

## CONCEPT OF INTELLECTUAL PROPERTY LAWS AND INNOVATION ECOSYSTEM

SUSHMA AGARWAL<sup>1</sup>, SHAMIM AHMAD FAROOQUI<sup>2</sup>  
ASSISTANT PROFESSOR (GUEST FACULTY)<sup>1,2</sup>  
DEPARTMENT OF LAW, UNIVERSITY OF KOTA(RAJASTHAN)<sup>1,2</sup>

**Abstract**— An innovation is something you do that improves a product, process, or service. Many innovations are protected by intellectual property rights. A large share of innovative and creative products and services rely on intellectual property rights (IPR) including copyrights, patents, trademarks, and similar rights. IPR play a vital role in the growth of economies in developed and developing nations alike. Patents, copyrights, trademarks, and similar intellectual property protections confer certain exclusive rights on the inventors or creators of the property so that they can reap the commercial benefits of their creative efforts or reputation. A business' IP rights can set it apart from competitors, provide an important revenue stream, and provide customers with something new and different. They can also be sold or licensed, increasing revenue. By providing legal protection for creative works, IP law has a major impact on innovation and creativity. Among them are copyrights for literary, artistic, and musical works, trademarks for brand names and logos, and patents for inventions. In an innovation ecosystem, companies and other entities collaborate to develop new products and services based on a shared set of technologies, skills, or knowledge (Moore, 1993). To ensure your business stays innovative, you need to create an innovation ecosystem that allows innovative ideas to emerge consistently. In order to build an innovation ecosystem, strategies must be developed for experimenting, accepting failures, and collaborating with external partners. Businesses, organizations, and institutions like capital investors and universities are seeking ways to create innovation ecosystems in the US and elsewhere. During the past few years, many debates have taken place about why businesses need innovation ecosystems. However, these discussions have now shifted to ways to make these ecosystems more efficient and effective.

Keywords: Intellectual Property Rights, Intellectual Property Laws, Innovation Ecosystem.

### 1. INTRODUCTION

Inventions, literary and artistic works, designs, and symbols, names, and images used in commerce are examples of intellectual property (IP). Inventors and creators may earn recognition or financial benefit from their inventions through patents, copyrights, and trademarks. In order to foster creativity and innovation, the IP system seeks to strike the right balance between the interests of innovators and the wider public interest. [1]

The law of intellectual property protects and enforces the rights of creators and owners of inventions, writings, music, designs, and other works, known as intellectual property. Copyright, trademarks, patents, and trade secrets are some of the areas covered by intellectual property law. In fine arts, publishing, entertainment, and computer software, copyright law protects the rights of creators. It protects the owner if others copy, present, or display their work without permission.[1]

Trademark protection is available for words, phrases, symbols or designs used by an entity to identify its product or service. For instance, Dunkin Donuts's orange and pink sausage-style lettering, Apple's apple logo, and Adidas' three stripes. The Lanham Act is the main source of trademark regulations that defend against infringement and dilution. Owners can stop others using or imitating their marks to such an extent that customers cannot differentiate the source. Trademark rights are acquired either by being the first to employ a trademark in commerce or by registering it with the US Patent & Trademark Office. [2]

Patent law provides protection for new inventions, which can be products, processes or designs, and provides a mechanism for protecting the invention. Patent law encourages the sharing of new developments so that innovation can flourish. In essence, patents are property rights that can be licensed, sold, mortgaged or assigned by the patent owner, allowing him or her to prevent others from producing, using, distributing or importing the protected item. [2]

The purpose of trade secrets is to provide a competitive advantage for a business by using business practices, formulas, designs, or processes. Trade secrets are not known to "outsiders" of the business. As an example, Coca Cola's formula is protected without registration, and the owner should take appropriate steps to keep it confidential. [2]

Intellectual property, in basic terms, refers to specific types of intangible assets that have been created (by using one's mental faculties). Registration requirements for intellectual properties vary according to their type. Those who own intellectual

property rights have various rights to protect and commercialize such assets (which are protected by intellectual property law). (With minor jurisdiction-specific changes in terminology and registration requirements), intellectual property rights are classified universally across the globe. Copyright, trademarks, patents, geographical indications, designs, semiconductor integrated circuit layouts, and plant varieties are all types of intellectual property rights in India. Below is a detailed discussion of each of the aforementioned types of intellectual property rights: [3]

