INTRODUCTION TO INTELLECTUAL PROPERTY RIGHTS

AMIT VERMA

INTRODUCTION TO
INTELLECTUAL PROPERTY RIGHTS

INTRODUCTION TO INTELLECTUAL PROPERTY RIGHTS

Amit Verma

ALEXIS PRESS

Published by: Alexis Press, LLC, Jersey City, USA
www.alexispress.us

First Published 2022

A catalogue record for this publication is available from the British Library

Library of Congress Cataloguing in Publication Data

Includes bibliographical references and index.

Introduction to Intellectual Property Rights by *Amit Verma*

ISBN 979-8-89161-348-5

CONTENTS

CHAPTER 1

COPYRIGHT LAWS IN INDIA: PROBLEMS AND CHALLENGES

Amit Verma, Associate Professor
College of Law, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India
Email Id- amitverma2@gmail.com

ABSTRACT:
The legislation grants the makers of cinematograph films and sound recordings, as well as authors of literary, theatrical, musical, and aesthetic works, the right to use the term "copyright." The phrase "the exclusive right granted by law to an author, composer, etc. (or his assignee) to print, publish, and sell copies of his original work" might be used to describe it. The TRIPS agreement stipulates that Indian copyright legislation is on par with international standards. The Berne Convention for the Protection of Literary and Artistic Works, 1886, and the Universal Copyrights Convention, to which India is a party, are completely reflected in the (Indian) Copyright Act, 1957, in accordance with changes made in the year 1999. Additionally, India is an active member of the World Intellectual Property Organization (WIPO) and United Nations Educational, Scientific and Cultural Organization (UNESCO) and a signatory to the Geneva Convention for the Protection of Rights of Producers of Phonograms.

KEYWORDS:

Copyright, Exclusive Rights, Geneva Convention, TRIPS agreement, World Intellectual Property Organization (WIPO).

INTRODUCTION

Origin and Development of Copyright:

The idea of copyright protection emerged with the invention of printing, which made the literary works to be duplicated by mechanical process. Prior, to that hand copying was the sole mean of reproduction. After, the invention of Guttenberg's printing press in Germany in 1436, a need to protect the printers and booksellers was recognized and thus certain privileges to printers, publishers and also authors were granted. The art of printing spread quickly in Europe. After 1483, England emerged as a major centre of printing trade in Europe. The spread of this technological innovation led to creation of a class of intermediaries, who made initial investment in bringing out the book, i.e., the printers, who doubled as booksellers as well. They were called the "stationer's" in England. In 1557, Queen Mary I, granted the privilege of regulating the book trade to the Stationer's company of London. In 1662, the Licensing Act was passed in England, which prohibited the printing of any book which was not licensed and registered with the Stationers' Company. This was the first clear law which was aimed at protecting literary copyright and checking piracy. The license era was short lived. It was only with the passing of the Queen Anne's Statute of 1709, that, the rights of the authors over their work came to be legally recognized, and the concept of 'public domain' was established, though not explicitly [1]–[3].

The first codified law came in existence with the passing of the statute of Anne, which came into force on 10th April 1710. It was the first legal articulation of real copyright. Queen Anne's statute conferred upon the authors for the first time, the statutory right to benefit from their literary works by conferring upon them the sole right to print their works, for a limited period of twenty-one years for works published before the date of enactment i.e. from 10th April 1710, those works which had not been transferred to the Stationer's Guild. Those works which were published subsequent to the enactment of the statute of Anne enjoyed a protection of fourteen years. Prior to the Statute of Anne, the common law of England recognized a perpetual right of property in the author's "copy" in the manuscript. Statute of Anne 'was designed to destroy the bookseller's monopoly of the book trade and to prevent its recurrence and sought to divorce the evil of privileged censorship from free expression, thus facilitating an equilibrium between the rights of the authors and the rights of the public to have access to print material. It has been described that "The statute of Anne marked

the end of autocracy in English Copyright and established a set of democratic principles: recognition of the author as the ultimate beneficiary and the fountainhead of protection and a guarantee of legal protection against unauthorized use for limited times, without any elements of prior restraint of censorship by government or its agents' because prior to the enactment of the statute, common law provided that the sole right of printing and publishing shall continue adinfinitum. The Statute of Anne, was a small statute comprising of just 11 parts.

1. One, to promote learning.
2. Second, to prevent any other person save the author to print or reprint the book/literary work for a limited duration of 21 years in its retroactive operation.

The Act was a respite to ameliorate the conditions of authors by securing them their just dues. The Act aimed at encouragement of learning and spread of knowledge and preservation of culture which can be inferred from the fact that the Book's title had to be registered with the Stationer's register and nine copies of the same was to be deposited in libraries of the listed universities with an express prohibition that such Universities shall not have a right to print such books which have been deposited and the book were meant only for accessibility and advancement of knowledge.

Copyrights and Related Rights:

Copyrights protect expression of idea of author, artist and other creators which is concerned with mass communication. It protects only form of expression of idea, not the idea as such. Development of any country or society depends upon creativity of their people. Thus, copyright encourage such type of activities. The following literary and artistic works are covered under copyrights: Literary and scientific works: novels, poems reference works, newspapers, plays, books, pamphlet, magazine, journals, etc. 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 programs: computer programmes, softwares and their related databases, Maps and technical drawings Right of Reproduction and Related Rights A closely associated field is "related rights" or right related to copy right that encompass rights similar to those of copyright. The rights covered under related rights are performer's rights (such as actors and or musicians) in their performance; producers of phonograms (for example, compact discs of films or sound or compositions) their recording and broadcasting in radio and television programs. The WIPO Performance and Phonograms Treaty (WPPT) which was adopted in Dec 1996 and came into force on May 20, 2002, provides that definition of performer for purposes of treaty includes performer of an expression of folklore. One gets copyright automatically after completion of work by virtue of creation, hence it is not mandatory to register copyright. However, registration of copyright provides evidence that copyright exist in work and creator is genuine owner.

Copyright for Computer Software:

In concern to computer software, the Indian Copyright Act, 1957 was amended in 1994 which came in to effect from 10 May 1995. As per this act without permission or authorization making copies and distribution of software is criminal offence. Although, this act gives, rights to authorised users to make at least backup copies of the software or any other computer programs. The registration of copyright is carried out under the Indian Copyright Act, 1957. Recently the act was amended in 2012 known as The Copyright (amendment) Act, 2012. As per rule, author gets copy rights just after creating its work without any formality but work can be registered at Register of copyrights maintained in the Copyright office of Department of Education as prima- facie evidence. Copyright Duration in India copyrights exist for 60 years for literary, dramatic, musical and artistic works after the death of creator. In case of photograph, film, sound recording copyright term is 60 years from the beginning of calendar year next following year in which it is published or released. Besides these, author also gets moral rights for its creations.

The copyright owner has the exclusive right to-i) copy the work, ii) issue copies of the work to the public, iii) rent or lend the work to the public, iv) broadcast the work or include it in a cable programme, v) perform, shows or play the work in public, vi) make an adaptation of the work or do any of the above in relation to an adaptation. These exclusive rights comprised in the copyright in the different classes of protected works are spelt out by section 14 of the Indian copyright Act, 1957. The copyright subsisting in a work is infringed by any person who does or authorizes another to do any of these acts restricted by copyright without the license (that is, without permission, contractual or otherwise) of the copyright owner under section 51 of the Act. Under the Act both civil and criminal remedies are available to prevent infringement of copyright. While civil remedies include an injunction, an account of profit or damages, Criminal remedies call for imprisonment and fine. But to sustain a criminal proceeding under the Act the knowledge of the infringing party to infringe the rights shall be proved beyond doubt.

DISCUSSION

Infringement of Copyright:

The essence of the law of copyright is that it does not permit to make profit and appropriate to himself the labour, skill and capital of another. The law is strong enough to restrain what otherwise would be an injustice. At every stage in the law of copyright, and of performing rights, the author of a work has exclusive right with regard to certain restricted acts. If these acts are performed by another person, without the consent of the owner of copyright, then the persons infringe copyright in that work. Thus, while infringement in its literal sense conveys a breach of some right which a person enjoys, in its application to copyright it refers to some unauthorized use of a copyright work. Section-51 of the copyright Act, 1957 defines infringement in general terms which may be summed up as: Doing anything without license for which the owner of copyright has exclusive rights [4]–[6].

Permitting for profit without license any place to be used for the communication of the work to the public where such communication constitutes an infringement of the copyright in the work, making for sale or hire, selling or offering for sale or hire distributing, exhibiting in public or importing into India any infringing copy of the work. However, bringing one copy in India for the private and domestic use of the importer is permitted. The deceptively simple definition of infringement belies a complex legal reality determination of infringement is treacherously tricky. The definition of infringing copy in section 2(m) of the Act. However provides some standards and criteria for the determination that an infringement has occurred. It defines infringing copy to mean) In relation to a literary, dramatic, musical or artistic work, a reproduction thereof otherwise than in the form of a cinematographic film; 2) In relation to a cinematograph film, a copy of the film made on any medium by any means; 3) In relation to a sound recording, any other recording embodying the same sound recording, made by any means; 4) In relation to a program or performance in which such a broadcast reproduction right or a performer's right subsists under the provisions of this Act, the sound recording or a cinematographic film of such program or performance. ii. Elements of Infringement Copying, modifying, displaying, reproducing, communicating or performing a copyrighted work without authorization, all amount to infringement. In order to claim infringement, two elements must be proved:

1. Ownership the party claiming infringement must prove ownership of a valid copyright;
2. Copyright the claiming infringement must demonstrate that the infringer had access to the work and violated one of the exclusive rights.

The objectives of Copyright law and its system can also be justified on the following counts:

1. The copyright system takes care of considerable investment which is needed to make the creation of some works, e,g, Works of architecture or films etc. possible. As the purpose of the creation of practically all works is to make them available to the public, that process too, such as publication and distribution of books or records, is expensive. These investments will not be made unless there is a reasonable expectation of recouping them and making a reasonable profit. In addition, the doctrine of unjustified enrichment may apply if those who make creative contributions are not compensated.

2. The copyright system is also based on the principal of natural justice, as the author of a work has a right to decide whether and how his work is to be published. Since he is the creator or maker of the work which is the expression of his personality, he has a right to prevent any injury or mutilation of his intellectual offspring. Further, the author, like any other worker is entitled to the fruits of his efforts. The royalty he is paid are the wages for his intellectual works.
3. The culture of a nation depicts the creativity of its people and the works produced by creators form a considerable national asset. It is because of the encouragement and the rewarding of creativity that a contribution to the development of the national culture can be made.
4. The dissemination of the works to large numbers of people forges links between various classes, racial groups and age groups and therefore makes for social cohesion. The creator thus renders a social service and the ideas and experiences of creators can be shared by a wide public within a short space of time which ultimately result in the contribution to the advancement of society. One of the main objects of copyright legislation is to protect the copyright from infringement and piracy. The owner has the exclusive right to do certain acts in respect of the work. If any other person does any of these acts without proper authority, he would be guilty of infringement of the copyright in the work.

Scope of original literary work:

The first articles which got copyright protection were books. But in due course of time, judicial decisions have extended copyright protection to several other literary works. Under the rubric of original literary work, following works have been included as capable of having copyright; school textbooks; question papers set for examination; law reports; business letter, application and other forms; research thesis and dissertations; catalogues; contract forms; consignment note; directories; football coupons; list of bills of sale; compilation of a book on household accounts and domestic arithmetic; lists of football fixtures; mathematical tables, railway time tables; road books; guide books; trade statistics; compilation of a list of clients and law firms; books of scientific questions and answers; rules of game; student books; opinions and advices to clients; telegraph codes; questionnaire for collecting statistical information; head notes of reports; pan change (almanac), etc. Apart from the aforesaid works, course materials, research reports, laboratory notebooks in research laboratories, student course work also fall within the ambit of copyright protection. However, syllabus merely prescribing the guidelines which are to be followed by the textbook writer's has not been accepted as an original work.

Justice Story made following observations in respect of original plan, arrangement or compilation of material. First, that any new and original plan, arrangement or compilation of material will entitle the author to copyright therein whether the materials themselves be old and new. Second that whosoever by his own skill, labour and judgment writes a new work may have a copyright therein, unless it be directly copied or evasively imitated from another's work. Third, that to constitute piracy of a copyright it must be shown that the original has been either substantially copied or to be so imitated as to be a mere evasion of the copyright. The fair use or equitable use doctrine is essential to copyright law. It allows for the replication of the work that is protected by copyright or for use in a way that, but for the exception made, would have violated copyright. Thus, it has prevented the harm caused by the copyright legislation. When copyright first came into existence, the defense of fair dealing was an equitable doctrine that permitted some uses of literary works that would have otherwise been forbidden if doing so would have stifled the very creativity that the law is meant to promote. In addition, fair dealing responds to some "fair" copyright supporters who assert that since a copyright is not a patent, it is not an absolute right and should be balanced against user rights. The fair dealing concept is, in fact, "an important component of the social bargain at the heart of the copyright law, in which as a society we concede certain limited individual property rights to ensure the benefits of creativity to a living culture".

The fair dealing concept of India and the other former British colonies has a reputation for having a weak imperial import. Fair dealing in the UK's copyright regime, which includes an extensive list of restrictions, has generally been characterized as 19 of specified exceptions. Fair use in the US permits any use of a work to be fair in accordance with a set of elements that aid in the decision-making process, in contrast to Indian and UK provisions, which are typically applied only to a work used one of the closed lists of designated

purposes. In addition, the US copyright code provides an open list of acceptable uses. Fair dealing, on the other hand, is believed to offer certainty but is quite inflexible, while the US fair use defense is thought to offer flexibility at the sacrifice of certainty.

Members of the WTO are required to comply with the Berne Convention's and Article 13 of the TRIPS agreement's three-step test for exceptions to copyright, which states that the exception must be "special," not conflict with usual exploitation, and not unreasonably prejudice the legitimate interests of rights holders. It should be emphasized that even the TRIPS fair dealing formulae have been shown to closely resemble the US fair use doctrine. As a result, it has been determined that the US doctrine fair use provision is the "fairest" of all.

The Indian legal framework for fair dealing:

In India, Section 52 of the Indian Copyright Act, 1957 firmly establishes the principle of fair dealing. In McMillan V. Khan Bahadur, the Bombay High Court determined that the English Copyright Act, 1842, even though it had not been made expressly applicable to India, was nonetheless applicable in India. The Copyright Act 1914 was essentially an extension of the British Copyright Act, 1911, and it was passed by the Indian Legislature in 1914. However, the Indian Parliament had very little modification and addition power [7]–[9]. Section 2(1)(i) of the UK Copyright Act, 1911's section 2(1)(i), which stated that copyright would not be violated by "any fair dealing with any work for the purposes of private study, research, criticism, review, or news," was first codified as fair dealing in 1914.

CONCLUSION

In knowledge-based economy, intellectual property rights are very much essential for progressive societal development. The IPR is basic necessity to be a part of local as well as global competitive trade as without dissemination of IPR knowledge and implementation, creating the innovative environment is really impossible. One should treat a copyright infringement case like a jigsaw puzzle. The puzzle pieces of your case's facts, laws, orders of the court, and practical requirements should be recognized, handled, and connected as soon as possible. The plaintiff's case may be successful if all the parts come together, but it may be in shambles if one does not. In Indian copyright law, fair dealing is a key idea. Nevertheless, the idea is still unexplored in India despite its significance to the copyright regime and to the development of technology. Even more expensive than standard litigation is copyright litigation. While ignoring infringement is frustrating, bringing a lawsuit for copyright infringement without sufficient funds in the bank might have a negative return. It is essential for policy makers to include IPR in basic educational system and promote IPR registration by encouraging the innovators and creators. India is having all the resources in terms of available raw material, cheap labour, innovative and creative dedicated manpower. No doubt that India and other developing countries will definitely harness its proportionate share in global trade by exploration in Intellectual Property Rights.

REFERENCES

[1] E. B. Bluemel, “The implications of formulating a human right to water,” *Ecol. Law Q.*, 2005.

[2] S. Shushaanth and A. Rajan, “A study on copyright infringement in cyberspace with special reference to the liability of the Internet service provider for infringement,” *Int. J. Pure Appl. Math.*, 2018.

[3] U. I. R. Center, “Trafficking for sexual exploitation and other exploitative purposes,” *Traffick. Sex. Exploit. Other Exploit. Purp.*, 2005.

[4] C. P. Nandini, “Criminalization of copyrights infringements in the digital era with special reference to India,” in *Copyright Law in the Digital World: Challenges and Opportunities*, 2017. doi: 10.1007/978-981-10-3984-3_14.

[5] V. Ganapathy, “Enhancing the Effectiveness of Old Age Security in India by use of Traditional Indian Support Systems,” *BimaQuest J. Insur. Manag.*, 2016.

[6] M. B. Pillai and G. Ganapathy-Doré, *Global Commons: Issues, Concerns and Strategies*. 2020. doi: 10.4135/9789353885724.

[7] Erik B Bluemel, "The Implications of Formulating a Human Right to Water," *Ecol. Law Q.*, 2004.

[8] M. Ahmed, "Contemporary Forms of Crimes: Issues and Challenges: Corporate Crimes (Techno Crimes: Intellectual Property Rights)," *SSRN Electron. J.*, 2013, doi: 10.2139/ssrn.2207661.

[9] G. Shukla, "Copyrights Piracy in Entertainment Media: Technological Development and Challenges to the Intellectual Property Rights," *SSRN Electron. J.*, 2012, doi: 10.2139/ssrn.1845278.

CHAPTER 2

A COMPARATIVE ANALYSIS OF COPYRIGHT OWNERSHIP UNDER THE US, UK AND INDIA

Sourabh Batar, Assistant Professor
College of Law, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India
Email Id- battarsourabh@gmail.com

ABSTRACT:
Copyright refers to the exclusive right to create or reproduce an entire work or any portion thereof. Thereof, the copyright in the work is deemed violated if somebody produces or reproduces the entire work or a portion of the work and the work bears the copyright for another person. The owner of the copyright is given exclusive permission to produce the work. The Indian Copyright Act, 1957 was modified in 1983 and 1984 to keep up with new technical advancements. In fact, the economic liberalization wave that swept over India was a significant step toward the free market and competition. But an impoverished copyright law posed a significant barrier to India's integration into the global corporate community. Under the infamous "Super 301" trade sanctions, the United States did continue to classify India as a prohibited country and requested that India improve its patent, copyright, and trademark laws to be on pace with international standards. The Copyright (Second Amendment) Bill, 1992, was brought into Parliament at this time. It is encouraging to learn that the aforementioned Bill was eventually approved in 1994. In the current work, it was suggested that a comparison be made between Indian copyright law and the copyright laws of the United Kingdom and the United States. Because of the historical ties between India and Great Britain as well as the fact that Indian legislation on the subject has significantly borrowed from the former, it was deemed appropriate to study English copyright law. United States was chosen once more for two reasons: first, the country's copyright laws have historically been influenced by British common law, and second, as in the early years of its independence from Britain, the country chose to prioritize national needs over copyright.

KEYWORDS:

Copyrights, Indian Copyright Act, 1957, Intellectual property rights (IPR), US Copyright Law, US Copyright Law

INTRODUCTION

The concept of copyright protection for authors' works only really started to take shape with the advent of printing, which made it possible for literary works to be mechanically reproduced. This is how the history of copyright protection for authors' works can be traced. Literary works were the first type of work to be recognized as protected by copyright, yet author's today struggle to obtain adequate defense of their literary rights. This essay's goal is to discuss the current status of literary works and the level of protection offered in India, the UK, and the USA. The analysis shows that the rules of the three countries under examination have a great deal in common when it comes to copyright. Regarding the "rights of authors," the study has shown that although there are significant similarities between them as far as the United Kingdom, the United States of America, and India are concerned, the economic rights of authors under the International Copyright Conventions and in the national legislations are not uniform. The language for these rights is different. There are some rights that do overlap, and each right's exact scope varies from country to country [1]–[3].

Developmental history of Copyright Law in India, UK and USA:

The history of copyright law dates all the way back to Johannes Gutenberg, who created the printer in Germany in the year 1400. When the printer was first used in England in the year 1483, the copyrights were put into place by King Richard III of England. The English monarch removed the ban on importing books and literature from other nations in the same year. Finally, after the embargo was repealed, authors from all

across Europe shipped their books to England for printing, and they were able to start using the royal license. The stationer's guild became a company in the year 1516, later in the 14th century.

The members of this corporation, the Stationer Guild, which is made up of writers from all across the European continent, each had exclusive rights to reproduce and publish the works of the other members inside the company. King Henry VII gave the crown a monopoly on the printing industry in the next century, or in the year 1529. The stationer guild organized at this time to defend its members' rights to publish and print its members' books, literatures, and manuscripts.

King Henry VII prohibited the importation of the stationer company's publications into England in 1533 as they campaigned for their rights, allowing English publishers and printers to flourish. The stationer business was granted the right to regulate the book trade by the Royal Charter in 1557, but in order to receive this power, they had to meet three requirements:

1. Guard the industry's caliber.
2. Reduce unethical and unprofessional behavior to a minimum.
3. Limited competition.

The rights of the stationer company were first made public in 1661, when the Licensing Act was first made public. However, the members of the company did not have the rights as the owners of the works they published; later, the right was returned to them as part of a commercial agreement. This statute was updated in 1662, the first time ever done to combat piracy, allowing the corporation the ability to pursue legal action against the violation of their rights as well as the authority to look for and seize any unauthorised works on the market. Eventually, the Act was repealed. The Act of 1957 protects various types of works, including literary, dramatic, musical, artistic, cinematographic, and sound recordings. The work must be unique and novel in order to qualify for protection under this Act. Under this law, it is illegal to copy, publicly distribute copies of the work, rent or lease the work to the public, display the copyrighted work to the public, communicate the copyrighted work to the public, or adopt the copyrighted work into their own work. Selling the work, distributing or selling it for commercial gain while violating the owner's rights to the work, displaying it for sale to the general public, etc. are examples of secondary infringement. The actions that are excluded from using works protected by copyright. They are doing things like using the work as a resource, conducting study, offering comments or reviews, reporting on the happenings, etc.

The copyright laws of the United States are neither related to nor descended from British English law or copyright laws. The rules governing copyright in the USA were developed independently, leading to the passage of three private copyright laws, two of which had 7-year expiration dates and one with a 5-year expiration date. James Madison and Charles C. advocated including a copyright clause in the US constitution in 1787 during the Constitutional Convention. Then followed the Copyright Act of 1790, which grants the author rights to the work for a period of 14 years, with the possibility of an additional 14 years if the author is still living at the conclusion of the initial 14 years. However, this statute does not grant rights to anyone who produce things other than books and literary works. The Copyright Act was changed in 1831, increasing the author's rights to a copyright period of 14 to 28 years (with the option of a second term extension; this change was added and altered in 1909) and reducing the formality required for copyrights. The duration was once more increased to 75 years, or life plus 50 years, in the year 1976. The Copyright Act of 1976, which went into force on January 1st, 1978, serves as the foundation for the present copyright legislation in the United States. Literary, musical, dramatic, choreographic, photographic, graphic, sculptural, moving images, sound recordings, and architectural works are the categories of works covered by this. As shown in Figure 1 shown the Comparative History of Copyrights in India, UK and US.

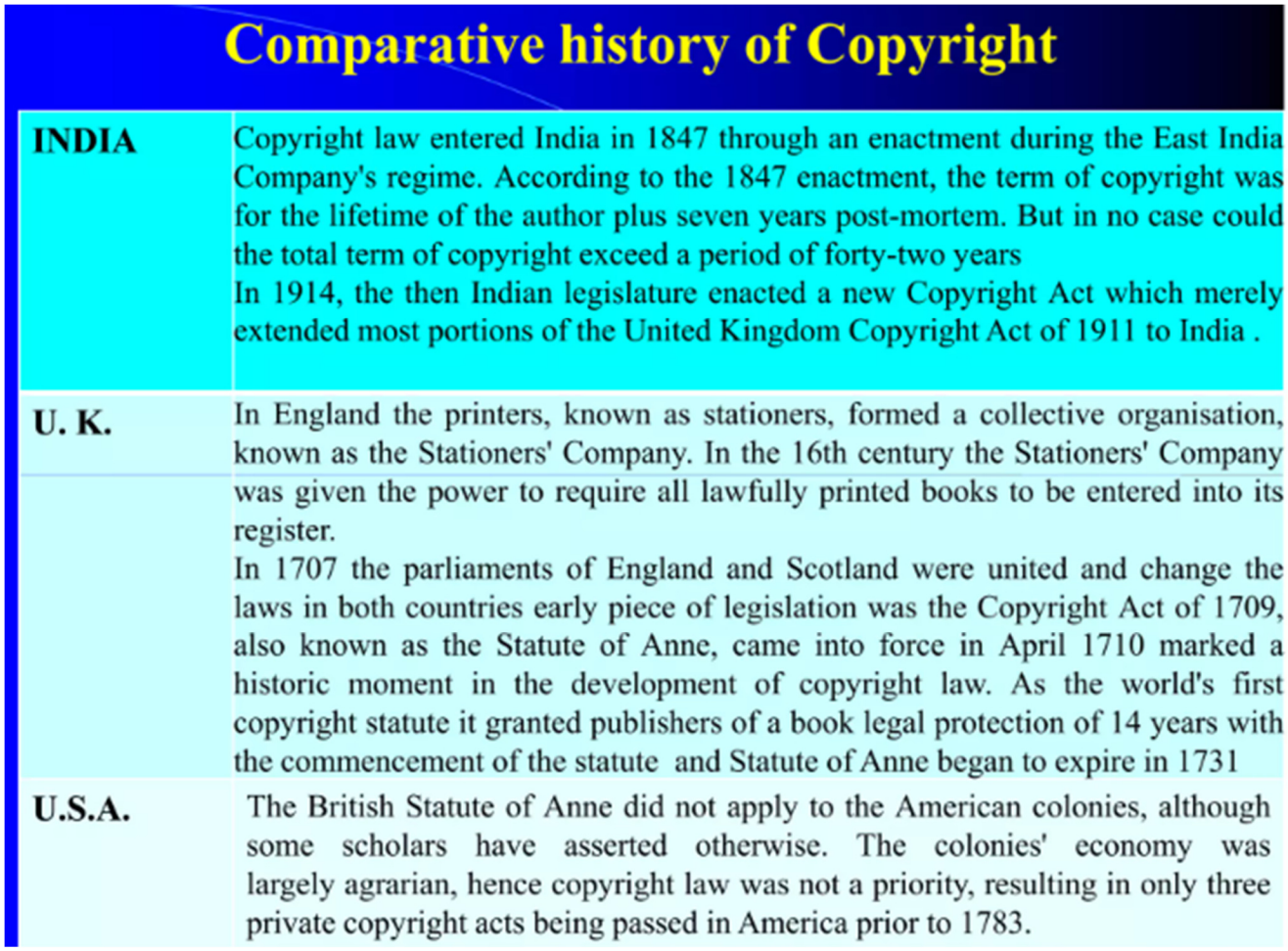

Figure 1: Comparative History of Copyrights in India, UK and US [chaswals].

The Church and the government's efforts to regulate and supervise every printing press and publishing business are credited with launching copyright laws in European countries. The first printing privilege or benefit was acknowledged in Rome during the fifteenth century. Only privileged city residents had access to all of these documents, and the majority of the populace lacked formal education. First to be acknowledged as authors in the style of their work were the wisest professors and most eminent scholars in the cities of the Roman and Greek empires. Despite the fact that it also demonstrates that they were prioritized as moral rights in ancient civilization, when they had no economic or commercial rights. Later, however, the authors were given their economic as well as moral rights under "Jewish Talmudic Law.". In Rome in 1501, there was a great deal of idea expansion, and as a result of this widespread dissemination, there was a tremendous flow of knowledge through interpersonal communication. Pope Alexander VI finally moved the church forward and ordered the restriction of all such illegal books.

According to the 1988 Copyright Designs and Patents Act, the first owner of a work's copyright in the UK is the person or group that created it. This person or group is referred to as the first owner of the copyright. In any instance, the corporation will be the first owner of a work created as part of employment. Except in cases where there is a specific agreement to the contrary (such as in a service agreement), independent or appointed work typically belongs to the person who created it. Copyright can be given or sold by the copyright owner to another entity or individual just like any other characteristic. Any portion of a work that is a copy taken from a prior work is not eligible for rights claims. The copyright for the samples, for instance, would still belong to the person who originally created the work in a piece of music that used samples from another work. In addition, only the owner or his exclusive licensee may file legal claims [4]–[6].

DISCUSSION

Comparison of Indian, British, and American copyright laws:

In India, the idea of copyright ownership is distinct from other types of ownership in tangible objects on which works are fixed. The copyright of a particular book may not necessarily belong to the person who owns it. As a general rule, the author is the original owner of the work's copyright. In order to understand the two distinct conceptions of Ownership and Authorship of Copyright in India, it is important to investigate the Copyright statutes' exceptions to the general norm indicated above. To clarify the aforementioned point, the initial owner of the copyright is the person who commissioned the creation of an artwork, photo, or image for a valuable concept. Except in cases when the person is the inventor or creator of the work, the creator/inventor of an idea of invention/creation is not the actual proprietor of Copyright in the work. Therefore, if someone has a brilliant idea and shares it with a dramatist who later adapts it into a play, the original creator of the idea has no claim to the production because a copyright only applies to physical structures, not to abstract concepts. The provisions for acquiring Ownership of Copyright are mentioned in Section 17 of the Copyright Act of 1957. Only those who satisfy the prerequisites outlined in the Copyright Act of 1957 are eligible for the Ownership right. There is no other available remedy to stop the infringement of Ownership of Copyright under other Indian laws [7], [8].

International Accords:

The study contrasts the copyright laws of the United Kingdom, the United States of America, and India in the area of literary works. These three nations have ratified a number of conventions that support the preservation of writers' and publishers' rights in literary works. The Berne Convention and the WIPO Copyright Treaty are the two important international accords for the protection of literary works.) Berne Convention: According to the Berne Convention, creators of creative and literary works have the only authority to provide permission for their works to be reproduced in any way or form. Additionally, while their rights to the original works are still being protected, writers of literary and creative works have the only right to create and approve translations of their creations. Members are required by Article 11ter to grant the author of literary works the sole right to authorize the public reading of their works, including the public reading of their works by any means or processes; and any communication to the public of the public reading of their works. Members must also grant authors of literary works the exclusive right to authorize adaptations, arrangements, and other adjustments of their works in accordance with Article 12. The exclusive rights to authorize the cinematographic adaptation and reproduction of these works, as well as the distribution of the works so adapted or reproduced, belong to the authors of literary works in the Member states. The public performance and communication to the public by wire of the works so adapted or reproduced. The domestic laws of the United Kingdom, United States of America, and India all demonstrate the adaptation of these concepts by these nations.

