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"The Significance Of Intellectual Property Rights In India: An Overview"

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ABSTRACT

Intangible in nature, intellectual property rights, or IPR for short, grant creators and inventors the sole right to use their priceless creations. IPR is the main focus of international trade practices and means of subsistence in the current globalization situation. While the lack of IPR understanding and its inadequate execution may impede the nation's economic, technological, and societal advancements, these rights foster innovation by providing creators and inventors with recognition and financial benefits. Therefore, it is imperative that IPR information be disseminated and implemented appropriately in every country. The current article focuses on a number of IPR terminology, including trademarks, inventions, designs for industry, geographic indications, copyright, etc., along with the rules and regulations that go along with them, as well as their importance and function, particularly in the Indian context. Additionally, a brief discussion about India's involvement in IPR-related activities worldwide has been held.

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

INTRODUCTION

Being innovative and creatively ahead of the curve is crucial in the wake of globalization to thrive in the fiercely competitive commerce and technology sectors. India's intellectual prowess in the development of software, missile technological devices, moon or Jupiter missions, and other technological domains is widely acknowledged. But when it comes to the creation of IPR assets, such as registered patents, industrial designs, trademarks, etc., India falls behind. India ranked 29th out of 30 countries in the world's IP index, according to a recent analysis by the US Association of Commerce. For both the country and policymakers, the situation is quite concerning.[1]

IPR and its regulatory framework have a direct impact on a society's development.[2]. IPR ignorance led to the demise of inventions, increased infringement risk, financial loss, and the end of the nation's intellectual era. Therefore, it is imperative that IPR information be disseminated in order to support domestic inventions and technological and research advancements.[3,4]

An attempt is made in the preceding section of this paper to emphasize various rights of intellectual property in relation to India, along with the rules and regulations that go along with them, as well as their necessity and social importance.

Intellectual Property Rights and their Classification

Intellectual property refers to the use of the human intellect for creation and creativity. Inventing or creating anything new requires a variety of initiatives in regard to inputs of labor, time, energy, talent, money, etc. The final concept that led to the development or invention is an intangible asset of the one who worked hard to make it. Therefore, in accordance with the law, creators and innovators are granted legal rights, sometimes known as monopoly rights, to profit from their creations.[5,6]

Like physical property, intellectual property rights (IPR) are territorial entitlements that allow an owner to sell, purchase, or grant a license for their intellectual property (IP).[7]. To claim the benefits of intellectual property rights, one must register them with the appropriate legal authorities in a presentable or tangible form. Every kind of IPR grants its author or inventor unique rights to maintain and reap financial rewards, which further encourages advancements in knowledge and society.[8-11]

The following categories of rights to intellectual property are based on the kinds of inventions and creations of the human mind and their uses: i) trademarks, ii) patents, iii) industrial designs, iv) semiconductor integrated circuit layout designs, v) regional indications of source, and vi) copyright as well as related rights (such as computer programs, motion pictures, artistic and literary works, musical works, artistic and photographic works, and artistic performance and broadcasting works).[12-15]

WIPO

In order to safeguard IPR globally, the World Intellectual Property Organization (WIPO) was established in Stockholm in 1967.8, 16 Later, in 1974, it joined the United Nations as an agency. WIPO formulates and oversees a range of IPR-related policies worldwide. WIPO's primary goal is to promote sustainable cultural, social, and economic growth while preserving biodiversity and traditional knowledge through an equitable and efficient international intellectual property system. In addition, it is in charge of balancing the disparities between different nations, particularly between wealthy and developing countries, by changing international regulations to ensure that everyone has an equal chance in the rising globe.[8-15]

Patent

A patent is a kind of intellectual property that a creator receives for a new technical invention from the relevant government agency.16 The definition of invention is the resolution of any issue pertaining to the creation of a process or a product. Patents are, quite properly, regarded as the most valuable of the several forms of IPR.

