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Patentability Criteria in Different Countries

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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. But patents cannot protect each and every person who conceives an invention. Hence an invention must fulfill certain criteria to be patentable.

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.

Although the patentability criteria differs from country to country depending on the law of the land, there exists some commonality between them. In order to be patentable, an invention must be novel, have utility, and differ from what skilled users might expect. These standard requirements are given different shapes by the legislative and judicial systems of different countries. Let’s discuss how the criteria are interpreted in different countries.

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2. Patentability criteria in USA

US patent laws prescribe three tests for patentability, viz, Novelty, Utility and Non-obviousness.

Novelty- the invention, in order to be patented, must be new. An invention is new if it has not been a part of any state of the art. The knowledge that is already known to the public cannot be patented.

Utility- is another criteria of USPTO to assess the patentability. The invention should be useful in order to be patented. If something has no use for the society or the world, if something is harmful to the mankind, then that is not patentable.

Non-obviousness- is the third criteria to evaluate the patentability of an invention. Until 1850, the courts asked only for novelty and utility. But after 1850, the supreme court did not allow patents to every change in an existing method. The criteria of non-obviousness was added. It was stated that if the invention is obvious to anybody having ordinary intelligence and knowledge on the subject matter then it is not qualified for a patent.

The US law is very broad to accept everything under the patentability criteria. It is said that “anything under the sun made by man” would be eligible for patent, as long as it leads to something “concrete, useful and tangible”.

3. Patentability Criteria in Europe

The European Patent Convention (EPC), puts forth four criteria of patentability. An invention is patentable if, (i) it is novel (Article 54 EPC) , (ii) involves an inventive step (Article 56 EPC) , (iii) is capable of industrial application (Article 57 EPC), and (iv) is not excluded by Article 52(2) and (3) EPC.

Novelty- Novelty in EPC is slightly stricter than US law. According to EPC the invention must not be found at a previous date in any matter, whether a product, a process, the information have not been made available to the public whether in European country or anywhere in the world.

Inventiveness- An invention must involve an inventive step in order to be patented. According to the law, a person with ordinary brain and skill in the art should not be able to derive the claims of the invention. This criterion is very similar to the US criteria of non-obviousness.

Industrial application- an invention must have an industrial application in order to be patented. Section 4 states that an invention shall be taken to be capable of industrial application if it can be made or used in any kind of industry including agriculture. This criterion is similar to the US criteria of utility.
Non exclusion by article 52(2) and (3) of EPC- These articles exclude a lot of items from the patentable list. Some of them as below:

- An invention is excluded if it has no technical character. The technical considerations may lie in the underlying problem solved or in the technical effects achieved.
- A method claim that does not mention any implementing technology will be rejected.
- A discovery, scientific theory or mathematical method is not patentable.
- An invention which is offensive, immoral or anti-social is not patentable.

4. Patentability criteria in WIPO

WIPO: World Intellectual Property Organization. The UN agency, headquartered in Geneva, that administers most IP treaties and that holds periodic conferences to revise them

WIPO also prescribes a similar set of criteria for patentability. They are: Novelty, Inventive step and Industrial applicability. WIPO’s “Inventive Step” is same as “non-obviousness” of USPTO. Involving “inventive step” means one that would not have been obvious to a person skilled in the art at the time the patent application was filed.

5. Patentability Criteria in India

According to Indian law, “any new product or process involving an inventive step and capable of industrial application” is patentable.

Novelty- This talks about new product or process. The novelty is disqualified by any indication of prior use.

Inventive step and industrial application- According to Section 2(1) of patents act the patent should be an invention as new product or process involving an inventive step and capable of industrial application. Inventive step is defined as a feature that makes the invention not obvious to a person skilled in the art. It does not say anything about utility, the “industrial application” is similar to “utility” criteria of USPTO.

Non patentable inventions- In India Section 3 of patents (amendment) act 2002 prescribes that the following items cannot be patented.
- An invention which are frivolous of which claims anything obvious contrary to well established natural laws.
- An invention the primary or intended use of which could be contrary to public order or morality or which causes serious prejudice to human, animal or plant life or health or to the environment.
- The discovery of a scientific principle or formulation an abstract theory.
- Mere discovery of any new property of a known substance or mere use of a known process, machine or apparatus, unless such known process results in something new.
- A method of agriculture or horticulture.
- Any process for the medicinal, surgical, curative, prophylactic, diagnostic, therapeutic or other treatment of human beings.
- A mathematical or business method or a computer program or algorithm.

6. Criteria in Japan

Art. 2 of the Japanese Patent Act says, “Invention” in this Law means the highly advanced creation of technical ideas by which a law of nature is utilized.

Article 29 talks about patentability as follows.