In India, what are the different types of intellectual property rights:

**Copyrights Act, 1957:** Copyright safeguards the materialization of an idea, not merely the thought itself. Section 13 of the Copyright Act encompasses "original literary, dramatic, musical and artistic works; cinematograph films; and sound recording", as well as computer programs. A copyright administers a person with "exclusive right" to execute or grant permission to carry out activities connected to the copyrighted material. The rights available for individual types of works are different - for instance, when it comes to literary, dramatic or musical work: the owner (or anyone else authorized) is entitled to perform it; make translation(s); produce adaptations, etc. Section 17 of the Copyright Act clearly states that the original author (for which copyright has been obtained) is the first owner of the work. By signing a written agreement, the owner can also license their work's copyright to third parties. Copyright protection shall be provided to published literary, dramatic, and artistic works for a period of 60 (sixty) years, in addition to the author's life. [3]

**Trade Marks Act, 1999:** As defined under section 2(zb) of the Trade Marks Act, a 'trademark' is defined as a mark that can be represented graphically and distinguishes goods or services from those of others. This may include the shape, packaging, and colour combination of the goods. A trademark protects symbols, colours, shapes, words, etc., that refer to a good or a service or represent it. It is not necessary to file a trademark application for marks which have already been used. The Trade Marks Act stipulates several conditions for trademark registration, such as it must be distinctive and graphic in nature. Also, under the law, some marks may be refused registration due to absolute grounds like lack of distinctiveness, being deceptive or offensive etc., while other marks may be rejected based on their resemblance to pre-existing marks. Additionally, India is a signatory to the Madrid Protocol, which allows trademarks to be applied for and registered internationally. In order to file and register an international application (under the Madrid Protocol) in a foreign jurisdiction, the mark must first be filed in India. [4]

**Patents Act, 1970:** 'Patents' are intellectual property rights that protect any new invention. They are exclusive rights that protect the inventor and prevent others from using and misappropriating them. [4] A patent is granted for a period of 20 years from the date of the filing of the application. It is essential to consider that a new invention can only be registered if it meets three criteria; that it has not been publicly disclosed in India or anywhere else around the world, that it has industrial applications and thirdly, requires an inventive process to be employed as defined in The Patents Act - meaning a feature associated with technical advancement or economic value which renders it not-obvious to those knowledgeable in the area. [4]

Geographical Indications of Goods (Registration and Protection) Act, 1999: In India, many goods are popular because of their location. Due to many factors, including but not limited to its origin, the skill set of the tea farmers in Darjeeling, and the weather prevailing there, Darjeeling tea is unique and popular. There are also products such as Banarsi Saree, Basmati Rice, etc., that have a bearing on the place of origin. Geographical Indication (GI) can be applied to a wide range of goods, such as agricultural products, food items, handmade objects and manufactured items. According to GI Act, it identifies the origin of such goods where a specific quality or distinctiveness is essentially due to its geography. This includes activities associated with production or processing in their designated territory, region or locality. [4]

## 2. INNOVATION ECOSYSTEM

Despite early predictions that Skype calls and Slack messages would completely replace in-person conversation, research has shown that proximity can actually foster innovation. For the first time in history, more urbanites than rural dwellers are living in cities due to that reason. In addition, it is why people are attracted to coworking spaces and why companies still benefit from a strong sense of community. Companies are mapping and cultivating their innovation ecosystems in an effort to foster innovation that can come from working in groups and sharing ideas.[5]

A brief overview of the different syntactic components of the innovation ecosystem concept as a whole, i.e., system, innovation, innovation system, and ecosystem, will precede our analysis of existing definitions of innovation ecosystems. An analysis of systems is essentially the process of characterizing C and R. A system is composed of a set of components and a set of relations among these components. An open system that is dynamic can be characterized as one in which inputs and outputs are transformed by agents or actors interacting with the environment.[5]

The innovation concept: Innovation has a long conceptual history with many fluid connotations and meanings [5]. In most contemporary definitions of innovation, viewed as the outcome of a process, two defining characteristics are used, namely the newness of a change and the usefulness or success of its application. It is possible to use the concept of 'new' to refer to a new state of affairs in the world, a new nation, a new firm, etc. [5]

