

Study and Analysis of Technology and IPR

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Abstract

The concept of private property has always recognized the rights of the owner of the property, who has either inherited the property or acquired it otherwise after paying due consideration. But latest developments in the legal arena have resulted in the recognition of rights of the creator or inventor of a property. The rationale behind it being that the creator has applied mind, resources and efforts to create something novel, so he must have exclusive rights over it. Such rights, called as Intellectual Property Rights, which secure the rights of the creator over his creations; be it novel design, or a trademark to be used for commerce, of his literary or artistic creation, or a novel product or invention. The Universal Declaration of Human Rights also recognize the rights of a person over his intellectual property under its Article 27. It says that a person who has created some literary piece of work, or a design, product or trademark, then that person's material interests over that creation shall be secured.

This paper also attempts to study the development and history of the concept of IPR and the objective behind it. These rights basically aim to secure commercial gains to the creator or inventor who has created something novel. The condition for being granted IPR is that the creation must be novel, a creation which has not already been created by another human being. The creator must satisfy others that his creation is only possible because of his intellect and has not already been created by anybody else. There are various types of IPR like copyright, trademark, patent, etc. However, Intellectual Property Rights are not absolute. They are granted for a limited period of time. Technology has played a big role in new inventions. Because of high tech resources available, the number of Intellectual properties has increased, leading to more and more filing of IPR claims in all sectors.

KEYWORDS :*Intellectual property rights, WIPO, patent, trademark, industrial design, GI and copyright.*

I. Introduction

Technology and Intellectual Property Rights (IPR) are two closely connected fields that have a significant impact on innovation, creativity, and economic growth. Technology, in its most basic form, refers to the tools, methods, and systems used to solve problems, enhance efficiency, and improve human life.

IPR, on the other hand, aims to secure the rights of a person over the creations that are a result of his unique intellect. This protection is provided to incentivize innovation and creativity by rewarding creators with exclusive rights to their creations.

The interplay between technology and IPR is essential because technology enables advances in innovation and creativity, while IPR provides a safeguard against the theft or unauthorized use of these creations. The protection of IPR encourages innovation by ensuring that creators are fairly compensated for their work, which, in turn, stimulates economic growth.

In summary, the role of both technology and IPR in the 21st century is fundamental to the development of new products, services, and industries, accelerating global progress and shaping the future of the world.

II. Literature review

Technology and Intellectual Property Rights (IPR) are two interconnected fields that have increasingly gained attention in the last decade due to their vital impact on innovation, creativity, and economic growth. Technological advances have revolutionized the way people live, work, and interact, allowing for the development of new products and services, and fostering economic growth. In contrast, IPR pertains to the legal framework designed to protect the intellectual property (IP) of creators, such as patents, copyrights, trademarks, and trade secrets. The protection of IPR is essential in incentivizing innovation and creativity by rewarding creators with exclusive rights to their creations.

The relationship between technology and IPR is complex and multi-layered. Technology provides the foundation for innovation and creativity by enabling the development of new and improved products and services. IPR, on the other hand, provides legal protection that helps facilitate innovation and creativity by safeguarding the interests of the creators and supporting their investment in research and development.

The importance of technology and IPR for the growth of economies, industries, and societies cannot be overemphasized. The cumulative effects of technological advances and IPR protection

have been central to economic growth and have enabled the development of new markets and industries. The purpose of this literature review is to explore the various issues related to technology and IPR, including their historical origins, contemporary debates, and their potential impact on future progress. By examining these issues, this review aims to identify the opportunities and challenges for technology and IPR integration in the future.

Research Gap

Despite the importance of technology and IPR, there are still several research gaps that need to be addressed to better understand their relationship and impact on innovation, the economy, and society as a whole.

Firstly, there is a need for more research on the intersection of emerging technologies, such as artificial intelligence, blockchain, and 3D printing, and IPR. New technologies bring new challenges, and it is important to determine how IPR can be adapted to protect these technologies effectively.

