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Review Article – Intellectual Property Rights

A brief review on intellectual property rights with special attention on patent

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Abstract

Intellectual property (IP) is about promoting progress and innovation. Patents, Copyrights, Geographical Indication, Trademarks, Industrial design and Trade secrets are the most common forms of IPRs. Intellectual property rights (IPR) refer to the legal protection accorded to certain inventions or creations of the mind. Intellectual property has increasingly assumed a vital role with the rapid pace of technological, scientific and medical innovation now a day. Intellectual Property Rights (IPRs) are viewed as being of increasing importance in many fields of business. Patents represent a resource for both legal (ownership, inventors, reassignments, claims, etc.) and technology-rich prior art (background, specifications, etc.). Patents are accompanied by detailed textual descriptions of the inventions, and often, by drawings of electrical, mechanical, or chemical structures. Patent is recognition for an invention, which satisfies the criteria of global novelty, non-obviousness, and industrial application. IPR is prerequisite for better identification, planning, commercialization, rendering, and thereby protection of invention or creativity. However, one potential hindrance to their being considered of significant value is the lack of information to the public. Thus, this review paper represents a brief data on the concept of Intellectual property rights.

Keywords: Intellectual property rights, invention, patent, trademark

Introduction

Intellectual property (IP) pertains to any original creation of the human intellect such as artistic, literary, technical, or scientific creation. Intellectual property rights (IPR) refers to the legal rights given to the inventor or creator to protect his invention or creation for a certain period of time (Singh, 2004). Intellectual property is a broad concept that covers several types of legally recognized rights arising from some type of intellectual creativity, or that are otherwise related to ideas (Kinsella, 2001). The term intellectual property reflects an idea that the subject matter is the product of the mind or the intellect, and that Intellectual Property rights may be protected at law in the same way as any other form of property. Intellectual property laws vary from jurisdiction to jurisdiction, such that the acquisition, registration or enforcement of IP rights must be pursued or obtained separately in each territory of interest. Intellectual property rights (IPR) have become important in the face of changing trade environment which is characterized by global competition, high innovation risks, and short product cycle. Intellectual property promotes advancement in science and technology, arts and culture, traditional knowledge and biodiversity resources. The objective of this review is to describe the concepts of Intellectual Property rights and its importance towards society.

Historical Background of Intellectual Property

Intellectual property rights (IPR) can be defined as the rights given to people over the creation of their minds. The laws and administrative procedures relating to IPR have their roots in Europe. The trend of granting patents started in the fourteenth century. The first known copyrights appeared in Italy. Patent act in India is more than 150 years old (Singh, 2004). The inaugural one is the 1856 Act, which is based on the British patent system and it has provided the patent term of 14 years followed by numerous acts and amendments. George Alfred DePenning have made the first application for a patent in India in the year 1856. Copyright law entered India in 1847 through an enactment during the East India Company's regime. According to the 1847 enactment, the term of copyright was for the lifetime of the author plus seven years post-mortem. In 1888, new legislation was introduced to consolidate and amend the law relating to invention and designs in conformity with the amendments made in the UK law. In 1911, the Indian Patents and Designs Act, 1911, was brought in replacing all the previous legislations on patents and designs. This Act brought patent administration under the management of Controller of Patents for the first time. This Act was amended in 1920 to provide for entering into reciprocal arrangements with UK and other countries for securing priority. India’s statutory Trademarks Law dates back to 1860. Prior to 1940 there was no official trademark Law in India. Numerous problems arouse on infringement, law of passing off etc and these were solved by application of section 54 of the Specific Relief Act, 1877 and the registration was obviously adjudicated by obtaining a declaration as to the ownership of a trademark under Indian Registration Act 1908.

Summary

Intellectual property (IP) is a generic legal term for patents, copyrights, and trademarks, which provide legal rights to protect ideas, the expression of ideas, and the inventors and creators of such ideas (Brown, 2003). Innovation implies novel and accepted changes in the society (Barnett, 1953). Innovations are fundamental not only to technological and economic development but also to the cultural development at large and there are different types of innovations like technological or technical, service