Any invention must meet the following requirements in order to be eligible for patent protection:

1. Usefulness: an invention must be employed for a practical purpose or have industrial applicability.
2. Novelty: the invention must be a novel technology that, prior to the period of patent filing, had not been disclosed or made available in the nation's or the world's prior art.
3. Non-obviousness: An invention is readily apparent and cannot be patented if it can be completed by a regular, competent individual. Therefore, for an invention to be patentable, it must not be obvious.

The following objects are not patentable under the third section of the Patent Act of 1970:

• Stupid invention

•Invention that defies the rules of nature
• Inventories that violate public order or morality, as well as the health of people, animals, plants, and the environment

• The identification of any live organism; the identification of any inanimate objects found in nature; the development of any theoretical framework; or the identification of any technological principle
• Material or chemical produced by simple mixing that causes the qualities to aggregate; simple rearranging or rearranging of well-known devices
• An invention pertaining to atomic electricity and Indian security.

While the patenting procedure grants the creator unique rights that provide recognition and financial benefits, the inventor must also provide the patent office with all pertinent material in a descriptive manner at the exact moment of filing the application. Anyone can view the information in a patent document, and it undoubtedly inspires other scholars to advance their work in the field.17 The patent registration procedure in India is overseen by the Controller General of Patents, Designs, and Trademarks office. This office is part of the Ministry of Commerce and Industry's division for Industrial Policy and Promotion.18 The following are the steps involved in filing a patent:[19].

Step 1: Filing of Patent Application or Priority Application

Chennai, Mumbai, New Delhi, and Kolkata (the head office) are the four locations for patent offices. The applicant must submit a patent application in the proper format, including all pertinent details about the invention, including the explanation, says, drawing, abstract, etc. When the disclosed invention is only conceptual in nature, the applicant may choose to submit a provisional application to establish priority. The applicant must then submit the whole specification in the required format within a year.

Step 2: Publication of Application

After 18 months, the patent request gets released in the office journal. By paying the additional required cost, the applicant may additionally submit a request for early publication.

Step 3: Opposition of Patent

Within three months of the invention's publication, any pre-grant patent opposition may be submitted. If a patent filing applicant has submitted make an application for patent examination, the controller of the patent office will consider this kind of opposition representation. Provisions for post-grant patent objection are also included.

Step 4: Request for Examination

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

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

The applicant receives a First Examiners Report (FER) after the patent examiner has reviewed all aspects of patentability, including novelty, inventiveness, non-obviousness, and industrial application. The applicant has one year to address any issues raised in the examination report.

Step 6: Grant of Patent

After resolving the objections made throughout the examination procedure, the Controller grants the patent to the applicant. According to 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 about Indian patents.19. Since 2007, the patent has also been submitted. After obtaining the rights, the legal owner can either sell, distribute, or license the rights in accordance with his wishes, or he can investigate the rights through industrial production. Patent rights are awarded for a period of 20 years. The invention becomes public domain after a patent expires, meaning that anybody can use it.

Compulsory Licences

The Patent Act grants inventors a monopoly to profit from their inventions; nevertheless, Section 92 of the Patent Act of 1970 allows the government to grant third parties compulsory licenses for the public's nonprofit use in the event of a national emergency. Aside from this, the government has complete authority to grant a compulsory license to another person in order to enable them to produce a patentable product if the authorized patent owner is unwilling or unable to meet societal demands, such as in the case of food, medicine, vaccines, life-saving devices, or pharmaceuticals. In this instance, the government must provide the patent owner with reasonable and justifiable financial benefits.

Patent Cooperation Treaty (PCT)

Since the patents are national rights, the applicant must submit a separate application to each country's patent office. A significant amount of time, money, and effort are needed for this activity. Regarding this matter, the 1970 Patent Cooperation Treaty (PCT) allows for the filing of simply one international patent application as opposed to many distinct national or regional patent submissions. Although the national or provincial patent offices of the various PCT member countries still have the final say over patent awarding, the applicant receives the priority period date of first filing, which is applied in all member countries—there are more than 145 in total—with this single patent claim.[16]

