
INTELLECTUAL PROPERTY RIGHTS IN INDIA

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ABSTRACT

The intangible concept of intellectual property rights (IPR) grants creators and inventor's exclusive rights over their priceless creations. IPR is the main focus of international commercial practices and livelihood in the current globalization landscape. These rights foster innovation by providing creators and inventors with recognition and financial benefits; conversely, a lack of knowledge about intellectual property rights and its poor application may impede the country's advancements in technology, economy, and society.[1]

Therefore, it is imperative that IPR knowledge be disseminated and that it be implemented appropriately for every country. This paper discusses several words related to intellectual property rights (IPRs), including patents, trademarks, industrial designs, geographic indications, copyright, etc., along with the laws and regulations that apply to each. It also discusses the importance of these terms in the Indian context. Additionally, a brief discussion on India's current involvement status in IPR-related activities worldwide has been held.[2]

KEYWORDS: Intellectual property rights, WIPO, patents, trademarks, industrial designs, layout design of semiconductor integrated circuit, geographic indications, copyright and related rights.

INTRODUCTION

Following globalization, it is critical to stay ahead of the curve in terms of inventions and creativity in order to compete in the fierce marketplace for trade and technology. India is renowned for its intellectual prowess in a variety of technological domains, including software engineering, missile

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technology, missions to the Moon or Jupiter, and other disciplines. But when it comes to the creation of IPR assets—registered patents, industrial designs, trademarks, etc.—India falls behind [3]. According to a recent assessment by the US Chamber of Commerce, India ranked 29th out of 30 countries worldwide in the IP index. This is a really concerning situation for both the country and policy officials.

IPR and the framework of its policies directly affect any society's development. IPR ignorance led to the demise of inventions, increased infringement risk, financial loss, and the end of the nation's intellectual era. Therefore, in order to support domestic breakthroughs and technological advancements, it is imperative that knowledge about intellectual property rights be made widely available. An attempt is made to highlight several intellectual property rights in relation to India in the previous section of this paper, together with the rules and regulations that correspond to them, as well as their necessity and social importance.[4]

INTELLECTUAL PROPERTY RIGHTS AND ITS CLASSIFICATION

The word "intellectual property" refers to the use of creativity and invention by the human brain. To invent or produce something new, a variety of inputs such as labor, time, energy, skill, money, etc. are needed [5]. The fundamental concept that led to an innovation or creation is an intangible attribute of the individual who underwent the necessary labors to bring it about. Thus, in accordance with the law, inventors and creators are granted monopoly or legal rights to profit financially from their inventions.

Similar to physical property, an owner's intellectual property rights (IPR) allow him to sell, purchase, or grant a license for his IP. To claim the benefits of intellectual property rights, one must register the rights with a legal authority in a presentable or tangible form [6]. Every form of IPR grants the author or innovator unique rights to maintain and reap financial rewards, which spurs innovation and advances society.

Intellectual property rights are categorized according to the kind of innovation and production made by the human mind, as well as the uses for which they are intended. Patents, trademarks, industrial designs, semiconductor integrated circuit layout designs, geographical source

indications, copyright and related rights (literature and artistic works, music and artistic works, photographs and artistic works, motion pictures, computer programs, performing arts, and broadcasting work) are among the following.[7]

WIPO

In order to safeguard intellectual property rights (IPR) globally, the World Intellectual Property Organization (WIPO) was established in Stockholm in 1967. Later, in 1974, it joins the United Nations as an agency. WIPO oversees and frames a variety of international intellectual property regulations [8]. The primary goal of WIPO is the establishment of a balanced and efficient international intellectual property system that promotes economic, social, and sustainable cultural growth while protecting biodiversity and traditional knowledge. In addition, it is in charge of harmonizing national disparities, particularly those between rich and developing countries, by modifying international laws to ensure that everyone has an equal chance to succeed in the evolving world.[9]

PATENT

An inventor gets given a patent, which is an intellectual property right, by the relevant government agency for their innovative technological invention. Any challenge that arises throughout the process of developing a procedure or a product is referred to as an invention.[10] Patents are rightfully regarded as the most valuable kind of intellectual property among the several forms.