Economics and policy literature first adopted and developed the innovation system concept in the 1990s, although some antecedents can be traced back to the late 1980s. For example, national, sectoral, regional and corporate innovation systems were introduced, as well as conceptualizations of innovation related systems. According to the received definitions of innovation systems, they consist of a set of components and causal relations that influence the creation and use of innovations, as well as their performance as innovators. [6]

An ecosystem in nature is a harmonious combination of living organisms that interact and mature together. It is composed of three components: the population that fuels and yields the development of the system; the habitat where it exists; and the interdependence, collaboration, and symbiotic relationship between its members. In similar fashion, an innovation ecosystem involves a network of innovators, startups, stakeholders, investors, and venture capitalists working together to turn concepts into products with market value. [6]

In his research at Harvard Business School and Babson College, Professor Daniel Isenberg delineates a framework of six key elements of an innovation ecosystem: people, markets, policy, culture, finance, and infrastructure support. There are several characteristics or conditions that must be present for each element. [6]

**People:** People encompass three key elements: 1) strong networks and platforms that facilitate the growth of networks across government, industry, and academia; 2) innovators as well as skilled and unskilled workers; and 3) a talent acquisition and development strategy and structure that includes an innovation competency skills model to gauge the skills gap and the need to allocate training and resources.

**Market:** For an innovation ecosystem to develop and grow, it needs free-functioning markets, a wide customer base, and robust supply chains. In order to take ideas and turn them into solutions for customers, startups need direct access to marketplaces and customers. [6]

**Policy:** Isenberg brings the concepts of leadership and government under a single policy umbrella, given that they are fundamental to the ecosystem. Leaders who back innovation

bring about a sense of social acceptance for innovators and the whole ecosystem, help to draft innovation strategies and can create a sense of importance in tackling difficult times. Government institutions also have an essential role to play by formulating regulatory frameworks including tax incentives, research backing, venture friendly legislation related to intellectual property rights, labor and bankruptcy laws and more. [6]

**Culture:** Culture plays an essential role in the functioning of an ecosystem due to its potential to bind and unify. It is important that a culture enables calculated risk-taking, embraces failure as a learning opportunity, and promotes creativity and fresh methods of problem solving. Furthermore, it should also inspire ambition, drive, and a desire to succeed. Additionally, stories should be shared among the stakeholders in order to demonstrate successes which can establish confidence in others and further discussions regarding any failures or new understandings will also help progress this atmosphere. [6]

**Funding:** Funding sources are essential for fostering inventive ecosystems, including micro-loans, angel investors, friends and family, early-stage venture capital, venture capital funds, private equity, well-developed financial markets, and access to debt. As startups target unmet customer needs with the creation of novel products and services that do not yet have market verification, such ventures inherently come with great risks. Furthermore, this lack of data on the value of the product in the market can be frustrating and make it difficult to procure funding through more conventional channels like traditional bank loans. [6]

### 3. INTELLECTUAL PROPERTY LAWS AND INNOVATION ECOSYSTEM

It is a mechanism for economic appropriation designed to reward innovative efforts that protects intellectual property rights. Each country's intellectual property ecosystem structure generates different investment stimuli during the innovation life cycle, depending on the country. However, when controlling for time and individual fixed effects, the intellectual property ecosystem shows a positive effect at the left tail of the innovation output distribution. [7]

Dr. Vikram Sarabhai, a driving force behind the advancement of India, established numerous organisations including Physical Research Laboratory (PRL), Ahmedabad Textile Industry's Research Association (ATIRA), Operations Research Group (ORG) and the renowned Indian Institute of Management (IIM) Ahmedabad. Additionally, he played an integral role in propelling India's space program. Mr. Narayan Murthy of Infosys was another pioneer whose innovative vision and strategy changed the face of Indian IT industry.