innovation, financial innovations, managerial innovations, organizational innovations, marketing and distribution innovations, cultural innovations etc. Out of these, technical and technological inventions or innovations (which can be divided in to product and process) are patentable and the rest are non patentable innovations, (only supporting technologies used may be patentable) (Xu-Kun. Innovation is related to a change in ideas, practices, or objects involving some degree of novelty or any creation based on human ingenuity, success in applications etc. A patent describes a product or process that possesses or contains new functional or technical aspects. Intellectual property is a generic term that refers to intangible objects, such as literary works, artistic productions, scientific discoveries, and plans for inventions and designs, which acquire their value primarily from creative efforts. Intellectual property rights which envelope Copyrights, Trade Marks, Patents, Semi-Conductor Integrated Circuits Layout Designs, Industrial Designs, Geographical Indications and Undisclosed Information, provide legal recognition and protection to the same. Intellectual property has three customary legal domains: copyright (author's rights), patent, and trademark. In essence, they are a limited monopoly. The highest propensity to patent is shown by companies operating in the 'Electrical equipment' industry, and the lowest by companies operating in the 'Pharmaceuticals' industry. Patents, trademarks, and copyrights are the principal means for establishing ownership rights to inventions and ideas, and they provide a legal foundation by which intangible ideas generate tangible benefits to firms and workers. IP is broadly divided into two categories:

1. Industrial Property 2. Copyright

Intellectual property is mainly composed of Industrial Property and Copyright. Industrial property, which includes inventions (patents), trademarks, trade secret, industrial designs, and geographic indications. Copyright, which includes literary and artistic works such as novels, poems and plays, films, musical works, artistic works such as drawings, paintings, photographs and sculptures, and architectural designs. Rights related to copyright include those of performing artists in their performances, producers of phonograms in their recordings, and those of broadcasters in their radio and television programs (Xu-Kun, 2015).

Intellectual property is also known as intellectual achievement ownership, Intellectual property is regarded as a start-up discipline, because the intellectual property has not been a research object fully covered by any discipline till now. Patent is a branch of intellectual property right which indicate the bundle of rights that protects inventions or discoveries of any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof. The invention must not have been thought of before, must be inventive and must be capable of industrial application. Patents can also be seen as a tool to promote technological development in fields where the low cost of copying an invention is likely to limit the economic incentives for inventiveness. One of the roles of patents is, thus, to ensure that information providers do not lose rights to the information by disclosing it given that intellectual contributions can be used by an infinite number of persons simultaneously. The duration of a patent is up to 20 years from the filing date of the patent application, although only limited rights to sue infringers are available between the time the application is filed and when the respective patent issues. After the patent is issued, and before it expires, the patent is the holder's personal property and can be sold, given away, or licensed to anyone the patent holder chooses. Upon expiration of the patent, the patent becomes a part of the public domain. There are three types of patents. A utility patent is for a process, machine, article of manufacture, composition of matter, or any new and useful improvement thereof. A design patent is for the ornamental design for an article of manufacture. A plant patent is for inventing or discovering and asexually reproducing any distinct and new variety of plant. The Protection of Plant Varieties and Farmers' Rights Act was passed by the Indian Government in 2001. After India became signatory to the Trade Related Aspects of Intellectual Property Rights Agreement (TRIPs) in 1994. Patents are granted for up to 20 years from the date of application filing. Design patents are for 14 years from the date the patent issues from an application.

An idea is patentable if it meets three criteria: novelty, usefulness, and non obviousness.

1. Novelty: Nothing essentially the same as the claimed innovation exists; i.e., the invention must be new. It is important to note that if the public were aware of or used the invention in this country, or if the invention was sold, offered for sale, or used commercially (even if hidden from public view, such as a secret machine on an assembly line) more than one year before the application date, then the invention would not be novel, and the application would be denied.

2. Usefulness: The invention must provide significant benefits to society, although this requirement is generally more relaxed than it sounds.

3. Non obviousness: The invention must possess a new characteristic that is not known in the field and must not be obvious to a person with an average or ordinary knowledge of the field at the time the application is filed.

Before beginning the patent application process, an inventor should know as much about what has already been invented (the "prior art") as possible. The application to the Patent Office must show how the invention works, typically including detailed technical drawings and written information describing how the device can be used (and for some types of inventions, manufactured). Utility patent applications also end with a set of claims that serve as the legal definition of what is sought to be patented. As part of the application, the inventor must pay an application fee and may have to pay a separate examination fee. If the application issues a patent, the inventor (or other owner of the patent) is required to pay a periodic maintenance fee, usually due every few years. The application process requires a thorough knowledge of the technical aspects of the patent as well as of the patent process. In some cases, the inventor may be able to acquire intellectual property rights by him or herself. But the process is tedious and lengthy, so it is often advisable to use a registered attorney or patent agent. Additionally, an improperly drafted application could fail to specifically define the innovation or define it so broadly as to be useless. The ultimate goal is to obtain a patent with claims sufficiently broad as to prevent others from legally copying your invention.

