utilization method to widen and strengthen rights acquisition by enabling the adjustment of the claim.

C. State of the Art Search

State of the art search is a general search in relation to prior technology in particular fields. This

search can basically involve extensive collection of information or it can be narrowed down. It is a search to find license technology to solve specific technology problems or for other similar purposes. This kind of specific technology field search is a utilization method which can perform a wider scope search & analysis of specific information relating to the R&D theme to conduct a more effective and strategic R&D process, and it can be divided into the following detailed research & analysis methods

- (1) Basic information search: collection & extraction of related data
- (2) Classification information search: technology classification
- (3) Analysis information search: technology classification & analysis

D. Continuing Search

Continuing search is also called monitoring search and is mainly used to determine patent trends in the interested filed or competitor trends. It also includes the monitoring search of legal status etc. in relation to a specific case.

E. Assignment Search

When a patent is assigned to another person or company, it is the same thing as a sale despite the use of other terminology. For example, whether it is an individual or a company, the buyer is called the assignee and the seller, such as the investor, is called the assignor. The purpose of this search is to determine the legal owner of the relevant patent.

F. Infringement Search

An infringement search is performed to determine actions that violate or are covered by a patent that has not been terminated. This search has a deep relationship with the non-terminated patent claim.

G. Validity Search

Validity search conducted by an individual or a company is to determine whether a patent possessed by someone else can be invalidated. The searcher finds public period knowledge used in an invention or technology defects which can warrant the invalidation of the patent. So, validity search is to determine whether a non-terminated patent is valid.

That is, it is an information search method that can be utilized for information provision, objection submission, and invalidation judgment in order to invalidate patents that are obstacles to product sales of one's company. It is one of the utilization methods requiring highly advanced analysis techniques in terms of patent information research and can determine the validity and invalidity of rights by indicating the level of relevance to patentability (originality, advancement capacity) by researching technology theses other than the patent reports of major countries including Korea, USA, Japan etc.

H. Rights Termination Search

Unlike the infringement search which focuses on non-terminated patents, this search focuses on terminated patents. This search determines the potential legal outcomes of reproducing processes, products, and designs of other companies of which the exclusive rights have been terminated.

I. Patent Map

This is a search of prior patent information in relation to new generation R&D using various types of patent information utilization methods. It is a precise and comprehensive method which can even be applied to highly advanced utilization methods and is used for the purposes of technology information utilization for technology development trends, technology extension situations, competitor trends, market participation potential, product development flow, and determining technology scope & the utilization of rights information for patent acquisition potential etc. through collection, extraction, analysis, and mapping of relevant data to enable the setting of R&D direction, overlap investment prevention, missing technology discovery, prior prevention of patent disputes etc. by determining the proliferation status of the technology.

4. Patent Information Management

A. Setting the Development Aim

The development aim is set by researching technology & product development trends of other companies and determining their technology standards by conducting prior technology analysis, and forecasting future technology transformation trends by the utilization of patent maps etc.

B. R&D

To support R&D, appropriate application and effective securing of rights is devised by conducting systematic management of R&D products & patent rights acquisition through the establishment of a patent management division or assignment of a patent administrator within the company. Continual analysis of prior patent technology and establishment of competitor patent application trends & patent invalidation measures should be set in order to conduct R&D, and if required, R&D can be supported by inducing evasive design, joint development, license acquisition & cross-licensing etc.

C. Product Development & Sales

On product development, research is conducted in relation to the technology used by which disputes with other companies are prevented, and apart from patents, searches in relation to designs & trademarks are performed to prevent production & sales disputes beforehand. Even after entrance into the market, focus must be placed on new product developments for the expansion of sales through development of new usages and materials. Patent cartel strategies, cross-licensing & securing of exercise rights etc. are also considered for the sales network expansion and to constrain market entrance by other companies.

To secure patent technology for the development of high value adding products, systematic management and support is required in relation to R&D by establishing organizations & information systems and provision of adequate remuneration in relation to R&D personnel.

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