Industrial Design

Industrial design is the creative process of giving mass-produced goods or articles an aesthetically pleasing or ornamental appearance. Both two-dimensional and three-dimensional forms can be used to express the design. In the United Kingdom, features of shape, configuration, pattern, or ornament are referred to by the Design Act 1949. In general, industrial design encompasses the format, surface, pattern, lines, color, and other appearance-related aspects of industrial products, including watches, automobiles, mobile phones, computers, other domestic appliances, buildings, textile patterns, and handicraft items. In addition to its technical performance and other factors, the primary focus of sales is a product's aesthetic worth or appeal.[20]

A design for industry must be novel or unique and non-functional in order to be protected by the majority of national laws. Therefore, the technical characteristics or functions of the product to which industrial design is applied are not protected by design registration; industrial design is solely concerned with aesthetic features. Even Nevertheless, if the technical aspects are unique, obtaining a patent could safeguard them.[8]. In addition to this, copyrights protect literary or creative designs, such as cartoons, labels, leaflets, maps, dressmaking patterns, etc., rather than industrial designs.

Industrial design rights can last anywhere from 10 to 25 years, depending on the nation. According to the Design Act of 2000, industrial designs in India are protected for ten years. This period can be further extended

for an additional five years. Through the promotion of more visually pleasing products for society, an industrial design fosters innovation and technical development among individuals and the manufacturing industry. In addition to creating a product's visual look, a machine, piece of furniture, car, etc.'s architecture is also indirectly related to ergonomics and has a significant impact on the comfort of its users.

Industrial design is also handled by the patent offices in Chennai, Mumbai, New Delhi, and Kolkata. As required by law, the patent office in Kolkata keeps track of all relevant information about filed industrial designs in the design register.

Trademark

In the ancient world, trademarks were already in use. About 3,000 years ago, Indian craftsmen would carve their signature on jewelry or other artistic creations. As industrialization progressed, trademarks became increasingly important in today's globalized economy. A trademark or service mark is a distinguishing symbol or emblem that indicates that a certain product is made or supplied by a particular individual, business, or industry. Like trademarks, service marks set service-providing businesses apart from their rivals. A business may use a variety of trademarks for its varied products, but it uses a trade name to set itself apart from other businesses. [8].

Businesses can increase their notoriety, reputation, and customer trust by using a trademark or trade name. Customers typically rely on trademarks in situations where it is challenging to swiftly assess the quality of a good or service. 21–22 In order to stand out from the competition, a certain group of consumers is exceptionally worried regarding the brand and will pay a premium for its prestige even for comparable quality.

In order to differentiate one company or service from another, a trademark or service mark may consist of letters, numbers, drawings, logos, symbols, phrases, images, designs, or a mix of these components. In addition to these, the following additional "non-traditional" trademarks exist:9

Smell or sensory marks: tennis balls have been recognized in the UK with the scent of freshly cut grass, dart flights with the scent of beer, and tires with the scent of roses.23 Similarly, sewing thread and embroidery yarn were registered in the United States with a lovely flowery perfume reminiscent of plumeria blossoms.[24,25]

Audible signs, also known as sound marks, are identifiable sound markers that take the shape of musical notes. For its television and radio services, the NBC was able to effectively register the performance elements as a trademark in 1950. Additionally, MGM has registered the lion's roar as a sound trademark.

Words and devices with their own color or color combination fall under the topic of colored marks. Similar to this, under some particular situations, a small number of tastes and forms (three-dimensional symbols like the three-pointed Mercedes star) can also be registered as non-traditional trademarks.

Important Criteria of Trademark Registration

As per UK Trademarks Act, 1994, the three main requirements for registering a trademark are as follows:26

a) The trademark must be a symbol or other information-conveying device. b) The symbol should be able to differentiate between the goods and services of different businesses. This is undoubtedly a prerequisite for trademark distinctiveness.

c) The trademark can be precisely identified in the trademark registration through graphical representation.

Broadly Followed Rules of Trademark Registration[11]

• Since it is not identifiable in this instance, the term "Apple" or an Apple product cannot be registered for Apple. However, in the case of computers, it is registered as being extremely distinctive.In a similar vein, cigarettes are registered under the Camel trademark. For chairs, tables, and other related products, a generic

term like "furniture" will not be authorized as a trademark. 11.
• In certain nations, registration is only permitted for a usage of alphabet or numerals if at least a small number of them are combined, or if the letter-number combination is pronounceable.