The patentability of any invention needs to fulfil following criteria:

1.Usefulness: an invention needs to be employable in industry or for a practical purpose. The second requirement is novelty: the invention must be a brand-new technology that, as of the date of patent filing, has not been published or made available in the nation's or any other country's prior art.

2.Non-obviousness: A patent cannot be granted for an invention that is readily apparent to even the most knowledgeable individual. Therefore, an innovation cannot be patentable if it is obvious.

As per Section 3 of the Patent Act, 1970 the following are not patentable:[12]

- Frivolous invention
- invention that defies the laws of nature
- Innovations that violate public order or morality, are unfair to the health of people, animals, plants, and the environment
 - Finding any live creature; finding any non-living material in the natural world; formulating any abstract theory; finding any scientific concept
- A substance or chemical that is simply combined to aggregate its properties; a simple arrangement or reorganization of well-known devices.
- Creation pertaining to nuclear energy and India's security.

When an inventor files a patent application, they must provide the patent office with all pertinent material in a descriptive manner [11]. On the one hand, this grants the creator exclusive rights that provide both recognition and financial rewards. Anybody can access the material contained in a patent filing, and it undoubtedly inspires more innovation in the subject by other researchers. The Controller General of Patents, Designs, and Trademarks office in India is in charge of overseeing the patent registration procedure [13]. The Ministry of Commerce and Industry's Department of Industrial Policy and Promotion oversees this office. Here are the steps involved in filing a patent:[14]

Step 1: Filing of Patent Application or Priority Application

Chennai, Mumbai, New Delhi, and Kolkata (Head office) are the locations of the four patent offices. The applicant must submit a patent application in the proper format, including all necessary details about the invention, including a description, claims, abstract, and drawing. When an invention is revealed but is only conceptual in nature, the applicant may choose to file a provisional specification to establish priority of the invention. After then, the applicant has 12 months to file the entire specification in the format required.

Step 2: Publication of Application

Following an 18-month period, the patent application is published in the office journal. If the applicant pays the additional specified amount, they can also submit a request for early publication.

Step 3: Opposition of Patent

Within three months of the patent publication, the pre-grant patent opposition, if any, may be lodged. If the applicant for a patent has submitted a request for patent examination, the controller of the patent office will consider this kind of opposition representation. Post-grant objection to patents is also covered.

Step 4: Request for Examination

Within 48 months of filing a patent application and paying the required fees, the applicant must submit a second application for patent examination.

Step 5: Examination and Clarification of Raised Objections, if any

The patent examiner verifies every facet of patentability, including novelty, inventiveness, no obviousness, and industrial applicability, before sending the applicant a First Examiner Report (FER). If there are any concerns in the examination report, the applicant has a year to address them.[15]

Step 6: Grant of Patent

The Controller grants the applicant's patent after resolving the objections made throughout the examination procedure. Per the Patent Amendment Act of 2002, in order to maintain the patent's validity, the applicant must periodically pay a renewal fee. The DIP&P website has all the information regarding Indian patents.¹⁹ Since 2007, it is also possible to file a patent. Once the rights are acquired, the owner can investigate their potential for industrial production or sell, distribute, or grant licenses in accordance with his wishes. The patent has a 20-year validity period. The invention becomes public knowledge after a patent expires, and anyone can utilize it.[51]

COMPULSORY LICENSES

The Patent Act grants inventors the exclusive right to profit financially from their inventions; however, in the event of a national emergency, the government may, in accordance with Section 92 of the Patent Act of 1970, grant compulsory licenses to third parties for the noncommercial use

of public resources [16]. Aside from this, the government is fully authorized to grant a compulsory license to someone else in order to enable them to produce a patentable good in the event that the authorized patent owner is unable to meet societal demands or is unable to produce the patentable good or service, as is the case with medications, food, medical equipment, vaccinations, life-saving equipment, etc. In this instance, the government is obligated to provide the patent owner with reasonable and just compensation.[49]

PATENT COOPERATION TREATY (PCT)

Since patents are territorial rights, applicants must submit their applications separately to the patent offices of each nation [17]. There is a significant time, energy, and effort required for this activity. Regarding the same issue, the 1970 conclusion of the Patent Cooperation Treaty (PCT) allows for the filing of a single international patent application as opposed to several national or regional patent applications. Even though the national or regional patent authorities of the various PCT member nations still oversee the patent issuance process, the applicant receives priority date of first filing applicable in all member countries—there are currently over 145—with this single patent application.