WIPO Copyright Treaty the Berne Convention, the parent treaty of the WPT, likewise upholds the rights of authors in relation to literary works. The concept of literary work has changed with the use of computer programs and data compilation. Following the conventions, all three nations quickly amended their unique legal systems to better protect writers and publishers.

Obstacles in the road of IPR:

Apart from the typical protection provided by copyright, the largest barrier for foreign authors is how they are "treated," which varies widely. Works are protected in the United Kingdom if they were first published in the United Kingdom or a territory affiliated with it, or if its creator was a qualified person at the time of publication (qualified individuals include British and Irish nationals). After breaking away from Britain and trying to establish its own culture, the United States became protectionist. Thus, only American citizens and those who resided in the United States were afforded copyright protection. Even after a century had passed and some foreign authors had begun to receive copyright protection, copies of foreign works had to be printed

in the United States. However, subject to the requirement of reciprocity, Indian law offers international authors the same protections as it does for its own citizens [9], [10].

In terms of copyright in "literary, dramatic, and musical works," the study has discovered that the laws of the three countries under review are quite comparable. Here, a wide range of works, including compilations, were studied. Compilations, selections, abridgments, head notes of legal reports, advertising, exam papers, and a wide range of other works are all protected as literary works. The study's findings on the "copyright in software" topic indicate that legislation addressing software's copyright capabilities is relatively new, and the countries under review are bringing swift revisions in an effort to keep up with the rapidly evolving state of computer technology. In accordance with the Uruguay Round Agreement on Trade Related Intellectual Property Rights (TRIPS), which mandates that countries grant authors and their successors in title the right to authorize or to prohibit the commercial rental of originals or copies of their copyright works, the 1994 Indian Amendment brings Indian law into compliance with the TRIPS.

The TRIPs Agreement, however, is less strict than the revised Indian law in that it permits a buyer of a copyrighted work to sell his copy and adds the qualification that, in the case of computer programs, this obligation does not apply to rentals where the program itself is not the primary object of the rental. At the moment, there aren't many networked computers that contain copyright material (at least not in developing nations like ours), and most users of networked computers are businesses. However, the copyright issues brought on by computer use are certain to rise substantially with the sharp increase in the use of personal computers in homes, coupled with the quick development of computer networks not just between enterprises but also among individuals. The biggest threat to copyright law has already been presented by the most recent uses of the internet. The world is churning. The Internet in more than 150 nations, there are 3.2 million computers. This network is virtual, meaning that it doesn't actually exist. Computer to computer communication is made feasible by highly complex computer software.

The World Wide Web is ostensibly stealthily building a worldwide library. An internet user has the option of arbitrary access when they visit a website. Thus, content that might be protected by copyright can be seen, chosen, read, and copied by web users. As a result, the issue of "home-taping" has grown in a very hazardous way, and the law as it is now is powerless to address it. The U.S. Government established a Committee in March 1996 to investigate the problem and provide recommendations for changes to the copyright law to address the biggest threat posed by technology. The growth of the Internet has fundamentally altered information distribution, even to the point where printed publications are no longer used at all. The time has come when a significant portion of homes and businesses throughout the world are connected to a single hub. Given that the development of the printing press gave rise to the entire idea of copyright in contemporary times, as was explained in this paper, even the printing press's partial replacement by computers is a revolutionary change. In this new scenario, it is urged that copyright owners must assert their rights at the input stage and look to the computer distributor for royalties in the same manner they have in the past, when they have sought to their publishers.

Status of Performers in UK, USA & India:

The United Kingdom, whose copyright system serves as the foundation for Indian copyright law, protected performers by utilizing criminal sanctions without granting them a copyright or neighboring right. The Gregory Committee believed that granting property rights to businesses and performers alike would result in an excessive amount of complexity in business interactions. The committee that was asked to recommend new rights for the protection of performers of musical and dramatic works believed that granting such a right would increase the number of licenses required when performances by mechanical means were given in public and that this was not a case where copyright or a similar right should be further expanded. Therefore, it merely suggested a few changes to the Dramatic and Musical Performer's Protection Act of 1925, which provided actors with a swift remedy in the instances stated in the act. The Copyright Act of 1956 did not repeal this Act; it just modified it.

Judicial Response to Performer's Rights in U.S.:

John Church Co. v. HiUard Hotel Co. was the first significant case to address such a situation. A musical composition that had been performed in the dining area of a hotel owned by the defendant was the subject of the legal dispute. The court determined that the performances in question were not for profit because no admission fee or other direct fee had been assessed to the audience members hearing the acts, which was the key issue in the case. Although no direct money was paid for the music, the plaintiff maintained that its performance at the hotel restaurant served the purpose of drawing paying guests and was therefore profitable. However, the court rejected this argument.

The rights of an author in his original literary or dramatic work, of a composer in his original musical work, and of an artist in his original artistic work (including that of a photographer in the photograph taken by him) are recognized and protected by the Indian Copyright, as was shown in the preceding chapters of this study. It is clear that these works are original creations of the writer, musician, or artist, as applicable, as required by the criterion that the work be original in order to qualify for copyright protection. Even though they are not original in the sense that they were created for the first time, but rather are only derivative works that were derived from an existing (basic) literary, dramatic, or musical work, the right to exist can exist in translations of literary and dramatic works, as well as compilations, selections, abridgments, and other adaptations of literary and dramatic works, as well as in arrangements and transcriptions of musical works. In many cases, the performer "performs" an already existing work, making his performance derivative in the same sense that a translator translates or an abridger abridges an already existing work.

The performance may take place live in front of a group of people, either public or private, or it may be broadcast live on radio or television, be captured on film or sound, or all of the above. The copyright law only grants the film producer an independent copyright in the cinematograph film (including the soundtrack) in addition to the separate copyright in the work in respect of which or a substantial part of which the film is made. The copyright law has not found it possible to grant any rights to the performer in respect of his performance when he performs iii a motion picture." Similar to this, when a performer's performance is captured on sound, the copyright law grants the record producer an independent copyright in the recording, in addition to the separate copyright in the work for which or a significant portion of which the record is made. Therefore, it is evident that the artist in no way owns anything resembling a copyright in his act. Again, the artist has little influence over how the performance is used if it is broadcast on radio or television. The Act grants a specific privilege known as the "broadcast reproduction right" to safeguard the broadcasting regulation. As a result, a performer's performance is not a "work" in which copyright can exist according to the Act. The Act also doesn't grant performers anything akin to a "neighboring right" like it does the broadcasting authority. Copyright does not exist outside of or beyond the law since it is a creation of the law.

CONCLUSION

The understanding of intellectual property rights and the goals for their protection have historically been different in industrialized and developing nations. Developed nations have typically argued for stronger protection of intellectual property rights. It is because this approach promotes their country's economic expansion. The benefits that come from stronger protection of intellectual property have generally been the main point of contention. From the perspective of industrialized countries, this will boost FDI in domestic growth and create a conducive environment for technology transfer. Additionally, it promotes R&D in the home sector, which ought to improve the flow of goods to developing nations. Finally, a robust intellectual property rights framework combined with licensing and other arguments will strengthen local technical language, which will contribute to an improvement in the "local knowledge base". Developing nations, on the other hand, have viewed copyright protection as a matter of economic policy. Stronger intellectual property laws may not always be a means to achieving these goals for developing nations like India, whose development goals include promoting their economic growth and independence through actions like having access to new technology at the lowest possible costs. The laws pertaining to the protection of literary works are cutting edge and effectively implemented in industrialized countries like the U.K. and the U.S.A. In

contrast, the situation is different in undeveloped countries. The regulations must be more stringent and effectively executed if the author and society are to gain from their inventive and creative works.

REFERENCES

[1] R. Yu, "The machine author: What level of copyright protection is appropriate for fully independent computergenerated works?," *University of Pennsylvania Law Review*. 2017.

[2] T. Pistorius and O. S. Mwim, "The impact of digital copyright law and policy on access to knowledge and learning," *Read. Writ. (South Africa)*, 2019, doi: 10.4102/rw.v10i1.196.

[3] A. Situmeang and R. Kusmayanti, "Perlindungan Hukum Terhadap Pencipta atau Pemegang Hak Cipta Lagu Dalam Pembayaran Royalti," *J. Law Policy Transform.*, 2020, doi: 10.37253/jlpt.v5i1.798.

[4] J. Lin, W. Long, A. Zhang, and Y. Chai, "Blockchain and IoT-based architecture design for intellectual property protection," *Int. J. Crowd Sci.*, 2020, doi: 10.1108/IJCS-03-2020-0007.

[5] G. Parchomovsky and A. Stein, "Originality," *Virginia Law Review*. 2009. doi: 10.5040/9781350088764.0008.

[6] A. N. Kirsanov and A. A. Popovich, "Legal control over copyright protection using blockchain technology," *Int. J. Criminol. Sociol.*, 2020, doi: 10.6000/1929-4409.2020.09.91.

[7] R. Zagarri, "The significance of the 'global turn' for the early American Republic: Globalization in the age of nation-building," *Journal of the Early Republic*. 2011. doi: 10.1353/jer.2011.a414702.

[8] "REVIEWS AND SHORT NOTICES: THE AMERICAS," *History*. 1975. doi: 10.1111/j.1468-229X.1975.tb02047.x.

[9] J. Li, X. Shi, J. Wang, and M. Yan, "Adaptive road detection method combining lane line and obstacle boundary," *IET Image Process.*, 2020, doi: 10.1049/iet-ipr.2018.6433.

[10] L. Shanmugam and V. Kaliaperumal, "Junction-aware water flow approach for urban road network extraction," *IET Image Process.*, 2016, doi: 10.1049/iet-ipr.2015.0263.

CHAPTER 3

LEGISLATIVE HISTORY OF DEVELOPMENT OF COPYRIGHT LAW IN INDIA AND UNITED STATES OF AMERICA

Bhirgu Raj Maurya, Assistant Professor
College of Law, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India
Email Id- brmourya.mourya321@gmail.com

ABSTRACT:
Under national legislation, intellectual property rights are protected and upheld. However, advancements in international domains have a significant impact on developments at the national levels. International conventions and treaties typically set down the guidelines and models for national laws. Certain types of intellectual property, often referred to as works of authorship, are given property rights by means of copyright laws. 'Original work' creators' legal rights are safeguarded by copyright laws, which forbid any other form of reproduction of the work. The current paper attempts to examine the Indian Copyright Act of 1957 and US Copyright law by comparing the legislative history of both laws by using Indian and US judicial situations.

KEYWORDS:

Copyright, Infringement, Intellectual Property, Legislative history, Original Work,

INTRODUCTION

What Are Rights to Intellectual Property:

According to the definition provided by the Intellectual Property Office, Intellectual property (IP) is "a term referring to a brand, invention, design, or other type of creation, over which a person or business has legal rights. Almost all companies have some kind of intellectual property, which may be a valuable asset. Patents, designs, and trademarks are among them.

Meaning of Copyright:

Copyright refers to the ownership of an author's creations in a variety of genres, including works of music and art, motion pictures, sound recordings, and computer software. Eventually, works protected by copyright become public domain. A copyright law's main purpose is to uphold the rights of an author's original creation. It also includes the right to derivative works, as well as specific rights like the right to public performance, the right to record, and the right to broadcast. The purpose of a copyright is to safeguard, acknowledge, and promote the talent and resources of authors. The copyright statute does not define copyright specifically, it encompasses works such as original literary, dramatic, musical, and creative works; cinematograph films; and sound recordings.

Principal Elements of Copyright

Monopoly Right; the copyright prevents other people from using the author's original creation. Copyright is a variety of rights; it is not a single right. It is made up of a variety of different rights. The many rights include the ability to modify, reproduce, publish, translate, and communicate with the public, among others. Copyright is prohibitory in nature; it is a negative right. It is a right to stop someone from copying or otherwise replicating your work. The fast advancement of technology in the printing, music, communication, entertainment, educational, and computer industries has enhanced the importance of copyright.

Indian Copyright Law Development

(i) Introduction

Ancient India acknowledged the value of unfettered access to artistic, literary, and scientific activity. According to the well-known Tamil book Tirukkural, which has had a significant impact on a significant

portion of the world's population for millennia, an educated and learned man should be like a fruit tree in the middle of the village so that everyone can enjoy its fruits. In India, musical ability was valued as property as early as the 16th century. A well-known poet and saint of the time pledged his understanding of a particular Indian Raga as collateral for a debt. By chance, this poet is the creator of the well-known devotional hymn that Mahatma Gandhi adored. The history of copyright legislation in India is a history of numerous legislative initiatives, both during the British era and after India gained independence. Since the dawn of civilization, and especially since the advent of the printing press in the fifteenth century, which made it possible to produce the necessary quantity of books for global distribution, copyright protection has been valued highly.

The introduction of copyright legislation dates back to 1911. The British Copyright Act, 1911, was passed by the British Parliament. All of the British territories, including British India, were covered by this Act. The Indian Copyright Act, 1914, which was an exact replica of the British Copyright Act, 1911, was then amended and implemented. It stayed in the statutes until the Copyright Act was passed in 1957. The provisions of this Act also cover and safeguard the intellectual property of computer software. The Act was further modified in the years 1983 and 1984 in order to combat piracy. Significant modifications to the copyright law were made by the Copyright (Amendment) Act of 1994. It is currently one of the strictest laws in the world and marks a significant development in India's copyright regime. Despite the government's efforts to safeguard the rights of Indian authors and artists, our government was forced to adapt to the rapidly shifting global economic and trade environment. The Amendment Act, 1999 was passed and put into effect to address this issue, extending the duration of performers' protection [1]–[3].

DISCUSSION

Global Copyright Regulations:

According to the WTO Agreement, the implementation of the TRIPS patent regime was the key need in order to permit participation in the multilateral trading system. At the international level, copyright is protected through the following conventions. The Universal Copyright Convention of 1952, the Berne Convention of 1886, and the TRIPS Agreement of 1994 all provide international protection for literary and artistic works through the use of copyright. The Rome Convention of 1999 safeguards the rights of phonogram makers, artists, and broadcasting companies. According to the WIPO Copyright Treaty of 1996, phrases are only covered by protection, not ideas, processes, operational methods, or mathematical concepts. The convention acknowledges computer programmers' labor as literary. According to the WIPO Performances and Phonograms Treaty of 1996, phonogram manufacturers and performers are protected.

India's Copyright Law:

In January 1958, the Copyright Act of 1957 went into effect. The Copyright Act was updated in 1983, 1984, 1992, 1994, and in 2012, as well as in 1999. The Copyright Act of 1957 has 79 sections, which is less than 15 chapters, but the Copyright Rules of 1958 have 28 rules, which are divided into 9 chapters and 2 schedules. Section 14 of the major 1994 amendment to the Copyright Act of 1957, which deals with computer software, makes it illegal to produce and distribute copyright software without the appropriate or particular license.

Copyright case entitled:

1. R.G. Anand v. M/S. Delux Films & Ors on, 1978SC gave definitions of copyrights and what constitutes a copyright infringement.
2. In the 1989 case of Garware Plastics and Polyster Ltd and Bombay and Others v. M/sTelelink and others, the court determined that broadcasting the movie over cable TV constituted video piracy.
3. Mishra Bandhu Karyalaya and Others v. Shivaratanlal Koshal, AIR 1970 MP 261, It has been ruled that the laws governing copyright only apply to the specific ways in which ideas are expressed and do not protect ideas themselves.
4. In Raj Video Vision v. K Mohan Krishnan, the court ruled that a cinematograph film's producer might be considered the work's creator for the purposes of the Copyright Act.

5. On May 3, 2012, Super Cassetts Industries Ltd. sued Music Broadcast Pvt. Ltd. In this case, the court decided that granting a license is contingent upon the copyright owner being paid acceptable fees.

i. Law Society of Upper Canada v. CCH Canadian Ltd., 2004 (1) SCR 339 (Canada),
ii. According to the Canadian Supreme Court, a reasonable yet fair requirement is that the author's original work must be the result of an exercise of skill and judgment in order to be eligible to claim copyright in a compilation. Meaning that the author must apply skill and judgment to create a work that is not only not labor and capital-based, but also not necessarily creative in the sense that it is not new or non-obvious.

6. Blushing Publishing House and Ors v. Chancellor, Masters and Scholars of the University of Oxford, 2008

iii. In this instance, the court determined that a guide made by copying text from a textbook for the purpose of assisting a student in finding a solution to a problem did not violate any laws.

7. According to a 2012 modification to the Copyright Act, section 52(zb)'s provisions for aiding disabled people's access to copyrighted works, including blind people, are regarded to be fair dealing.
8. In the case of Hawkins Cookers Ltd. v. Magicook Appliances Co., 100(2002), the court found that the defendant was using a pressure cooker label that was confusingly similar to the plaintiff's registered trade mark "HAWKINS," which is protected by Section 55 of the Copyright Act of 1957.Consequently, a permanent injunction was issued.

Development of Copyright Law in United States of America:

The history of American copyright law originated with the introduction of the printing press in England in the late fifteenth century. When the number of presses started growing, authorities sought to control the publication of books by granting printers a near monopoly on publishing in England. The Licensing Act of 1662 confirmed that monopoly and established a register of licensed books to be administered by the Stationer's Company, a group of printers with the authority to censor publications. The 1662 Act lapsed in 1695 leading to a relaxation of government censorship, and in 1710 Parliament enacted the Statute of Anne to address the concerns of English booksellers and printers The 1710 Act established the fundamentals of author ownership of copyright and a definite period of protection for works protected by copyright (14 years, extendable for an additional 14 years provided the author was still alive at the time of the term's expiration). By limiting copyright periods and ensuring that once a work was purchased, the copyright owner had no further control over its usage, the act avoided a monopoly on the part of booksellers and established a "public domain" for literature. Although the law did guarantee an author's copyright, the benefit was rather marginal because an author had to assign their work to a retailer or publisher in order to receive payment for it. Since the Statute of Anne was enacted nearly three centuries ago, U.S. law has been updated to widen the purview of copyright, alter the conditions of copyright protection, and take new technology into account. The United States was founded during the close of the 18th century. The US Constitution's founders granted Congress the power to pass legislation conserving for authors and inventors the rights to their particular creations in order to advance society. It was acknowledged that these intellectual property rights were crucial for motivating authors and inventors to continue creating fresh writings and creations [4]–[6].

The 1891 International Copyright Act

Similar to the examples listed above, in 1853, the Third Circuit Court heard an appeal in the case of Stowe v. Thomas. According to the Court's judgment, "once an author publishes her or his work and has given his thoughts, sentiments, knowledge, or discoveries to the world, he can no longer have an exclusive possession of them" in respect to the translation without the author's permission. He said, "The same thoughts clothed in another language cannot comprise the same composition; nor can it be called a transcript or 'copy' of the same book"". Before 1891, only American citizens and residents were given copyright in the country- a condition, which caused great friction, because works of foreign origin were reproduced at, will without payment". This was especially true of the English authors, since the common language made them profitable, although reputable American publishers did share with the authors the profits from American editions. Finally, in 1891, after many years of controversy, such copyright protection was authorized for the works of

foreign authors whose countries granted similar protection to U.S. 00 authors. But to overcome the objection of the American printing trades, which feared their employment would be lost to lower-cost printers in other countries, the requirement was imposed that copies of books, photographs, chromos or lithographs must be manufactured in the U.S., and the importation of copies or plates made elsewhere was prohibited with minor exceptions\ Also, the copyright proprietor of musical compositions did not, by virtue of his copyright, had the exclusive right to make and vend mechanical reproductions of such compositions, and hence unauthorized mechanical reproduction on music rolls for player pianos or phonographic records was permissible. This Act was repealed by American Copyright Act, 1909 [7]–[9].

Indian Copyright Law v. USA

Any content authors of original work are protected by copyright under the intellectual property laws of their respective countries. Copyright is one type of intellectual property. The main ideas of these laws must be the same even though the parts of their individual national statutes may change. Further duration of copyrights in India is 60 years post life of the author while in USA the term of the copyright lasts for 70 years plus the life of the author. As shown in Figure 1 shows a brief of Copyright in India and US [chaswals].

Duration of Copyright

INDIA	The duration granted for works of copyright varies depending on the type of work. Literary or musical works or artistic works, other than photographs, have a life span, which extends for the life of the author and 60 years from the end of the year in which the author dies. However, if the work has not been published, performed, or offered for sale or broadcast during the life of the author, the copyright protection shall continue for a period of 60 years from the end of the year in which any of these acts are done relating to the work.
U.K	Generally, for literary, dramatic, musical or artistic works copyright lasts for the life of the author plus 70 years. However, in the case of computer generated literary, dramatic, musical, or artistic works copyright expires at the end of 50 years from the end of the calendar year in which the work was made. United Kingdom Copyright, Designs and Patent Act 1988 (as amended) s.12. Sound Recordings: Copyright expires at the end of the period of 50 years from the end of the calendar year in which the recording was made. If published, or made available to the public by being played in public or communicated to the public during that period, 50 years from the end of the calendar year in which it is first published.
U.S.A	For most works created on or after January 1, 1978: Copyright lasts for the life of the author, plus 70 years. U.S. Copyright Act, 17 U.S.C. Sec. 302(a). Works of joint authorship: Jointly held works created after January 1, 1978: Copyright lasts for the life of the last of the joint authors to die, plus 70 years.

Figure 1: Comparative account of Copyright in India and US [chaswals].

In accordance with the intellectual property rules of their respective nations, any content creators of original work are shielded by copyright. One form of intellectual property is copyright. Even if specifics of their respective national statutes may vary, the fundamental principles of these laws must remain the same. Publish the work. To distribute a work is to have the sole authority to sell, rent, or lease it to the public in order to create an economic right.

Reproduce or duplicate the work

Using or incorporating another song into a new one is an example of reproducing or duplicating work. This can also include photocopying and copying software.

Execute or Present the Work

Putting on a show or performing in front of the public for profit creation of a derivative piece by adaptation of the original work creating a new IP without the owner's consent in order to profit financially by translating or converting an already-existing work. It would be considered an infringement if someone tried to take over the original creator's exclusive rights in order to illegally profit from their hard work. Although the phrase "copyright infringement" has been correctly established by law in both the USA and India, it is not an absolute right and is therefore subject to several limitations.

India ratifies the TRIPS agreement in accordance with its TRIPS obligations and has made amendment in their copyright act for protection of software industry and enacted laws as a concern in subject such as Information technology act 2000, Industrial Design Act 2000, The Trade Mark Act 1999 etc. 2. Information and technology have its own invention of inventor or creator, it further leads into business. So, if infringement cause financial loss or reputation of inventor, assignee or license nor. 3. Growing software industry, and Protection of software technology, then however, they involve in complex and interrelated issues that encompass a mix of copyright and trade secrets law. 4. The infringement is so widely spread and so it damaging legitimate businesses, so these businesses is in danger to collapse. It is most challenges towards inventor and government to protect harm caused by infringement. In case of copyright is concern issues of piracy in music, sound, photography and film is still questionable. Copying remains a huge problem, causing harm for inventor in lots of economic, status of brand and harming consumers get dangerous goods. 5. While in infringement of copyright most issues that arise: Privacy of search and seizure orders of substance during the investigation of infringement, misappropriation of confidential information, wrongful appropriation of a person’s ‘publicity’ the photographs of celebrities, for instance for private gain.

CONCLUSION

Without the proper administration and enforcement of copyright laws, a nation's socioeconomic development will always be dependent on the inventiveness and originality of its citizens. The new direction of financial development in the world is one of creativity and innovation. Copyright is a significant problem for preserving IPR. The creator of the original copyright work is affected by the current large market for pirated literature. Therefore, it is necessary to educate the public on the economic, social, and cultural significance of copyright in all spheres of society today. Additionally, today's society is calling for the creation and enforcement of strong and robust copyright laws, which weighing the greater public interest against the rights holders' interests establishes the fact that Copyright law in India and USA has its root in the English law. USA enacted its first Act in 1790 which was modification of Statute of Anne of 1709. The earliest legislation on copyright in India was in 1847. With the industrial revolution and improvement in the transportation, the copyright became international in character. The need was felt for the protection of copyright at international level. France set a pattern for it and a conference of European countries prepared a draft which formed basis of Berne Convention for the Protection of Literary and Artistic works. This convention in 1886 was a modest beginning to establish for the first-time international copyright principles. The signatories to this convention agreed for national treatment of the authors of the member countries and to secure to them the convention's minimum requirement of protection. Registration and deposit were not a condition for copyright protection.

REFERENCES

[1] “Book Reviews,” *Polit. Stud.*, 1967, doi: 10.1111/j.1467-9248.1967.tb00905.x.

[2] P. Chabal *et al.*, “Book reviews,” *Int. Aff.*, 2006.

[3] “Reviews,” *The Economic History Review*. 1991. doi: 10.1111/j.1468-0289.1991.tb01270.x.

[4] D. J. Patterson *et al.*, "Scientific names of organisms: Attribution, rights, and licensing," *BMC Res. Notes*, 2014, doi: 10.1186/1756-0500-7-79.

[5] S. Bello Knoll, "Photoshop & The (Virtual) Body of Models," *Laws*, 2020, doi: 10.3390/laws9010003.

[6] J. St Aubyn, "Crown copyright," *Learn. Publ.*, 1988, doi: 10.1002/leap/10061.

[7] N. de B. Katzenbach, "The international protection of technology. A challenge for international law making," *Technol. Soc.*, 1987, doi: 10.1016/0160-791X(87)90019-4.

[8] L. Deben, "Book Review: Administrative Law of the European Union, its Member States and the United States. A Comparative Analysis," *Maastrich. J. Eur. Comp. Law*, 2005, doi: 10.1177/1023263x0501200106.

[9] *Oxford Handbook of Online Intermediary Liability*. 2020. doi: 10.1093/oxfordhb/ 9780198837138. 001.0001.

CHAPTER 4

PROTECTION OF COMPUTER PROGRAMME UNDER IP REGIME INCLUDING COPYRIGHTS AND PATENTS

Yogesh Chandra Gupta, Assistant Professor
College of Law, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India
Email Id- cognitor.yogesh@gmail.com

ABSTRACT:

The relationship between intellectual property and the legal system is the safeguarding against competitors that is offered. Furthermore, the preservation of intellectual property rights is a crucial component of economic growth and a necessity for enhancing competitive qualities. It is crucial to value intellectual property in any corporate development. The strategies of intellectual property rights are founded on the protection of intellectual property rights for any commercial organization. Nevertheless, this capacity is dependent on that factor, just like the IPR's allowable boundaries. The inputs and outputs of the software business are made up of intangibles. Giving these inventions ownership rights through intellectual property protection can boost investments and innovative processes. Choosing an appropriate legal system of protection for computer programs requires taking into account their distinct character. Computer programs are a hybrid kind of functionality that are employed in various Computer programs are valued for their functionality rather than for how they are expressed. Additionally, some components of computer programs, such as the user interface, are eligible for patent protection. It can be suggested to harmonize the laws for the protection of computer programs and the software industry in light of the present issues with intellectual property law protection of computer programs, for the benefit of society and the sector as a whole through international agreements like TRIPs, which can advise member governments on how to change their legislative rules to ensure that computer programs are properly protected.

KEYWORDS:

Computer Programs, Copyrights, Intellectual Property, Patents, Protection,

INTRODUCTION

Software is a crucial component of computers that gives them the ability to carry out the duties assigned to them. Databases, documentation of data and information, and other material kept in computers are all included in the phrase "computer software programmes.". The number of computers has increased, which has increased the demand for software. However, this criterion was met by using an unlicensed copy of the original programs that were readily available. Since a lack of adequate and effective protection leads to a decline in investment in software programs, software programs need to be protected under an enforceable legal system to increase incentives for ongoing development. Consequently, available software Programs will be quite expensive on the market because of poor sales. Lack of legal safeguards to prevent unauthorized use of software programs that are protected is the main problem facing the software business. The desire of software creators is to stop unauthorized copying or usage of their programs by establishing an appropriate legal framework. The rules that safeguard software programs include copyright and patent laws.

Regarding the extent of their protection, there are various points of contention. The primary concern is identifying the software program's action boundary. It refers to outlining what is and is not permissible in terms of legal action. Does the software user have the right to study the software even if they have no intention of producing the same work? Having a thorough understanding of software programs and their nature could dispel these misconceptions. The laws governing intellectual property only identify property rights; they do not provide an absolute right. However, such rights must be properly recognized while taking other crucial criteria like the public necessity and existence of fair competition while taking new invention generations into account. In the past, new ideas were typically grafted onto or integrated into copyright or patent statutes

that already existed. Innovations were thought to be unprotected by the law if they slipped "between the cracks" of these two systems. The biggest problem for intellectual property theorists in the future will be to comprehend how to retain or generate new coherence in existing intellectual property schemes while also figuring out how to make these schemes adapt to new developments [1].

Copyright protection of Computer programs in US:

The program's originality is the first prerequisite for obtaining copyright. The Supreme Court stated that the standard of originality is "not stringent" in Feist Publications, Inc. v. Rural Telephone Service Co.; this means that the work must be independently developed by the author and must at least exhibit a minimal level of ingenuity. If the original program qualifies for copyright protection under Section 102(a) of the Copyright Act of 1976, it may be protected. As a result, only the author-made original expression in the computer program will be covered by copyright. This eligibility, however, does not imply that the program or any particular feature of it, such as the concept, is completely protected holding a single unique expression, which cannot be protected by copyright because the copyright holder will monopolize the concept Because utilitarian works are primarily intended to be used rather than expressed, copyright excludes them from copyrightable subject matter. Like in Baker v. Selden, the court determined that the bookkeeping form is not protected by copyright because anyone wishing to utilize the bookkeeping system must replicate it. Charts and shapes are also excluded from utilitarian works [2]–[4].