Secondly, there is a lack of research on the impact of IPR protection on developing countries' innovation and economic growth. Most studies on IPR protection focus on developed countries, while developing countries may have different economic, legal and cultural contexts that affect their ability to innovate and leverage IPR protection.

Research objective

The following are potential research objectives in the area of technology and IPR:

1. To assess the impact of emerging technologies such as AI, blockchain, and 3D printing on the application of IPR and to propose new frameworks to protect these technologies effectively.
2. To explore the effectiveness of IPR protection at promoting innovation and creativity in developing countries by analyzing the economic, legal, and cultural contexts, and identifying potential barriers to innovation.
3. To investigate the role of IPR protection in technology transfer between developed and developing countries and to identify policy recommendations that increase access to technologies for developing countries while protecting the IP rights of the creators.

4. To explore the potential of new technological advances, such as blockchain and AI, in addressing common challenges in IPR protection, such as copyright infringement, patent trolls, and the high cost of litigation.

Research Objectives

Overall, the research objectives in the area of technology and IPR aim to address the various issues related to the interaction between technology and IPR, analyze their impact on innovation and economic growth, and identify policy recommendations to promote their efficient integration in the future.

III. Analysis and discussion

WIPO

Since intellectual property is a universal debate from quite some time now, various co-ordinated efforts have been taken by the international community to come at a consensus on IPR policies, issues, challenges and solutions. World Intellectual Property Organization was established as the forum in the form of a specialized agency of the United Nations. WIPO chiefly helps the member states to develop a legal framework related to IPR. WIPO does this by a number of ways, like by acting as a repository of all IPR disputes, resolving disputes related to IPR policy matters. Current problem in the IPR is that of trans boundary IPR disputes, where one country's IPR laws differ from other country's IPR laws. Efforts are being made to form a universal IPR legal framework.

Patent

Patent is the right given to the creator of a product or a process, which must be unique and novel and must not have been already created by anyone else. The product or the process must either be a novel way of doing something or it must be a solution to an unresolved problem. The person filing for getting the patent, has to provide all the information related to the product or service.

Trademark

In the modern industrial market, a customer cannot remember and identify the owner of the

product, because the producer is sitting somewhere else producing the product . The product exchanges a lot of hands before reaching the consumer. In such a situation, the customers cannot identify the source of the product just by looking at it. So humans started labelling and writing on the package of the product so that the customer can easily identify. Then symbols, signs or designs became common. Such symbols that are used on products with the motive to communicate with the customer about the maker of the product are called trademark. Since trademark is unique and distinct from other existing trademarks, they are registered in the name of the owner. If other person tries to use someone else’s trademark or uses a deceptively similar one, then it is treated as a violation of the intellectual property rights.

GI

Some geographical locations have suitable conditions where a particular product or service can be produced owing to the peculiar features of that place. Now, the place gets recognized for that product or service and the livelihood of the people of that gets dependent on it. Geographical Indication is a type of declaration that a particular product is a speciality of a particular place, so that the customers can know that they are enjoying the best of that place. Any imitation of that product shall be a violation of IPR.

Copyright

A copyright is a type of intellectual property that gives its owner the exclusive right to copy, distribute, adapt, display, and perform a creative work, usually for a limited time. The creative work may be in a literary, artistic, educational, or musical form. To generate an idea and to originally express an idea at first point in time, are two different things. The copyright only secures the original expression of the idea made first in point of time. The protection comes with limitations like in the US, it is not considered as a violation of the copyright if someone uses someone else’s copyrighted material for certain acts which come under the category of ‘fair use’.

Blockchain and AI

Blockchain has come about as the smartest discovery of the IT world. It is a software technology that primarily functions in a way that no one person is given the exclusive access to edit the contents. To simply put, each user becomes aware of any change or entry made made to the records. This is perhaps the most perfect software technology to evade and trace defaulter transactions. Use of blockchain in monitoring IPR could be the breakthrough to all the problems

of IPR regulation. Steadily, many organisations and companies have started resorting to the use of blockchain to keep a digital record of transactions. How far will it be adopted worldwide is a matter of debate, but definitely, its utility cannot be questioned.