INDUSTRIAL DESIGN

Industrial design is the creative process of giving mass-produced goods or articles an aesthetically pleasing or ornamental appearance.[18] Three-dimensional forms or two-dimensional forms can be used to express the design. The term "feature" refers to a shape, arrangement, pattern, or ornament under the UK Design Act 1949. Industrial design generally refers to the form, surface, pattern, lines, color, and other appearance-related aspects of industrial products, such as watches, cars, cellphones, computers, various household appliances, buildings, textile patterns, or handcrafted goods. A product's aesthetic worth, or how it appeals to the eye, is more important to sales than its technical quality or other factors.[19]

Most national laws need an industrial design to be novel, unique, and non-functional in order to qualify for protection. Therefore, technical qualities or other components of the product to which

industrial design is applied are not covered by the design registration; industrial design is solely focused on aesthetic features.[20] Even yet, if the technical elements are unique, a patent could be obtained to protect them. In addition to these, copyrights are used to protect literary or artistic designs, such as those found in cartoons, labels, booklets, maps, dressmaking patterns, etc., rather than industrial design.[42]

Industrial design rights have terms ranging from 10 to 25 years, depending on the nation. In India, industrial designs are protected for ten years under the Design Act of 2000. This period may be prolonged an additional five years. Industrial design promotes more visually pleasing products for society, which in turn fosters innovation and skill development among individuals and the manufacturing industry [21]. In addition to creating an attractive appearance, a product's shape and design indirectly contributes to ergonomics and greatly influences customer comfort in the case of machines, furniture, cars, etc.

Industrial design is also handled by the patent offices in Kolkata, New Delhi, Mumbai, Chennai, and Delhi. The registration of designs is kept up to date by the Kolkata Patent Office in compliance with legal requirements for all relevant data related to filed industrial designs.[22]

TRADEMARK

The ancient world was already familiar with trademarks. Approximately 3,000 years ago, Indian artisans engraved their signatures on jewelry or other artistic creations.[23] The trademark has grown in importance in the contemporary world of international trade with industrialization. A trade mark is a distinguishing symbol or emblem that indicates that a certain good is manufactured or supplied by a particular individual, business, or industry. Like a trademark, a service mark sets apart businesses that provide services from their rivals. Even though a firm may have multiple trademarks for its varied products, it still uses a trade name to set itself apart from other businesses.[30]

Trade names and trademarks aid businesses in building consumer trust, reputation, and recognition. Most of the time, when it's hard to swiftly evaluate a good or service to assess its quality, customers rely on trademarks.[24] To stand out from the competition, a certain group of

consumers is highly concerned about brands and will pay a premium for their prestige even for comparable products.

To set one business or service apart from another, a trademark or service mark may consist of one or more words (such as the company name, last name, location name, slogan, etc.), characters, drawings, logos, symbols, phrases, images, designs, or a combination of these components. In addition to these, the following are a few more "non-traditional" trademarks:[25]

The scent of freshly cut grass for tennis balls, the aroma of beer for dart flights, and the scent of roses for tires are examples of olfactory markers. Likewise, a new flowery aroma that reminded people of plumeria blossoms was registered for sewing thread and embroidery yarn in the United States.

Audible signs, also known as sound marks, are identifiable sound patterns that take the shape of musical notes. For its radio broadcasting services, NBC was able to officially register the musical notes as a trademark in 1950. MGM has also registered the sound trademark of the lion's roar.