Intellectual Property and Computer Software: The Legal Background:

The protection of computer software is impacted by a variety of intellectual property regimes; these state-created legal rights also limit how software is used both domestically and abroad. This study focuses on the copyright, patent, and trade secret as the three most significant intellectual property rights with regard to software. Software may also be protected by trade dress and trade mark law, although those topics are not covered here. The report's history of such protection, particularly copyright and patent law, as well as its specifics, are very briefly described in this section. Some important software legal concerns, such user interface copyright and patentability requirements, have been avoided because they are not as pertinent to the main thrust of this paper. Here, the development of the US and global legal systems will be the main focus. In addition to being the world's greatest developer and exporter of computer software, the US also has the most authoritative international software law, making it necessary to comprehend US law in order to grasp even the most fundamental aspects of the international legal system. We should start by concentrating on four major aspects in order to understand the topic of computer software and the domestic and international legal frameworks that protect it [5]–[7]:

The forms of legal protection provided are contingent and lacking in many dimensions; in other words, these forms of protection are not inescapable and could be changed, even quite dramatically changed, through reforming the forms and content of legal regulation. Moreover, the granting of intellectual property rights is fundamentally a question of power relations between individuals, both now and for many years to come. The law grants the owner of a copyright, patent, trademark, and other types of intellectual property certain rights over the use of that property, despite the fact that intellectual property differs significantly from other types of property, such as land, a house, an automobile, or your toothbrush. In essence, the state creates a property right—for instance, granting copyright to a book, a song, or a computer program and simultaneously cedes control over that property to a person, a company, or another group.(Cohen) Point being, intellectual property has fundamental similarities with property like land or a house. By providing that right, the state not only provides the owner rights (and thus authority) over that intangible piece of property, but it also grants the owner of that property. For instance, a mortgage lender gains control over both the owner and occupants of a house as well as the house itself as a tangible or physical piece of property. The mortgage lender has the right to evict the owner and take back possession of the property if the mortgage is not paid in full.

Similar to this, the owner of a software program has control over both the software itself and any potential users by deciding which applications of the software are allowed and which are not. Property also dictates "what men [and women] shall acquire in the years and decades to come, representing power and financial

relationships in the present. Countries of the South have agreed to protect copyright in computer programs for at least 50 years after the death of the program's "author" (i.e., the software writer) by signing agreements and treaties that protect software, such as the TRIPS Agreement, the Berne Convention, and the WIPO Copyright Treaty. In other words, copyright in this case, in computer software represents the exercise of power not only now but also in the future, and it will have truly enormous effects on people's economic futures for decades as well as on how they use software in the future.

DISCUSSION

Restriction and Copyright Protection:

Following intensive lobbying by some (but not all) segments of the software industry, governments in the developed world starting in the early 1980s decided that computer software was comparable to the traditional copyright category of a "original literary work of authorship" and should therefore be protected as a literary copyright. The main contention was, and still is, that the thousands or even millions of lines of binary code found in a program, the sequence of instructions (i.e., the symbols "O" and "1" found in infinite patterns in an object code), can be best understood, as a matter of legal classification, as constituting a literary work. This will be tough for some people to accept. For another reason, it was illogical to choose copyright law as the primary "home" for computer programs. Historically, copyright law had been used to protect expressive works, such as artistic and literary works, while utilitarian works, or functional works that do something or cause another part or piece to do something, such as computer programs, have been protected by either trade secret or patent law.

Additionally, copyright cannot protect "any idea, procedure, process, system, method of operation, concept, principle, or discovery," according to Section 102(b) of the US Copyright Act. Certainly, one could contend that the Java script has a different literary quality and purpose than a Salman Rushdie book, despite the fact that both are covered by the same copyright laws. In the 1980s, the national copyright legislation in a number of industrialized nations, including Japan, the US, and most of Europe, was changed to specifically include computer software as a literary work covered by copyright. As a result of the National Commission on New Technological Uses of Copyrighted Works' (CONTU) 1978 report's recommendations, the US Copyright Act's Section 117 was amended in 1980 to explicitly recognize the copyrightability of computer programs. Over the following 15 years, numerous treaties and EC regulations (such as the North American Free Trade Agreement) had a similar effect regionally [8]–[10].

Large multinational software businesses invested a lot of time and money in lobbying for the adoption of comparable standards and procedures in global copyright agreements; their efforts also included developing nations. According to a 1994 article in the US Law Review, "[t]he United States government spent a significant amount of effort over the past decade trying to bully most of the industrialized world into following its course. Starting a new conflict is neither something the US government or the numerous organizations seeking standard protection for their products across international borders are interested in. Computer programs, in both source and object code, must be covered by copyright, according to both the 1995 TRIPS agreement (Article 10 (1)) and the 1996 WIPO Copyright Treaty (Article 5). Although TRIPS (Article 66 (1)) specifies that least developed countries will not be required to apply this section (as well as many other sections of TRIPS) until 2006, this deadline is quickly approaching and, in the end, they and all other WTO members will have no choice but to protect computer software under their own national copyright laws. In any case, there are no "transitional arrangements" for least developed nations under the WIPO Copyright Treaty.

Because FLOSS falls under this legal category, software licenses can be enforced and different conditions can be provided for the use and adaptation of such software, as is described in Section 2. Copyright law also has significant implications for FLOSS. As shown in Figure 1 Copyrights in Software [ollipitkanen].

Figure 1: Copyrights in Software [ollipitkanen].

Copyright protection's limitations:

Although copyright law offers strong protections, there are significant restrictions on that protection, including the following.

The first sale rule:

The "First Sale" theory, an exemption to copyright owners' distribution rights, asserts that copyright owners lose distribution rights to any particular media holding the copyrighted work after that medium has been sold for the first time. As a result, authors do not receive royalties from, say, used books.

Millennium Digital Copyright Act:

Let's say you find your work being copied in an internet forum and you are the registered copyright author. You may have legal options as the owner of the copyright with regard to each forum participant, but what about the forum as a whole? Wait a minute. The Digital Millennium Copyright Act of 1998, sometimes known as the DMCA, established a "Notice and Takedown" system wherein the copyright holder notifies the internet service provider of an infringement and gives them some time to look into it and remove the offending material. Even though the forum published a copyrighted work, it is protected from copyright liability as long as the internet service provider follows the DMCA protocol. Cache files, or copies of files that are saved on a computer or network, are also essential to the operation of the internet. Although such use is protected by the Digital Millennium Copyright Act, theoretically such copying would be illegal.

Fair use, which can be viewed as a "transformative" use of the copyright holder's work for the public good, is perhaps the most well-known defense in any copyright action. Courts have debated what really qualifies as "transformative" and what is meant to violate your legitimate copyright rights for ages. The amount of the copyrighted work used, the intended use, whether the use impairs the marketability of the copyrighted work,

and the standards of the relevant industry would all be taken into account by the court in a highly fact-specific manner. Several grounds can be used to support the assertion of a fair use defense, including Commentary. You might have produced a piece that was praised or derided. A component of your work may need to be used for such commentary on your work, but as long as it is only used for commentary and not as a way to profit from it, it may be seen as fair use. Parody, albeit not always satire. Although these ideas are frequently mixed up, knowing the distinction might be crucial for copyright purposes. While satire frequently uses a copyrighted work to make a societal commentary unrelated to the original work, parody is a form of criticism on the copyrighted work. Parody is frequently deemed to be a fair use of copyrighted material by courts, whereas satire is less frequently so. As shown in Figure 2: limitations in Copyrights in programs [ollipitkanen]

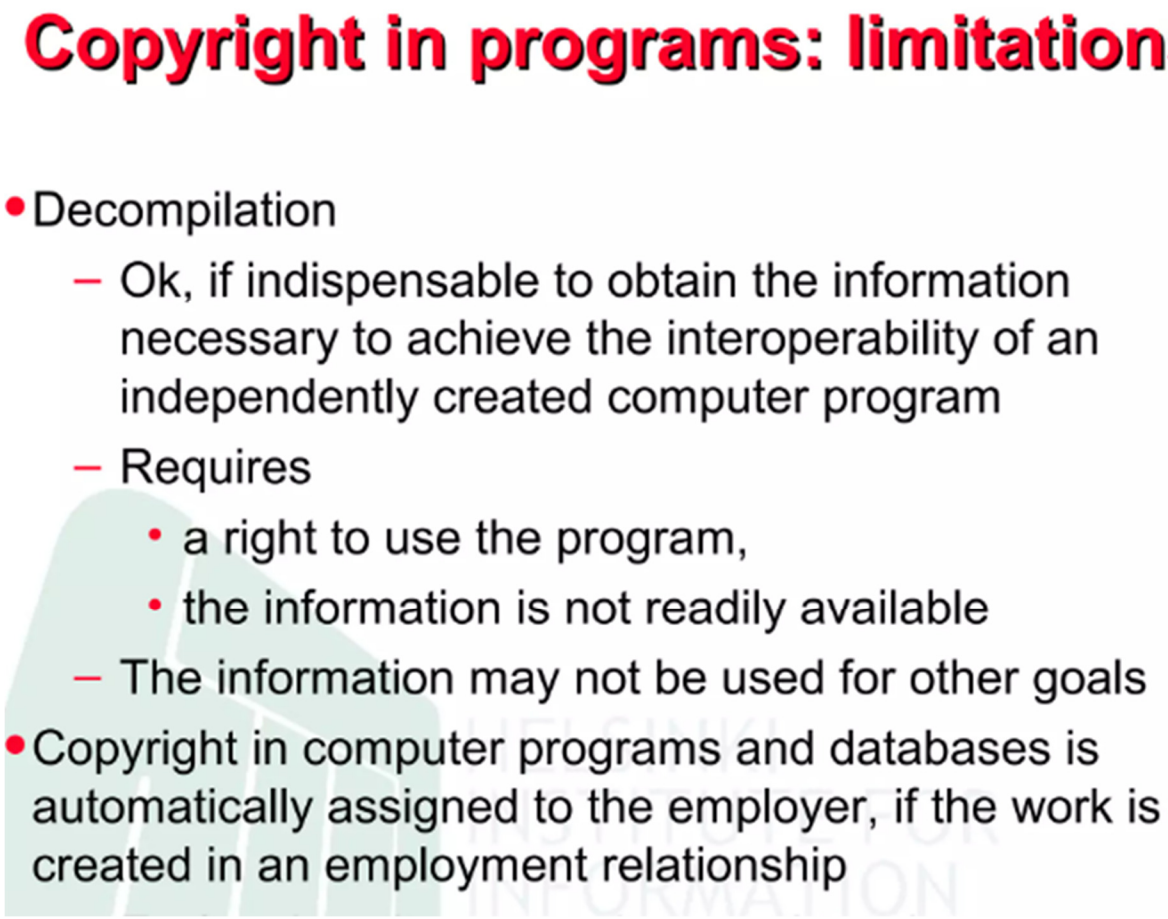

Figure 2: Limitations in Copyrights in programs [ollipitkanen].

Restriction and Patent Protection:

Software was not covered by patent law in the US or anywhere else during the early days of the computer era, which, importantly, produced a number of notable software advancements. With the development of computer technology came an early harvest of patent applications, as one US publication notes. The [US] Patent Office responded to these in the 1950s and the beginning of the 1960s with a consistent statement: "Whatever software is, it is unquestionably not patentable subject matter."(Merges) Early 1970s US software patent lawsuits looked at whether a mathematical algorithm-based "invention" could qualify as "patentable subject matter," to use the legal term of art. In Gottschalk v. Benson (409 US 63), the US Supreme Court ruled that the computer algorithm patent could not be granted a patent, citing the previously mentioned 1966 Report of the [US] President's Commission on the Patent System, which opposed the patenting of software as noted above. However, that same court upheld a software patent nine years later in the case of Diamond v. Diehr (450 US 175 (1981). There have been ongoing discussions about software patentability in subsequent US cases, as well as the development of new criteria to identify which types of software are patentable. In a

more recent US case, State Street Bank & Trust Co. v. Signature Financial Group, Inc. (149 F.3d 1368 (Fed. Cir. 1998)), the patenting of so-called "business method patents" substantially broadened the scope of software patents.

The patenting of software is also allowed in a small number of other nations, including Japan. Software that is a stand-alone program or program "as such" cannot be patented in Europe, according to the law (see, for example, Article 1(2)(c) of the United Kingdom Patents Act, 1977). However, software that is an integral or functional component of another piece of equipment or invention may be patented, and this is often possible through the skillful drafting of software patent applications. There has been a heated debate in Europe over the last few years about whether the US and Japanese approaches to software patents should also be adopted in Europe. This dispute has primarily pitted giant multinational software corporations against small and medium-sized software developers.

CONCLUSION

The applicant can choose between copyright and patent protection depending on the type of software that has to be covered. It can only be copyrighted if it is solely a computer program designed to carry out a certain activity or produce a specific outcome. Despite the fact that the Patent provides a more secure level of protection, software can only be granted a patent if it has a hardware restriction. For computer objects, security can be provided in a number of different methods. In addition to all of these, no security measure is foolproof, thus extra precautions must be taken to guarantee the maximum level of security. It is obvious from the discussion above that a patent is most likely the best type of intellectual property protection for computer hardware and software. Software patents allow the protection of these fundamental ideas, in contrast to copyright, which only protects finished works. This prevents anyone from creating programs that implement protected concepts. Software patents, by permitting their holders to assert fundamental ideas, thereby represent a very potent monopoly-building instrument, as the owner of a single patent can forbid the sale of all software that implements this concept, regardless of the software's potential application domains.

REFERENCES

[1] C. Castelli, “Innovation,” in *The Global Governance of Knowledge Creation and Diffusion*, 2012. doi: 10.4324/9780203813683-14.

[2] C. Zhang Coco, “What are works? Copyright law subject matter in the transition to the digital era: Perspectives on the third amendment to the Chinese copyright act,” *Queen Mary J. Intellect. Prop.*, 2017, doi: 10.4337/qmjip.2017.04.04.

[3] E. Harison, “Intellectual property rights in a knowledge-based economy: A new frame-of-analysis,” *Econ. Innov. New Technol.*, 2008, doi: 10.1080/10438590701281280.

[4] G. N. La Diega, “Against the Dehumanisation of Decision-Making Algorithmic Decisions at the Crossroads of Intellectual Property, Data Protection, and Freedom of Information,” *J. Intellect. Prop. Inf. Technol. Electron. Commer. Law*, 2018.

[5] J. Weckert, “Intellectual Property Rights and Computer Software,” *Bus. Ethics A Eur. Rev.*, 1997, doi: 10.1111/1467-8608.00057.

[6] M. K. McGowan, P. Stephens, and D. Gruber, “An exploration of the ideologies of software intellectual property: The impact on ethical decision making,” *J. Bus. Ethics*, 2007, doi: 10.1007/s10551-006-9215-1.

[7] P. S. Menell, “The Challenges of Reforming Intellectual Property Protection for Computer Software,” *Columbia Law Rev.*, 1994, doi: 10.2307/1123151.

[8] N. Nurmaya, M. Handono, and G. Puspaningrum, "Fair Use Doctrine in Photocopying Books for Educational Purposes: A Study of Copyright Acts in Indonesia and the United States," *Indones. J. Law Soc.*, 2020, doi: 10.19184/ijls.v1i2.18091.

[9] M. D. Manzar, M. Salahuddin, M. S. Kedir, V. K. Chattu, D. Warren Spence, and S. R. Pandi-Perumal, "How We Do Harm: Do Copyrighted Scales Benefit Research in the Developing World?," *Front. Public Heal.*, 2019, doi: 10.3389/fpubh.2019.00377.

[10] T. Ariefzani, "Legal Protection Of The Creator Of Online SKCK Computer Programs Which Hasn't Be Registered Under Law Number 28 Year 2014," *Veteran Justice J.*, 2020, doi: 10.33005/vjj.v1i1.17.

CHAPTER 5

COPYRIGHT PROTECTION IN DIGITAL ENVIRONMENT: CHALLENGES AND SOLUTIONS

Pradip Kumar Kashyap, Assistant Professor
College of Law, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India
Email Id- pradiprgnul@gmail.com

ABSTRACT:
It is well recognized in historical accounts that technology left behind the copyright law. To safeguard the public interest in creativity, invention, and genius, it has undergone methodical adjustments while taking into account the nature, scope, and field of technology concerned. Its principal goal is to make various copyright works accessible to the general public while also giving authors and creators of those works adequate incentives. The copyright legislation has to find a balance between the necessity to pay the creator and the need to make such works available to the public. The protection of copyright works has grown to be a major worry for attorneys as well as other stakeholders due to the Internet's prevalence as a singular and entirely new medium of global human communication. The Internet and P2P computer networks enable a growing number of people to join in cooperative information production, consequently energizing the efforts to offer incentives to original intellectual property creators. The Internet makes it possible for copyrighted materials to be distributed globally and almost instantly in original quality. The Internet emerges as "the world's biggest copy machine" thanks to the aforementioned striking traits. The puzzles and contradictions that underlie the digital conundrum are inherently linked to the tension between the idea that "information wants to be free" and the calls for tighter exclusive control of information in the digital sphere. In light of the foregoing, this paper shall investigate and evaluate new concerns relating to copyright protection in the digital age.

KEYWORDS:

Copyright, Computer Networks, Digital Environment, TRIPS agreement, World Intellectual Property Organization (WIPO),

INTRODUCTION

Law is an answer to societal problems. Law responds to these issues while addressing them, developing itself in the process. The best illustration of the interaction between law and technology comes from copyright. Technology was the foundation of copyright and the industries dependent on it, but it has also presented a possible danger to those sectors with each new development. As a result, the industry has utilized every new discovery to its benefit by developing more avenues for the exploitation of art, expanding markets, and boosting revenues. On a global scale, digital technology is the most recent in the industry. The digital Age, which is the trademark of the current era, is a witness to yet another epoch that the Internet has helped usher in. This turning point in copyright history is significant in many ways. The development, diffusion, and protection of copyright works have been dramatically impacted by digital technology. With the advent of digitization, manipulating, copying, and disseminating copyrighted works has become considerably simpler. It is simple to merge, change, mix, and manipulate digital stuff. Digital technology poses a challenge to the distribution networks by making it possible to make perfect copies of intellectual works at low cost and increasing illicit usage of copyrighted materials. The Internet experience shows that traditional communication process participants (information producers, providers, publishers, and intermediary users) take on new responsibilities in the digital networked world. As opposed to the "broadcasting model" of the majority of existing media, the Internet is set up as an "open platform model." Authors are now 'publishers' since they can freely distribute their works online without the help of established publishers [1]–[3].

Additionally, modern technology enables users to actively search for and alter material on the network, transforming them into "authors." In addition, established information intermediaries like university libraries may adopt new functions as information providers as they transition into publishing. The current system of

rights allocation under copyright and related rights legislation could potentially be impacted by this convergence of functions. The Berne Convention's elegantly organized, dogmatically justified, and justified image of copy-related and non-copy-related rights has thus been somewhat muddled by the Internet. Digital interactive transmissions create a particular hybrid type of distribution that makes the information available to an unknown number of people and allows them to consume it whenever they choose.

Copyright in Digital Environment:

The amount of digital information resources made accessible through networks, particularly over the Internet and the Web, has increased dramatically over the last several years. Publishers of academic, intellectual, and reference texts from nearly all branches of human knowledge began distributing them digitally. Many publications, particularly journals, are released in print and digital editions, while others are only released in electronic form. Libraries in the academic, scientific, and technological disciplines increasingly rely on electronic resources. Copyright protection is challenging in the digital age. The use of digital information raises a number of problems and worries. Digital or digitized copies of content, such as text, images, music, and videos, are simple to make. Using digital through networks, electronic bulletin boards, and electronic mail, information can be shared globally. The ability to download, store, display, and print information was made possible by the widespread use of personal computers and the falling prices of primary and secondary mass storage media.

Furthermore, without the owner's consent, downloaded documents can be distributed to others. Electronic information is not as durable as written material; it is very susceptible to manipulation, deletion, revision, and change without leaving any trace of the original. Contrary to physical journals, it is challenging to closely monitor and limit the use of digital information. Many authors (such as Chepesiuk, 1997; Collins and Berge, 1994; Crawford, 1998; Jasperse; Lakshmana Moorthy and Karisiddappa, 1996; 1997; 1998a and 1998b; Lynch, 1994; Perryman; Sasse and Winkler; von Ungern-Stenberg and Lindquist, 1995; etc.) addressed various issues that libraries faced in the digital/virtual library environment. Denning (1995) identified a few instances of digital content plagiarism. Lynch (1994) proposed approaches to address some of these issues, including dedicated servers, document digest algorithms, and cryptographic signatures. Despite efforts to stop fraud in the context of a digital library, infringements are growing more frequent as a result of challenges in detection.

Copyright Issues in the Internet:

The advancements in online technology have not been matched by the existing copyright rules. It is frequently unclear if the content of digital resources is free or charged. The copyright statements are present in many instances, but occasionally they are difficult to find. One could contend that producers of promotional, advertising, and marketing materials on the Web implicitly encourage downloading, printing, and copying the materials for redistribution to several people inside the same organization. The position is, however, made more complex by copyright notices on promotional materials. Many electronic papers on the Internet permit fair use and personal use, and many more lack clear indications of whether they are free or paid for. It is not possible to share free online electronic resources with friends, coworkers, or through listservs. Even if there is no financial benefit involved, sending a Web page by way of an intermediary to a coworker or user solely for informational purposes is a copyright violation. In these situations, the user is only able to submit information about the URL where the piece of information may be found; this limits the availability of information to people with Internet connection, which is against the fair use principle.

Technologies for the Protection of Rights:

Digital Rights Management (DRM) and Electronic Rights Management Systems protect copyright by locating and securing the content, restricting use and access to the work, preserving its integrity, and requiring payment for access. These make use of one or more of the following technologies to guarantee that only legitimate users can access them. DRM technology blocks unauthorized users from accessing the content. Accessibility requirements, encryption, network security, permission controls, transaction tracking, and

usage tracking are all included in DRM technology. The content can be paid for in a variety of ways (pay once, annually, per use, etc.).

Digital watermarking, fingerprinting, cryptographic keys, and tamper-resistant hardware and software are used to protect the content. User identification and passwords, license agreements, and cryptographic scrambling are used to protect access. The choices for printing and downloading are disabled, only a port of the work may be copied, only a certain number of copies may be made (through copy generation management systems), and second generation copying from the first copy (from the original) is not permitted. Through the use of scanned photos, digital watermarking, encryption, digital signatures, etc., the integrity of the work is guaranteed. Technology-based Technical Protection Measures (TPM) enable the music, publishing, and video industries to secure and safeguard content including music, text, and video from unlawful usage. By using electronic labeling and tagging or encryption, they prevent the copying and potential other uses of digital files, making them unusable. These technologies regulate content access. DRM technology can be employed if an author wants to charge for the usage of their work. TPM and DRM technologies are being used more frequently in e-commerce to sell and distribute material online. For the purpose of preventing infringements on copyrighted material, numerous methods have been created. These consist of electronic tagging, digital watermarking, digital signatures, and cryptography. Secure Digital Music Initiative and Content Scrambler System for DVDs have been developed in the field of digital music to deter infringements and shield them from unauthorized copying [4]–[6].

Copyright vs Rights of Society:

It is understandable why authors are giving up their copyright to commercial publishers in this day and age of fierce competition and pressure to progress professionally. These publishers continue to reap tremendous profits. For instance, Elsevier Science, publishers of around 1800 S&T publications, reported a pre-tax profit of US$ 2 billion, or roughly Rs. 9500 crore, for the year 2003. However, a number of players contributed to the intellectual content that commercial publisher’s market. When analyzing the research articles, referees and their institutions put in time, money, and labor. The institutions to which the writers are affiliated offer the necessary infrastructure for doing the research; occasionally, these institutions pay page fees for the quick publishing of the research result. These institutions receive financial help from the government in the form of budgetary support, grants, and other financial aid. The authors can find the data they need in the library to conduct their research. But in the end, the only one benefiting is the publisher. Apart from the minor satisfaction of publication in a cutthroat environment, what are the advantages for the authors who are the brains behind the intellectual content, the institutions and libraries who provide infrastructure and information, and society at large who is responsible for the financial resources? Again, these institutions' libraries must pay for the journals after they are published. Isn't rewarding them not the responsibility of profit-making publishers? The Electronic Society for Social Scientists (ELSSS) was established in the UK with the goal of enhancing scientific exchange and offering low-cost, high-quality electronic publications with broad distribution to the scientific community.

DISCUSSION

Digital Technology and Issues with Copyright: The Reproduction Right

The reproduction right has been at the center of copyright law for more than three hundred years, ever since the Statute of Anne, the forerunner of contemporary copyright law, was adopted. The reproduction right per se has not been clearly defined by the international instruments for copyright protection, although being acknowledged as a fundamental authorial right. The Berne Convention's original wording did not contain any clauses that specifically protected the reproduction right because there was disagreement over the right's scope and content. Copyright holders are given "the exclusive right of authorizing the reproduction of these works, in any manner or form," according to Article 9(1) of the Berne Convention. However, the ambiguity of Article 9(1) of the Berne Convention, specifically the wording "in any manner or form," has led to a disagreement on the topic of the reproduction right on a global scale. The emergence of the Internet has made it increasingly difficult to define the reproduction right in the modern day. The question of whether right

owners should be given control over all temporary reproductions looms large amid the dematerialized and decentralized nature of the Internet, given that any transmission of protected works over the Internet involves the reproductions transitorily stored in the connected computers' RAM.

In contrast, two articles (Articles 7 and 11) of the WIPO Performances and Phonograms Treaty, 1996, respectively, provide for the protection of the reproduction rights held by Performers and Phonogram Producers. The WPPT grants Performers and Phonogram Producers "the exclusive right of authorizing the direct or indirect reproduction of their respective protected subjects in any manner or form" (Agreed Statement Regarding Articles 7, 11, and 16 of the WPPT). The Article 9 of the Berne Convention shall apply mutatis mutandis to the protection of the reproduction right in the digital environment, as stated in the Agreed statements attached to the WCT and WPPT. The WIPO Treaties of 1996 protect permanent digital copies, such as those kept on floppy disks or in a computer's read-only memory (ROM), according to these two agreed-upon assertions.

Additionally, subject to the three-step test, members are permitted to add new restrictions or exclusions to the re-delimited reproduction privilege. However, the second agreed-upon statement's common meaning particularly the phrase "storage" remains mainly unclear and confusing. Does it include producing a copy for a short time? One can respond "in ordinary usage, ‘storage' connotes a much higher level of activity than simple 'temporary' conduct" which is a negative response. On the other hand, the opposing position can be as straightforward as saying that the work is in fact stored in the temporary copy. Without a precise reference to "permanent or temporary," the agreed-upon words fall short of the professed ambitious goal of providing clarity by failing to specify how broadly the reproduction right should be applied in the digital environment.

The ambiguity of the treaty text raises the possibility of a pending legal dispute about the coverage of temporary copies. The Right of Communication to the Public Digital technology makes it harder to distinguish between various types of copyright-eligible works and public communication channels. In contrast, since digital technology continues to advance quickly, computer networks in particular, the Internet bring about a point-to-point method of transmitting works on an interactive and demand basis. Any member of the public can choose the time and location at which they want to access and use works in digital form thanks to the interactivity and individuality provided by this new technique of exploitation. In light of this, it is proposed to replace the fragmented, technology-specific protection of this right with a new type of unitary, technology-neutral right of communication to the public [7]–[9].

Paradoxically, it appears that the Berne Convention has devolved into an insufficient and out-of-date international legal framework for the defense of the right of communication to the public, incapable of addressing the problems brought on by the change in the methods of appropriating works. The Berne Convention has, first and foremost, fallen behind the curve in the shift of telecommunications, media, and information technology to digital. The Berne Convention regulates the means of communication in a piecemeal manner with regard to the right of communication to the public. Second, the range of the public's right to communicate with the government does not encompass all the computer programs, photographic works, works of pictorial art, and graphic works are examples of copyrightable subject-matter categories. However, despite the fact that these works have been and continue to be widely disseminated online, they are still open to unauthorized use and access. Furthermore, it's unclear from the Berne Convention whether interactive, on-demand transmission of works across computer networks would fall under the conventional right of communication to the public. There has been worry that the Berne Convention may only be able to strictly regulate the point-to-multipoint communication of works, leaving right owners in the ambiguous position where they most likely do not have the right to forbid others from communicating their works to the public on a point-to-point basis given the interactive, on-demand nature of those communications.

The Protection of Copyrights: A New Trend

In a nutshell, the following is what the most recent Copyright (Amendment) Act of 2012 has done to lay the groundwork for copyright protection in the developing digital environment: A fair dealing exception has been extended to the reporting of current events, including the reporting of a lecture given in public. Some

exceptions (such as fair dealing, use for education purpose) that were previously applicable only in relation to certain types of work (e.g. literary, dramatic, and musical works) have been made applicable to all types of work. Previously, the exception for fair dealing was only applicable to privately owned property, including research, and criticism or reviews of the work in question or of any other work. Additionally, it has been made clear that keeping a work on any electronic medium for the purposes listed in this clause including accidentally keeping a computer program that isn't a copy that violates the law does not constitute infringement.

The temporary and incidental storage of a work or performance for the sole purpose of technical electronic transmission or communication to the public; The temporary and incidental storage of a work or performance for the purpose of providing electronic links, access, or integration, where such links, access, or integration have not been expressly forbidden by the right holder, unless the person responsible is aware of or has reasonable grounds to believe that if the person responsible for the storage of a copy, on a complaint from which any person has been prevented, he may require such person to produce an order within fourteen days from the competent court for the continued prevention of such storage. The storing of a work in any medium by electronic means by a non-commercial public library, for preservation if the library already possesses a non-digital copy of the work. The making of a three-dimensional object from a two-dimensional artistic work, such as a technical drawing, for the purposes of industrial application of any purely functional part of a useful device. The adaptation, reproduction, issue of copies or communication to the public of any work in a format, including sign language, specially designed only for the use of persons suffering from a visual, aural or other disability that prevents their enjoyment of such works in their normal format. The importation of copies of any literary or artistic work, such as labels, company logos or promotional or explanatory material, that is purely incidental to other lawfully.

As mentioned above, digital technology has generated a number of problems that need a quick fix. India has undergone a significant revamp of its copyright laws as part of a wider reformation process. It established penalties for anyone who, in any way, get around a technological protection used to safeguard any of the rights granted by the Copyright Act. To allow for the lawful use of copyright materials when using technology, a few exceptions were made, which might be summed up as follows (Section 65A of the Copyright (Amendment) Act 2012). Anything that is not specifically prohibited by this Act, anything that is required to research encryption using an encrypted copy that was legally obtained, anything that is required to carry out a lawful investigation, anything that is required to test the security of a computer system or a computer network with the owner or operator's consent, and anything that is required to get around technological measures meant for identification or surveillance. The extent of the exemption provided for in this section should be limited to owners or operators who have received special permission from the owners to carry out the task and should not be too broad as to apply to all operators. With the help of these revisions, India achieved a number of significant firsts, including compliance with the WIPO mandate without formally ratifying the WIPO Treaty.