Furthermore, Dr. Verghese Kurien brought the “white revolution” to India through Anand Milk Union Limited (AMUL) as a model example of core process innovation. The worldwide known Mumbai Dabbawala system is also a classic instance that stands testament to this principle. National Innovation Foundation (NIF), GoI has been actively aiding innovative grassroots and indigenous technologies by facilitating their penetration into global marketplace. [8]

India has experienced considerable progress in its global innovation index (GII) ranking, surging from 81st in 2015 to 46th in 2021. This improvement is a result of an effective ecosystem for research and development (R&D), qualified manpower, intellectual property filings, tech-oriented start-ups, and various initiatives taken at the domestic and international level. To motivate innovation and entrepreneurship, sensitivity programs, business opportunities, legal protections, innovation management and technology exchange schemes have been established. The Indian R&D sector is undergoing a rapid transformation with Technology Business Incubators (TBIs), Technology and Innovation Support Centres (TISCs), government financing tools as well as venture capitalists' and angel investors' capital investment. Furthermore, the Department for Promotion of Industry and Internal Trade (DPIIT) has set up a framework to decrease IP clearance time. Robust IP systems offer incentives to invest in R&D while stimulating innovative ideas among different stakeholders. Last but not least, NITI Aayog's Atal Innovation Mission (AIM) strives towards fostering problem-solving skills in educational institutions as well as providing an encouraging environment for entrepreneurship across different sectors such as private organizations and MSMEs. [8] Bolstered by a top-notch intellectual property structure, an experienced labour force, integration of information and communications technology (ICT), and a range of government policies and initiatives such as Digital India, Atal Innovation Mission, Make in India, the “Vocal for Local” campaign, and Start-up India; the Indian economy is evolving into a "Innovation Economy". Academic institutions, start-ups and Micro, Small, and Medium Enterprises (MSMEs) are playing their part in contributing to research and creativity. [8]

#### 4. Conclusion

Innovation is driven by inventions. Inventions are new solutions to technical problems and are protected by patents. By ensuring that inventors can control the commercial use of their invention, patents protect the interests of innovators whose technologies are truly groundbreaking and commercially successful. As a result, inventors have the opportunity to sell, trade, or license their patented technologies with others who may want to use them. The invention can be protected by a trade secret or by a patent. Many businesses use trade secrets to protect their know-how, but this has its

drawbacks as well. As for the company, it may be risky since once information is disclosed legitimately (for example, if someone else discovers how an invention works), it will no longer be protected. From a public interest standpoint, trade secrets are less beneficial than patents since they don't share technical information. The ability to have a competitive edge over other similar businesses. IP enhances the value of your company. It helps you market your company's products and services.

#### REFERENCES

1. Lesperance, R. J. (1994). What is intellectual property? *The Canadian Veterinary Journal. La Revue Veterinaire Canadienne*, 35(3), 185–187. <https://www.wipo.int/about-ip/en/>
2. Bently, L., Sherman, B., Gangjee, D., & Johnson, P. (2018). *Intellectual property law* (5th ed.). Oxford University Press.
3. Nair, T. (2022, September 19). *Types of intellectual property rights in India*. Lexology; Ahlawat & Associates. <https://www.lexology.com/library/detail.aspx?g=7045cf52-4a2c-465f-980b-b5af034e2064>
4. Saha, C. N., & Bhattacharya, S. (2011). Intellectual property rights: An overview and implications in pharmaceutical industry. *Journal of Advanced Pharmaceutical Technology & Research*, 2(2), 88–93. <https://doi.org/10.4103/2231-4040.82952>
5. Granstrand, O., & Holgersson, M. (2020). Innovation ecosystems: A conceptual review and a new definition. *Technovation*, 90–91(102098), 102098. <https://doi.org/10.1016/j.technovation.2019.102098>
6. Higgins, A. M. (2020, January 24). *What is an innovation ecosystem?* Ideas; WeWork. <https://www.wework.com/ideas/professional-development/creativity-culture/what-is-an-innovation-ecosystem>
7. Reis, D., Moura, F., & Aragão, I. (2023). The linkage between intellectual property and innovation in the global innovation ecosystem. *International Journal of Innovation and Technology Management*, 20(01). <https://doi.org/10.1142/s0219877023500025>
8. IP and innovation ecosystem. (n.d.). Gov.In. Retrieved May 13, 2023, from <https://cipam.gov.in/index.php/ip-and-innovation-ecosystem/>