Colored marks: this group consists of words and objects that have been given a specific color or color combination. Similar to how few colors and forms (three-dimensional symbols like the Mercedes star with three points) can also be registered in certain particular circumstances as non-traditional trademarks.[26]

IMPORTANT CRITERIA OF TRADEMARK REGISTRATION

The three primary prerequisites for registering a trademark are as follows, under the UK Trademarks Act, 1994:[27]

- a) The trademark ought to be a symbol or any other means of communicating information.
- b) The sign must be able to tell one enterprise's goods and services apart from another. This is undoubtedly a prerequisite for trademark distinctiveness.
- c) The trademark can be precisely identified in the trademark registration through graphical representation.[28]

Broadly Followed Rules of Trademark Registration

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- Since it is not identifiable in this instance, the term "apple" or an apple device cannot be registered with Apple. However, it is registered as being extremely unique when it comes to computers.[29]
 - The trademark Camel is also registered for cigarettes. It is not possible to register a generic phrase such as "furniture" as a trademark for a chair, table, or other comparable goods.
 - When using letters or digits, registration is only permitted in some countries if the word combination is pronounceable or if at least a few letters and/or numerals are mixed. Similar to common surnames, several countries do not register them since they lack distinctiveness.
 - In addition to this, a trademark or false sign that is immoral or goes against public order cannot be registered.
 - Trademark registration is not permitted for signs that are owned by the state, a public institution, an organization, or an international body.[30]

Indian Trademarks Act

According to the Indian Trademarks Act, any mark that is distinctive—that is, able to set one company's goods and services apart from another and be graphically represented—can be registered as a trademark.[31]

Trademarks don't give exclusive rights that could be abused; hence their validity shouldn't be restricted. However, if there were no temporal limit on trademark validity, there would be an excessive number of registered trademarks that have no use. 11 In India, registering a trademark has a 10-year initial term that needs to be periodically renewed. At the Trade Mark Registry Office in Mumbai (head office), Delhi, Kolkata, Ahmadabad, and Chennai, the applicant may submit an application for trademark registration.[32]

INFRINGEMENT OF TRADEMARK

When someone else uses a registered trademark for identical or comparable goods or services, it is considered infringement. When a buyer is misled into believing they are receiving a legitimate product due to infringement, this form of behavior is often referred to as "passing off[33]." The "passing off" goods hurts trade greatly since it deprives legitimate producers of market share and defrauds customers by sending them a subpar product. After obtaining a subpar product, a

consumer may choose a different brand in the future under the mistaken belief that the manufacturer is making lower-quality goods, even though they are unaware of the "passing off" situation. The trade-used counterfeit item is also referred to as forged items.[34]

COLLECTIVE AND CERTIFICATE MARKS

Certain nations utilize collective logos and certificate markings to signify that a business's product meets specific criteria. For instance, a group of businesses who exclusively utilize natural or eco-friendly chemicals for textile chemical processing (dyeing and printing) may come up with certain collective marks in addition to their individual trademarks. [35]A few examples of collective/certificate marks are the ISO, hallmark, wool mark, etc. Consequently, certification marks protect the interests of customers by assisting them in selecting the superior product from a variety of deceptive offerings.[36]

LAYOUT DESIGN OF SEMICONDUCTOR INTEGRATED CIRCUIT

These days, it would be impossible to imagine living without electronic devices such as laptops, computers, watches, cameras, safety or medical equipment, household appliances, and mobile or smart phones. Today's appliances are all quite small because of integrated circuits.[37]

Apart from them, the majority of instruments with an operating system or control processors consist of integrated circuits or layout designs. These circuit designs are products of human creativity, the result of significant investments and labor from highly skilled professionals. On the other hand, copying these designs by another party is a fatal blow to the electronic research companies.[38]

"Layout-design" refers to a three-dimensional arrangement of components where one or more of the components are active and/or have connections to form an integrated circuit, or to a three-dimensional arrangement of components ready for an integrated circuit intended for industrial production.[39]

Open to all WIPO members, the 1989 Integrated Circuit Intellectual Property Treaty (IPIC) was completed in Washington, DC. According to the treaty, layout designs are protected for ten years

from the date of application filing; however, member countries may extend this period to fifteen years from the date of layout design development.