Regarding Right Management Information (RMI), new clauses have been included. The following are the items that are included in the definition of RMI: (a) the title or other information identifying the work or performance; (b) the name of the author or performer; (c) the name and address of the owners of the rights; (d) the terms and conditions regarding the use of the rights; and (f) any number or code that represents the information referred to in sub clauses (a) to (d), but does not include any device or procedure intended to identify the user. Numerous actions are classified as offenses under the Amendment and are subject to a fine and a sentence of up to two years in jail. In addition, the owner of the copyright may pursue civil action against those responsible for the offenses under Chapter XII [10], [11].

CONCLUSION

The growth of technology and copyright have a close relationship. Although most innovations made copyright protection more challenging, digital computers were able to change the fundamental ideas underlying copyright. At a time when the proportion of copyright in national economies is rising to previously

unheard-of heights, the copyright sector is facing these problems. The legal system must be changed in order to respond to new technological advancements in an efficient and suitable manner, taking into account the speed and tempo of these advancements. In the public interest, this will maintain balance between all the stakeholders, including users and artists. In order to achieve this, the anti-circumvention regulation's primary focus should be on the technologically advanced individuals who have the potential to become circumventors, as well as the Even if they are few in number, sophisticated people have the technological know-how to get around security systems. On the other hand, the average user lacks the necessary technological know-how to create protection-defeating gadgets in order to get beyond technological controls. Copyright enforcement has become more challenging thanks to digital technology. It's important to strike a balance between inexpensive enforcement and simple infringement while also taking into account the risks associated with overseas litigation. There is a greater need for protection without borders as technology makes it simple for copyrighted materials to be sent over the world without the owner's consent. A procedural system for international litigation would supplement the substantive laws already in place.

REFERENCES

[1] F. A. Rafiqi, & Iftikhar, and H. Bhat, "Copyright Protection in Digital Environment: Emerging Issues," *Int. J. Humanit. Soc. Sci. Invent.*, 2013.

[2] S. G. Hombal and K. N. Prasad, "Digital copyright protection: Issues in the digital library environment," *DESIDOC J. Libr. Inf. Technol.*, 2012, doi: 10.14429/djlit.32.3.2380.

[3] J. Saraswat and R. Chaturvedi, "Copyright protection in the digital environment: Indian perspective and international obligations," *J. Intellect. Prop. Rights*, 2017.

[4] F. Frattolillo, "A digital rights management system based on cloud," *Telkomnika (Telecommunication Comput. Electron. Control.*, 2017, doi: 10.12928/TELKOMNIKA.v15i2.5991.

[5] J. Ibbotson, "Copyright protection of images in the digital environment," *J. Vis. Commun. Med.*, 1997, doi: 10.3109/17453059709063088.

[6] J. Guo, C. Li, G. Zhang, Y. Sun, and R. Bie, "Blockchain-enabled digital rights management for multimedia resources of online education," *Multimed. Tools Appl.*, 2020, doi: 10.1007/s11042-019-08059-1.

[7] H. Park and J. Kim, "Copyright protection for modifiable digital content based on distributed environment," *IEICE Trans. Inf. Syst.*, 2008, doi: 10.1093/ietisy/e91-d.5.1390.

[8] M. Cheung, "Copyright challenges facing the website design industry: A survey with creative directors in hong kong," *Des. J.*, 2014, doi: 10.2752/175630614X13915240576149.

[9] N. Ahmad, "Copyright protection through technology in a digital environment: A critical appraisal," *Malayan Law J.*, 2009.

[10] M. Senftleben, M. Kerk, M. Buiten, and K. Heine, "New Rights or New Business Models? An Inquiry into the Future of Publishing in the Digital Era," *IIC Int. Rev. Intellect. Prop. Compet. Law*, 2017, doi: 10.1007/s40319-017-0605-y.

[11] "Effective Watermarking Adoption in Digital Imaging Copyright Protection Environment," *Int. J. Sci. Res.*, 2015, doi: 10.21275/v4i12.nov151393.

CHAPTER 6

INTELLECTUAL PROPERTY RIGHTS AND PROTECTION OF TRADITIONAL KNOWLEDGE

Dal Chandra, Assistant Professor
College of Law, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India
Email Id- degautambahjoi@yahoo.co.in

ABSTRACT:
Since the 1992 passage of the Convention on Biological Diversity (CBD), traditional and indigenous knowledge (TK) has drawn increasing attention about its protection under intellectual property rights (IPRs). Academics, NGOs, and governments have all made numerous contributions that have taken into account the requirement to offer TK some kind of protection. However, there are major differences over whether IPRs should be used and, if so, what would be the justification and methods of protection. The first step is to comprehend the significance and range of TK, including its extensive use in traditional medicine and farming, which is covered along with the query of what constitutes TK. The first step in any discussion of potential types of protection should then be to define why it needs to be protected and what can be accomplished. This paper relates to advance current international IPR-style requirements for TK protection and proposes global regulations to stop TK misappropriation.

KEYWORDS:

Convention on Biological Diversity, Equity**,** Intellectual property rights, Protection of TK**,** Traditional and indigenous knowledge (TK),

INTRODUCTION

Is a precise description of traditional knowledge a requirement for any international talks about the potential protection or promotion of TK? It might be challenging to come to an understanding on a definition that is both legally and scientifically valid due to the various natures and modes of expression of the information included by TK. In fact, TK is one of a number of words that broadly refer to the same topic. The term "tradition-based literary, artistic, or scientific functions" is currently used by WIPO to describe all tradition-based innovations and creations resulting from intellectual endeavors in the industrial, scientific, literary, or artistic fields. It also includes performances, inventions, advances in science, designs, marks, names, and representations. The inability to define TK should not prevent the development of the requirements for the protection of such knowledge. Patents may refer to inventions in a variety of domains, including mechanical, chemical, electronic, biological, and many more, but patent law merely specifies the criteria for protection (novelty, inventive step, and industrial applicability) [1]–[3].

Similar to this, trade secrets include any confidential knowledge that is useful commercially, and no additional specification of their content is necessary for their legal protection. Rather than the precise substance of its constituent parts, an operational concept in TK may be based on the knowledge's source (traditional and indigenous cultures) and cultural distinctiveness. For instance, "mola" is a type of traditional handmade textile made by cutting and sewing together multiple layers of cloth to create a multicolored item. Traditional producers of the "molas" in Panama have been the Kuna aboriginal communities. Although Taiwan has manufactured imitations, "mola" is unmistakably a result of Kuna's traditional knowledge and a representation of their own culture.

Scope and significance of Traditional Knowledge:

Local and native populations have utilized traditional and cultural information (TK) for generations in accordance with regional laws, practices, and traditions. It has been passed down from generation to generation and evolved. TK has had and continues to play a significant role in crucial sectors like food security, the advancement of agriculture, and medical care. However, Western civilizations have generally

not acknowledged any significant value in TK nor any responsibility linked with its use, and have either passively consented to or hastened its demise by destroying the living conditions and cultural values of the communities. Western science has recently developed an increasing interest in TK as it has come to the realization that TK, often in conjunction with "modern" scientific and technology knowledge, may aid in the discovery of effective answers to present problems. Despite the fact that TK is being more recognized as a rich source of knowledge, it has typically been viewed under Western intellectual property laws as data in the "public domain," freely used by anyone. Additionally, other types of TK have occasionally been acquired under intellectual property rights by researchers and business entities without paying the knowledge's founders or owners any recompense.

TK is an essential part of millions of people's daily lives in developing nations. The great majority of people in poor nations, where access to "modern" health care services and medicine is constrained due to economic and cultural factors, are served by traditional medicine (TM). In Malaysia, for example, the use of TM products per person is more than twice that of modern medications. In more developed developing nations like South Korea, where TM product consumption is around 36% higher than that of contemporary drugs3, TM is also substantial. Similar to how farmers' varieties (landraces) must be used and continually improved in many agricultural systems, it is frequently the only cheap treatment available to the poor and in rural places. The "informal" method of seed production, which functions on the principle of the distribution of the finest seed available within a community and on its movement, even across great distances during migration or after disaster4, is the main source of seed supply in many nations. Additionally, TK is the source of a wide range of aesthetic manifestations, such as musical compositions and handicrafts.

In wealthy nations, where the demand for herbal remedies has increased recently, TM also plays a key role. One estimate places the global market for herbal medications at US$43 billion, with 5- to 15% annual growth rates. WHO estimates that TM brought in about $5 billion from the international market and $ 1 billion from the local market for China, the industry leader, in 1999. The estimated value of the European market in 1999 was $11.9 billion, with Germany accounting for 38% of that value, France for 21%, and the UK for 12%. Additionally, a lot of pharmaceutical products are made of or based on biological materials6.Particularly plants are a significant source of medicines. The creation of novel plant types and, more crucially, global food security have both benefited greatly from the traditional and indigenous farmers' understanding of cultivated plants.

International fora are increasingly recognizing the value of TK for its creators and the global community as a whole, as well as the necessity of fostering, preserving, and protecting such knowledge. As a result, in 1981 a WIPO-UNESCO Model Law on Folklore was adopted; in 1989 the FAO International Undertaking on Plant Genetic Resources8 introduced the notion of "Farmers Rights"; and in 1992 the Convention on Biological Diversity (CBD) particularly addressed the issue (article 8(j)). The World Intellectual Property Organization (WIPO) formed an Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge, and Folklore in 2000, and it convened for the first time in April 2001.

Protection Justifications

The fact that the word "protection" is used in so many diverse ways lead to a lack of consensus regarding its purpose. Some people interpret this phrase in terms of intellectual property rights (IPRs), where protection simply refers to preventing unauthorized use by third parties15. Others see protection as a measure to keep traditional knowledge from being used in ways that would weaken it or have a harmful impact on the communities that created and used it. According to the Organisation of African Unity's (OAU) Model Law and its definition of community rights (Box 2), protection plays a more advantageous role in preserving the livelihoods and traditions of TK-based communities here.

Overall, however, the main justifications for granting TK protection include: equity concerns, conservation worries, the safeguarding of traditional customs and culture, avoiding the likelihood of appropriation of TK components by unauthorized parties, and promotion of its use and its relevance in development.

Equity

Many ideas for the safeguarding of traditional knowledge (TK) have an equity-based foundation at their core. Due to the present appropriation and reward system, TK creates value that is not sufficiently acknowledged and compensated. Therefore, it would be required to defend TK in order to bring equity to fundamentally unfair and unequal relationships.

The rationale behind this is demonstrated by plant genetic resources. Plant genetic resources are preserved and used by traditional farmers. By being used for planting, producing seeds, and continually choosing the best-adapted farmers' varieties (landraces), plant genetic resources are valued and increased. These farmers typically exchange goods or services over the fence in exchange for one another's services, promoting the spread of their varieties and the further improvement of those types. The farmers' developed and preserved varieties are eventually gathered, subjected to research, and bred before entering the market via seed firms whereas the latter can safeguard the enhanced variety in terms of plant breeding

DISCUSSION

Traditional knowledge as part of the IP system's protections:

Traditional knowledge keepers struggle with a variety of issues. In certain instances, the continued existence of the knowledge is in jeopardy because tribes' ability to preserve their cultures is under danger. Threatening elements include: Traditional knowledge, increased demand for its commercialization, and disruption of the connections between TK creators and their resources as a result of the biotrade industry. The term "bio-trade" describes the exchange of biological resources for actual or potential economic gain between nations, research institutions, and private citizens.

Typically, when we contemplate innovation, we're talking about academic research, industrial R&D facilities, etc. The technical innovations created by farmers, tribes, craftspeople, or other grassroots innovators have occasionally eluded us. Indeed, numerous indigenous groups have developed and improved their own body of knowledge in a variety of areas, including geology, ecology, botany, farming, physiology, zoology, and medicine. These traditional inventors have produced a vast repository of traditional knowledge. Such common innovators will likewise receive the proper credit and compensation. Without regard or consideration for the efforts made by the indigenous groups to preserve and spread the TK, traditional knowledge is seen as information that may be freely used by the public. The development of new technologies has made it feasible to create novel and practical products by utilizing previously untapped information. Without acknowledging the efforts made by local communities to conserve these resources, large corporations are leveraging these technologies to harness them [4]–[6].

A barrier to promoting and keeping such information is also a lack of respect for and appreciation for TK. Because of the perceived advantages of linked scientific and technological developments, TK's genuine significance is frequently underestimated from a narrow cultural perspective. The material is regarded as "inferior" in the present scientific paradigm because it was not created using aseptic techniques. Traditional knowledge and traditions are disappearing as a result of modern lifestyles being adopted and young generations' indifference in preserving them .For instance, if a traditional healer uses a combination of herbs to treat a disease, the healer doesn't isolate and recognize those chemical constituents and explain their effects on the organism in terms of modern biochemistry; instead, the healer bases this medical treatment on centuries' worth of historical clinical trials and solid scientific understanding. Therefore, the proper understanding of the significance of conventional knowledge is frequently neglected if its scientific and technological aspects are seen from a limited cultural perspective. The greatest threat to traditional knowledge is the takeover of over-exploitation by commercial entities in derogation of the rights of the original owners, which has resulted from the gradual acknowledgement of the value of traditional knowledge and an exponential expansion in the usage of traditional knowledge products. As shown in Figure 1: Protection and Management of Traditional Knowledge

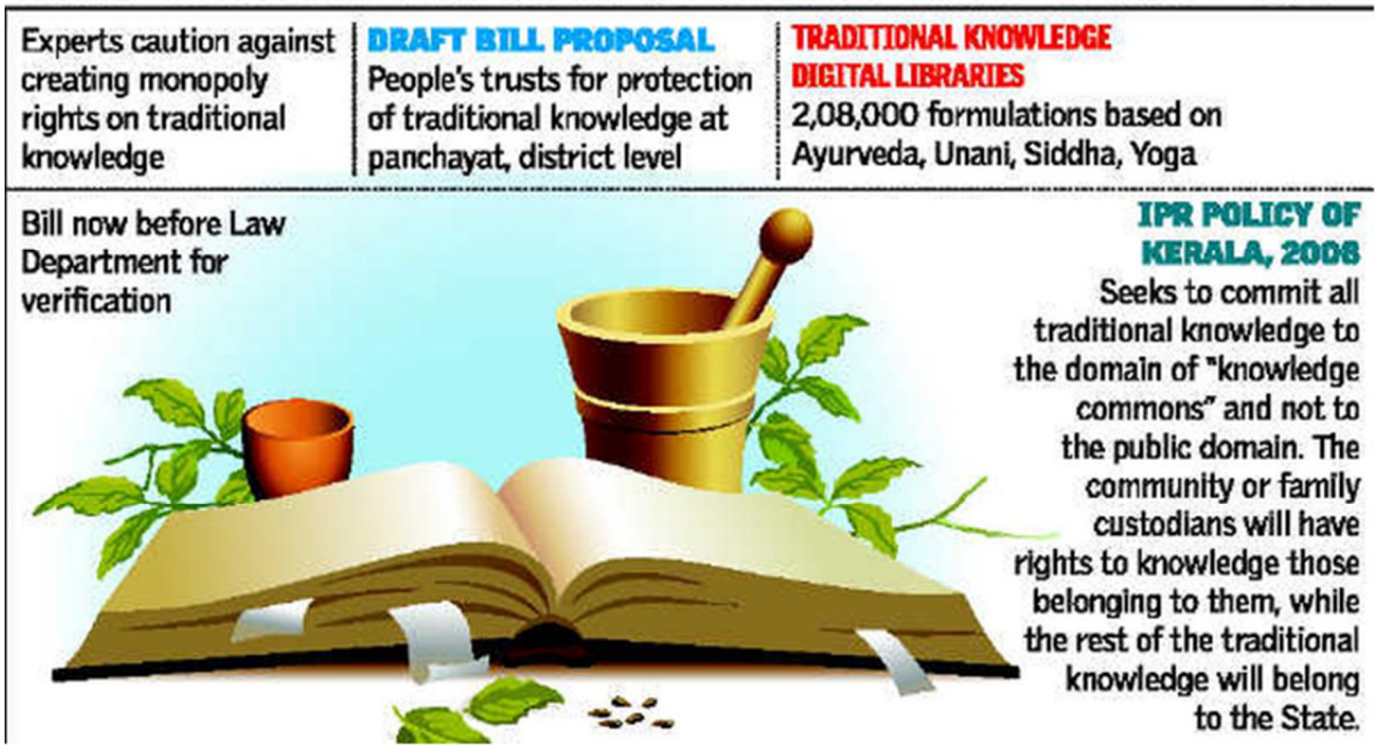

Figure 1: Protection and Management of Traditional Knowledge

Significant challenges to biodiversity and associated traditional knowledge include bioprospecting and biopiracy. Exploiting biological resources with a high commercial potential is known as bio-prospecting. It involves looking for beneficial organic chemicals produced by microorganisms, plants, and fungus in harsh environments including deserts, hot springs, and rainforests. Exploring and studying biological resources for potential new uses in industry is a process that is equally crucial for the growth of the world's economy and society. But when ethnobotanists (ethno-botany is the scientific examination of the relationships between people and plants, and the people who specialize in ethnobotany are known as ethnobotanists), pharmaceutical enterprises, along with other industries (textiles, handicrafts, seeds, etc.) exploit biodiversity and associated indigenous knowledge without permission and revenue sharing with the original TK holders, this results in biopiracy, which is a source of conflict. The ethnobiological knowledge of indigenous people is exploited by pharmaceutical companies, who later become the sole ones to profit from medication development and marketing. Bioprospecting frequently causes environmental instability if wasteful actions like as excessive collecting of biological samples from its habitation region are involved. This would endanger that particular species' ability to survive. Obtaining exclusive rights over consumer goods based on biological assets or conventional knowledge without the consent, acknowledgement, and fair remuneration of the legitimate owners of biological resources and related information is known as biopiracy. This type of intellectual property (typically patent) entitlement is known as biopiracy. Biopiracy is frequently facilitated by a lack of traditional scientific documentation or by insufficient, non-technical documentation. Therefore, it is crucial that this information be kept up to date in order to grant TK owners' equity considerations and stop unauthorized parties from misusing biological resources and related information.

The biotrade sector has disrupted the relationships between TK creators and their resources and boosted demand for its commercialization. The phrase "bio-trade" refers to the transfer of biological resources between countries, academic organizations, and private individuals in exchange for actual or future financial advantage. When we think about innovation, we frequently refer to things like academic research and industrial R&D centers. We have occasionally been unable to replicate the technical improvements developed by farmers, tribes, artisans, or other grassroots innovators. Many indigenous communities have, in fact, established and enhanced their own body of knowledge in a range of fields, including geology, ecology,

botany, farming, physiology, zoology, and medicine. These ancient inventors have created a sizable body of ancient knowledge. These common innovators will also be given the correct credit and payment.

Traditional knowledge is considered to be knowledge that the general public is allowed to utilize, with no regard or consideration for the efforts made by the indigenous communities to conserve and disseminate the TK. By leveraging previously unused knowledge, new technologies have made it possible to manufacture innovative and useful products. Large firms are using these technologies to harness these resources without recognizing the efforts made by regional communities to conserve them.

A lack of respect and appreciation for TK is another obstacle to spreading and preserving such information. A limited cultural perspective typically undervalues TK's true relevance due to the advantages of related scientific and technological breakthroughs. Due to the fact that the material was not produced utilizing aseptic methods, it is viewed as "inferior" in the current scientific paradigm. Traditional knowledge and practices are being lost as a result of young generations' lack of interest in maintaining them and the adoption of modern lifestyles.

For instance, if a traditional healer uses a combination of herbs to treat a disease, the healer does not isolate and identify those chemical constituents and explain their effects on the human body in terms of modern biochemistry, but rather bases this medical treatment on centuries' worth of historical clinical trials and sound scientific understanding. Therefore, if customary knowledge is seen from a narrow cultural viewpoint while considering its scientific and technological elements, the accurate comprehension of its value is typically overlooked. Due to the gradual recognition of traditional knowledge's value and the exponential growth in the use of traditional knowledge products, the greatest threat to traditional knowledge is the takeover of over-exploitation by commercial entities in violation of the rights of the original owners [7]–[9].

Bioprospecting and bio piracy are two major threats to biodiversity and the accompanying traditional knowledge. Bio-prospecting is the process of using biological resources with significant commercial potential. It entails searching extreme environments like deserts, hot springs, and rainforests for useful organic compounds created by bacteria, plants, and fungi. Exploration and research into biological resources for potential new industrial applications is a process that is essential for the development of both the global economy and society. However, when pharmaceutical companies, along with other industries (textiles, handicrafts, seeds, etc.), ethnobotanists (ethno-botany is the scientific study of the relationships between people and plants), and ethnobotanists exploit biodiversity and associated cultural traditions without permission and revenue sharing with the original TK holders, this results in bio piracy, which is a source of conflict.

Pharmaceutical companies take advantage of the ethnobiological knowledge of indigenous people in order to become the only ones to make money from the development and marketing of medications. If wasteful practices, such as the excessive collection of biological samples from its habitation region, are engaged, bio prospecting frequently results in environmental instability. The survival of that particular species would be at risk. Biopiracy is the act of obtaining sole ownership of consumer goods through the use of biological assets or conventional knowledge without the permission, acknowledgement, and just compensation of the rightful owners of biological resources and associated knowledge. Biopiracy is the term for this kind of intellectual property (usually patent) entitlement. Lack of traditional scientific documentation or insufficient non-technical documentation frequently aids biopiracy. In order to give TK owners' equity considerations and prevent unauthorized parties from exploiting biological resources and related information, it is imperative that this information be kept up to date [10], [11].

CONCLUSION

The numerous facets of TK were examined, and it was discovered that while it is the cultural foundation of every nation, it is also a valuable resource that must be used to promote economic development. To achieve socio-economic peace, it is crucial to maintain the delicate balance between defending the rights of indigenous groups and the advantages brought forth by the commercialization of such TK. In India, where

sufficient steps have been made to safeguard TK, the vastly expanding requirements of the population and the lack of available investment opportunities have transformed TK into an untapped gold mine that is just waiting to be tapped. Therefore, commercial companies should gradually tap into the enormous ocean of TK without prejudice to the rights of the indigenous people and with regard to India's cultural history in order to address the expanding needs of this nation's citizens. Additionally, the benefit sharing agreement should be strategically supported in light of the current laws' provisions for the development of both community rights and a suitable environment for patents in order to preserve the proper balance between TK holders and inventors.

REFERENCES

[1] A. N. M. Alamgir, "Intellectual property (IP) and intellectual property right (IPR), traditional knowledge (TK) and protection of traditional medical knowledge (TMK)," in *Progress in Drug Research*, 2017. doi: 10.1007/978-3-319-63862-1_12.

[2] C. Phochanthilath, "Women's Rights in Intellectual Property and Traditional Knowledge Protection in Lao pdr," *Asia Pacific Journal on Human Rights and the Law*. 2015. doi: 10.1163/15718158-01601002.

[3] B. E. Assay, "Intellectual property rights and the protection of Africa's traditional knowledge," in *African Studies: Breakthroughs in Research and Practice*, 2020. doi: 10.4018/978-1-7998-3019-1.ch023.

[4] P. Gała, "Legal protection of traditional agricultural knowledge relating to genetic resources," *Stud. Iurid. Lublinensia*, 2020, doi: 10.17951/sil.2020.29.2.25-36.

[5] N. B. I. Putra, "Perlindungan hukum hak atas kekayaan intelektual terhadap pengetahuan tradisional di indonesia," *Kertha Negara*, 2013.

[6] M. R. A. Palar, D. E. Sukarsa, and A. M. Ramli, "Indonesian system of geographical indications to protect genetic resources, traditional knowledge and traditional cultural expressions," *J. Intellect. Prop. Rights*, 2018.

[7] B. E. Assay, "Intellectual property rights and the protection of Africa's traditional knowledge," in *Media Law, Ethics, and Policy in the Digital Age*, 2017. doi: 10.4018/978-1-5225-2095-5.ch007.

[8] E. Sunaryo, "Perlindungan Hak Kekayaan Intelektual Terhadap Perbatikan (Tinjauan Terhadap Batik Yogyakarta Dan Solo)," *JIPRO J. Intellect. Prop.*, 2019, doi: 10.20885/jipro.vol2.iss1.art2.

[9] Y. Daya and N. Vink, "Protecting traditional ethno-botanical knowledge in South Africa through the intellectual property regime," *Agrekon*, 2006, doi: 10.1080/03031853.2006.9523750.

[10] C. A. Masango, "Indigenous traditional knowledge protection:prospects in South Africa's intellectual property framework?," *South African J. Libr. Inf. Sci.*, 2010, doi: 10.7553/76-1-88.

[11] R. Rohaini, "PERLINDUNGAN HUKUM TERHADAP PENGETAHUAN TRADISIONAL MELALUI PENGEMBANGAN SUI GENERIS LAW," *FIAT JUSTISIAJurnal Ilmu Huk.*, 2016, doi: 10.25041/fiatjustisia.v9no4.609.

CHAPTER 7

COPYRIGHT INFRINGEMENT AND ITS REMEDIES: A CRITICAL ANALYSIS

Amit Verma, Associate Professor
College of Law, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India
Email Id- amitverma2@gmail.com

ABSTRACT:

The major goal of the copyright Act is to safeguard the rights of authors, as well as the general advantages that the public derives from their labors. It also offers remedies for violations of these rights. When someone want to unfairly profit from those who have worked hard to obtain their rights and suffer financial loss as a result, that is when copyright infringement concerns come into play. It is clear that technical advancements have made copyright material easier to reproduce at a low cost, while simultaneously making copyright infringement easy to commit and challenging to stop. Numerous stakeholders are engaged in the transmission of a work when it is moved from one location to another or made accessible to the public. This paper examines the gravity of the copyright infringement and also provides for available remedies to the copyright holders.

KEYWORDS:

Copyright, Civil Remedies. Copyright Infringement**,** Criminal Remedies, Injunction.

INTRODUCTION

Meaning of Copyright infringement:

The fundamental principle of copyright law is that it forbids one person from using another person's labor, talent, or capital for profit or personal gain. The law is powerful enough to prevent injustice from occurring. The author of a work has exclusive rights with regard to some prohibited acts at every stage of copyright and performing rights law. Without the owner of the copyright's permission, if these actions are carried out by another person, that person violates the copyright for that work. Therefore, while the word "infringement" in its strict definition denotes a violation of a person's rights, when applied to copyright, it refers to some improper use of a copyright work [1]–[3].

The copyright act of 1957's section 51 provides a general definition of infringement that can be summed up as:

a) Doing anything without a license for which the proprietor of copyright has sole ownership,
b) Permitting for financial gain without a license any location to be utilized for the public's transmission of the work where the transmission constitutes a violation of the work's copyright;
c) Producing an unauthorized copy of the work for sale or hire, offering it for sale or hire, trading it, giving it away, showing it in public, or bringing it into India. One copy may be brought into India for the importer's personal and household use, though.

The seemingly straightforward term of infringement conceals a nuanced legal reality. Determining infringement is really difficult. However, the Act's definition of an infringing copy in section 2(m) offers some standards and criteria for determining whether an infraction has taken place.

1) A reproduction of a literary, dramatic, musical, or creative work other than in the form of a cinematographic film is considered an infringing copy according to this definition;
2) A copy of a cinematograph film made on any media or through any process;
3) In regard to a sound recording, any additional recording, created through whatever method, that incorporates the same sound recording;

4) A sound recording or a cinematographic film of a program or performance in which such a broadcasting reproduction right or a performer's right exists pursuant to the requirements of this Act.

Components of Infringement:

Without permission, it is unlawful to copy, edit, display, reproduce, communicate, or perform a work that is protected by copyright. Two components must be proven in order to assert an infringement claim.

1. Proof that one is the proprietor of a legitimate copyright is required by the party alleging infringement;
2. With regard to copyright, the party alleging infringement must show that the alleged violator had access to the work and violated one of the exclusive rights.

It's crucial to keep in mind that intent to violate a copyright does not have to be proven in order to establish responsibility. Unintentional or unconscious infringement may nevertheless subject one to liability. As shown in Figure 1: Copyright infringement [mondaq].

Figure 1: Copyright infringement [mondaq].

DISCUSSION

Important components of copyright infringement

When one or more of the following actions are committed, a work's copyright is violated.

a) The work is reproduced in a material form;
b) The work is published;
c) The work is communicated to the public; and
d) The work is performed for the public.
e) Creating adaptations and translations of the work, as well as carrying out any of the aforementioned acts with regard to a significant portion of the work.

Any of the aforementioned actions in regard to a significant portion of the work will constitute a copyright violation. A simple variation in size or a precise replica of a significant portion of the work is insufficient to qualify an act as a copyright violation.

Infringement Determination Standard

To evaluate whether there has been a copyright infringement, there are two essential components that must be present:

1. The infringing work must be sufficiently objectively comparable to the copyrighted work, or at least a significant portion thereof.
2. The source from which the infringing work is generated must be the copyrighted work.
3. The determining factor is whether the plaintiff's work has been replicated in a substantial way. The term "substantial" encompasses two notions within its scope, namely:

i. The one of being "Considerable," or as respects quantity, this meaning is immediately assigned to the words when the quality of the work that has been copied is consistent.
ii. The second one is "important" or "material," that is, in terms of quality.

When the quality of the work that was copied was uneven, such as when some components were essential but others weren't, this definition might be applied to the word. Even 4%, which represents the core or the best of the infringed work, may be deemed to be substantial in the latter circumstance even while the reproduction of 10% of the infringing work is not substantial in the former. The court will take the following factors into account when determining what constitutes a substantial part: (a) The value of the appropriated portion; (b) Its relative value to each work; (c) The purpose of each work; and (d) The extent to which the reproduction of the significant portion of the pirated material will tend to supersede the plaintiff's work or obstruct its sale.

The core of copyright violation is the illegal duplication of original content from a copyrighted work; it must be proven that the latter was utilized as the source rather than widely available public knowledge sources. The true test of piracy is to determine whether the defendant actually copied the plaintiff's model of his own work, including the original layout and illustrations, or whether his work is the result of his own skill or labor and use of widely available materials and sources of knowledge, and any similarities are either unintentional or result from the subject's inherent characteristics.

Most of the time, there is no obvious proof of copying. Copying may only be inferred from all the surrounding circumstances, so in a case of literary work infringement, the defendant's work having the same faults as the plaintiff's work, or having comparable language or stylistic quirks, may be some indication that copying has taken place. One of the most reliable ways to tell if a copyright has been violated is to see if the reader, spectator, or viewer, after having read or seen both works, would be clearly about the opinion and get an unmistakable impression that the work that follows appears to be a copy of the first; in other words, the court will test the object's visual appeal by using what is known as the "Lay obsequies" standard. There has not been a violation of the artist's copyright if it does not appear to a layperson to be a copy [4]–[6].

