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Evaluate Patentability of Your Invention

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1. Introduction

The patent system is designed to encourage inventions that are useful to society by granting inventors absolute right to make profit from their inventions. While disclosing the invention benefits the society, protecting the invention benefits the inventor. But patents cannot protect each and every person who conceives an invention. While there are some common criteria of accepting an invention for patenting, the laws of patenting differ from country to country to some extent. It is important to check the patentability of your invention in order to avoid rejection.

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1.1 What is patentability

Patentability refers to the substantive conditions that must be met for a patent to be held valid. As patent laws are different in different countries, the patentability criteria also vary from country to country. The invention must satisfy the requirements under the context of a national or multinational body of law to be granted a patent.

There are some common elements of patentability, viz, novelty, utility and non-obviousness, which are interpreted differently in different legislatures and judiciary systems of different countries.

**Novelty**- requires an invention to be new in order to be patented. It must not be known to anywhere in the world.

**Utility or Industrial application**- The invention should be useful. If something is useless or harmful then that lacks patentability.

**Non-obviousness or Inventive step**- the invention should be different from what a common person can do.

**Non exclusion by law**- the invention should have not been excluded by law from the patentability list.

1.2 Patentability assessment

The concept of patentability is very vague in the paraphernalia of legal concepts. The patent application may be rejected for several unforeseen reasons. It is therefore very important to conduct a patentability assessment before filing a patent. This reduces the risk of rejection and saves money and time.

Patentability assessment is basically evaluating the patentability criteria. Many professional patent attorneys prepare Patentability Report (PR) to formalize the process or study. A patentability assessment ensures that the patent will not be rejected because of patentability criteria.

1.3 Importance of patentability assessment

Patenting is an expensive activity. If a patent application is rejected then it causes a waste of huge amount of time and money. It is quite important to assess the patentability of the invention before filing a patent application.

If a patent application is rejected, in some cases it may lead to extremely miserable situations. For example, a person wants to patent something which he had kept confidential as a trade secret. If his patent application is rejected for some reason he looses from both the sides. He has already disclosed his trade
secret in the “description” and “claims” section of his patent application. His trade secret is no more a secret. The trade secret is gone the patent is also gone.

The inventor goes to patent for a non-patentable invention. He spends money and comes with frustration. If he had known which inventions are not patentable he would have not gone for patenting. It is important to know which all items are excluded from patentability.

When the inventors realize that the prospect for protection do not justify the costs nor the efforts, in that case, the patentability analysis allows the applicant to make substantial cost savings by avoiding the filing of a superfluous application.

In some cases the patent drafting plays a significant role. If the novelty or non-obviousness criteria are on the borderline, a poor drafting may cause the rejection of the patent application. If the patentability is evaluated professionally, the patent drafting can be done with exact care.

2. Components of patentability assessment

When a patent is submitted, a patent examiner does the patentability assessment of the invention. The following aspects are examined while doing patentability assessment.

- Do an assessment of Novelty of the invention
- Assessment of Inventiveness
- Assessment of Usefulness according to the patent law.
- Assessing non-exclusion by law
- Assess the prior art before the invention. Study the patents and articles published by other parties which are capable of challenging the invention’s patentability.
- Assess the language and style of patent drafting to ensure that it goes as per the law.
- Examine other criteria such as sufficient disclosure etc.

2.1 Novelty assessment

The test of novelty considers what is the gap between the invention and the prior art. The novelty requirement in modern patent law is generally based on an assessment of the prior art of the universe, that is anywhere in the world. The novelty is broken if the claims are found in previous publications or any form of public knowledge.
However, as we saw above, the novelty is defined differently in the legal system of different countries. For example, the US laws are not so strict on novelty. It requires “complete disclosure in a single publication” to destroy novelty. In other cases, the novelty may be considered more strictly, for example, the novelty is broken even though “the disclosure have not been made explicitly but just considered implicit in prior writing”. The assessment is to be done depending on country you are going to file the patent.

2.2 Inventiveness Assessment
Evaluate if a person with average intelligence and skill in the art could have discovered the invention. This process involves the following three factors.

- The scope and content of the prior art to which the invention pertains,
- The difference between the prior art and the claims at issue.
- The level of ordinary skill in the pertinent art.

The degree of inventiveness may vary according to the “definition of ordinary skill in the art”. As in case of novelty, different legal system and different courts may elevate or relax the inventive step to satisfy non-obviousness.

The U.S. Supreme Court decision in *Graham v. John Deere Co.*, 383 U.S. 1, 86 S. Ct. 684, 15 L. Ed. 2d 545, 148 U.S.P.Q. 459 (1966), provides the analytical framework in which to decide whether an invention is non-obvious. Just because all the parts of an invention may be found in a prior art does not necessarily make the invention obvious.

2.3 Industrial Applicability Assessment
Patent law around the world aims to protect the “technical solutions to a given problem” and not “abstract knowledge”. However, different countries differ in their consideration of industrial applicability.

According to US law the invention which do not lead to an industrial product can also be patented, if it has some function (“useful”) of benefiting the humanity. This concept of “usefulness” is broader than industrial applicability.

The TRIPs agreement does not define the concept of industrial applicability. It allows a member country to assess “industrial applicability” synonymous with “useful”. This, therefore, leaves countries with considerable flexibility.
2.4 Non-exclusion assessment:
Non-exclusion assessment is done by looking at the list of categories, which are excluded from the patentability list. There may be different items in laws of different countries. The items include scientific discoveries, invention against human society etc. If your invention directly falls into any of those categories, then it is disqualified.