Search for Patents

Patent search is not only prerequisite step in patenting

Table 1: Online free databases

Search Databases	Web link	Scope of search
Google	www.google.com	General search engine; Not suitable for Patent Search
Google‟s Patent Search	http://www.google.com/patents	US patents only
USPTO	http://patft.uspto.gov	US Patents only
EPO	www.worldwide.espacenet.com	- EP Patents - WIPO patents - World wide patents
Patent Scope (WIPO)	http://www.wipo.int/pctdb/en	WIPO Patents
Free Patents Online	http://www.freepatentsonline.com	-US Patents -EP Patents -JP Patents -WIPO Patents
Patent Facilitation Centre (PFC)	http://www.indianpatents.org.in/db/db.htm	-Indian Patents (Abstract only)
Indian Patent Office	http://ipindia.nic.in/patent/patents.htm	Indian Patents (Granted as well as 18 month published Patents)
BigPatent India	http://india.bigpatents.org	Indian Patents (Granted as well as 18 month published Patents)

Table 2: Online Paid Data Bases

Paid Data Bases		
Micropatent	http://www.micropat.com/static/index.htm	World wide patents
Derwent	http://www.thomsonreuters.com/products_services/scientific/DWPI	World wide patents
Aureka	http://www.thomsonreuters.com/products_services/scientific/Aureka	World wide patents
Delphion	http://www.delphion.com	World wide patents
LexisNexis	http://www.lexisnexis.com/patentservices/priorart	World wide patents
Dialog	http://www.dialog.com	World wide patents
Hoover	http://www.hoovers.com/free	World wide patents
Patent Search Express	http://www.patentsearchexpress.com	World wide patents
Patent Insight Pro	http://www.patentinsightpro.com	World wide patents

procedure but also essential work in conjunction with many business activity, including research, manufacturing, marketing, etc. Patent search is to search and analyze relevant patents in product development step or prior to patent application process. Patent search is important to avoid a duplicated research and to invest the money to safe market having no legal problems related to patent. A variety of people conduct patent searches, such as inventors, historians, lawyers, students, educators, government agencies, and engineers.

Kind of patent search

There are different types of patent search these are (a) Theme Search (b) Patentability Search (c) Infringement Search (d) Invalidity Search (e) Family patent / Legal status search (f) Bibliographic Search

Theme Search-: Theme searches provide the overview of patents related to the field of interest. These searches are helpful to detect the recent trend of the technology area and to establish the R&D direction.

Patentability Search-: Patentability search is the first step of patenting process. A patentability search surveys patents filed in each national intellectual property office to check whether there exists inventions similar to the invention yet to be filled.

Infringement Search-: Infringement search is to check whether patents which can be infringed by the product launched newly in a certain country exist or not in that country.

Invalidity Search-: When the inventor intend to make some claims of a particular patent invalid, the invalid search can provide some prior art references that disclose claims that are infringed by the subject disclosure.

Family patent / Legal status search-: Patent family search provide a list of all countries in which a particular patent was filed. Legal status search gives the legal progressing status of a particular patent.

Bibliographic Search: It is the easiest and the quickest because the searcher already has a patent number or an inventor's name. The point of this type of search is to find out what was covered by a specific patent number or to find out what patents a particular inventor has to his or her credit. Bibliographic searches can be done as a part of historical, biographical, archaeological, or product research.

Reasons for patent search

- Patentability: Conduct a preliminary patent search to assess novelty of an invention.
- Research and Development: Evaluate a technology, develop new -- or improve upon existing -- products and processes.
- Technical: Solve specific problems, locate sources of expertise, and identify alternate technology.
- Economic: Survey markets, monitor and forecast activities of competitors or industries.
- Financial: Avoid duplicating costly research; judge an alleged innovation prior to venturing capital.
- Legal: Conduct infringement or opposition proceedings; identify licensing opportunities.

- Historical: Study a time period, the history of technology, or social changes.
- Educational: Research thesis or science projects, pursue scientific academic programs and studies, and teach inventive and creative thinking skills.
- Marketing: Compile mailing lists and databases; locate the addresses of inventors or manufacturers.
- Genealogy: Research and document family ancestors and accomplishments.

Tools for Patent Search

Information is collected from primary and secondary sources like Internet patents related websites, newsletters and patent offices websites. There are various free databases as well as paid databases are available for Patent Search. The list of some important databases is given as under.

Online Free databases

As the world welcomes newer inventions, it becomes imperative for certain technical standards to be set in order to ensure consistency in the quality of products (Viswanath, 2016).