Examples of approaches to demonstrate infringement include work comparison, colorable imitation of the original, reprography, replica of the original image, etc. For the sake of copyright, quality rather than quantity should be used to evaluate work. To resolve the issue of copyright infringement, an expert opinion should be sought. The visual appeal of the drawing and the object in question must be examined to determine whether copyright has been violated. A plaintiff must prove two things in order to win a case for infringement: that two works are strikingly similar; and that the opposing party has improperly used the plaintiff's work, either directly or indirectly. That there is a causal linkage connecting the copyrighted work of the plaintiff and the allegedly infringing copy of the defendant. The party in dispute had access to the plaintiff's work on a copy of the work that was being used infringing.

The actions of the defendants must violate the author's proprietary rights and harm him. Profit is a crucial component. It must be taken into account whether or not a significant section of the public was admitted for free or for a fee. For a party to be held vicariously accountable, on the other hand, it is not necessary for them to have been aware of the violation as long as they were financially benefited and had the authority and capacity to control the activity.

Remedies Available for the Copyright Infringement:

By giving the creators and owners of creative artistic works certain exclusive rights, the Copyright Act of 1957 broadens protection for those creations. The copyright owners have been given specific remedies in the event of violation. There are three different types of remedies for copyright infringement. They are administrative, criminal, and civil remedies. Practically speaking, civil remedies are the most frequently applied. Administrative remedies are the least used, while criminal remedies are used less frequently overall.

There are two types of civil remedies for copyright violations civil remedies that are first forbidden and second compensating. First, there are certain civil remedies that are not permitted; they include interlocutory injunctions and Mareva injunctions. John Deo Orders and a permanent injunction are issued by Anton Piller. The interlocutory injunction, commonly referred to as interim induction, is the most significant restricted civil remedy.

Unlawful Civil Remedies:

Temporary injunction or an interlocutory injunction A temporary restraining order is provided to the plaintiff to provide comfort while the case is pending. They are regarded as quick and efficient copyright remedies. Interlocutory injunctions give the plaintiff a significant advantage because they prevent the defendant from proceeding as soon as possible. Additionally, under the Indian legal system, the interlocutory injunction gives the court the authority to issue an expert decree in the defendant's absence. The Specific Relief Act of 1963 has a provision for the interlocutory injunction. Injunctions are often divided into two categories. a first injunction that is permanent and a second that is only temporary. Another interim injunction that has been made available under Order 39 of the Code of Civil Procedure of 1908 satisfies the requirements of Section 37 of the Special Relief Act. The Honorable Court mandated that a specific procedure be followed by the court in order to comply with the guidelines while considering an application for the grant of a temporary injunction in the landmark supreme court case Seema Arshad Zaheer and others vs municipal corporation of Greater Mumbai and others in the year 2006. The court noted that only when a select few (7 prerequisites) have been met does the court utilize its discretion. First, there must be prima facie evidence; second, the plaintiff's rights must be protected when granting a temporary injunction; in this case, the balance of convenience is in the plaintiff's favor; and third, the harm must be repairable if a temporary injunction is granted, as it has been in almost every case involving copyright infringement. Every time a temporary injunction is requested, a lawsuit is filed along with a request that the plaintiff submit the lawsuit as soon after becoming aware of any violation as possible.

Mareva injunction, a type of interlocutory injunction. Its goal is to prevent the defendant from selling any assets that would be needed to pay the plaintiffs, thus removing those assets from the court's purview. The Anton Piller order took its name from a legal matter. The applicant may be granted entry to the defendant's property to inspect and search without hindering the preservation of the evidence and his work in a civil action for copyright infringement. The petitioner must first demonstrate that it has a claim for relief or that it has suffered damages in order to get such an order. Before the court, the plaintiff party must name specific papers as proof against the defendant. The Anton Pillar order merely permits entrance, inspection, and the respondents' knowledge of the defendant; it is not a search warrant. Trespass would result if the defendant and the court did not give their consent. It is frequently employed for injunctions, which prevent defendants from taking assets outside of the court's purview.

Orders from John Doe Actions for seizing and assisting orders issued by a court of law against anonymous infringement are known as John Doe orders. Threats are made by an unknown party whose identity is unknown, therefore it is impossible to identify them. This article makes use of recent orders that have been issued regarding the copyright protection of books and the deterrence of movie buyers. It is a word that refers to a pattern that represents an unidentified autonomous entity. Such a person could be a group, an individual, a company, a registered society, an organization, a business, or a newspaper. It is referred to as a person whose real identity is unknown or, according to Merriam-Webster, it is a person whose genuine name is unknown who is on the route to a legal case enduring prohibition. The plaintiff has a better chance of winning

the copyright infringement trial with a permanent injunction. He will typically be qualified for a lifetime injunction to stop his infringement of the work. For the purpose of awarding final damages, this injunction will undoubtedly be in effect for the remainder of the copyright's term. The plaintiffs in a permanent injunction do not have to suffer actual harm. The plaintiff serves as evidence that copyright has been violated. Without any evidence of actual harm, the court will issue an injunction, but the plaintiff must nonetheless demonstrate that there is a reasonable chance that harm from the infringement will occur [7]–[9].

Civil Compensatory Remedies:

Three remedies are included in this set: the first is damages, the second is an account of profit, and the third is delivery up/destruction. This is to make up for the losses the plaintiff incurred as a result of copyright infringement. Damages are the first type of compensating legal remedy, and their goal is to put the plaintiff back in the position they were in before to the infringement. In general, damages are prescribed if infringement has been shown. Nominal damages are always the final worth of a right that has been granted in relation to an actual loss. Many other factors, such as the decline in the sale of the work of the copyright owner, will be taken into account when determining the damages, and in general, the damages should be equal to the fair free of royalty with which the defendant would have been stamped had he obtained the license from the copyright. Accounts of profit are the second kind of compensatory civil remedies. The defendant must give the plaintiff the actual profit they actually made as a result of the copyright infringement as part of an equitable remedy. The defendant's actual financial gain is the subject of this investigation. In contrast to accounts of damages, where the infringers are required to make up the plaintiff's loss, account of profit requires the defendant to give up his putative stated gain to the party whose rights have been violated. The delivery up or destruction is the next cure. The plaintiff is granted the right to reclaim possession of the copied works under this remedy.

Criminal Remedies:

Criminal remedies are unique from other remedies and can be used concurrently with civil remedies to halt further violations while a civil lawsuit is pending. It does not excuse the use of so many criminal remedies when the same issue is at issue and the criminal complaint cannot be dismissed solely because it is a civil dispute. Practically speaking, criminal remedies are far more effective than civil ones since they can be promptly resolved. The criminal process also takes into account the person's reputation and social standing. Because of this, the offender may occasionally leave court to protect his reputation. The elements of the crimes linked to criminal nature include knowledge, just like in any criminal offense. The criminal remedies are covered in Section 63-73 of the Copyright Act of 1957. First, copyright infringement; second, knowing use of a computer program to alter a copy; third, filing a complaint for making an injurious copy; fourth, getting around technological safeguards; fifth, changing rights management information; and, finally, violating Section 52A.

A person who intentionally violates a work's copyright under Section 63 is breaking the law. This also applies to any other rights that are bestowed by the act. The crime of copyright infringement, however, is punishable by imprisonment for a term of not less than six months and not more than three years, as well as a fine of not less than fifty thousand rupees and not more than two million rupees. However, such infringement in the construction of buildings is not an offense and is therefore not punishable. Although there is no change in the maximum punishment, the court does have the discretion to lessen the minimum sentence and minimum fine if there are good grounds and the infraction has not yet occurred. It is decided that the offense under Section 63 of the Copyright Act is both cognizable and non-bailable. According to section 63 B of the Copyright Act of 1957, the penalty is to furnish an improvement for seven days, which may be prolonged to three days, and to pay a minimum fine of 50,000 rupees, which may be increased to two million rupees. Another way to punish copying is through section 65, which stipulates that anyone who intentionally commits an offense or intentionally has copies of any works protected by copyright in their possession is subject to a 2-year prison sentence as well as a fine for evading technological safeguards. According to section 65B, anyone who submitted comments on the 10 technological measures that were put into place to protect the rights granted

with the intent to violate those rights is subject to a fine and a term of imprisonment that may reach two years. There are certain exceptions, though. Performing the first encryption research, testing the security, and evading technological measures meant for user identification and surveillance of a user while taking the essential precautions for national security, changing rights management information on rights management is defined in section 2 (x a). It entails a work's title or other identifying information, the names of the creator and performer, the name and address of the rights owner, the terms and conditions for using the rights, and any number of codes that reflect this information. According to Section 65b, the owner should have the right to use these civil remedies under this section. The offenses are divided into many categories, such as removal or alteration of copies of works, unlawful and knowing distribution to importers, broadcasters, or the general public of copies of works. Additionally, it is required to provide specific information about sound recording or video firms when section 52A is violated. According to this, anyone found in violation of Section 52A faces a three-year prison sentence as well as a fine. This is to ensure that cinematic work without a manufacturer's or copyright owner's name is prevented [10], [11].

CONCLUSION

The interests of all parties involved would be balanced under the perfect copyright protection system. India suffers significant economic losses as a result of widespread piracy, particularly online. On the other hand, the distinctive socio-economic circumstances of the nation make it necessary to partially disregard IPRs for the benefit of the greater good. In these circumstances, perhaps the emphasis should be on implementing the existing remedies effectively rather than adding new remedies over and above the existing ones, to prevent the dilution of the real exceptions to IPRs. It is unclear how such a balance will persist given the paradigm shift in India's legal system that governs the topic.

REFERENCES

[1] C. Russell, “Washington hotline,” *Coll. Res. Libr. News*, 2019, doi: 10.5860/crln.80.8.479.

[2] M. Kiškis, “Novel Remedies for Intellectual Property Rights Infringement Online,” *Jurisprudence*, 2013, doi: 10.13165/jur-13-20-4-09.

[3] O. Fischman Afori, “Proportionality – A New Mega Standard in European Copyright Law,” *IIC Int. Rev. Intellect. Prop. Compet. Law*, 2014, doi: 10.1007/s40319-014-0272-1.

[4] A. S. Abd Aziz, N. A. Mohd Noor, and K. Mohamed, “THE NEED FOR PUBLIC INTEREST DEFENCE IN COPYRIGHT LAW DURING THE INFORMATION TECHNOLOGY ERA,” *Int. J. Law, Gov. Commun.*, 2020, doi: 10.35631/ijlgc.519008.

[5] A. Yurikosari and K. Hosea, “Legal Standing Serikat Pekerja Dalam Mengajukan Gugatan Pada Pengadilan Hubungan Industrial (Studi Kasus : Pelanggaran Hak Cipta Atas Nama Dan Logo Serikat Pekerja Pada Putusan Nomor 7/G/2017/Phi.Jmb Juncto Putusan Mahkamah Agung Nomor 959 K/Pdt.Sus-Phi/2017),” *Era Huk. - J. Ilm. Ilmu Huk.*, 2019, doi: 10.24912/erahukum.v17i1.5978.

[6] V. H. Vora, “The borderless torrents: Infringing the copyright laws around the world,” *J. Franklin Pierce Cent. Intellect. Prop.*, 2017.

[7] H. T. Gómez-Arostegui, “What history teaches us about copyright injunctions and the inadequate-remedy-at-law requirement,” *Southern California Law Review*. 2008.

[8] J. L. Ross, “A Generation of Racketeers? Eliminating Civil RICO Liability for Copyright Infringement.,” *Vanderbilt J. Entertain. Technol. Law*, 2010.

[9] J. Tehranian, "Curbing Copyblight," *Vanderbilt J. Entertain. Technol. Law*, 2012.

[10] W. J. Gordon, "Excuse and Justification in the Law of Fair Use: Commodification and Market Perspectives," *SSRN Electron. J.*, 2005, doi: 10.2139/ssrn.293690.

[11] T. Watanabe and I. Kidokoro, "A World Without Cablevision nor Sony: How Japanese Courts Find Providers of Personal Locker and Content-Sharing Services Liable," *SSRN Electron. J.*, 2013, doi: 10.2139/ssrn.2238359.

CHAPTER 8

PATENTING BIOTECHNOLOGICAL INVENTIONS: A CRITICAL ANALYSIS

Sourabh Batar, Assistant Professor
College of Law, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India
Email Id- battarsourabh@gmail.com

ABSTRACT:
Intangible property developed by the human mind is known as intellectual property. It is crucial to defend intellectual property in today's cutthroat society. Therefore, patents can be awarded to researchers for their scientific work as a means of preserving their intellectual property. Science and technology are a tool for human advancement. The development of biotechnology has a significant impact on how people and the environment interact. The science of biotechnology involves using biological systems and living things to develop new goods and procedures. The term "biotechnological invention" refers to inventions in the fields of biology, microbiology, genetics, medicine, and agriculture. The term "biological process inventions" encompasses not just advances in genetic modification but also substances originating from bacteria, plants, animals, and insects. The patenting of live things and living processes is covered by Article 27 of the Trade Related Aspects of Intellectual Property (TRIPs) agreement. TRIPs is a global agreement that the World Trade Organization manages and that establishes the baseline criteria of intellectual property laws that apply to its member nations. As present the need to amend and include obtaining a patent of biotechnology gained momentum in India, leading to a change to section 3(j) of the Patent Act. In this work, the researcher primarily focuses on the criteria for patenting, the patentable subject matter, and the ethical concerns associated with the patentability of biotechnology inventions.

KEYWORDS:

Biotechnological inventions, Geneva Convention, Patents, TRIPS agreement, World Intellectual Property Organization (WIPO),

INTRODUCTION

The expansion and growth of the economy has had a significant impact on technology and encouraged competition across all industries. As a result, the global economy and corporate environment experienced fast technical advancements. The development of biotechnology in sophisticated industrialized nations has three facets: the research and technology that underpins it, the businesses that are involved in the field, and governmental regulations. One of the fields of technology with the quickest growth is biotechnology. The practice of biotechnology involves modifying or creating new goods and processes by manipulating live things using biological systems and living things. The end result of biotechnology is not something that naturally occurs in living things or something made by nature. However, they can qualify as an invention if they demonstrate innovative steps, have industrial applicability, and meet the requirements for patentability. It is crucial for businesses to create biotechnology patents so they can create things like life-related products. Patents give businesses the chance to recoup investment made in creating the patented idea, introducing the new items to the market, or licensing or transferring the rights to other businesses by giving IP rights for a certain length of time. However, certain nations, like as India, do not fully embrace the idea of biotechnology patenting and still view it as unethical [1]–[3].

Biotechnology Classification of Inventions:

(a) Inventions relating to an organism or material, such as naturally occurring substances derived from living entities, biological material, and parts (such as plasmids, viruses, and replicas, as well as parts of organs, tissues, cells, and organelles).
(b) New discoveries that pertain to the process of producing a live thing or other biological materials.
(c) New discoveries involving the application of such organisms or biological materials.

Innovation: Innovation is a fresh approach to an old problem or "new things that are made useful." It could be referring to gradual and emergent changes or radical and revolutionary ones in organizations, products, processes, or ways of thinking.

According to Schumpeter (1934), authors of academic works on innovation frequently draw a distinction between invention a concept made manifest and innovation, which is an idea effectively put into reality. A considerable difference, not a little adjustment, is required for something new to be considered innovative in many sectors, such as the arts, economics, business, and public policy. In economics, the change must result in higher producer, customer, or value. Innovation aims to improve people or things through constructive change. The main driver of rising wealth in an economy is innovation that results in higher productivity.

In terms of economic value, rights to intellectual property have traditionally been regarded as the most valuable rights. The major goal of the patent laws in India is to advance scientific research and technological advancement for the benefit of the general population. The incentive provided by the patent law encourages the inventor to develop new inventions, which in turn advances science and technology. In a quid pro quo, or give and take, arrangement, the inventor gives the public his creation in exchange for exclusive use rights to use it for a set length of time before it becomes part of the public domain. Because India is a traditional nation where people have never believed in claiming rights over intellectual properties, the idea that one could have property rights over the results of one's intellectual labor has yet to take root in India.

By allowing them specific, time-limited rights to regulate how their creations are used, intellectual property law seeks to protect the creators and other producers of intellectual goods and services. These rights only pertain to the intellectual product itself, not to any physical objects in which it may be incorporated. Traditionally, intellectual property is divided into two branches: industrial property and copyright.

Protection of Intellectual Property

With the passage of significant international treaties pertaining to the protection of intellectual property, international law began to take on a significant role in the nineteenth century. Inventions in all fields of human endeavor, scientific discoveries, industrial designs, trademarks, service marks, and commercial names and designations are all considered to be intellectual property according to Article 2(viii) of the Stockholm Convention establishing the World Intellectual Property Organization (WIPO), which was signed on July 14, 1967. The literary, artistic, and scientific fields that were listed belong to the copyright division of intellectual property. The areas referred to as live performances by artists, recordings, and broadcasts are typically referred to as "related rights," or copyright-related rights. The industrial property branch of intellectual property includes the things like innovations, industrial designs, trademarks, service marks, and business names and designations.

Paris Convention for the Preservation of Industrial Property Article l (2). As a result, the system of intellectual property rights has always been based on the idea of territoriality, which gives different nations wide latitude in crafting their own laws and regulations. Even though the territoriality concept has been kept, the passage of the TRIPS Agreement in 1994 has marked a turning point in this regard. In addition to helping most developing nations establish and expand intellectual property protection, it has also established for the first time basic standards of protection that all WTO member states must uphold. This is partly explained by the industrialized nations' growing reliance on knowledge-based sectors, such as the quickly growing genetic engineering sector. In essence, individual private property rights make up the majority of the major categories of intellectual property rights. Private property rights are typically defended by people or organizations that the government has given legal approval to legally recognized private

Industrial Property Protection Paris Convention, 1883:

The fast advancement of technology and the expansion of global trade during the second half of the 19th century made it clear that there was a need for harmonization in the fields of patent and trademark protection. Since the territoriality principle governs the law of patents and trademarks, any exclusive rights granted under such laws only apply to the territory of the State that passed them. As a result, it was challenging to secure

protection for industrial property rights outside of national borders due to different legislation in different nations. In order to preserve an invention's uniqueness, patent applications must also be submitted roughly at the same time in all nations. The dominant system of bilateral treaties founded on the basis of material reciprocity quickly proved very impractical in light of the ongoing expansion of international complexity. When foreign exhibitors declined to participate in the International Exhibition of Invention in Vienna in 1873 because they were concerned that their ideas may be improperly or inadequately protected, the necessity for global protection became clear. Thus, the Congress of Vienna for Patent Refonn proposed "to bring about an international understanding upon patent protection" as early as 1873, and the universal Conference in Paris took up the topic in 1878. The Paris Convention for the Protection of Industrial Property was finally approved and signed in 1883 after a diplomatic conference was held there [4]–[6].

Biological inventions protected under TRIPS Agreement:

The result of both human activity and natural processes is biotechnology. Biotechnology is not a recent development; it has existed for a very long time and has advanced through many millennia. Earlier, no one considered the necessity to develop a comprehensive legislation on biotechnology for regulation since no one believed that biotechnology could manipulate either plants, animals, or humans. However, as the area of biotechnology developed over time and required a thorough legal framework for effective regulation, the TRIPS agreement also offered protection for and regulation over a variety of biotechnology inventions. The importance of biotechnology and its innovations are acknowledged and safeguarded under the current patent law. The biotech ideas may be patented if they met the patentability requirements, but because it is difficult to manipulate live things, they require particular consideration. To lessen distortions and obstacles, the Trade Related Aspects of Intellectual Property Rights (TRIPS) agreement was finalized when the WTO Agreement, which replaced GATT, was formally signed in Marrakesh on April 15, 1994. In light of global trade and the requirement to advance sufficient and effective protection of intellectual property rights

The TRIPS Agreement aims to achieve the objectives that the promotion of technological innovation and the transfer and dissemination of technology should contribute to the protection and enforcement of intellectual property rights to the mutual benefit of producers and users of technological knowledge and in a manner conducive to social and economic welfare and the balance of rights and obligations. Members may adopt measures necessary to safeguard public health and nutrition as well as to advance the public interest in areas crucial to their socioeconomic and technological development while enacting new legislation or amending existing laws, provided that these actions are compliant with the TRIPS Agreement's provisions. It states that inventions in all domains of technology, including products and processes, are eligible for patent protection as long as they are novel, entail an inventive step, and have potential for industrial use.

It is possible to view the terms "inventive step" and "capable of industrial applications" as equivalent to the terms "non-obvious" and "useful," respectively. It further states that "patent rights shall be enjoyed without regard to the place of invention, the field of technology, or whether products are imported or locally produced." Thus, as required by the TRIPS agreement, a member state must give patents to any discovery in any branch of technology without making any distinctions about whether the invention relates to domestically produced goods or imported goods.

DISCUSSION

Biotechnology Patent Evolution

The US Plant Patent Act of 1930, which protected plant varieties, is where the use of patents to protect biological processes first emerged. However, a number of nations were opposed to the idea of extending patent protection to plant varieties because it was seen as a deviation from the social-cultural environment and the general belief system that views plant varieties as products of nature. The long-standing practice of the agricultural community to generate, reuse, and share locally adapted types of seeds was in some ways also believed to be undermined by the patent's excludability standards. However, due to pressure from the European plant breeding industry, the International Union for the Protection of New Varieties of Plants

(UPOV) was established to protect certain plant varieties, largely excluding food crops, provided they are distinct, uniform, and stable (DUS).

Important information Different definitions of distinctness, uniformity, and stability led to different right strengths, which are somewhat similar to the idea of patent strength. Reusing seeds and making changes at the farmer level were permitted, though. If there was no commerce involved, any exchange of stored seed within the farmer's community was likewise acceptable. However, uncertainty lingered regarding whether protection applied to geno-types as well as phenotypic variants until 1991. Given how many phenotypic variants are possible for any given genotype, a protection on phenotype was viewed as minimal in comparison to the circumstance where genotypic variations are safeguarded. Therefore, under such a setting, the scope of competitiveness through a novel variety was rather considerable (Wright and Pardey 2006). UPOV was reportedly changed in 1991 to expressly provide for the protection of genotypic differences by adding the requirement to establish the minimal genetic space of protection through "essentially derived varieties (EDV)". The changes also limit farmers' ability to trade and save seeds, even for non-commercial purposes. UPOV 1991 further expanded the list of plants to include non-commercial crops, such as food grains. It has also been forbidden to produce later types using protected "parent" crops [7]–[9].

The process of including genetically modified innovations under the purview of patent protection was helped by two patent amendments in the United States. The 1980 decision Diamond v. Chakravarty is regarded as the most significant since it expressly acknowledges that "anything under the sun made by the man shall be patentable." But the 1952 revisions served as the foundation for the decision in this case. These changes relaxed the non-obviousness criteria and clarified the patentability of the results of routine industrial R&D by stating that "patentability shall not be negated by the manner in which the invention was made." In reality, up until 1952, it was common procedure to assign patents to specific people, who would subsequently sell them to their employers. These two revisions made it easier for the court to rule in favor of patents in the Diamond v. Chakravarty case, which ultimately ensured that genetic engineering inventions would be covered by patents.

However, it is complicated legally to incorporate genetic engineering inventions into the conventional ("mechanistic") patent system. The primary distinction between a biotechnological invention and a traditional invention is that the latter cannot be described in terms of its pieces, components, or elements (structure), as needed by the traditional patent system. Instead, according to Sherman (1990) and Pila (2003), biotechnological inventions are described in manipulative or functional terms. Additionally, it is claimed that biotechnological inventions are more susceptible to infringement claims for two reasons (Sherman 1990).

The Effects of Patent Length:

There are primarily two reasons why the term of a patent is significant for biotechnology. It is challenging to apply any consistent duration of patent in the first place because biotechnological advances are cumulative, and secondly because biotechnological research yields varied results. A fixed patent term is not ideal in theory, but it is unavoidable in practice when dealing with a single isolated discovery, where the length of the patent encourages creative activity. In fact, erring on the side of a longer patent protection was thought to be preferable to erring on the side of a shorter one when contrasted to a "optimum" (Nordhaus 1972). However, if subsequent researchers, other than the pioneer, are required to hold back an improved technology until the patent expires, the incentive to innovate may decline under a long patent regime, especially in the context of cumulative innovation that builds upon prior inventions, such as biotechnology (Koo and Wright 2002). According to Horwitz and Lai (1996), shorter protection leads to quicker but minor breakthroughs. On the other hand, lengthening may result in greater inventions developing less frequently. Again, if the frequency impact outweighs the size effect for a sufficiently lengthy patent term, an inverted "U" shaped relationship between length and innovation may be discovered. However, Gilbert and Shapiro (1990) contend that if the environment is fixed and the patent width is maintained to a minimum, the ideal patent duration may be infinite. In an empirical examination of the German synthetic dye business, Murmann (2003) shown that a brief patent protection during the early stages of a company's technological capabilities fosters

competition and allows for the emergence of more creativity. In this scenario, evolutionary selection of the greatest design would be more effective than it would be if stringent patent laws were to prevent competition at these stages [10]–[12].

A strong patent may jeopardize R&D investments in fields like biotechnology where the knowledge is young, cumulative, and the rate of discovery is quick (Gold 2000). According to Eisenberg and Nelson (2002), the open availability of information, particularly in its early stages, encourages research by lowering the costs associated with searching for the state-of-the-art and conducting transactions. On the other hand, a protracted patent during such early stages slows the entry of such knowledge into the public domain and may prove to be counterproductive. Additionally, unlike many industries, biotechnological research generates a wide range of research outputs, from life-saving medicines to research tools that are based on the isolation of particular DNA sequences, cells, or tissues. Before being sold, medicines must go through a rigorous and expensive regulatory approval process for their safety and efficacy. On the other hand, marketing research instruments is far less expensive and time-consuming. Thus, it is said that offering "one size fits all" security to so many diverse types of outputs is ineffective. Discussion on benefit sharing: "biodiversity" vs. "indigenous science"

A novel type of developmental dispute has been sparked by the negotiation on TRIPS and the patenting of live organisms, in which technology-rich North countries are accused of stealing biological and genetic resources from indigenous communities living in "resource-rich" South. According to Burrows and Shiva (2001), there are two sorts of this purported piracy of biological processes (biopiracy): intellectual piracy (stealing information about biological stuff) and material piracy (stealing resources). Briefly put, according to the literature on "biopiracy," the transfer of Neem seeds or Basmati rice to the West for scientific purposes is not done at random. Instead, through either informal networks (Johannes 1993, Drayton 2005) or official scientific collaborations (Pineda 2006), these plants have been chosen after carefully evaluating their economic value. The main query is, somewhat oversimplified, whether the biological and genetic raw materials obtained from the developing world are "natural" or whether their current forms are the results of human care and maintenance.

The wealthy nations essentially fought to keep these resources as "natural" resources. Therefore, it is unnecessary to consider intellectual property pooling. Contrarily, the group of developing nations sought to prove that the purportedly "natural" raw materials were the result of "millennia of study, selection, protection, conservation, development and refinement by communities of developing countries and indigenous peoples" (Burrows 2001, p. 241). It was stated that such human interventions shouldn't be seen in any way differently from human interventions that take place in research laboratories. Therefore, benefits gained by technology leaders employing these resources ought to be distributed to the owners of those resources as well. This area's intellectual property rights protection has undergone substantial changes as a result of the biotechnology industry's recent active development, research into biological objects and biomaterials, and artificial synthesis (isolation, modification) of these materials. Biological items, biomaterials, and biotechnologies have characteristics that make a separate legal system for their patent protection necessary. The recent active development of biotechnologies has been accompanied by an increase in patent applications for biotechnological inventions that has exceeded the average number of patents for other types of inventions

CONCLUSION

The study looked at the subject of biotechnology and pinpointed some key issues related to patentability in this domain. The essay focuses on how Indian patent laws manage the issue of patentability in this subject area without breaking the TRIPS Agreement and how patenting in biotechnology raises significant issues because it entails patenting living creatures. The widespread use of patents is a result of the benefits that the system of patent law protection provides (in contrast to other forms of legal protection that are widely employed in the biotechnology industry, such as trade secrets, cross-licensing, etc.). Design, implementation, and running in production may require significant financial and time resources; at the same time, the final product obtained as a result of the research - intellectual property - cannot act as a commodity in the

traditional sense, but its implementation provides a real opportunity for the inventor to provide a return on investment for development, testing, and implementation of innovative solutions and technologies.

REFERENCES

[1] N. Thumm, "Motives for patenting biotechnological inventions: An empirical investigation in Switzerland," *Int. J. Technol. Policy Manag.*, 2004, doi: 10.1504/IJTPM.2004.006078.

[2] V. Lugagnani, "Ethical limitations in patenting biotechnological inventions.," *Forum (Genova).*, 1999.

[3] S. Mishka and N. Mohammad, "Bioethics in Contemporary Biological Research," *Idosr J. Sci. Technol.*, 2020.

[4] H. Kaur, S. Mukherjee, F. Baluska, and S. C. Bhatla, "Regulatory roles of serotonin and melatonin in abiotic stress tolerance in plants," *Plant Signaling and Behavior*. 2015. doi: 10.1080/15592324.2015.1049788.

[5] N. Thumm, "Strategic patenting in biotechnology," *Technol. Anal. Strateg. Manag.*, 2004, doi: 10.1080/0953732042000295829.

[6] C. Popa, N. E. Babeanu, and O. Popa, "Intellectual Property and Transfer of Innovation in Biotechnology," in *Introduction to Biotech Entrepreneurship: From Idea to Business: A European Perspective*, 2019. doi: 10.1007/978-3-030-22141-6_12.

[7] A. Rémond, "Current trends in patenting biotechnological inventions before the European patent office," *World Pat. Inf.*, 1989, doi: 10.1016/0172-2190(89)90206-8.

[8] A. Schrell, H. Bauser, and H. Brunner, "Biotechnology patenting policy in the European Union as exemplified by the development in Germany," *Adv. Biochem. Eng. Biotechnol.*, 2007, doi: 10.1007/10_2007_049.

[9] R. J. Aerts, "The unitary patent and the Biotechnology Directive : is uniform protection of biotechnological inventions ensured ?," *J. Intellect. Prop. Law Pract.*, 2014.

[10] R. Nordin, A. Waris, and M. A. Witbrodt, "Law and economics: A new dimension in market regulation," *Int. Bus. Manag.*, 2012, doi: 10.3923/ibm.2012.158.167.