Section (i) Any person who has made an invention which is industrially applicable may obtain a patent therefore, except in the case of the following inventions:
  • (i) inventions which were publicly known in Japan or elsewhere prior to the filing of the patent application;
  • (ii) inventions which were publicly worked in Japan or elsewhere prior to the filing of the patent application;
  • (iii) inventions which were described in a distributed publication or made available to the public through electric telecommunication lines in Japan or elsewhere prior to the filing of the patent application.

Section (2) Where an invention could easily have been made, prior to the filing of the patent application, by a person with ordinary skill in the art to which the invention pertains, on the basis of an invention or inventions referred to in any of the paragraphs of Subsection (1), a patent shall not be granted for such an invention notwithstanding Subsection (1).

7. Patentability criteria as per TRIP

The TRIPS (the Agreement on Trade-Related Aspects of Intellectual Property) Agreement is one of the most important agreement to bring for a substantial harmonization of patent law on a global level. The TRIPS agreement was signed in Morocco on 15 April 1994.

Article 27 (1) of the TRIPS Agreement establishes that “patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application.”

Article 27 (2) of TRIPS provides for exclusion from patentability. Such inventions are excluded in order to protect public morality, protect human, animal or plant
life or health or to avoid serious prejudice to environment. Examples of things that would not be patentable are, cloning humans, modifying genetic identity of humans, modifying genetic identity of animals, using human embryos for industrial or commercial purposes etc.

According to TRIPS agreement, the countries are free to determine the “appropriate method” for implementing the Agreement within their own legal system and practice.

8. Other debatable criteria

There are some issues which are controversial and debatable in law. These includes patentability of human genome, patentability of computer programs, patentability of business methods etc. It is important to evaluate each issue carefully before you file your patent.

Patentability of business methods in EPO- Traditionally people think that Business methods are not technical, so they cannot be patented as technical inventions. But with the rise of e-commerce, more and more business methods are becoming patented in European Patent Office.

Patentability of human genome- the traditional concept- how can the discoveries on the human genome be considered as inventions when they are only the description of something that exists? The human genome is the property of humanity and in its natural state cannot give rise to any financial gain. The human body and its parts must not be used for sources of profit.

But slowly that concept is going out. More than 1500 patents have been granted and more than 2000 patents are pending in EPO on human genome.

Priority of patent filing- When two or more inventors discover or invent the same thing, patents are generally issued to the first inventor. An inventor who is the first to conceive of an invention and reduce it to practice is entitled to a patent.

Another general rule is that an individual who actually reduces an invention to practice has priority over one who constructively reduces it to practice. Actual reduction takes place when the invention is put into practical form, whereas constructive reduction occurs when a patent application is filed with the Patent and Trademark Office.

Controversies between invention and discovery- As per patenting law, an invention can be patented where as a discovery cannot be. The difference between invention and discovery is debatable. In many cases “discovery of hidden things” is also called an invention. According to EPC, if a discovery used for practical end, then it can be patented. Similarly if a process has been developed to discover the property then that process can be patented.
Pharmaceutical patents—some argue that patenting medicines is immoral and should be prohibited. Pharmaceutical product patents will result in higher prices for patented medicines.

9. Conclusion

The concept of patentability is very vague in the paraphernalia of legal concepts. The patent application may be rejected for several unforeseen reasons. Even if a patent is granted, it does not necessarily mean that the claimed invention is patentable. Errors in the granting procedure may occur and prior art may be brought to light even after the patent is granted.

Although the exact phrases of law differ from country to country, they all aim at certain common criteria, such as, (i) it should be of patentable subject matter, (ii) it must show an element of novelty, (iii) it must be of practical use, (iv) It should be non-obvious, means the invention could not be derived by a person with average knowledge in that field.

The basic conditions of patentability, which an application must meet before it is granted, are novelty, inventive step and useful. Besides the invention must not be excluded from the patentability by the law.

Unlike in Europe, under U.S. patent law no requirement for “technical character” exists. U.S. law merely requires that the invention produce a “concrete, useful and tangible” result.

Patentability assessment is extremely important before filing a patent application. By doing a patentability assessment the inventors can assess the strength of their patents. Besides, if they find it not patentable they can save substantial processing cost by not filing the patent.

Abbreviations

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<th>Abbreviation</th>
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<tr>
<td>USPTO</td>
<td>United States Patent and Trademark Office</td>
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<td>EPC</td>
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Reference

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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).

Umakant is a Master in Philosophy (MA), Master in Business Administration (MBA), Bachelor in Law and Logic (LLB), Microsoft Certified Systems Engineer (MCSE+I), Certified Novel Engineer (CNE), Master Certified Novell Engineer (MCNE), Certified Intranet Manager (CIM), Certified Internet Professional (CIP), Certified Software Test Manager (CSTM) and holds many other global IT certifications.