• In a similar vein, several nations do not register popular surnames because

• In addition to these, a trademark or deceptive sign that is dishonest, against public order, or immoral is not eligible for registration.
• Signs that belong to the state, a public institution, an organization, or an international body are not eligible for trademark registration.

Indian Trademarks Act

Any mark that is distinctive—that is, able to differentiate the products and services of one company from another and be graphically represented—can be a trademark, according to the Indian Trademarks Act.[27] That is no need to restrict the validity of trademarks because they do not confer exclusive rights that could be abused. However, trademark validity would result in an excessive quantity of registered trademarks that are not applicable if there were no time limit.[11]. The first trademark registration period in India is ten years, following which it must be periodically renewed. The Trade Mark Registry Office in Chennai, Delhi, Kolkata, Ahmadabad, and Mumbai (head office) is where the applicant can submit an application for trademark registration.

Infringement of Trademark

When another person utilizes a trademark which is identical to or equivalent to one that is registered for identical or comparable products or services, it is considered infringement. When infringement occurs, a fake product is sold to a buyer under the guise of a real one; this practice is sometimes referred to as "passing off." The "passing off" product is extremely harmful to trade since it deprives legitimate producers of market share and defrauds consumers by delivering a subpar product. Without being aware of the "passing off," a client who receives a subpar product may later choose a different trademark under the false notion that the manufacturer is making a lower-quality product. The commercial name for the counterfeit goods is also counterfeited product.

Collective and Certificate Marks

In certain countries collective marks and certificate marks are used to indicate that enterprises' product possesses particular standards. For example in case of textile chemical processing (dyeing and printing), a group of companies which strictly uses herbal or eco- friendly chemicals can think of some collective marks beside their individual trademarks. The ISO, hallmark, wool mark, etc are few example of the collective/certificate mark. Thus, certificate marks; safeguard the customer's interest by helping them to choose the quality product amongst the misleading products.

Layout Design of Semiconductor Integrated Circuit

These days, it would be impossible to imagine modern life without electronic devices, such as smartphones, laptops, computers, watches, cameras, medical or safety equipment, household appliances, etc. Thanks to integrated circuits, all appliances are now incredibly small. In addition to these, the majority of instruments use microprocessor-based operating systems or control systems composed of connected circuitry or layout designs. These circuit designs are products of the human imagination, the result of massive expenditures and the labor of highly skilled professionals. However, it is a fatal humiliation for electronic research organizations and enterprises when someone else copies their designs.

The term "layout-design" refers to a three-dimensional arrangement of the components where at least one of them is active and/or some of them are connected to form a semiconductor device, or a three-dimensional

arrangement created for a semiconductor device intended for industrial production.[28-30] The 1989 Washington, DC, treaty on the legal rights of integrated circuits (IPIC) is accessible to all WIPO members. According to the treaty, layout designs are protected for ten years after the date of application submission; however, member nations may extend this protection for up to fifteen years after the layout design is created.[11].

In accordance with the TRIPS agreement, the Semiconductor Integrated Circuits Layout-Design (SICLD) Act, 2000 was passed in India to safeguard the needs of the electronic sector.Twelve The Ministry of Information Technology's Division of Information Technology carried out the act. According to the Indian SICLD Act of 2000, any unique and essentially unique layout design may be registered for a period of ten years.

Trade Secrets

Any knowledge or idea that is beneficial to company and offers financial advantages but is not novel (not patented) may be retained as a trade secret. In addition, when copyright, trademark, industrial design, and other registrations are pending or in progress, new or innovative information is also protected as a trade secret.[31]

A trade secret can be any technological information or process, including recipes, ideas, devices, software, blueprints, patterns, formulas, maps, architectural plans, manuals, or whatever commercial knowledge or business strategy or secret in the form of data compilations or databases, marketing strategies, accounting data, personal records, etc.[32]

This privilege has a lot of potential to turn trade secrets into financial advantages. As a result, most businesses use trade secrets rather than patents to safeguard their innovations. Trade secrets encourage small-scale technological innovation that does not violate copyright and patent law's non-obviousness requirements. It takes years of practice, study, and expertise to develop a trade secret. One excellent illustration of a trade secret is the formula for Coca-Cola. Trade secrets are subject to certain laws in some nations, such as the Uniform Trade Secrets Act in the US and the Unfair Competition Prevention Act in Japan.