According to Articles 52(2) and (3) EPC, an invention is excluded from patentability if it has no technical character. An invention has a technical character if there are technical considerations involved. Technical considerations may lie either in the underlying problem solved by the claimed invention or in the (technical) effects achieve in the solution of the underlying problem. Consider all aspects of technicality and evaluate whether your invention has a technical character or not.

However, the technical character of an invention is not affected by the presence of a non-technical feature included in it, which can exclude it from patentability.

You have to ensure that your claims include an “implementing technology”. If there is no implementing technology, the application will be rejected under article 52(2) and (3) directly.

2.5 Assessment of other criteria
There are some issues which are controversial and debatable in law. The law neither rejects them nor allows as such. There are arguments in favor of and against their patentability. In such cases law becomes stricter to assess those criteria. One has to be very careful to assess the patentability if the subject matter falls in any of these controversial area.

- Inventions related to human genome,
- Patenting business methods
- Patenting computer software
- Patenting pharmaceutical inventions
- Controversies between invention and discovery.

3. Methods of Patentability Assessment
We discussed about what is patentability assessment. The next question is how to do a patentability assessment. It is always good to do the assessment by an experienced professional body or a patent attorney. But before going to a paid service, you should do a preliminary analysis by yourself. This gives you the basic knowledge and confidence and reduces dependability.
Out of various methods of testing your patentability the following are common and widely used.

3.1 Doing a patentability search by yourself

Patentability searches are quite common. One has to scan the old patents and prior art and determine whether a specific invention is within the scope of patentable subject matter, useful, novel, and unobvious. Doing a patent search by yourself helps you learn about your product and compare the results of your invention with that of others.

Patent searching can be done in various ways, such as going through the patents available in the patent offices, direct searching the patent sites on the internet, using software tools for a sophisticated searching etc.

3.2 Going for patent search services

A patent search performed by a skilled searcher is definitely more reliable and faster. As they are skilled in the art, they can do the job much faster. However their service is available only at a price. It is important to check their experience, skill and the database they use before hiring their service.

If your patent attorney is searching only through internet/computerized tools, they may fail to search the patents before 1965, as patents before 1965 are not computerized yet. The US Patent and Trademark Depository Libraries also have access to the computer database (sometimes they charge a nominal fee of $25-50) so you can do a manual and computerized search at the same time.

3.3 Opinions service

Your patent office may have an opinion service to assess the patentability of your invention. You can ask the Patent Office for an opinion on an issue of validity or infringement. However, this opinion is non-binding and the applicant is free to decide on his own.

3.4 Evaluate patent drafting

Usually the term patentability refers to “substantive” conditions and not the formal conditions. But when we go to file our patent, we must evaluate the patentibility of our invention from all angles, even the formal conditions too.

Clear patent drafting- the patent should have been drafted in clear (legal/technical) terms, without ambiguities. The claims should be clear and concise. If the claims are obscure or ambiguous, they are likely to be rejected.

Sufficiency of disclosure- the claims should be supported by sufficient description or disclosure. The patent is granted to the inventor because the inventor contributes his invention to the public through disclosure. If the disclosure is not
clear, or there is contradiction between claims and description, then the patent will be rejected.

4. Summary and conclusion

Patentability assessment is extremely important before filing a patent application. By doing a patentability assessment the inventors can:

- Determine whether there invention is patentable or not.
- If the invention is non-patentable, they can avoid substantial cost, time and effort by not filing their application.
- Inventors can get the knowledge of similar inventions in the field.
- Inventors can modify their ideas to suit the patentability criteria.
- Patentees can assess the strength of their patents.

Patentability assessment involves assessing novelty, assessing Inventiveness, Assessing Industrial Applicability and Assessing Non exclusion by law. As the criteria of patentability vary in different legal systems, the criteria of assessment depend on which country you are going to file the patent.

You should do a patentability assessment by an experienced group of professionals. But before going for a paid service, you can do an assessment yourself. The methods of patentability assessment are:

- Patent searching by self through different patent sites on the Internet.
- Going for a patent search service.
- Going for an opinion service in the patent office if available.
- Evaluate patent drafting to ensure that it satisfies other conditions such as “sufficiency of disclosure”, “clear and concise claims” etc.
- Ensure from patent office that nobody has filed the same claims just before you have filed.

Abbreviations

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<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>USPTO</td>
<td>European Patent and Trademark Office</td>
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<td>EPO</td>
<td>European Patent Office</td>
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<tr>
<td>EPC</td>
<td>European Patent Convention</td>
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<tr>
<td>PCT</td>
<td>Patent Cooperation Treaty</td>
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<tr>
<td>WIPO</td>
<td>The World Intellectual Property Organization</td>
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<tr>
<td>TRIPS</td>
<td>Trade Related Aspects of Intellectual Property Rights</td>
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<tr>
<td>GATT</td>
<td>General Agreement on Tariffs and Trade</td>
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Reference


5. PCT applicants guide, source: Internet


About the author

*After working for more than 18 years in various fields of Information Technology Umakant is currently doing independent research on TRIZ and IT since 2004. He last worked as Director and Chief Technology Officer (2000-2004) in CREAX Information Technologies (Bangalore). Before that he worked as IS/IT manager (1996-2000) for ActionAid India (Bangalore).*

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