[11] C. Baumgartner, "Exclusion by inclusion? On difficulties with regard to an effective ethical assessment of patenting in the field of agricultural bio-technology," *J. Agric. Environ. Ethics*, 2006, doi: 10.1007/s10806-006-9006-9.

[12] K. Percy, "Patent protection for biotechnological inventions - A review of European and U.S. practice," *World Pat. Inf.*, 1989, doi: 10.1016/0172-2190(89)90142-7.

CHAPTER 9

COPYRIGHT LAWS IN INDIA AND DOCTRINE OF FAIR USE: PROBLEMS AND CHALLENGES

Bhirgu Raj Maurya, Assistant Professor
College of Law, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India
Email Id- brmourya.mourya321@gmail.com

ABSTRACT:
The purpose of copyright is to shield the creator of a work from any unauthorized duplication or commercialization of their work. On the one hand, copyright grants authors and producers a wide range of rights, but on the other, it places some restrictions on those same rights. One is not allowed by law to claim ownership of something that was made using someone else's work, expertise, or capital. The fundamental principle of copyright law is this. Copying a copyrighted work without the author's consent is considered a fair dealing. If a literary, dramatic, musical, or artistic work is fairly used for research, private study, criticism, or evaluation of that work or any other work, it does not violate the author's rights. The legal copying of a work protected by a copyright is known as fair dealing. Nowhere in copyright law is the word "fair dealing" defined, but the court has repeatedly outlined and clarified this theory. With the aid of domestic and international law as well as judicial interpretation, the purpose of this essay is to investigate the reach and application of the idea of fair dealing.

KEYWORDS:

Copyright, Fair use doctrine**,** TRIPS agreement, Unauthorized use**,** World Intellectual Property Organization (WIPO),

INTRODUCTION

The idea of fair use, fair dealing, or the unrestricted use of works protected by copyright for study and education is included into copyright laws all throughout the world. In order to balance the public interest of allowing students and researchers to use the copyrighted works to improve their knowledge with the private interests of copyright holders, this is done. Although copyright laws virtually everywhere in the world favor and permit the fair and free use of copyrighted content for study and research, the extent of such usage is not specifically outlined in these laws. In light of current legal regulations and case law from around the world, this article will make an effort to establish the maximum amount of copies of copyrighted content that can be made without paying fees to or requesting permission from copyright holders. This Article will examine the national and international legal laws pertaining to the copyright exception for education and research in order to achieve this. In order to assess generally how much copying of copyrighted materials would be permitted for education and research without permission or license payments, the article will analyze a variety of criteria and factors and their relative relevance. This article proposes a broad interpretation of fair and free use exemption even though it comes to the conclusion that it is impossible to precisely define the permitted limit of fair and free use, particularly when such use is for education and research [1]–[3].

Rights granted to copyrighted work's authors:

Reproduction Rights: This is the term used to describe the authors' ability to either forbid or permit the reproduction of their work in various ways.

Right to Create Adaptations (also known as Derivative Works) and Translation Rights: These rights include the ability to allow or disallow the translation of the original work into other languages and the ability to allow or disallow the production of new works based on the copyrighted work.

Rights to Performance and Display: This term refers to the authority to permit or forbid the public performance of a protected work of art.

Recording and Broadcasting Rights: The owner has the option of preventing or approving the recording of their work on CDs, cassettes, and videotapes as well as its radio, cable, or satellite broadcast.

The right to forbid or permit the sale or distribution of copies of the work is referred to as the "distribution right."

Understanding the concepts of copyright and fair use:

The owner of a copyrighted work also has certain moral rights, such as the ability to claim authorship (or, if the work is not his, the ability to deny authorship) and the ability to prevent or pursue damages in the event that the work is altered or mutilated.

Only original and innovative works are shielded by a copyright. By the former, it is understood that the author independently generates the relevant work, even though it may be of poor quality, lack originality, or be identical to some other work. Copyright will preserve the work as long as it is not copied. There is no hard and fast rule when it comes to innovation, but it should unquestionably be more inventive than, say, assembling a list of locals and their phone numbers. However, because it is an original work, a child's doodle is protected by copyright. There used to be another criteria for copyright called fixation, which meant that the expression of a work had to be in a visible, tangible form. This fixation requirement is no longer a prerequisite for copyright protection and has been eliminated. Although copyright registration is not required, it becomes crucial when there are competing claims since it provides the strongest possible proof that a work already exists. In essence, copyright only guards against the expression of an idea in a specific medium, like a book or article, not the idea itself. Ideas, processes, operational procedures, and mathematical concepts are not covered by copyright. This idea has been supported by the WTO's TRIPs Agreement and the WIPO Copyright Treaty. Facts are not protected by a copyright either, even if a lot of time and effort was put into finding them.

In addition to providing him with credit for his work, these rights are intended to allow the author of the copyrighted work to exploit it commercially. This raises the issue of how to safeguard the financial interests of those who produce such works. The following advice would be beneficial:

(a) Authors should be aware of the potential effects of the agreement regarding the transfer of ownership of the copyright to the publishers and make an effort to maintain some rights or provide a restricted license for the use of the copyright.
(b) They should be explicit about how and how much the agreement would affect the work's commercial and strategic worth.
(c) To continue using their work in print and digital formats, copyright owners should endeavor to hold onto as many rights as they can.
(d) If the objective is to publish the work in a certain form, such as hard copy, it is best to maintain the right to publish in additional formats, such as electronic.

Fair and Free Use of Copyrighted Materials for Education and Research:

The economic rights of copyright holders are generally acknowledged in national legislation and international copyright conventions, but there is an exception allowing fair and unrestricted use of protected items for research and teaching. In the context of education and research, this use typically entails copying works that are protected by intellectual property without the owners' consent or payment of any costs. Although there may be other uses in the context of education and research, such as reading aloud from a book or a poem, or performing some musical or dramatic works in a class or in other educational settings, these uses are less contentious and rarely give rise to legal disputes. Therefore, we will focus most of our discussion on fair and free uses of copyrighted content for study and instruction. Copyrighted content may be reproduced without permission or additional expenses (for example, by photocopying, scanning, recording in audio or video form, writing, etc.). In our conversation, the term "education" refers to both public and private instruction. We will now discuss the provisions from international agreements and national laws on the copyright exception for education and research after briefly defining the paper's scope [4], [5].

The copyright exception for education and research is contained in article 10(2) of the Berne Convention, which is the most established and largely ratified international convention on copyright. The clause permits the use of any literary or creative creation as an example while teaching. However, the provision mandates that such usage be reasonable and that the copied portion not exceed that which is necessary for the intended purpose. Additionally, the source must be cited along with the author's name, if accessible. Article 10(1) of the convention also permits the free use of copyrighted works for quotation, subject to the same requirements that the use be fair and the amount of material copied not exceed that which is necessary for the purpose. The quotation must also be from a published publication. This clause would undoubtedly apply to citations made from works protected by copyright for academic and research purposes. The convention's article 9(2) grants the state parties the authority to, among other things Providing that such reproduction does not conflict with the regular utilization of the works and does not unreasonably impair the legitimate interest of the author, national laws may enable the reproduction of copyrighted works in certain circumstances.7 The majority of countries' copyright laws clearly list reproduction for educational and research purposes as one of the "special cases," which is typically one of the' special cases'.

While the education and research exception is not particularly mentioned in other international copyright conventions, they do have a broad provision for acceptable exceptions that is modeled after article 9(2) of the Berne Convention. The general exclusions clause is sufficiently inclusive to include all exceptions, including the exception for research and education. For instance, article 13 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (the "TRIPS Agreement") permits the members of the World Trade Organization (WTO) to grant copyright exceptions in exceptional circumstances with similar requirements to those in the Berne Convention, namely, the exceptions must not conflict with the regular exploitation of the works and must not unreasonably prejudice the legitimate interests of copyright holders.8 Both article 16 of the WIPO Performances and Phonograms Treaty ("WPPT") and article 10 of the WIPO Copyright Treaty ("WCT") 9 have similar clauses. Therefore, as long as the exemption complies with the stated requirements, member states of these conventions may make any exceptions to the rights of copyright holders, including exceptions for education and research. These general provisions include three requirements, collectively referred to as the "three-step test." The majority of nations, notably the United States, Canada, and Oman, whose copyright laws are frequently mentioned in this article, are signatories to all of these agreements.

DISCUSSION

The History and Evolution of Fair Dealing

The fair dealing doctrine is fundamental to copyright law. It allows the use of works protected by copyright without fear of violation. According to the Law, these uses are legal. The defense of "fair dealing" originally arose as a doctrine of equity that permits the use of some copyright-eligible works when it would otherwise have been illegal and would have amounted to copyright infringement. The major goal of this doctrine is to stop the creative development for which the law was intended from stagnating. One of the most crucial elements of copyright law is the doctrine, which distinguishes between genuine, bona fide fair uses of a work and malicious, flagrant copy of the work. The TRIPS (Trade Related Aspects of Intellectual Property Rights) Agreement's Article 13 states that "Members shall confine limitations or exceptions to exclusive rights to certain special cases which do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the right holder." This is the reason for this clause's inclusion in the provision [6]–[8].

In certain defined circumstances, the Berne Convention permits exceptions to the rights in works covered by the Convention. According to Article 10(1) of the Berne Convention, "quotations"—including quotations from newspaper articles and periodicals in the form of press summaries—from works that have already been lawfully made available to the public are acceptable as long as they are made in a manner consistent with good faith and do not exceed the scope necessary to achieve the intended result.

Fair dealing was officially acknowledged in imperial copyright law for the first time in the UK Copyright Act of 1911. The 1911-adopted fair dealing provisions in the U.K. place three significant restrictions on the rights of owners: fair dealing for news reporting, fair dealing for criticism or review, and fair dealing for non-commercial research or private study. An extensive range of exceptions to the fair dealing defense are listed in the CDPA, 1988, which is the British copyright law. The following are exceptions: (a) research or private study; (b) current event reporting; and (c) critique or review.

The UK Copyright Law has been heavily influenced by Section 52 of the Indian Copyright Act, 1957, which deals with the notion of fair dealing. The defense of fair dealing is elaborately incorporated in Section 52 of India's Copyright Act, 1957, however the word is not defined anywhere in the Act. A fair use of a literary, dramatic, musical, or artistic work for research, private study, critique, or review, whether of that work or any other work, and for the purpose of reporting current events shall not be considered a violation of the author's rights. The phrase "any work" has been added to the copyright Amendment Act of 2012, expanding the range of works that can be utilized for private and individual purposes. The fair use clause has been expanded to include musical and cinematographic works with this amendment.

Investigation and Solitary Study:

This defense is justified by the notion that new works must be produced through research and study. Additionally, it acknowledges that non-commercial research and study typically do not conflict with the incentives and benefits that copyright offers to creators and owners. In practice, the defense aids in copyright's objective of increasing production of works. The dealing must be for the defendant's own research or study in order to qualify as defense. In Kartar Singh Giani v. Ladha Singh13, the court made the following observation regarding "research and scholarship": "All rules that restrict human effort and endeavor must be read in a sensible and liberal spirit. An offended party cannot ask the court to stop all research and grant highways, as well as all knowledge deserts, on the basis of the presence of copyright.

Analysis and criticism

Whether or not the work being reproduced is the one being criticized, the exception is still applicable. The work itself, a specific feature of it, or the idea or philosophy supporting it may be the subject of the critique or review. Therefore, it is acceptable to quote from other works that are comparable to the work being criticized in order to illustrate the criticism.

A quote from a work protected by copyright may be used for analysis or criticism. It might be difficult to determine where to draw the line between acceptable use for such objectives and The Indian Copyright Act, 1957's Section 52, which addresses the idea of fair dealing, has had a significant influence on the UK Copyright Law. The Copyright Act of 1957 in India elaborately includes the defense of fair dealing, although nowhere in the Act is the term defined. The author's rights are not violated when a literary, dramatic, musical, or artistic work is used fairly for research, private study, evaluation, or review whether of that particular work or of another or to report on current events. The copyright Amendment Act of 2012 now includes the phrase "any work," extending the list of works that may be used for individual and private purposes. With this change, the fair use clause has been extended to cover musical and visual works.

The argument that new works must be developed through investigation and study supports this defense. Furthermore, it recognizes that most times, non-commercial research and study do not conflict with the rewards and advantages that copyright provides to authors and owners. In reality, the defense helps copyright achieve its goal of expanding productivity. To qualify as a defense, the transaction must be for the defendant's own research or study. The court made the following comment regarding "research and scholarship" in Kartar Singh Giani v. Ladha Singh: All laws that limit human effort and endeavor must be interpreted liberally and sensibly. A party who has been insulted cannot expect a court to halt all research, grant highways, and knowledge deserts due to the existence of copyright.

The idea of justice

The determination of whether a specific transaction is fair will depend on a variety of elements.

If a fair-minded and truthful person would have handled the copyright work in the same way as the defendant did, for the relevant objectives, that is how fairness should be evaluated.25 It is not sufficient to simply deal with the task for the appropriate purpose; it must also be fair dealing for that purpose, the fairness of which must be assessed in regard to that purpose. Justice Rajgopala Ayyangar made the following observation in M/s Blackwood & Sons Ltd. v. A. N. Parasuraman"

Two points have been raised in relation to the definition of 'fair' in 'fair dealing'

(1) That there must be a desire to compete and to profit from that competition in order for there to be unfairness, and
(2) That unless the infringer's motivation was inappropriate or indirect, the transaction would be fair.

The authoritative Hubbard v. Vosper case from England has been cited by the courts on numerous occasions. In this situation, Lord Denning's statements provide a very detailed definition of fair dealing: "It is hard to explain what is "fair dealing." It has to do with the degree. The quantity and scope of the quotations and excerpts must be taken into consideration first. Are they overall too numerous and lengthy to be fair? Then you need to think about how they are used. It can be considered fair dealing if they serve as the foundation for commentary, criticism, or reviews. It might be unjust if they are utilized to deliver the same information as the author, but for a different goal. It might be unjust to take lengthy extracts and attach brief comments, so you must think about proportions. Long comments and brief snippets, however, might be fair. There may be additional factors to take into account. But in the end, everything must come down to personal preference. As with fair remark in libel law, so with fair dealing in copyright law.

The defendant in the case of Folsom v. Marsh had copied 353 pages from the plaintiff's book history of George Washington. The defendant's claim of fair use was denied by Joseph Story J, who further stated: "One may fairly reference from the original work, if his design be genuinely and honestly to use the portions for the purposes of fair and reasonable criticism. On the other hand, it is equally obvious that if he does this with the intention of replacing the use of the original work and substituting the review for it rather than criticizing it, it will be considered piracy. To put it another way, we must frequently pay attention to the nature and purposes of the selections because doing otherwise may harm sales, reduce profits, or replace the purposes of the original work [9]–[11].

In Ashdown v. Telegraph Ltd, the issue was whether or not the publication of specific excerpts from a political leader's diary that were leaked to the defendant and published in the defendant's newspaper violated copyright or fell under the fair dealing defense. The court determined that the publication did not fall under the fair dealing defense. The Court ruled in Williams & Wilkins Co. v. United States 29 that it was fair use for the litigant to photocopy articles from the offended party's medical journals for distribution to therapeutic scientists given that the copyright proprietor had not shown that the action was, or would be, significantly harmful to it.

Civic Chandran v. Ammini Amma made the following observation: "The phrase 'fair dealing' has not been defined as such in the Act, but Section 52(1), (a) and (b) expressly refers to 'fair dealing' of the work and does not refer to reproduction of the work. Consequently, it may be appropriate to hold that just excerpts or quotations from the work will be allowed even as fair dealing and that the reproduction of the entire work or a significant section of it as such will not typically be permitted. The number of excerpts or quotations that are permitted will, in each situation, depend on the specifics. It might not be appropriate to establish any strict guidelines to cover all situations when copyright infringement is suspected based on excerpts or quotations from the copyrighted work. The amount and worth of the matter taken in relation to the remarks or criticism must be taken into account by the court.

In ESPN Star Sports v. Global Broadcast New Ltd.31, Justice S. Ravindra Bhat ruled that the context, the length of the original work borrowed, and the intent could never be disregarded when determining whether a certain action constitutes fair dealing or not. Cases must be resolved based on the unique facts because there is no uniform rule or norm. What might be fair in one situation might not be in another, and vice versa. The development of a thumb rule involves some elusiveness.

The Delhi High Court made the following observation in the case of The Chancellor Masters and Scholars of the University of Oxford v. Narendra Publishing House & Ors.32: "Law mandates that not every effort or industry, or expending of skill, results in copyrightable work, but only those which create works that are somewhat different in character, involve some intellectual effort, and involve a certain degree of creativity." …If the succeeding or infringing work serves a purpose that is significantly different from the purpose of the earlier work, the theory of fair use allows for the reproduction of a copyrightable work.

The court stated as follows in Super Cassettes Industries Ltd. v. Chintamani Rao: "Therefore first and foremost, it needs to be 'fair dealing' of the goods in question. Thus, there is no unfairness in the way the copyrighted material is dealt with. Only the parts of the literary, dramatic, musical, or aesthetic work that are absolutely necessary for criticism or review may be used; nothing more. Obvious or covert, the goal shouldn't be to capitalize on someone else's hard work. The center of attention, the subject of an author's or producer's interest in a piece of work they may legitimately use for the purpose of critiquing or reviewing it or any other piece of work. It is prohibited to use someone else's work out of context. A genuine copying or lifting of a literary, dramatic, musical, or artistic work requires an intellectual contribution and original mental exercise on the part of the copycat, which should include either criticism or review of the lifted/copied work or of any other work. It is OK to copy someone else's work for any other reason, such as to add interest, beauty, or enjoyment to one's own software. The new work should necessarily be an exercise to either critique or review either the legitimately copied work or any other work, regardless of its underlying theme and emphasis. It is prohibited to take or replicate another person's literary, theatrical, musical, or creative work to the point where it is no longer "fair dealing" and is clearly an act of copying the work of another.

Dealing Honestly with Digital Works

One of the biggest difficulties facing copyright owners is the relationship between copyright and technology. The opportunities in a variety of fields, including media, entertainment, communication, marketing, and education, have increased thanks to technology. The ease of access to copyrighted content on the Internet, however, has raised serious concerns about copyright infringement. Three categories of copyright problems that are prevalent in the digital age include:

i. Concerns about a brand-new class of works, such as computer programs, databases, and multimedia creations;
ii. Concerns about the reproduction, distribution, and public communication of a work through digital media; and
iii. Concerns about the management and administration of copyright in the digital environment.

CONCLUSION

Regarding intellectual property rights, the goal of the law is to fulfill a dual function by defending both individual rights and societal interests. The two should be strikingly well-balanced. To balance the interests of each member, the TRIPS Agreement established the rules in this approach. The long-standing landmark case in Folsom v. Marsh has provided the doctrines of fair dealing and fair usage with some significant guidance. As time and technology change, the fair use concept necessitates regular study and reformulation of restrictions. In light of the most recent advancements in computer and digital technologies, it should be reviewed. Regardless of whether a work is digital or not, the owner's rights should always be properly preserved. Due to technological improvements, timely access to the job without any limits should be controlled. The copyright law needs to be changed in order to protect and encourage all forms of creation for the society's advancement in literature and culture. In conclusion, it is safe to say that the copyright law is

quite robust and effective in its current form. The Copyright Act offers protection for both copyright in its classic sense and copyright in its contemporary sense. However, it is essential to add newer laws to the existing ones in order to cope with current difficulties and problems in order to face the challenges posed by changing times and technology.

REFERENCES

[1] M. Goodyear, "Adapting Indian Copyright: Bollywood, Indian Cultural Adaptation, and the Path to Economic Development," *SSRN Electron. J.*, 2020, doi: 10.2139/ssrn.3645081.

[2] N. Ahmad and S. Chaturvedi, "Originality requirement and copyright regime of music: A comparative overview of Indian perspective," *Inf. Commun. Technol. Law*, 2013, doi: 10.1080/13600834.2013.814238.

[3] B. K. Lenin, "Natural Copyright v. Positive Copyright," *SSRN Electron. J.*, 2012, doi: 10.2139/ssrn.1665340.

[4] J. H. Reichman, "Intellectual Property in the Twenty-First Century: Will the Developing Countries Lead or Follow?*," in *Intellectual Property Rights*, 2014. doi: 10.1093/acprof:oso/9780199660759.003.0004.

[5] P. Thaker, "Domain Name and Copyright Issues on Internet: A Trans-Jurisdictional Perspective," *SSRN Electron. J.*, 2016, doi: 10.2139/ssrn.2802421.

[6] R. Garrett Rice, "Give me back my money: A proposed amendment to delaware's prepayment system in statutory appraisal cases," *Bus. Lawyer*, 2018, doi: 10.2139/ssrn.3067436.

[7] M. Faure and W. Ma, "Investor-state arbitration," in *China, the EU and International Investment Law*, 2019. doi: 10.4324/9780429322334-10.

[8] M. Peña and M. Lizardo, "Extractive industry in the Dominican Republic: A history of growth, regression and recovery," *Extr. Ind. Soc.*, 2018, doi: 10.1016/j.exis.2017.03.005.

[9] A. Sen, "The idea of justice: A response," *Philos. Soc. Crit.*, 2015, doi: 10.1177/0191453714553501.

[10] O. Bird, "The idea of justice," in *Plato and Modern Law*, 2017. doi: 10.1177/0191453714553501.

[11] S. Deneulin, "Development and the limits of Amartya Sen's The Idea of Justice," *Third World Q.*, 2011, doi: 10.1080/01436597.2011.567008.

CHAPTER 10

PATENTS AND PHARMACEUTICAL INVENTIONS IN INDIA: PROBLEMS, CHALLENGES AND SOLUTIONS

Yogesh Chandra Gupta, Assistant Professor
College of Law, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India
Email Id- cognitor.yogesh@gmail.com

ABSTRACT:
One of the most common types of intellectual property rights (IPRs) utilized by the pharmaceutical business is the patent. Other IPRs that are available in India include copyright, trademarks, industrial designs, and geographical indications. The Patents Act, 1970 governs the granting of patents in India. After India joined the TRIPS (Trade Related Aspects of Intellectual Property Rights) agreement in 1995, the Indian patent system underwent significant revisions, including the addition of product patents and a 20-year patent term extension. This review gives a brief outline of how India's patent laws have changed as a result of the TRIPS agreement. Biotechnology has impacted human life in many ways through innovations that have improved his quality of life. Biotechnology receives support from numerous scientific disciplines and in turn, produces goods that progress those disciplines. In order to give researchers a basic understanding of pharmaceutical patenting, the criteria for patentability and several types of pharmaceutical patents now awarded in India are discussed. With appropriate examples, other pertinent clauses linked to the patenting of pharmaceuticals, such as section 3(d), the transfer of patent rights, compulsory licensing, etc., are discussed.

KEYWORDS:

Biotechnology, Patents, Pharmaceutical patenting, TRIPS agreement, World Intellectual Property Organization (WIPO),

INTRODUCTION

The high-tech pharmaceutical business in India has been growing steadily for the past three decades and is a prosperous sector of the economy. The contemporary industry participants are made up of a number of privately held Indian businesses that have gained a sizeable share of the domestic pharmaceutical market as a result of favorable government regulations and little competition from outside, among other things. However, as they start to emerge from domestic markets and prepare for global competition, Indian industries are changing as a result of the liberalization of the Indian economy. As India opens its markets to international trade, one sector that is being compelled to review its long-term strategy and business models is the pharmaceutical industry in India. Due to the increased awareness of the necessity to secure significant expenditures in research and development (R&D), factors like intellectual property protection are becoming more and more important. In India, efforts are being undertaken to address issues with the limited enforceability of current intellectual property laws, and the Indian government is working to develop a patent system that is friendly to technical advancements and is consistent with its international commitments [1]–[3].

Indian Patent Law: The practical components of the patent system are discussed first, and the fundamental aspects must be well-known. The major goal of creating a patent system was to grant an inventor full ownership of their idea for a period ranging from several years, depending on the national legal system. When the public can access the patent, the new inventions they support to encourage and stimulate the technical process and subsequent innovation are successful. It is legal for nations or groupings of nations to claim that a patent is an innovation's sole right. If a product or method is made, used, offered for sale, sold, or imported without the owner's consent (a license), it is prohibited in commerce or business. The patent system makes it obvious how an inventor can safeguard his patent and that he must respect other advances by taking part in them. Please be aware that the patent itself is a regional statute that only applies partially to one or a small number of nations. The patent is exclusively territorial, hence it is never a "world patent". As a result,

choosing the territory and region in which to file for a patent involves making a decision on its protection. The demand for territory depends on a number of factors, including the country's market potential, the location of the industrial rival, the location of the research facility, and other locations. In order to submit a patent application, it is essential. A unit of invention that can be used in industry and meet the fundamental requirements for patentability must be present. The primary goal is novelty in the majority of nations; however, some nations also apply a different threshold of uniqueness based on whether an invention is made inside or outside of their borders. The innovation should outperform any existing patent in the same field in terms of novelty and technique. Non-evidence is one of the most difficult concepts to define in a patent. Your part in determining the technology's degree. The patent examiner can reveal prior art, but they can also tell if the inventor has the necessary abilities. Patent protection is crucial in the pharmaceutical industry, which promotes the creation of new medications for illnesses that are problematic in these nations. The pharmaceutical sector invests $1 billion to create new drugs thanks to patent protection. The first patent rights were granted in India in 1856, and all earlier laws were repealed with the passage of the Patent Act 1970 ("the Patents Act") in 1970.

India has also ratified the 1970 Patent Cooperation Treaty and the 1883 Paris Convention for the protection of Industrial Property. According to the Patents Act, any invention that meets the requirements of newness, non-obviousness, and utility may be the subject of a patent. Methods for agriculture or horticulture, procedures for the medical, surgical, curative, prophylactic, or other treatment of people, animals, or plants, or substances obtained by a simple admixture, resulting only in the aggregation of the properties of the components, etc. are a few examples of non-patentable inventions under the Patents Act. When it comes to pharmaceuticals, patents are only issued for the methods used to manufacture substances that are intended for use as food, drugs, or medicines, or compounds created through chemical processes. Patents are not issued for the substances themselves. As a result, Indian law currently does not offer patent protection to medicinal products. The Patents and Designs Act of 1911 established a system of product patents for all inventions in India. The government did, however, enact the New Patents Act in 1970, which disqualified agrochemicals and pharmaceuticals from being eligible for patents.

This exclusion was put in place to reduce India's reliance on foreign imports for formulations and bulk medications and to encourage the growth of a locally based pharmaceutical industry. As a result, molecules—which are byproducts of chemical reactions are not patentable in India under the country's current patent laws. The products that can be patented in India are highly constrained by this restriction, together with the restriction on simple admixtures that result in an aggregation of qualities without any synergistic behavior between the components molecules, ensuring the sale of the final product It takes a very long time for a pharmaceutical product to develop and reach the market for usage by people. It typically takes 10 to 15 years to develop a new dosage form, during which time the effectiveness and safety of the drug must be established through a different stage of a clinical trial.

It took the new drug a long time to reach the market, which is a drawback in the pharmaceutical industry. The purpose of a patent is to safeguard an innovation, whether it be local or global. However, for pharmaceutical products, there must be some flexibility in how the exclusive right is reduced so as not to raise the price of the medication. The globe is moving toward the differential pricing of medications, which lowers the price of medication in developing nations. In comparison to wealthy countries, the revenue from emerging countries is quite small only about 1%. Research incentives come primarily from industrialized countries, with developing nations providing the smallest amounts. The provision of health care is not the sole challenge; additional issues include inadequate infrastructure, poor sanitation, and a lack of money for even generic medications [4]–[6].

The idea behind an innovation patent is a fixed-term agreement in which the corporation accepts the monopoly that confers substantial financial benefits, creating a significant incentive for innovation. Research and development are significantly supported by manufacturers' and producers' profits, which also stimulates the pharmaceutical industry's interest in the creation of the new molecule. Because there is no capacity for

research and development to produce direct consumer revenue, a balance between the two is economically required. It provides the market with a very strong income indirectly

The Application's Format

The ideal conditions for patentability must be met in order to fill out an application, and the application must be filed by the appropriate authorities for a particular nation or group of nations. When submitting the application, try to cover it with the following sections with a swift emphasis.

1. Claim
2. A thorough explanation (or specification)
3. Images
4. Background
5. Abstract
6. Synopsis

Whoever is making the request; the title itself should be original and descriptive. The topic of the application is clearly stated in the title. All priority information, such as the listing of similar applications, should be included in the patent application itself. The judges and the patent examiner are essentially the application's target audience. In addition to them, the patent agent's client and the inventor are both public figures. The first agent's claims for the inventor in the patent filing must be written in simple language and have a minimum of three claims. In the initial disclosure meeting, the patent agent discusses a diagram with the inventor. The innovator can find it challenging to understand the language or terminology utilized for the filing. As a result, the agent provides an easy-to-understand explanation using drawings or another diagram. In reality, the agents draft numerous drafts of the communication before choosing the best one to move forward with. The application's legal component is the clam. The agent must set aside time to create a quality content draft.

Even if they have functional qualities, "actives" created through chemical synthesis are not as such patentable in India. In India, typical medicinal formulations in which the constituents act just as admixtures are likewise ineligible for patents. In these circumstances, just the process, or the way the product was made, is patentable. The absence of product patent protection in the pharmaceutical and agrochemical industries had a significant impact on influence on the Indian pharmaceutical industry and led to the growth of significant skill in the reverse engineering of medicines that are goods that can be patented elsewhere in the industrialized world but cannot be protected in India. As a result, the Indian pharmaceutical business quickly expanded by creating less expensive versions of certain medications that had domestic patents. Once those domestic patents had expired, the company then aggressively entered the global market with generic medications. The Patents Act also includes a number of measures to stop the infringement of patent rights and to improve medicine availability. For processes or methods of making substances that are intended for use as food, medicine, or drugs or have the potential to be used in those ways, a patent is valid for seven years from the date of filing or five years from the date the patent was sealed, whichever comes first. All other invention patents are awarded for 14 years from the date of filing, barring evidence that the patent is defective.

DISCUSSION

Indian Patentability Requirement:

Section 2(1)(j) of the Indian Patent Act defines an invention as "a new product or process involving an inventive step and capable of industrial application." Innovation is the successful application of novel concepts as a useful tool or procedure by any individual utilizing their own intelligence. Although all innovations are inventions, not all innovations are patented inventions. According to the Indian Patent Act, a patent can only be issued for inventions that meet the following criteria for patentability and come under the category of patentable subject matter

1. It needs to be novel, i.e.
2. It must include an original step, such as nonobviousness,
3. It must be able to be used in an industrial setting, i.e.