Geographical Indications

The use of a product's regional or local origin to identify it for trade purposes is not a recent development. The unique characteristics of several agricultural products are impacted by the soil or climate of the area. "WIPO has chosen the term geographical designation (GI) to encompass all current methods of protecting such names and imagery, whether they simply indicate a product's place of origin (e.g., indication of source) or how much they indicate that a product's qualities are due to its location in the world (e.g., appellations of origin)."[11]

Some well-known examples of names that are connected globally to their products with particular quality and registered as GI include Champagne, Havana, Darjeeling tea, Arabian horses, Alphanso mango, Nagpur orange, Basmati, etc. Similar to this, certain product attributes are linked to human aspects and their abilities in the fields of artistic creations, textiles, etc.[36] Masters or developers of that ability who reside in a certain area or town with the best climate are responsible for establishing and preserving the reputation of items. Traditionally, a certain tribe or region passes the expertise along from the current generation to subsequent generations with extreme caution and compromise. Geographical indicators for state-of-the-art craftsmanship include the well-known Dhaka muslin, Venetian glass, China silk, Mysore silk, Chanderi sari, Kanchipuram silk saree, Kullu shawls, Solapur chaddar, Solapur Terry Towel, Kashmiri handicrafts, etc.[7,37]

Under the Geographical designation of Products (Registration and Protection) Act, 1999 and the Geographical Evidence of Products (Registration and Protection) Rules 2001, such products may be registered in India. The registrar of GI, the Controller General of Patents, Design, and Trade Marks, is responsible for administering the GI statute. Right the owners from all Indian jurisdictions are able to enter their GI in the "Geographical

Indication registry" that the national government has set up in Chennai. According to these regulations, GI protection is given for ten years, with the possibility of periodic renewal for an additional ten years.

Copyrights and Related Rights

Authors, artists, and other creators whose work deals with mass ideas rather than ideas themselves are protected by copyrights. Any nation's or society's ability to develop depends on its citizens' inventiveness.[14,38] Thus, copyright promotes these kinds of endeavors. The following artistic and literary creations are protected by copyrights:[39,40]

Literary and scientific works:

books, pamphlets, magazines, journals, dramas, novels, poetry, and reference materials.

Musical work:

songs, instrument musical, choruses, solos, bands, orchestras, etc

Artistic works: such as painting, drawings, sculpture, architecture, advertisements, etc.

Photographic work: portraits, landscape, fashion or event photography, etc

Motion pictures: it includes the cinematography works such as film, drama, documentary, newsreels, theatrical exhibition, television broadcasting, cartoons, video tape, DVDs, etc

Computer programes: computer programmes, softwares and their related databases,

Maps and technical drawings

Right of Reproduction and Related Rights

A closely connected area is "related rights," or copyright-related rights, which include rights analogous to copyright. Performers' rights (such as actors and musicians) in their appearance; producers' rights (for example, compact discs of films, sound, or compositions) in the recording of them and transmission in radio and television programs.
The WIPO Performers and sound recordings Treaty (WPPT), which was adopted in December 1996 and went into effect on May 20, 2002, defines a performer as one who expresses folklore.

Copyright is immediately granted upon conclusion of a piece by virtue of creation, consequently registration is not required. However, copyright registration offers evidence that copyright exists in the work and that the inventor is the legitimate owner.[41,42]

Copyright for Computer Software

Concerning software for computers, the Indian Copyright Act of 1957 was revised in 1994, and it went into effect on May 10, 1995. According to this act, copying and distributing software without permission or authorization is a criminal offense. However, this statute grants authorised users the right of creating a minimum backup copies of software or other computer programs.[43]

The Indian Copyright Act, 1957 governs the process of registering copyright. The act was recently revised in 2012, under the name The Copyright (Amendment) Act. According to the rule, an author receives copyrights immediately after creating a work, although the completed piece can be registered in the Register of Copyrights controlled by the Department of Education's Copyright Office as prima facie proof.