Information is presented in a patent document

The first (front) page, presents general information about the patent:

- The title
- A summary of the invention
- The name of the inventors;
- The name of the patent assignee (patent owner)
- Several dates (priority, publication)
- Several numbers (publication number, priority number)
- The legal status of the document (patent application, granted patent)
- The designated states (states in which protection has been asked for)
- Drawing

The technical description - beginning on the second page of the document. It presents a description that can cover more than one page, which includes the technical problem the invention solves, the state of the art, as well as a technical description of the invention. A third part includes the drawings, the claims (that provide a clear description of what is legally protected) and eventually a search report

Copyright: Copyright means that bundle of rights that protects original "Works of Authorship" fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device. "Works of Authorship" include, without limitation, course materials such as syllabi, lesson plans, assignments, and lecture notes; computer programs and applications; written works of any length; musical works, including any accompanying lyrics; dramatic works, including any accompanying music; pantomimes and choreographic works; sound and visual recordings; works of visual art; and architectural works. A created work is considered protected by copyright as soon as it exists. If the work has been put into a fixed form, such as written down or recorded, then it is considered copyrighted. While registration is not necessary. Generally, for works created after 1978, copyright protection lasts for the author's life plus 70 years. In the case of works made for hire (a technical definition that does not necessarily include independent contractors), the protection is for 95 years from publication or 120 years from creation, whichever is shorter. Once a work has been copyrighted (i.e., created and fixed in a tangible medium of expression) the author can notify users of this by using a copyright notice, such as the © symbol or the word "Copyright." These symbols should be used in conjunction with the year of creation and the name of the copyright owner.

Trade Marks: Trademarks are a way that businesses can identify goods as their own. "Trademark" means a word, phrase, symbol or design, or a combination of words, phrases, symbols or designs, that identifies and distinguishes the source of the goods of one party from those of others. Their value lies in the fact that they denote the origin and quality of the products they relate to. A service mark is the same as a trademark except that it identifies and distinguishes the source of a service rather than a product. The terms "trademark" and "mark" are commonly used to refer to both trademarks and service marks. Trademarks (and service marks) are essentially acquired in two ways (aside from purchasing rights in a mark from a rightful owner).

First, acquisition may be accomplished through use of the mark in commerce. Acquiring a trademark through use alone limits the mark owner to protection of the mark in the geographic area in which it is used. If the mark is used in conjunction with goods or services offered over the Internet, however, the mark owner may, in some circumstances, enjoy exclusive rights to use the mark nationwide. Second, federal law (as well as individual state laws) allows applicants to reserve, or "register," a trademark. Trade or service marks cannot be for names, titles, or certain categories of similar phrases and cannot be generic terms.

A trademark cannot be the same or confusingly similar to a trademark already in use. A search of the federal registrations—and preferably state registrations and other databases containing brand names for goods and services, including Internet domain names—will be necessary to determine this. Registration requires that the trademark be in use on goods sold as part of business. If the goods are sold in only one state, then that state's trademark law will apply. If sold as part of interstate commerce, then federal law will apply. Protection lasts for 10 years before it must be renewed, but filings attesting to use of the mark must be made at 8 and 15 years after the mark is registered. Fees for renewal and penalties for late renewal apply.

Designs: Protect 3D objects or designs applied to them, e.g. laboratory equipment or the design of a teapot or the design on wallpaper. They can arise automatically or can be registered with the IPO.

Trade Secret: Trade secrets are legally fragile and may be lost by inadvertent disclosure or failure to reasonably protect them, companies should implement trade secret protection programs to safeguard valuable information.

Geographical Indications of Goods are defined as that aspect of industrial property which refers to the geographical indication referring to a country or to a place situated therein as being the country or place of origin of that product.

Conclusion

The Intellectual Property Rights is one of the

cornerstones of modern economic policy making both at the national and international levels. It is increasingly becoming an important tool for sustainable development in today's knowledge based society. Creativity and innovation have been a constant in growth and development of any knowledge economy. Creativity and innovation are stimulated by Intellectual Property for the benefit of all. With Intellectual Property Rights (IPRs) increasingly influencing trade both at the national and international level; harnessing trade benefits depends on the degree of protection enjoyed by the owners of the IPRs. Geographical Indications (GI) is one of the six Trade-Related Intellectual Property Rights (TRIPS) of the World Trade Organisation (WTO) that seeks to provide comprehensive and effective protection to goods registered as GI goods. GIs may be associated with agricultural, manufactured or industrial goods. Non agricultural products, which typically qualify for GI protection include handicrafts, jewellery, textiles etc. The existence of IPR laws is important for protecting and managing research results. Countries must enhance awareness on Intellectual property laws and their functions at national and international levels to protect patentable inventions in a large manner.

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