The Semiconductor Integrated Circuits Layout-Design (SICLD) Act, 2000 was enacted in India in accordance with the TRIPS agreement to safeguard the needs of the electronic sector.¹² Under the Ministry of Information Technology, the Department of Information Technology carried out the act's implementation. According to the Indian SICLD Act, 2000, any unique and essentially distinctive layout design may be registered for a period of ten years.^[40]

TRADE SECRETS

Any knowledge or invention that benefits business and yields financial gains but is not novel (not patented) may be maintained as a trade secret. ^[41] In addition, when patent, copyright, industrial design, and other registrations are pending or in the process of being registered, unique or creative information is also held as a trade secret.^[7]

Trade secrets include technological information and processes like software, devices, blueprints, recipes, business strategies, financial data, marketing plans, marketing databases, blue prints, patterns, formulas, maps, architectural plans, and manuals; they can also include commercial information and business strategies.^[42]

This right has a lot of potential for turning confidential information into financial rewards. As a result, most businesses use trade secrets rather than patents to safeguard their technological innovations. Trade secrets serve as a catalyst for small-scale technological innovation that does not violate copyright and patent laws by being non-obvious.

It takes years of experience, investigation, and expertise to develop a trade secret. Coca-Cola's recipe composition serves as an excellent illustration of a trade secret. Trade secrets are subject to special laws in some nations, such as the USA's Uniform Trade Secret Act and Japan's Unfair Competition Prevention Act. Trade secrets are recognized under the TRIPS agreement under common law, contract law, etc.^[43]

GEOGRAPHICAL INDICATIONS

The practice of using a product's origin, either geographical or local, to identify it for trade purposes is not new. "The term Geographical Indication (GI) has been chosen by WIPO to include all existing means of protection of such names and symbols, regardless of whether they indicate that qualities of a given product are due to its geographical origin (such as appellations of origin) or they merely indicate place of origin of a product (such as indication of source).[44]" Certain agricultural products have unique qualities that are influenced by geographical climate or soil.

Champagne, Havana, Darjeeling tea, Arabian horses, Alphanso Mango, Nagpur orange, Basmati, and so on are a few well-known brands that are recognized globally for their products that meet certain quality standards and are designated as Geographic Indications. In the same way, human elements and talents are tied to certain attributes of products in the field of handicrafts, textiles, etc. Master craftspeople from a specific area with the ideal environment are responsible for establishing and preserving the reputation of their products. The ability is customarily passed down from one generation to the next by a certain tribe or area, albeit with considerable care and compromise.[45]

Well-known examples of geographical indicators for state-of-the-art craftsmanship include Dhaka muslin, Venetian glass, China silk, Mysore silk, Chanderi sari, Kanchipuram silk saree, Kullu shawls, Solapur chaddar, Solapur Terry Towel, Kashmiri handicrafts, etc.

The Geographical Indication of Goods (Registration and Protection) Act 1999 and the Geographical Indication of Goods (Registration and Protection) rules 2001 provide for the registration of such products in India. [46] The registrar of GI, the Controller General of Patents, Design and Trade Marks, is responsible for administering the GI statute. Right holders from all Indian jurisdictions can register their Geographic Indication (GI) with the "Geographical Indication registry" created by the central government in Chennai. According to these regulations, GI protection is awarded for ten years, with the option to renew for an additional ten at any point.