Copyright Duration

In India, copyrights for literary, theatrical, musical, and artistic works last 60 years after the creator's death. The copyright term for photographs, films, and sound recordings is 60 years from the opening day of the

calendar year following the year in which they are published or issued. Aside from these, authors are granted moral rights for their creations.

Copyright Infringement

Copyright infringement is defined as creating, selling, or obtaining financial benefits from copyrighted material without the permission of the copyright owner. It is a criminal offence, and the act states that the smallest possible penalty for infringement is six months in prison and a fine of Rs 50,000/-.

Plagiarism

Plagiarism occurs when someone else's written work is used unauthorized license and claimed as one's own. However, facts that are considered generally known are not protected by copyright law and can thus be utilized by anybody. According to copyright, fair reasonable use of another work is permitted by repeating the text or using quote marks while providing suitable acknowledgement or attribution in credit of the respective author.

IPR in Context to Traditional Knowledge and Biodiversity

"Traditional knowledge (TK) refers to the innovations and customs of indigenous and local groups that exemplify traditional lifestyles; wisdom accumulated through numerous generations of integrated conventional scientific exploitation of lands, earth's resources, and the environment. The usage of turmeric, neem, tulsi, and other plants in daily life as part of a ritual is a well-known example of customary understanding in India.[7]

The University of Mississippi was granted a US patent for the application of turmeric's use in wound healing; W. R. Grace and Company was granted a European patent for its discovery of the fungal killer effects of neem oil; and the agro-biotech behemoth Syngenta attempted to take ownership of several hundred rice varieties that already existed in India. These are just a few cases of piracy of biological in which permissions were later revoked in favour of the legitimate owner of The conventional method Knowledge. The rights associated to TK, such as agricultural behaviors, and medicinal purposes of plants or herbs, plant variations, and their genetic resources, are covered by the Sui generic means distinct structures of land of law or region, as they are not included or fit under conventional IPR.[7]

The WIPO Convention on the Conservation of Biological Diversity (CBD) was held in 1992 with the primary purpose of conserving the preservation of biodiversity, the of its components, and an equal distribution of the benefits resulting from the use conventional genetic resources. India, as a member of this treaty, approved the following legislation in Parliament to safeguard traditional knowledge and farmer's rights.[44]

The Protection of Plant Variety and Farmers' Right Act 2001 (PPVFR Act)

This Act recognises farmers' individual and community duties, as well as their interests in variety improvement and conservation. This one-of-a-kind statute combines intellectual property rights and public interest requirements to strike an equitable settlement between farmers and large seed manufacturers, genetically advanced research facilities, and marketing firms.[45]

The Biological Diversity Act 2002

Thousands of ethnic groups, local variants of species, and sub-species make up biodiversity, which is classified primarily as genetic, species, and ecological. According to estimates, the entire planet has 1.75 million recognized species.[46] The Framework Convention under Biological Diversity (also known as CBD) specifies that a member party shall enable access to its genetic wealth by third parties on mutually agreed-upon terms, but this accessibility involves prior information consent (PIC) from the country providing the resources. It also includes provisions for a fair sharing of any profits from the commercialization of traditional knowledge with local people, subject to domestic legislation.

"The position of India in agricultural output is 2nd amongst the world and around 60% of the country's population utilizes this sector for rural development."[47] Thus, the biological diversity legislation of 2002 safeguards the rights of India's vast population, particularly farmers, their resources, and essential goods such as seeds, fertilizers, insecticides, and so on. It has a positive impact on agricultural output, farmers' livelihoods, sustainability, and equitable benefit sharing.[48] In 2003, the central government also formed the National Biodiversity Authority (NBA) to ensure that the Biological Diversity Act of 2002 is properly implemented.