The definition of the patentable subject matter is typically expressed in terms of exceptions to patentability and is established by statute. The innovation must thus not come under the definitions of "Non-patentable Inventions" outlined in Sections (3) and (4) of the Patents Act, 1970.

Subject matter not patentable:

The mere finding of any new form, new characteristic, or new application for a substance that is already known but which does not increase the drug's already-known effectiveness, such as salts, esters, polymorphs, metabolites, isomers, mixtures of isomers, complexes, combinations, etc. Other compounds of recognized drugs are treated similarly until their differences in efficacy-related characteristics are obvious. simply using a machine, device, or process that is known, unless it produces a novel output or makes use of at least one novel reactant.

1. A frivolous invention is one that makes claims that are manifestly at odds with all accepted natural laws, such as a perpetual motion machine or a vehicle that can move at the speed of light.
2. Inventions pertaining to atomic energy since the Central Government is solely responsible for atomic energy development.
3. A new variety of gambling machine, for example, that could have a primary usage or intended use that is against the public.
4. Discovery of natural resources materials, live organisms, or inanimate objects.
5. An innovation that, in actuality, duplicates or aggregates previously known characteristics of a conventionally known component or components.
6. Scientific theories, mathematical formulas, and other discoveries are not inventions, but innovations produced using them are patentable.
7. A substance created by simple mixing of components, which aggregates qualities.
8. Simple arrangement, re-arrangement, or duplicate of well-known devices that all operate separately and reliably without altering the outcome.
9. A technique used in horticulture or agriculture.
10. Any procedure used to treat people or animals in a medical, surgical, curative, preventative, or other manner.
11. Seeds, species, and other parts of plants and animals, as well as basically all biological processes used in the production or division of plants and animals, aside from microorganisms.
12. A computer program in and of itself, unrelated to its technical use in business or integration with hardware.
13. A technique used in math, business, or algorithms.
14. Any artistic effort, whether it be a literary, theatrical, musical, or artistic work, including films and television shows.
15. Just a plan, rule, or strategy for doing out an act of the mind or a game.
16. Presentation of information and integrated circuit topography.
17. Innovations that are harmful to India's security interests.
18. The primary and undeniable requirement for patentability is novelty. Only the absence of anything can be proven; it cannot be established or proven.

What is not brand-new is now termed to be PRIOR ART, which is already in the public domain and not patentable. Simply said, prior art is all information that was known before the relevant filing date or priority date of a patent application, whether it was communicated orally, in writing, or via usage. A matter of discussion once more is what constitutes the previous art or state of the art, for instance, biopiracy or bioprospecting of traditional knowledge. The Patents Act does not define "state of the art," so the Patent Office uses the broad principles listed below to assess an invention's novelty during the examination process

by applying the provisions of Section 13 read with the provisions of Sections 29 to 34:An invention is not deemed innovative (a) if it has been disclosed in any of the specifications submitted in support of an Indian patent application on or after January 1, 1912, and such disclosure occurred before the date of the application. If it has been claimed in any claim of any other complete specification (CS) filed in India, which was filed before the date of application though published after the date of that application, it has been anticipated by publication made before the date of filing or the date of priority of the application in any of the documents in any country. The invention must include an innovative step that is nonobvious to a person competent in that particular field (inventive means the outcome of a creative thought, step means it must be noticeable) art, e.g. It is expected of a tailor to have knowledge and competence to cut cloth to fulfill the needs of fashion. Such adaptability is not inventiveness. If the invention was obvious to a person of ordinary skill in the art on the date of priority, it is not considered to have involved an inventive step [7]–[9]. The Act defines "inventive step" as a feature of an invention that involves technical advances compared to the prior art or has economic significance or both and renders the invention not obvious to a person skilled in the art. Inventive step is evaluated on the basis of published documents or other sources.

Additionally, section 2(1) (l) defines a "new invention" as "any invention or technology that has not been previously disclosed by publication in any document or used in the United States or elsewhere in the world before the date of filing of patent application with CS, i.e. the subject matter has not passed into the public domain or that it does not form part of the state of the art." Utility (industrial applicability): According to Section 2(1) (ac) of the Patents Act of 1970, the phrase "capable of industrial application" refers to an invention's ability to be produced or employed in a particular industry. In essence, it means that the invention should be useful in some way. This explains why theorems and algorithms are not subject to patent protection. It also relates to the need that the invention be duplicable. Granting an invention, a monopoly right has only one goal.

The specification is created with consideration for the current state of technology at the time of publishing, according to the following construction principle. It must be created with consideration for the topic at hand and taken into account as a whole, including any accompanying drawings. The purpose of the claims is to define the invention, make clear what the inventor considers novel and for which he seeks to obtain protection. The usual rule is that nothing is claimed until it is explicitly disclaimed. Unless the complete combination is seized, there is no infringement if the claim is only for a combination. If a minor component is to be safeguarded, it must be claimed even when it is brand-new. A subordinate part can only be claimed if it is itself brand-new, inventive, and patented. The banned field must be found in the language of the claims and not elsewhere. The claims must be interpreted as a part of the overall specification and not as a separate document. A patent holder who describes an invention in the body of the specification does not have a monopoly right until the invention is asserted in the claims.

A claim's scope is not limited or clarified by reference to the body of specification if its language is clear and unambiguous. The specification is created with consideration for the current state of technology at the time of publishing, according to the following construction principle. It must be created with consideration for the topic at hand and taken into account as a whole, including any accompanying drawings. The purpose of the claims is to define the invention, make clear what the inventor considers novel and for which he seeks to obtain protection. The usual rule is that nothing is claimed until it is explicitly disclaimed. Unless the complete combination is seized, there is no infringement if the claim is only for a combination. If a minor component is to be safeguarded, it must be claimed even when it is brand-new. A subordinate part can only be claimed if it is itself brand-new, inventive, and patented. The banned field must be found in the language of the claims and not elsewhere. The claims must be interpreted as a part of the overall specification and not as a separate document. A patent holder who describes an invention in the body of the specification does not have a monopoly right until the invention is asserted in the claims. Follow-up of submitted patent applications: Following the filing of a patent application, the following actions may be taken:

Publication: In accordance with Section 11A, each patent application must be published in the Patent Office Official Journal and made available for public inspection after a period of 18 months from the date of filing or date of priority, whichever comes first. (Rule 27) With the exception of applications where:

(a) A secrecy directive is issued (Section 35);
(b) Was given up [Section 9(1)]
(c) Was removed three months before the 18-month period.

Early Publication:

Any time after the application is filed, a request for early publication under Section 11(A)(2) may be made in Form 9 to speed up the issuance of a patent. In response to such a request, the application will be published one month after the request date. Pre-grant opposition: Pre-grant opposition can be filed by anybody within three months of the application's publication date [Section 25(1); Rule 55(1)] or before the patent is granted, whichever comes first. Although there is no set fee or format, the representation must be in writing and include the information below:

(a) Observation concerning opposition;
(b) Supporting documentation, if available
(c) Optional Request for hearing

The Controller must proceed by simultaneously rejecting the representation and granting the patent or accepting the representation and refusing to grant the patent after taking into account the opponent's representation, the applicant's response, and any supporting evidence (if any) after hearing both parties (if hearing is requested) [Rule 55(6)]. An appeal against the Controller's decision may be filed by the applicant. A similar appeal may be made to the Chennai-based Intellectual Property Appellate Board (IPAB).

Demanding Examination:

Any interested party or the applicant must submit a request for examination after publication and within 48 months of the application's filing date or priority date, whichever is sooner, before the application can be examined. The application will be regarded as withdrawn by the applicant if no request is made. A request may be submitted in duplicate along with the required payment (INR 2500) in Form 18 [Section 11B; Rules 20(4)(ii) and 24B(1)(i)].

Examining: Following a thorough review of the patent application's novelty requirements,

The patent examiner will issue the first examination report (FER) and transmit it, along with the application and specification, to the applicant or their authorized representative [Section 12; 24B(3)]. The issued FER provides the applicant with a chance to respond to and override the examiner's objections within 12 months of the date on which the FER was given to the applicant [Rule 24B(4)(iii)]. The Controller has the authority to refuse the award of a patent in the event of an unjustified answer, to change the claim(s), or to issue an order dividing the application [Section 15, 16].

Patent granted:

The Controller will grant parent once all FER objections have been resolved. The Indian Patents and Designs Act, 1911(2 of 1911), which governs patents in India, shall assign a serial number to the application upon the grant of a patent.

Opposition after Grant [Under Section 25(2)]

Any interested party may register a post-grant challenge to the Controller against the grant of the patent at any time after the grant or before the lapse of one year from the date of publication of the grant [Section 43(2)]. This opposition may be based on any of the grounds (a) to (k) of Section 25(2). Following information should be included in the post grant opposition:

(a) Form 7 (in duplicate) is required for notice of opposition per Rule 55A;
(b) Evidence about opposition; Written statement describing the nature of the interest (in triplicate) [Rule 57];
(c) Regulatory fees, or INR 1500
(d) Request for hearing (Optional) Decision of the opposition board:
(e) The Controller shall, by order, establish an Opposition Board (OB) upon receipt of a notice of opposition [Section 25(3)(b)].

A board with three members, and designate one of the members as chairman. Following the conclusion of the proceedings and the development of the case for hearing, the OB will analyze the situation and submit a report. The patent will either be retained, altered, or canceled by order upon receipt of the report and following hearings with both the patentee and the opponent [Section 25(4)]. A requester has the right to appeal a controller's decision. Such an appeal may be sent to the IPAB in Chennai along with the required filing fee of 1500 INR.

Patent Renewal and Maintenance:

The renewal costs for a patent are due at the end of the second year from the patent's issue date or of any consecutive year, and they must be paid to the patent office prior to the end of the second or succeeding year. The relevant patent's number, date, and the year for which the fee is being paid must be provided when paying the renewal fee. It is possible to pay the annual renewal fees (Table 2) in advance for contracts lasting two or more years. If the request for extension is granted, the term for payment of renewal fees may be extended for a period of up to six months [10]–[12]. As shown in Figure 1: Patent Filing Procedure in India [IJCRT201028].

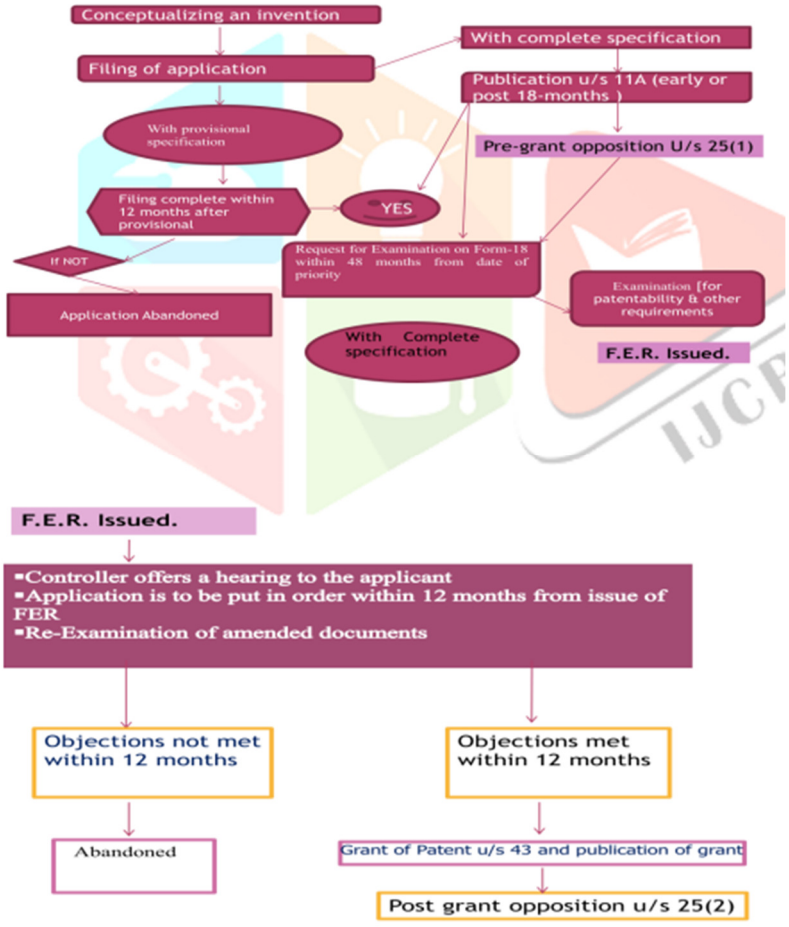

Figure 1: Patent Filing Procedure in India [IJCRT201028].

CONCLUSION

According to Indian patent law, the purpose of patent protection is to restrict the capacity of parties other than the inventor to utilize, market, and produce the invention for their own personal advantage or interest. The inventor can preserve their own creations for their own use thanks to this protection. However, it also grants the inventor the right to monetize it for additional financial gain. But only after the creator files the technique and invention with the patent office, either in person or online, do all these opportunities and protections become applicable. By registering his inventions, the inventor displays his expertise and innovative spirit, and by doing so, he also encourages other inventors to continue thinking, working, and innovating in order to improve the world.

REFERENCES

[1] H. Madhavan and J. P. Gaudillière, "Reformulation and Appropriation of Traditional Knowledge in Industrial Ayurveda: The Trajectory of Jeevani," *East Asian Sci. Technol. Soc.*, 2020, doi: 10.1215/18752160-8771025.

[2] N. Sohrabji and K. Maloney, "Section 3(D) and pharmaceutical patents in India," *J. Intellect. Prop. Rights*, 2020, doi: 10.56042/jipr.v25i3-4.65198.

[3] G. M. Raj, R. Priyadarshini, and J. Mathaiyan, "Drug patents and intellectual property rights," *European Journal of Clinical Pharmacology*. 2015. doi: 10.1007/s00228-015-1811-5.

[4] S. K. Chaudhuri, "Patents on medical innovations and value pluralism in India: Paradoxes and choices," *Asian Biotechnol. Dev. Rev.*, 2020.

[5] A. K. Sukumaran, C. Vijayabanu, R. Renganathan, and C. A. Balachandran S., "Case study on patent issues in Indian pharmaceutical industry," *Res. J. Pharm. Biol. Chem. Sci.*, 2016.

[6] G. Tulasi and B. Rao, "A detailed study of patent system for protection of inventions," *Indian Journal of Pharmaceutical Sciences*. 2008. doi: 10.4103/0250-474X.45390.

[7] A. Mallick, S. Chandra Santra, and A. Chandra Samal, "An Overview on Indian Patents on Biotechnology," *Recent Pat. Biotechnol.*, 2016, doi: 10.2174/1872208310666160325113553.

[8] G. B. Reddy and H. A. Kadri, "Local working of patents - Law and implementation in India," *J. Intellect. Prop. Rights*, 2013.

[9] B. Lehman, "The pharmaceutical industry and the patent system," *Int. Intellect. Prop. Inst.*, 2003.

[10] K. K. Moharana and D. L. Das, "Intellectual Property Right for Making in India: A Legal Right," *Int. J. Trend Sci. Res. Dev.*, 2018, doi: 10.31142/ijtsrd17018.

[11] M. Bele and A. Latif, "Exploring the Provisions for Precluding Patent Evergreening: Path Forward after the Glivec Saga," *Social Science Research Network*. 2016.

[12] R. Rastogi and V. Kumar, "The Influence of TRIPS Compliant Patent Laws on Indian Pharmaceutical Industry," *Adhyayan A J. Manag. Sci.*, 2014, doi: 10.21567/adhyayan.v4i1.10192.

CHAPTER 11

COMPULSORY LICENSING IN INDIA: PROCEDURES AND CONSTRAINTS

Pradip Kumar Kashyap, Assistant Professor
College of Law, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India
Email Id- pradiprgnul@gmail.com

ABSTRACT:

According to the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS), all contracting parties have the freedom to issue licenses for the production of pharmaceutical products in accordance with their public policy goals. Even if the patent holder (innovator) has an exclusive right to the markets, licenses may be granted under specific circumstances. In March 2012, India made use of this latitude by issuing its first compulsory license to a domestic company for the production and sale of a generic anti-cancer medicine. The Intellectual Property Appellate Board heard arguments against this move, but in March 2013 it was decided that the forced license should be issued. This essay describes the first attempt by the Indian patent system to find a balance between the legal and financial rights of the inventor and the government's public interest policy. The report makes an effort to outline the numerous concerns and difficulties surrounding this situation. An analysis of the compulsory licensing clauses in the TRIPS agreement and the Indian Patent Act demonstrates that there is no need to always put public health interests at risk and that India's intellectual property system is compliant with the World Trade Organization (WTO). The authors use a cost-benefit analysis strategy to analyze the potential consequences for the various stakeholders.

KEYWORDS:

Compulsory licensing, Exclusive Rights, Public Interest, TRIPS, World Trade Organization (WTO)

INTRODUCTION

Third in terms of production volume (9.3% of the worldwide share), India is one of the biggest producers of pharmaceuticals in the world. However, according to the Department of Industrial Policy and Promotion (2010), 65% of Indians still do not have access to basic medical care. This is hardly surprising given India's expensive medicine prices, low-income levels, and inadequate public insurance coverage. In addition, India is responsible for 21% of the world's disease burden (World Health Organization, 2012). Due to poor living conditions, poor sanitation and hygiene standards, and limited understanding of diseases and health-care measures, developing nations like India typically have a high frequency of diseases. In India, the prevalence of some diseases is likewise very high. For instance, 2.5 million people in India have HIV/AIDS, which is the greatest number of documented HIV/AIDS cases in the entire South Asian region (Department of Industrial Policy and Promotion, 2010). Additionally, between 2 million and 2 million people in India suffer from cancer.

Additionally, a number of ailments that are common in developing nations, such as tuberculosis, malaria, dengue fever, and diarrhea, also plague India. It was anticipated that improving intellectual property (IP) laws and implementing product-based patents in developing nations would lead to innovation and the creation of medications that would be especially valuable to poor nations. However, access to pre-existing medications is becoming increasingly difficult as a result of a tougher IP policy, while the development of new drugs in developing nations has been constrained [1]–[3].

At the core of any patent system is the duty of legislators to find a balance between making an innovation accessible to the general public in a commercially viable form for a fair price while providing just compensation to the inventor. A government may use compulsory licensing as a mechanism to let third parties (other than the patent holder) to create and market a copyrighted good or method without the patent owner's permission. Compulsory licensing make ensuring that the public's right to inexpensive access to medications

is not compromised by the innovator's exclusive rights. The present research examines the many problems and difficulties of India's first case of forced licensing.

The applicable international and national legal framework for mandatory licensing is discussed in more detail in Section 1. Section 2 lists cases of forced licensing that have been employed in the post-TRIPS era on a global scale. The legal issues raised by the decision are covered in Section 3 while the economic repercussions for the Indian pharmaceutical industry are covered in Section 4. The discussion of the stakeholders' competing interests finishes Section 5. For developing nations like India to continue to provide access to medications while adhering to international agreements, mandatory licensing appears to be a plausible alternative that may be investigated.

Legal Requirements

The TRIPS Agreement, which has its roots in the Paris Convention, provides the legal foundation for forced licensing. Even as it transitioned from a process-based patent regime to a product-based one for pharmaceuticals in line with the TRIPS Agreement, India included clauses allowing compulsory licensing in its national legislation.

The Paris Convention governs

Each contracting State was required by the Paris Convention of 1883 to adopt legislative means to grant compulsory licenses. The Paris Convention, which was first adopted in 1883 and revised in 1979, states in Article 5A(2) that "each country of the Union shall have the right to take legislative measures providing for the grant of compulsory license to prevent abuses that may result from the exercise of the exclusive rights conferred by the patent, for example, failure to work". The Convention allowed for the issuance of compulsory licenses by the member nations at the very least in situations where an issued patent did not function in a nation or union. Therefore, the idea of compulsory licensing was present before the WTO. In truth, the United Kingdom of Great Britain and Ireland, as it was known at the time, had the idea of a compulsory license as early as the 1850s.

Article 30 of the TRIPS Agreement, which allows for certain restrictions on the rights granted by patents as long as they don't "unreasonably prejudice the legitimate interests of the patent owner, taking into account the legitimate interests of third parties," covers compulsory licensing. The article establishes the legal foundation for giving compulsory licenses; (b) Article 31, which refers to compulsory licensing as "other use without the rightholder's authorization," but only permits nations to do so under specific circumstances. According to Article 31, the following conditions must be met in order to invoke a compulsory license:

(a) The party requesting a compulsory license must first attempt to negotiate permission from the rights holder with "reasonable commercial terms and conditions";
(b) However, may be waived in cases of "national emergency or other circumstances of extreme urgency, or in cases of public non-commercial use"; and
(c) The use authorized by the compulsory license must be "pretty much"

The Indian Patents Act, 1970, was revised in 1999, 2002, and 2005 in accordance with Indian national law, making India's patent system TRIPS compliant. Patent holders now have more power over their inventions and their exclusive markets according to the new legislation. In order to protect public health and increase access to medications, the flexibilities offered by TRIPS were integrated into the Indian Patents Act, 1970. The following chapters on mandatory licensing are pertinent: Chapter XVI, which covers the topic of required licenses. The same is covered by four sections of the Patents Act:

(i) Section 84, under which the Controller issues general compulsory licenses on application;
(a) Section 91, under which the Controller issues compulsory licenses for related patents on application; and
(b) Section 92, under which the Controller issues compulsory licenses based on a notification from the Central Government of circumstances of national emergency or in circumstances of imminent danger.

(c) The Central Government may purchase inventions under Chapter XVII, which also contains procedures for using inventions for governmental purposes.
(d) The modalities of issuing and maintaining compulsory licenses are covered by Chapter VIII of the Patent Rules, which were adopted in 2003 and revised in 2006 (Department of Industrial Policy and Promotion, 2010).

The issuance of mandatory licenses, broken down by nation. Several industrialized nations initially offered mandatory permits, and more subsequently, some developing nations. About 52 nations have given mandatory licenses since the Doha Declaration (Department of Industrial Policy and Promotion, 2010). Due to the widespread prevalence of the conditions that the prescriptions were designed to treat, the obligatory licenses have mainly applied to medications for which there was an excessive demand. Using the licenses, governments hoped to make these medications accessible to the general people for a fair price.

When price discussions with the American business Merck & Co. failed, Brazil, for instance, issued its first mandatory license for the AIDS/HIV medicine Efavirenz in 2007. The business had the Brazilian patent on the medication Stocrin, which was sold under the trade name Efavirenz. The Brazilian government offered Stocrin as part of their free AIDS prevention and treatment program.Contrarily, spending on anti-retroviral medications had nearly doubled since 2001 to US$495 million by 2005.

Brazilian officials resisted Merck's offer of a 30 percent discount on the current price of US$1.59 per tablet of Stocrin in favor of US$0.65. Compulsory license was awarded after Merck's price discussions failed. The government was permitted to import Stocrin-free generic Efavirenz from India under the terms of the compulsory license. At the time, a year's worth of Stocrin cost US$580 but a year's worth of generic Efavirenz only cost US$166. Brazil's Health Ministry predicted that importing Indian-made generic Efavirenz will enable it to save costs by up to US$236.8 million by 2012 (International Centre for Trade and Sustainable Development, 2007).

DISCUSSION

India's Compulsory Licensing

The Indian Patent Act has been modified to make the issuance of compulsory license consistent with the TRIPS Agreement in order to adhere to international responsibilities. Sections 84 through 94 of the Indian Patents Act, 1970 deal with forced licensing.

Any time after the period of three years from the day the patent was granted a request for a compulsory license may be submitted. It must include a statement outlining the applicant's interest in the matter, as well as any other information that may be required and the basis for the application.

(a) The public's reasonable expectations in relation to the patented invention have not been met.
(b) The patented invention cannot be purchased by the general public for a fair price.
(c) The patented invention hasn't been successful in India.

In a historic case involving Bayer Corporation v. NATCO Pharma Ltd in 2012, India issued its first-ever Compulsory License. This action has had a significant influence on the pharmaceutical sector.

NATCO Pharma Ltd. v. Bayer Corporation

The corporate headquarters of the pharmaceutical firm Bayer Corp. are in Leverkusen, Germany. It developed "Sorafenib Tosylate," a cancer medication used mostly to treat kidney cancer. The Indian Patent Office issued a patent to Nexavar in 2008, and Bayer Corp. marketed the drug under the name "Nexavar" during that time. In contrast, NATCO Pharma Ltd. (Natco) is an Indian pharmaceutical business that specializes in the production of drugs and medications. Natco approached Bayer Corp. in December 2010 to request a voluntary license to produce "Nexavar." Unfortunately, the request was turned down by Bayer Corp. Later, in 2011, Natco made an application to the Controller for the issuance of a compulsory license9 under Section 84 of the Indian Patents Act, 1970. If the aforementioned matter is covered by S. 84, which lists the requirements

for obtaining compulsory license, the controller was asked to respond. In 2011, Natco submitted a request for mandatory licensing to the controller. On March 9, 2012, the controller granted Natco a forced license. Bayer Corp. complained to the former Intellectual Property Appellate Board (IPAB) about the controller's judgment. By granting Natco a forced license, the Controller and IPAB made decisions that were fundamentally comparable to one another; the supporting evidence is provided below.

NATCO makes an effort to secure a voluntary license. Bayer Corp argued that Natco had not made reasonable attempts to negotiate following the initial proposal and that the grant of a forced license cannot be given before considering the possibility of a voluntary license. "Respondent is not required to make another request when its efforts have failed," according to an observation made by IPAB. The requirement of the law is not that. As a result, IPAB came to the conclusion that Bayer Corp.'s argument is unpersuasive and that the only requirement of the legislation was to attempt to negotiate, which has been done.

Reasonable conditions of the public Section 84(1)(a) of the Patents Act of 1970 lays forth the prerequisites for the issuance of a compulsory license. Natco provided evidence to back up its assertion that Nexavar has not satisfied the public's reasonable expectations. It claimed that a total of 23,120 bottles of Nexavar were required for patients with kidney cancer, however only 200 bottles were imported in 2008, 200 bottles in 2009, and none at all in 2010. Bottles brought in between 2010 and 2011. According to IPAB, since the advantages of the rights are immediately granted to the Patentee (Bayer), it is imperative for the patentee to make sure that the medication is accessible to the general population.

Reasonably Priced Price

Natco supported its assertion with pertinent facts, claiming that the cost of Nexavar was exorbitant and that the majority of people were unable to afford the medication. Nexavar costs roughly INR 2,80,248 at the time, compared to INR 8,800 for a generic version of the medication made by Natco's. In reaching its decision, the IPAB adopted a public welfare perspective and stated that a patent holder's principal responsibility is to make sure that his drug is relatively affordable12.The other intriguing claim made by Natco was that Bayer Corp. qualified for the drug tax credit, which would have reduced the net cost of R&D. If Bayer had chosen to take advantage of the medicine Tax Credit, it would have lessened the strain on the manufacturing process, lowering the cost of the medicine. Due to this, the IPAB ruled that Bayer was at fault and said that the aforementioned medicine was not accessible to the general population at a reasonable price [4]–[6].

Not been employed inside of India

The other two S. 84 requirements that the drug be unavailable to the general public and priced reasonably should be inferred from the literal interpretation of the sentence; as a result, the drug has not been effective in India. Natco claimed that the word "worked" meant "manufactured in India." Additionally, Bayer was found to have failed to demonstrate "why it failed within the territory of India," which led to the decision against Bayer Corp. The IPAB decision may be hailed as one of the historic rulings that prioritized the public health goal over patentee rights, yet the IPAB left several open-ended problems. It correctly matched the case's facts to the country's legal system and made a merit-based decision, but it also adopted a policy and established a precedent that could be detrimental to India's patent system going forward. Throughout the entire process, Bayer Corp. had made a crucial argument. It claimed that CIPLA, a different pharmaceutical company in India, had been producing a drug that is identical to the invention of "Soranfenib Tosylate," and that Bayer Corp. had already filed a lawsuit against CIPLA for alleged patent infringement. The IPAB had not taken the Bayer Corp. claim under consideration. Drug was being sold by CIPLA for a significant discount compared to Bayer, which reduced Bayer's market share.

When a patent is violated and sold for a significantly lower price, the patentee is forced to either significantly lower the price of the drug or lose a sizable portion of the market, which ultimately fails the test for compulsory licensing and results in the applicant being granted a compulsory license. The case's incorrect precedent was set by IPAB, and it will have a negative impact on Indian pharmaceutical investors. Analysis

As was already mentioned, S.84 of the Patent Act of 1970 must be complied with in its whole for a compulsory license application to be successful. One of the main requirements for granting a license is the petitioner's efforts to secure a freely given license from the manufacturer. Lee Pharmaceuticals has made attempts to secure a voluntary license from the patent owners, just like in the case of NATCO v. Bayer Corp. Lee Pharmaceuticals sent a request to Bristol-Myers Squibb, but that company declined to negotiate on the grounds put forth. It argued that the patented invention did not satisfy the reasonable expectations of the general public. It hasn't produced the medication in India even after 8 years after obtaining the permission to do so18. According to Form-27 for the calendar year 2013 that was released in the year 2014, saxagliptin was not produced in India; instead, it was imported from the United States or Ireland. For the year 2013, 8,23,855 units of the drug (Onglyza and Kmbiglyze, forms of Saxagliptin) were produced, amounting to Rs. 6,54,629; when costs are broken down, the cost of importing is only 0.80 Rupee but it is sold at INR 49/-, which clearly demonstrates Bristol-Myers' abuse of its monopoly.

Sitagliptin, Vildagliptin, and Linagliptin, the four other commercially available inhibitors, are substantial replacements for Saxagliptin, in contrast to Bayer's situation. The argument put out by Lee Pharmaceuticals is invalid due to the existence of more options; even the simple existence of comparable treatments might likely satisfy the needs of the general population. It should be recalled that in the previously cited Bayer case, the IPAB rejected this idea and said Despite the fact that the nature of the drug makes it possible for near alternatives, the patentee must complete the requirements individually, which is contrary to the situation in the present. As a result, from an economic perspective, the presence of competitors on the market is likely to affect the product. Regarding the patentable idea that was not reasonably priced for the general population, Lee Pharmaceuticals said that it could create each pill for just 30/- INR, which is 15/- less than Bristol-Myers. Additionally, it was said that the machine was capable of producing 10,000,000 units every day. As previously stated, Lee Pharmaaceuticals has shown that despite the fact that the patent has been in force for eight years and that the data from Form 27 plainly shows otherwise, the patent holder has not actually produced the medication in India but rather has just imported it from other countries [7]–[9].