COPYRIGHTS & RELATED RIGHTS

The following creative and literary works are protected by copyrights:[47]

1. Literary and scientific works include books, plays, pamphlets, magazines, journals, novels, poems, and reference works.
2. Musical compositions: melodies, instrumental pieces, choruses, solos, ensembles, etc. artistic creations: paintings, drawings, sculptures, built environments, commercials, etc.
3. photography: event, fashion, landscape, and portraiture, among other genres
4. Cinematography works for films, dramas, documentaries, newsreels, theatrical exhibitions, television broadcasts, cartoons, video tapes, DVDs, and other media are included in the category of motion pictures.
5. Computer programs: software, technical drawings, maps, and databases associated with them.[48]

RIGHT OF REPRODUCTION AND RELATED RIGHTS

"Related rights," or copyright-related rights that include rights akin to copyright, are a closely linked field. Performers' rights (such as actors and/or musicians) in their performances; makers of phonograms (such as compact discs of films or sound or compositions) in their recording and broadcasting in radio and television shows are among the rights protected under related rights.

The definition of performer for the purposes of the WIPO Performance and Phonograms Treaty (WPPT), which was adopted in December 1996 and went into effect on May 20, 2002, includes performance of an expression of folklore.[49]

Since copyright is acquired automatically upon completion of work through creation, copyright registration is not required. On the other hand, copyright registration certifies that the creator of the work is the rightful owner and that copyright exists in it.

COPYRIGHT FOR COMPUTER SOFTWARE

The Indian Copyright Act, 1957 was modified in 1994 with regard to computer software, and the new version went into force on May 10, 1995. According to this act, it is illegal to make copies of

and distribute software without permission. Nonetheless, authorized users are granted permission by this legislation to create backup copies of the software and any other computer programs. [50] The Indian Copyright Act, 1957 governs the process of copyright registration. The Copyright (change) Act, 2012 was a recent change to the act. Generally, an author receives copy rights immediately upon creation of their work without any formalities; nevertheless, the work can be registered at the Department of Education's Copyright Office's Register of Copyrights as prima facie evidence.

COPYRIGHT DURATION

For literary, theatrical, musical, and artistic works created in India after the creator's death, copyrights are in effect for 60 years. The copyright period for images, motion pictures, and sound recordings is 60 years starting on the first day of the calendar year after the year of publication or release. In addition to this, authors are granted moral rights to their works. [51]

COPYRIGHT INFRINGEMENT

Making, selling, or profiting financially from a copyrighted work without the owner's consent is known as copyright infringement. It is a crime, and the statute stipulates that the minimum penalty for violating it is six months in jail and a minimum fine of Rs 50,000.

PLAGIARISM

Plagiarism is the practice of using someone else's writing without that person's consent and passing it off as one's own. However, common knowledge facts are unprotected by copyright laws and can therefore be utilized by anybody. Copyright laws permit fair, justified use of other people's writing as long as the original author is properly credited or paraphrased and a quote mark is used.[52]

IPR IN CONTEXT TO TRADITIONAL KNOWLEDGE AND BIODIVERSITY

“Traditional knowledge (TK) means innovation and practices of indigenous and local communities embodying traditional life styles; wisdom developed over many generations of holistic traditional scientific utilization of lands, natural resources, and environment.

The use of turmeric, neem, tulsi, etc. herbs in day-to-day life as per ritual is very well-known example of traditional knowledge existing in India.”

The University of Mississippi received a US patent for using turmeric to heal wounds, and W. R. Grace and Company received a European patent for discovering the fungicidal properties of neem oil. Syngenta, a major player in the agro-biotech industry, tried to obtain the rights to thousands of rice varieties that were already in use in India. These are just a few instances of biopiracy when the rightful owner of traditional knowledge had their rights later revoked. Since they are not covered by or appropriate for standard IPR systems, the rights pertaining to traditional knowledge (TK), such as farming practices, medicinal applications of plants or herbs, plant variations, and their genetic resources, are protected under the Sui generic meaning unique systems of land of law or region.[53]

The primary objectives of the 1992 WIPO Convention on Biological Diversity (CBD) were the preservation of biodiversity, the sustainable use of its constituent parts, and the fair distribution of benefits resulting from the exploitation of traditional genetic resources. As a signatory to this treaty, India passed the ensuing laws in the legislature to safeguard farmers' rights and traditional knowledge.