The Patent Amendment Act, 2005

According to the Act (Section 3), 'a mere novel use for a known material' and invention that is, in fact, traditional knowledge or an aggregation, duplication, or known qualities of a commonly recognized element or constituents will not be considered inventions. The aforementioned elements in the Acts preclude the misappropriation of TK and its use in matters that are in the public domain in India.

IPR Status of India

In 2007, the World Bank conducted a Knowledge Economy Index (KEI) survey of 140 countries based on their knowledge-based initiatives, regulatory frameworks, economic incentives and institutional regimes, and information and communication technology (ICT) infrastructures. India placed 101st due to a lack of the aforementioned factors.3,[49]

Similarly, India placed 14th, 9th, and 13th in patents, marks, and designs, respectively, according to total (resident and international) IP application activity by origin in 2014.[50] Rankings are constructed on the total number of applications submitted by origin. Table 1 shows the global involvement in IPR filing activities in 2014 of a few prominent countries compared to India. India's global participation in IPR filing activities is a meager 1.6% for patents, 3.14% for trademarks, and 0.82% for industrial designs. The participation rate is much lower if only resident candidates are included, as seen in Table 1.

The primary cause for India's deficit in IPR involvement is a lack of understanding among young, academicians, researchers, industrialists, and traders regarding IPR and its benefits. Even Micro, Small, and Medium Enterprises (MSME), which account for almost 95% of all units, 40% of total value addition, nearly 80% of total manufacturing employment, and 35% of total exports, lack an intellectual property edge.[54,55] Due to the aforementioned causes, no Indian multinational firm was among the top 100 patent applicants worldwide between 2003 and 2012.[56] Indian industries can thrive if they prepare themselves as.

Table 1—IPR filing activity of India in comparison to few leading countries in 2014

Type of IPR activity	Name of the nation	Applications filed	% Share
Patent[51]	China	9,28,177	34.62
	USA	5,78,802	21.59
	Japan	3,25,989	12.16
	Republic of Korea	2,10,292	7.84
	European patent office	1,52,662	5.69
	Germany	65,965	2.46

	India	42,854 (RA:12,040; NRA 30,814)*	1.60
	Total Applications worldwide	26,80,900	
Trademarks[52]	China	22,22,680	29.84
	USA	4,71,228	6.33
	OHIM (EU Office)	3,33,443	4.48
	France	269,837	3.62
	Japan	242,073	3.25
	Russian Federation	241,542	3.24
	India	2,33,653 (RA: 2,00,137; NRA 33,516)*	3.14
	Total Application class counts worldwide	74,49,400	
Industrial Designs[53]	China	564,555	49.59
	OHIM (EU Office)	98,273	8.63
	Republic of Korea	68,441	6.01
	Germany	61,054	5.36
	United States of America	35,378	3.11
	Japan	29,738	2.61
	India	9,309 (RA: ,	0.82

	168; NRA
	3,141)*
Total Application	1,138,400

"Patent data" refers to the number of comparable patent applications. Mark data refers to the number of comparable applications for trademarks based on class counts (the number of classes stated in applications). Design data are numbers of comparable industrial design submissions based on design counts (the number of designs that comprise the applications).

*RA: Resident Applicants and NRA: Non Resident Applicants

According to local and global IPR needs, a robust IP portfolio makes good financial sense for securing loans, improving market image, and attracting attractive alliances and investments.[57] Thus, there is an urgent need to define adequate standards as an argument for IP strategy.4 Undoubtedly, India has the capacity and skills to emerge as a worldwide leader provided a proper IPR policy is implemented to increase its share of global commerce.

Conclusion

In an economy based on knowledge, intellectual property rights are critical for progressive growth in society. IPR is a basic requirement for participating in both local and worldwide competitive trade, as building an inventive environment is difficult without the dissemination and execution of IPR information. Policymakers must incorporate intellectual property rights into the basic educational system and encourage innovators and creators to register their works. India has all of the resources, including abundant raw materials, low-cost labor, and innovative and creative dedicated workforce. Without a doubt, India and other emerging countries will use their fair part of global trade to explore intellectual property rights.

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