How technologies transferred from developed countries to developing countries and how IP protect them?

When a creator stumbles upon a novel idea, process, or product, he gets exclusive rights over it under IPR laws. But how does the creator gain from it? He can only gain if he can monetize it. For that, he must allow certain persons to apply his creation and turn into a marketable thing. So, the creator gives sanction to certain persons or companies of his choice to use his intellectual technology. In return for a negotiated consideration, the creator transfers his intellectual technology. This benefit everybody, the creator, the industrialists and the society at large.

Foreign direct investment is one of the channels of technology transfer to developing countries. Foreign affiliates may bring new opportunities and challenges that may encourage suppliers to innovate. They may provide direct training to suppliers and retailers of their products and services.

IV. Research finding

The law of IPR is not a very old legal system when we look at the legal history of laws touching other areas. There has been tremendous evolution in the IPR laws over time, but it lacks on many fronts. International claims of IPR are next to impossible to settle in the absence of any universal legal framework of IPR. Another problem that is prevalent is the lack of awareness among the general masses that such a thing as IPR even exists. Many false claims are filed wherein the creation is the brainchild of someone else but who did not file for IPR claim since he was unaware. It is impossible to prove who is the actual creator. Whoever first applies for getting the claim is taken to be the creator. Another problem is that of a singular universal repository, in the absence of which, any person filing for IPR faces difficulty in finding out whether his creation is novel or not. However, many are of the opinion that blockchain technology shall offer a solution to this problem, where universal tracking of all IPRs can be done at one single platform, with the access to each and everyone.

The role of some big industrial giants in controlling the IPR procedure and disputes is also known. It is also easier for big corporations to both stimulate inventions easily and also to get

them registered. Small enterprises and also individuals find it very difficult to get their Intellectual property registered due to the lengthy and complicated process. But many government schemes now provide financial assistance to people who wish to get their creations registered. The digitization of claim filing system and settlement of claim dispute has made it somewhat easier to get IP registered. The more simpler and stronger the IPR laws are made and the more easier the registration process is made, the more shall be the incentive perceived by people generally to innovate.

V. Conclusion and Recommendation

The purpose of IPR is two-fold. One is to encourage invention by securing the rights of the inventor. This is done by rewarding his efforts and giving him exclusive rights for commercial gain over his creation. The second purpose is to also make the IPR not an absolute, but a limited period right. The rationale behind this is that no matter that a creator is the owner of his creation, but he cannot be given indefinite exclusivity over the creation as it shall restrain the society from reaping the benefits of such a creation. Even the creator has grown up reaping the benefits of someone else's creations. Hence, after he has recovered his reward over a limited period of time, then the creation will fall in the public domain, ready to be used by the masses for their benefit.

To enable the creator or inventor to be able to commercially gain from his creation, instruments like contracts and licenses are used. The creator then transfer's the technology to the licensee in return for consideration. The licensee is generally an industrial owner who then uses the technology and applies it to make useful products. Thus, the society, industry and the creator also benefits. An area of improvement here is the prevention of leakage of technology. When IPR protected product enters the market, it is imitated by using reverse engineering. This way products are sold by violating the IP right of the creator as well as the licensee. Greater checks need to be placed to trace and discourage such piracy and imitation of IP protected products.

To explore the potential of new technological advances, such as blockchain and AI, in addressing common challenges in IPR protection, such as copyright infringement, patent trolls, and the high cost of litigation.

VI. Scope for future research .

- 1.To conduct a comparative analysis of different IPR regimes, addressing their effectiveness in

protecting innovation, minimizing the negative impacts of IPR on competition and access to knowledge, and determining the most efficient ways of balancing these competing interests.

2.To identify the relationship between patent litigation and innovation in various industries and assess the effectiveness of current legal frameworks in protecting innovators and promoting competition.

3.To examine the potential of alternative IPR protection models such as open source software, open innovation, and creative commons licenses in fostering innovation, promoting access to knowledge, and preserving cultural diversity.

4.To investigate the impact of IPR protection on technological innovation and productivity by analyzing the interactions between different technological fields and intellectual property rights.

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