THE PROTECTION OF PLANT VARIETY AND FARMERS’

Right Act 2001 (PPVFR Act)

This act acknowledges the functions that farmers play on an individual and community level as well as their interests in variety preservation and improvement. This unique statute combines public interest and intellectual property rights protections to balance the interests of farmers and large seed businesses, genetically advanced research facilities, and marketing firms.[54]

The Biological Diversity Act 2002

Millions of races, regional variations of species and sub-species—most of which are known to be genetic—and ecosystems are all included in biodiversity. An estimated 1.75 million species have been recognized in the world's biodiversity. According to the Convention on Biological Diversity (CBD), a member nation must provide other parties on mutually agreeable terms access to its genetic resources; nevertheless, access is subject to the prior information consent (PIC) of the nation that is providing the resources. Additionally, it contains provisions granting local residents who are subject to domestic law an equitable share of any profits from the commercialization of traditional knowledge.

“The rank of India in farm output is 2nd among the world and around 60% of India’s population depends on this sector for rural development.”

Thus, the vast majority of Indians, particularly farmers, have their rights to resources and raw materials like seeds, fertilizer, insecticides, etc. protected by the Biological Diversity Act of 2002. It has a good effect on the output of agriculture, farmers' livelihoods, equitable benefit sharing, and sustainable use.[55]

In order to ensure that the Biological Diversity Act of 2002 is properly implemented, the central government also established the National Biodiversity Authority (NBA) in 2003.

The Patent Amendment Act, 2005

A mere new use for a known substance and an innovation that effectively amounts to traditional knowledge or is an aggregation or duplication of known properties of a component or components that are traditionally known will not be considered inventions, according to Section 3 of the Act. These Acts' clauses prohibit TK and its applications that are in the public domain in India from being misused. [26]

IPR STATUS OF INDIA

In 2007, the World Bank conducted a survey on the Knowledge Economy Index (KEI) of 140 countries worldwide based on their policy framework, infrastructure for information and

communication technologies (ICT), knowledge-based initiatives, institutional framework, and economic incentive system. India was placed 101st since it did not meet the aforementioned criteria.[56]

Similar to this, India's overall (resident and foreign) IP filing activity by origin in 2014 placed it at the 14th, 9th, and 13th rank in terms of patents, marks, and designs, respectively. The total number of applications submitted by origin determines the 50 Rankings. [21]

Analysis reveals that, with regard to patents, trademarks, and industrial designs, India's global involvement in IPR filing activities is a pitiful 1.6%, 3.14%, and 0.82%, respectively. If candidates are limited to those who are residents, the participation drops even further.

India's young, academics, researchers, manufacturers, and traders are trailing behind in IPR involvement mostly due to their ignorance of IPR and its advantages. Even Micro, Small, and Medium-Sized Enterprises (MSME), which account for over 95% of all units, 40% of value addition, roughly 80% of manufacturing sector employment, and 35% of total exports, lack an IPR edge.^{54, 55} For the reasons mentioned above, no multinational Indian business was among the top 100 global applicants for patents between 2003 and 2012. [23]

Indian enterprises may thrive if they get ready for both domestic and international IPR requirements. This is because having a strong intellectual property portfolio helps them secure loans, improve their reputation in the marketplace, and draw in partnerships and investments. Therefore, it is imperative to create suitable rules in order to rationalize IP strategy. India undoubtedly has the abilities and capacity to become a global leader if the right IPR strategy is implemented to increase its market share in international trade.

CONCLUSION

Intellectual property rights are crucial for the advancement of society in a knowledge-based economy. To participate in both local and international competitive trade, intellectual property rights (IPRs) are a necessary requirement. Without IPR implementation and information sharing, it is almost impossible to foster an innovative environment. [11] Legislators must encourage inventors and artists to register their intellectual property (IPR) and incorporate IPR into the

foundational educational curriculum. India possesses an abundance of resources, including inexpensive labor, readily available raw materials, and a highly skilled and inventive labor force. India and other emerging nations will undoubtedly explore intellectual property rights in order to capitalize on their fair part of international trade.

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