There are more than 60 million diabetic patients in India, according to a claim made by Lee Pharmaceuticals before the Intellectual Property Office (IPO), and the majority of these patients may be potential customers for the drug. However, this claim was rejected on the grounds that not all patients are potential customers and that some patients may recommend a lifestyle change that will lessen the effects of diabetes21. Only 10% of diabetics in India received a prescription for 'Sexaglipton,' according to the IPAB, which also rejected Lee Pharmaceuticals' claim. The Controller noted that "such assumptions cannot be used to argue that the reasonable requirement of the public has not been met - 'authentic data/statistics' are required to make such a claim" in order to dismiss the applicant's undersupply defense.

Even though all of the applicant's empirical data focused on diabetics in general, the Controller believes that this would not be sufficient since merely having too little of a medicine is not sufficient evidence that it has not been effective in India. Furthermore, the market's availability of alternatives is sufficient to suit the needs of the public health. Furthermore, the applicant's claim of a high cost per unit was unpersuasive given that all of the available alternatives to Saxaglipton are priced in the same range, between INR 42 and INR 52. In retrospect, the applicant should have demonstrated that the cost of the alternatives to Sexaglipton is higher as well in order to support the claim that by granting a compulsory license, the drug will likely be produced at a lower cost, providing patients with affordable healthcare. Due to its failure to comply, Lee Pharmaceuticals has failed in its obligation to establish the requirements of S. 84 of the Patent Act.

A compulsory license may also be issued by a government announcement in addition to the legality mentioned above. The Patent Act of 1970's Section 92 allows the government to announce forced licensing. The purpose of this section is to offer healthcare services to the general public only in the event of a health emergency. The manufacturer or the owners of the patent are not required to be notified prior to granting this license. i The aforementioned clause complies with Article 31 of the TRIPS agreement [10], [11].

CONCLUSION

It is anticipated that this time would present additional challenges in terms of granting or rescinding Compulsory Licensing for safer pharmaceuticals. The relationship between larger MNCs and Indian pharma goliaths has yet to be fully explored. The way the Indian Patent Office handles cases involving CL will also make clearer the eventual outcome of CL in India and the standards attained by such legislation there. Even if overcharging and syndication are made possible by patents, they are nonetheless a necessary evil since without them, security companies would have little incentive to develop new products. As a result, patent security is crucial to ensuring progress; the patent is thus an imperfect but effective tool to advance the creation of new products.

Compulsory licensing is a key weapon that policymakers should consider using to enhance the production and distribution of pharmaceuticals and medicines in the middle of the crisis, as was highlighted in this article. The precise situations in which compulsory licensing is used have been covered. Even though it is an effective technique that has previously been used by many governments, including the Indian government, its limited advantages must be considered. The development of the vaccine has undoubtedly given rise to new hope in the fight against the viral threat, but its use and dissemination to broad populations still pose difficulties. Given the constraints, implementing radical government policies like compulsory licensing may not be the best course of action. Therefore, it is vital for policymakers to come up with a compromise that rewards innovators while also providing the general public with access to necessary healthcare by fostering an atmosphere that is conducive to intellectual property growth.

REFERENCES

[1] R. Chaudhry, "Compulsory licensing of patents in India," *Pharm. Pat. Anal.*, 2016, doi: 10.4155/ppa-2016-0033.

[2] S. Basheer and M. Kochupillai, "The 'Compulsory Licence' Regime in India: Past, Present and Future," *SSRN Electron. J.*, 2012, doi: 10.2139/ssrn.1685129.

[3] P. K. Saha and A. Mukherjee, "Compulsory licensing of pharmaceutical patents in India a policy shift," *Economic and Political Weekly*. 2019.

[4] V. Konde, "Recent developments in compulsory licensing of pharmaceutical Patents in India," *J. Commer. Biotechnol.*, 2016, doi: 10.5912/jcb733.

[5] V. A. Le and M. Hyland, "Compulsory Licensing for Patented Medicines: A Comparative Legal Analysis of India, Brazil and Thailand," *Manchester J. Int. Econ. Law*, 2020.

[6] D. Jain and J. J. Darrow, "An exploration of compulsory licensing as an effective policy tool for antiretroviral drugs in India," *Health Matrix Clevel.*, 2013.

[7] M. Sood, "NATCO PHARMA LTD. V. BAYER CORPORATION AND THE COMPULSORY LICENSING REGIME IN INDIA," *NUJS L. Rev.*, 2013.

[8] L. Alfaro and A. Chari, "Deregulation, misallocation, and size: Evidence from India," *J. Law Econ.*, 2014, doi: 10.1086/680930.

[9] S. Vig and T. Bagga, "Compulsory licensing of patents in India," in *Patent Law and Intellectual Property in the Medical Field*, 2017. doi: 10.4018/978-1-5225-2414-4.ch008.

[10] P. Ramanujam and Y. Goyal, "One View of Compulsory Licensing: Comparative Perspectives From India and Canada," *Marq. Intellect. Prop. L. Rev*, 2014.

[11] S. Chakraborty and A. Singhvi, "Patent reform and compulsory licensing: A case study from India," *Int. J. Intellect. Prop. Manag.*, 2009, doi: 10.1504/IJIPM.2009.023260.

CHAPTER 12

ISSUES WITH ACADEMIC RESEARCH AND COPYRIGHT LAWS IN INDIA

Dal Chandra, Assistant Professor
College of Law, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India
Email Id- degautambahjoi@yahoo.co.in

ABSTRACT:

Academic research has literary connections, and because there are so many identical research papers, the likelihood of them being stolen increases. Therefore, the Copyright Act provides protection under intellectual property law against unauthorized copies of works. It specifies a few necessary requirements that must be met for that. The rules are often quite similar across all nations. Therefore, any study that is done typically receives easy protection in all countries. However, if someone violates that rule, they will not be covered by copyright protection and will instead be penalized. The Copyright Act protects authors by forbidding unauthorized copying of their work. There is a problem in scholarly publishing and research. The academic community is being pushed to discover alternatives for research publishing due to the significance of access to academic literature in a connected society, the rising cost of subscriptions to this literature, various journal business methods, and decreasing or static library funding. As a result, piracy websites and shadow libraries have increased, and publishers have responded by using copyright laws to take drastic legal action against them. This Paper assesses the Open Access Movement, fair dealing in copyright law, academic piracy, court cases in the United States, India, and other nations within the broad meaning of the right to research using the Sci-Hub case, The Paper comes to the conclusion that a just resolution may be possible through a purposeful interpretation of copyright law.

KEYWORDS:

Author's rights, Copyright, TRIPS agreement, Unauthorized use**,** World Intellectual Property Organization (WIPO),

INTRODUCTION

When we discuss intellectual property law (IP), we are referring to intangible property rights. Copyright, patents, trade secrets, industrial designs, geographical indications, and trademarks are all protected by this law. When we discuss copyright protection, we usually mean artistic works, cinematographic works, original literary works, etc. In India, the Copyright Act of 1957 protects these types of works. The principle of ubi jus ibi remedium, which states that where there is a wrong, there is a remedy, is the foundation of copyright law. When copyright is violated, the Appellate Board (in accordance with Chapter II of the Copyright Act) offers the party that committed the violation civil remedies (in accordance with Chapter XII of the Copyright Act) and punishment (in accordance with Chapter XIII of the Copyright Act). Copyright protects stated ideas rather than just ideas in thinking or work that has been published (which also includes work that has not been shared in public because it may be common or it may be similar to other ideas).

Academic research simply refers to Original Literary Work protected by the Copyright Act when it is discussed. Only "Original Literary" works are protected by this Act; copied works are protected under the Copyright Act's infringement provisions. It provides protection against threats outside of India's borders as well as from within Literary Work is the term used to refer to academic research under intellectual property law (under the Copyright Act, 1957). Literary works include computer programs, tables, and compilations, including computer databases, according to Section 2(o) of the Copyright Act of 1957. According to Section 13(1)(a), original literary work is included in academic research. In academic research, publication is crucial since only expressed works are eligible for copyright protection, and in academic work, publication is the only means of expressing ideas or thoughts. The major goal of academic research is to make data, graphs, and literature accessible to the general public, particularly to students for convenient access to study material.

The aim of publication in the Act, as stated in Section 3 of the Copyright Act of 1957, is to make work accessible to the public by issuing copies [1]–[3].

Authors in academic research might be solitary (single authors) or collaborative writers. Due to the fact that the work is coauthored, it is always regarded as one work and never as two different works. As an illustration, (Sole Author) 'A' published an article in x Magazine on a health-related topic. In this instance, A will therefore be regarded as the article's sole author. (Joint Authors) 'A' and 'B' made the decision to produce a book on x topic. If this is the case, A and B's contributions to the book will be regarded as co-authors. Nobody can claim to be a book's sole author. In both of the aforementioned scenarios, copyright must be used to protect both joint and sole authors' works to prevent plagiarism and infringement claims on already-public works.

Expressive Original Literary Work

One of the most crucial components of academic research is original writing. It entails producing test questions, research articles, and books (which contain math and literature books in addition to books on literature). The court noted in the case of Shyam Lal v. Gaya Prasad 3 that the term "Literary Work" denotes anything in writing that might be considered to be under the umbrella of literary work, including works that deal with certain aspects of literature in prose and poetry. It also refers to works that are literature.

Publication of academic research becomes crucial since ideas alone cannot be protected, making it crucial to publish research. Academic research's primary goal is to publish its findings so that everyone can read them. Without publication, academic research would be useless. The goal of publication, according to Section 3 of the Copyright Act of 1957, is to make a work accessible to the general public by disseminating copies of it.In the case of University of London Press v. University of Tutorial Press4, the court stated that the term "literary work" encompasses any written or printed expressions, regardless of how high the quality or style may be.

Ownership by the Author

Academic research work cannot be published without a writer, hence an author is required for publishing. An author may be either a solitary author or a joint author. This is the person whose work the Copyright Act protects. The person who only had the concept for the work is not to be regarded as the author. Only the person whose ideas were expressed in the work will be entitled to ownership. In the case of Donoghue v. Allied Newspapers Ltd.5, the court made the following observation: If someone has an idea for a story, picture, or drama and shares it with someone else, the production that results from the sharing of the idea is protected by the copyright of the person who gave the idea a physical shape.

Joint Author

Joint author refers to a piece of writing that has more than one author or, when multiple authors collaborate on a single piece of writing, is referred to as a joint author. A work produced by the collaboration of two or more authors in which the contribution of one author is not distinguishable from the contribution of the other author or authors is referred to as a "work of joint author" according to Section 2 (z) of the Copyright Act of 1957. All academic literature should be made freely accessible to all users in a format that is "digital, online, free of charge and free of most copyright and licensing restrictions," according to the OA movement's central claim. As the "next step in a tradition that includes the printing press and penny post, public libraries and public schools," Professor John Willinsky sees the OA movement. The access problem and the effect problem are two connected issues that the movement aims to address.

The issue with access is brought on by the steep rise in the cost of scholarly publications and the limitations imposed by publishers on the repurposing of published research. It has a tight connection to the serials crisis. The access issue has achieved a "uncomfortable equilibrium" due to diminishing library resources and a steady 6% annual increase in the cost of academic journals. According to a dataset published in 2018, universities in the United Kingdom spent more than £4 million.

India's Open Access Movement

This Part examines the growth and significance of the OA movement in India after understanding its emergence and prevalence globally. Among the first to take part in international OA initiatives were Indian mathematicians, computer scientists, and biologists who deposited pre-print versions of their publications in the arXiv archive. One of the earliest requests for public access within the Indian academic community may be traced back to a meeting held in 1999 at the Indian Academy of Sciences, Bangalore a society registered for open science. Participants emphasized the need for open access to the public data created and held by the Survey of India during the discussion. Initial measures to promote open access began to gain hold at many Indian institutes by 2002.

In addition to institutional requirements, the sponsors of Indian research have begun to promote Open Access. The Council of Scientific and Industrial Research (CSIR), a self-governing body founded by the Indian government in 1942, issued an Open Access Mandate in 2011. Each lab that received CSIR funding was obligated to establish an open access repository.94 It was necessary to make all of the journals that the CSIR-funded laboratories published OA compatible. Two Ministry of Science and Technology divisions released an Open Access Policy in 2014. The policy made it very clear that the information gleaned from this research should be available to the general public because the monies used by the two agencies are public funds. A central harvester called www.sciencecentral.in was intended to be immediately accessed by institutional repositories, which were encouraged by the policy to be established by institutions. The Delhi Open Access Declaration (DDOA) was signed in 2013, and it was a key step towards the OA movement in India. In order to guarantee the accessibility of research literature and the dissemination of research outputs, the stakeholders developed a ten-point agenda in 2018.

But institutional mandates have mainly remained ambiguous, and India's OA ecosystem is still fragmented in the absence of a national OA mandate. A new, ambitious "One Nation, One Subscription" proposal was put up by the Indian government in December 2020. Under this plan, "for one centrally negotiated payment, all individuals in India will have access to journal articles." The present policy maintains the "reader-pays" subscription model and rejects the "author-pays" open access (OA) models promoted by the European donors that founded cOAlition S.99 Such a policy supports the established academic publication economic model and promotes a "every country for themselves" policy, both of which may be harmful to the interests of open science and knowledge on a global scale.

Regarding the applicability of open access publishing in India, reports indicate that approximately 24.19% of scientific publications written by Indian authors and published over the course of the previous five years were made accessible for OA via the Gold or Green OA Road. This is slightly less than the 33% that constitutes the average amount of open access literature available globally which stands for OA publications in India. The Gold OA Road is the most significant of India's OA roads, publishing between 10 and 12 percent of all OA papers. Comparatively, the Green OA model is followed by roughly 6% of OA papers.

DISCUSSION

Moral Rights of the Author

The Copyright Act's Section 57 grants authors the right to defend their works and prohibit unauthorized modifications. The following are the rights:

1. Paternity (Droit de paternite) rights: A right of paternity gives an author the authority to claim authorship of his or her creations and to forbid any other parties from doing the same. The creator of this work has the right to request that his name appear in the proper location. He has the power to stop people from utilizing his name in their creations.
2. The right of integrity (Droit de respect de l'uvre) protects the author by allowing him to stop alterations to his work. So that no one may alter it and use it in a different way that would damage the author's reputation.

3. Copyrights are a group of intangible property rights, sometimes known as intellectual property rights.

It safeguards people's ideas of thoughts that are expressed in works or executions of ideas rather than only ideas of thoughts (so that no one might replicate them), because they might also be similar to other people's thoughts. The Copyright Act of 1957 protects joint writers, family members of original authors, and original authors themselves so that no one else's work can be copied without their consent. If someone is determined to have violated another person's rights, they will be penalized in accordance with the Act's provisions. In addition to offering the victim of the violation a civil remedy, the offender may also face criminal charges. The definition of copyright is covered in Section 14 of the Copyright Act of 1957. Section 14 states that copyright is an exclusive right that covers literary works, computer programs, artistic works, cinematograph film works, and sound recordings [4]–[6].

The following are the three key characteristics of copyright (B):

Multiple Rights

Copyright combines many rights into a single right, such as the right to reproduce, adapt, and translate literary works. It prevents others from coping with other people's tasks.

The doctrine of the sweaty brow

When we discuss the "doctrine of the sweat of the brow," we can see how much creativity is put into the task. This theory states that even a modest amount of creative effort is covered by copyright. There is frequently concern made in research work that it is identical to other studies. Therefore, a person can claim protection for their labor by applying this approach.

Position in the USA

Initially, the USA only offered protection for original work; this is known as the doctrine of the sweat of one's brow being rejected. In the case of Feist Publication Inc. v. Rural Telephone Services Co. Inc.10, a US court insisted on this theory. In this instance, the court noted that a work must be original in order to be protected by copyright. The term "original" in this context refers to just author-created work that exhibits a basic level of creativity; originality does not imply novelty. Work doesn't always require a lot of effort; simply a small improvement is sufficient.

There are three elements that must be met in order to qualify for copyright protection, according to the US Court's ruling in the case of Key Publications, Inc. v. Chinatown Today Publishing Enterprises, Inc. They are as follows: (a) gathering and assembling pre-existing data; (b) choosing, coordinating, or arranging the data; and (c) the work that results from choosing, coordinating, or arranging the data contained in the work is original. Thus, we can conclude that in the USA, inventiveness is a necessary component to obtain protected copyright.

In the case of University of London Press v. University of Tutorial Press, the doctrine of the sweat of the brow was first applied in the UK.12. The Court ruled that the Copyright Act does not require that expression be in an original or novel form in this case even if Examiners created a mathematics paper that was later discovered to have no innovative or novel questions. It does demand, however, that no part of the work be plagiarized. It has to come from the author. The test questions are unique in the sense of copyright laws because the authors created them. The court ruled that the plaintiff's copyright cannot be denied just because other examiners have asked questions akin to hers. We can therefore draw the conclusion from the aforementioned case that a person's work can be protected by a little change in method.

Place in India

When it comes to granting a person copyright protection for their work, India follows both the English and the American models. The Supreme Court of India rejected the "Sweat of the Brow" concept and adopted a

"Modicum of creativity" strategy, as is the case in the US, in the most significant Indian case on this topic, Eastern Book Company v. D.B. Modak. (B) Proprietary Problems with International Copyright in Academic Research. Since India is a signatory to both the Berne Convention and the Universal Copyright Convention, Section 40 of the Indian Constitution states that any work published outside the country must be handled as if it were originally published there. Therefore, even foreigners can publish their works inside of India. The only need is that the country in question must be a member state; otherwise, it will depend on a directive issued by the Central Government, which must not violate the terms of the Indian Copyright Act or the legislation of the destination nation. Simply put, we can state that India grants copyright protection to those nations that are treaty members or to those nations that only offer copyright protection to Indian authors.

International Copyright Term

According to Section 40, the duration of a foreign work's copyright in India may not exceed the duration permitted by the law of that country. For example, if the duration of a copyright in a given nation is 50 years and the duration for a comparable work in India is 60 years, the foreign work will only be granted copyright for 50 years.

Copyright infringement in Academic Research

A person is not allowed to copy another person's copyrighted work in any way, according to Section 52 Subsection (1) Clause (h). However, this paragraph also states that if anybody is duplicating someone else's work, it should not exceed two passages and that there must be a genuine aim behind it. In academic research projects, people are allowed to replicate others' work with proper citation, but only up to two passages must be used with genuine intent. If someone does not comply, it is deemed a copyright violation.

The fair dealing principle

For private or personal use, including research, fair dealing with any work other than computer programs is permitted in India. Commercial research is not included in this study; instead, incorporates individualized study. If it is discovered that an author is using research for profit, this will be seen as a copyright violation.

In the case of Rupendra Kashyap v. Jiwan Publishing House16, it was stated that even though the book the publisher published may be used or be intended for use in research or private study, the publisher would not be eligible for the defense under Section 52 sub-section (1) clause (a) sub clause (i) if the book was published for commercial exploitation [7], [8]. By the aforementioned, it is clear that fair dealing protects work used for legitimate purposes; otherwise, it will be considered to be an infringement. V. Civil Remedy is offered by Section 55 of the Copyright Act of 1957

Interlocutory Orders

The granting of an interlocutory injunction is the most significant remedy. The application is typically for interlocutory relief, and the case rarely progresses past the interlocutory stage. A prima facie case is the first of three elements for an interlocutory injunction to be granted.

(a) A balance of convenience is required.
(b) A permanent injury is required.

Financial Solutions

Pecuniary remedies are stipulated in Sections 55 and 58 of the Copyright Act of 1957 and include the following:

(i) A profit account that enables the owner to seek the amount of money equal to the illegally obtained profit.
(a) A reimbursable sum that enabled the copyright owner to pursue the losses he sustained as a result of the infringement.
(b) Conversion damages, which are calculated based on the item's value.

Orders from Anton Pillar

The ownership in Anton Pillar AG V. Manufacturing Processes gave rise to the name of the Anton pillar order. There are the following components in an Anton Pillar Order:

(i) A court order prohibiting the defendant from damaging or stealing property.
(a) A court order allowing the plaintiff's attorney to search the defendant's property and take anything they are keeping in safekeeping.
(b) A directive directing the defendant to reveal the names and addresses of suppliers and clients.

Mareva's Order

When the court thinks, the defendant is attempting to stall or prevent the implementation of any judgment rendered against him, the Mareva injunction is applied. The court has the authority to order him to surrender all or any portion of his property to the court in order to satisfy the decision. This is stated in The Civil Procedure Code, 1908, Order XXXVIII, Rule 5.

Penal Reaction

Criminal sanctions are available for copyright infringement under Section 63 of the Copyright Act of 1957.

The list is as follows:

1. Imprisonment for six months to three years
2. Imprisonment plus a fine of up to two million rupees (Rs. 50,000).

CONCLUSION

First off, if that any time we discuss an issue involving academic research, we are also discussing copyright. In addition to providing protection, copyright also forbids others from stealing other people's ideas or works. If someone plagiarized someone else's work, that work would be called infringement. If someone's rights are violated, Copyright offers that individual redress. Second, I would suggest that since this Act does not provide any protection for mere idea, in order for academic research to be covered by copyright, the author must publish their work. Therefore, it is essential to obtain copyright protection for idea expression. Last but not least, when we discuss academic research, we typically think of it as a whole literary work. However, all academic research is literary work, while not all literary work is academic research because literary work takes many other factors into account, such as lectures and instructive films.

REFERENCES

[1] "Dictionary for library and information science," *Choice Rev. Online*, 2004, doi: 10.5860/choice.42-1271.

[2] R. Saha, "Plagiarism, research publications and law," *Curr. Sci.*, 2017, doi: 10.18520/cs/v112/i12/2375-2378.

[3] S. Walters, "Critical human rights, citizenship, and democracy education: Entanglements and regenerations," *Int. Rev. Educ.*, 2020, doi: 10.1007/s11159-020-09851-0.

[4] J. J. E. Parkinson *et al.*, "Socratic Dialogue Gives Way to PowerPoint," *Bus. Commun. Q.*, 2009.

[5] Abid Ghafoor Chaudhry, A. Ahmed, and H. Farooq, "Indigenous Knowledge and Sustainable Agricultural Development: A Case History of the Indus Valley, Pakistan," *Eur. Acad. Res.*, 2014.

[6] M. Ramkumar, *Intellectual Property Rights Demystified*. 2008. doi: 10.59317/9789389547467.

[7] R. Matesanz *et al.*, "[Donation of the body to science].," *Transplant. Proc.*, 2012.

[8] D. S. Bernatal Saragih, Ika Karyati, "PENGARUH PEWARNA EKSTRAK CAIR ALAMI BAWANG TIWAI (Eleutherine americana Merr) TERHADAP MUTU SELAI KULIT PISANG KEPOK (Musa paradisiaca Linn)," *J. Tenknologi Pertan.*, 2010.

CHAPTER 13

ARBITRATION PROBLEMS INVOLVING INTELLECTUAL PROPERTY IN INDIA

Amit Verma, Associate Professor
College of Law, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India
Email Id- amitverma2@gmail.com

ABSTRACT:

A State typically recognizes, develops, and implements a variety of processes to settle disagreements relating to the defense, maintenance, and advancement of the rights of its citizens. Despite the lack of a precise definition, intellectual property normally enjoys broad protections in most jurisdictions, which operate ergaomnes, which means that they grant monopoly rights to the holder/owner. States work to design intellectual property rules that strike a balance between levels of protection afforded and benefits that members of the State can get from the utilization of such intellectual property in light of the bias that monopoly rights create. The goal of this article is to reexamine whether State courts, notably those in India, are the sole venue available for resolving IP disputes or whether such disputes could be settled through the use of alternative dispute resolution procedures. The first section of the essay would discuss the importance of looking for alternative dispute resolution methods to courts. Part II examines a number of issues that could come up when attempts are made to settle IP disputes via alternative dispute resolution procedures, including arbitration. The attempts to arbitrate IP issues across multiple jurisdictions are examined in Part III. Part IV examines the strategy used to arbitrate IP issues in the Indian legal system. It is also important to point out right away that this article does not go into detail on questions of choice of law relevant to the arbitrability of disputes in international arbitration

KEYWORDS:

Arbitration, Arbitrability, IP Disputes, Intellectual Property Rights, Public Policy.

INTRODUCTION

Since its origins may be found in the early 14th Century, arbitration is not a recent type of dispute resolution. In fact, the then-Anglo-American legal system recognized commercial arbitration as a legitimate method of resolving disputes. 15 Numerous organizations and institutions, like the stock exchange, insurance markets, and even the church, turned to arbitration to settle conflicts that arose among their own members in England as well16.But ever since, arbitration has grown to be a popular venue for deciding on private rights between parties. Early methods of addressing business-related conflicts of interest between merchants include arbitration and various forms of ADR including mediation. Over time, the practice of bringing a dispute between two parties to an impartial third-party forum gained recognition on a global scale and was included into numerous municipal statutes around the globe. The desire of parties to contractual agreements to apply commercially tailored solutions to their commercial disputes is one of the main drivers driving the expansion of commercial arbitration. Formally speaking, arbitration is a process for resolving disputes in which the parties mutually agree to submit their differences to one or more arbitrators for decision-making [1].

With the adoption of the UNCITRAL Model Laws on International Commercial Arbitration (hereinafter referred to as Model Laws) and subsequent universal uniform recognition and governance under UNCITRAL, this process has gained significant global significance. Specific technical and theoretical guidelines on the applicability of arbitration and arbitral proceedings are provided in the Model Laws. The Model Laws itself provide a useful legal foundation for settling conflicts in cross-border business relations. The rise in the number of global citizens engaging in international business operations has Due to the numerous advantages that this method of conflict resolution provides, more and more organizations are including arbitration clauses in their contracts.

The most important and required prerequisite for starting an arbitration procedure between two parties is the presence of an agreement designating that parties shall be referred to arbitration in the event of a disagreement, as indicated by the definition of arbitration. The same emphasizes that only rights in personal conflicts—that is, disagreements involving the parties' contractual rights and obligations are subject to arbitration. The Model Laws' Article 1 outlines their applicability and declares that, subject to any agreement between declares, the Model Laws apply to international commercial arbitration. According to this clause, the term "commercial" is to be understood broadly to include any disputes resulting from business ties, whether or not they are contractual in origin. The Model Laws also provide a thorough list of behaviors that constitute business relationships. These comprise any business dealings including the provision or exchange of products or services, as well as leasing, licensing, and exploitation contracts, among other things.

Even a cursory reading of the phrase "commercial arbitration" reveals that the word "commercial" is a requirement, whether or not it is contractual. The existence of a commercial relationship between two or more parties, demonstrated by the existence of an agreement, is a requirement for arbitration under the Model Laws. The ties that fall under commercial transactions, however, are not all of them. Even yet, there is no explicit mention of the word "intellectual property" because such rights are per se regarded as real property rights and are not subject to arbitration. But the list classifies licensing generally as a business activity. As a result, licensing intellectual property is considered a commercial activity.

For instance, a license agreement between a patent holder and a third party would be considered a commercial agreement under intellectual property law, and any disagreements arising from the arrangement would be resolved through arbitration. An agreement between the parties to arbitrate all or some issues that have arisen or may arise between them about a specified legal relationship, whether contractual or not, is thus known as an arbitration agreement.20 It may be a provision in the original commercial agreement signed by the parties in furtherance of their business activity or it may even be a separate agreement that the parties shall enter into during a disagreement in order to reach agreement. More and more businesses are including arbitration clauses in their contracts because of the many benefits that this method of dispute resolution offers.

The presence of an agreement specifying that parties shall be sent to arbitration in the event of a disagreement, as indicated by the definition of arbitration, is the most significant and necessary prerequisite for beginning an arbitration proceeding between two parties. The same underscores that disputes concerning the parties' contractual rights and obligations also known as rights in personam conflicts are the only ones that can be resolved by arbitration. In accordance with any agreement between states, the Model Laws are applicable to international commercial arbitration, according to Article 1 of the Model Laws. In accordance with this article, the term "commercial" is to be used broadly to cover all conflicts arising out of or related to business relationships, regardless of whether such disputes are contractual in nature. The Model Laws offer a comprehensive list of actions that make up business interactions.

These include any transactions involving the sale or exchange of goods or services, as well as leases, licenses, and other business agreements. The word "commercial" is a prerequisite, whether or not it is contractual, as even a quick reading of the phrase "commercial arbitration" demonstrates. The Model Laws stipulate that arbitration must take place when there is a commercial relationship between two or more parties, as shown by the presence of an agreement. But not all of them fall within the category of business transactions. Even however, the term "intellectual property" is not specifically included because it is assumed that such rights are real property rights and are not subject to arbitration. However, the list normally identifies licensing as a business activity. Intellectual property licensing is therefore regarded as a commercial activity.

For instance, under intellectual property law, a license agreement between a patent holder and a third party would be regarded as a commercial transaction, and any disputes emerging from the arrangement would be settled by arbitration. An arbitration agreement, whether contractual or not, is an agreement between the parties to arbitrate all or some disputes that have already arisen or may arise between them about a certain legal relationship. It might be a clause in the initial commercial agreement that the parties signed to continue

their business activities, or it might even be a new agreement that the parties enter into in the middle of a dispute to try to come to an understanding.

The Arbitrability Principle:

The question of "Arbitrability" is the most important factor to take into account in any arbitration procedure. Even though arbitration is a widely desired dispute resolution method in business transactions, there are situations when it turns out to not be the "appropriate" method because some aspects of the issue are not subject to arbitration. Understanding the idea of arbitrability with particular emphasis on the arbitrability of intellectual property issues is the focus of this chapter. The Doctrine is one of the most frequently used arguments against the arbitrability of intellectual property in arbitration. government policy. The numerous public policy objections to arbitrating intellectual property and potential objections to such conceptions will also be covered in this chapter. The author plans to examine, in view of the increasing importance of the trade in intellectual property, whether public policy as a rationale for designating intellectual property as a non-arbitrable subject matter actually qualifies to be reasonable toward the end of this chapter. The term "arbitrability" refers to a distinguishing quality of a dispute that renders it suitable to resolution by a private adjudicatory forum. When a disagreement can be settled through arbitration, it is said to be arbitrable. The tribunal's determination that the dispute's subject matter meets the requirements to be arbitrable is a prerequisite to any arbitral procedure. In other words, the term "arbitrability" describes the characteristics of the disagreement that make it proper to be decided by a private forum [2]–[4].

In contrast, arbitrability establishes whether an issue is actually better brought before the authority of a public forum, i.e., the courts, as opposed to an arbitral tribunal. The non-arbitrability concept is based on the idea that some conflicts should not be resolved through "private" arbitration because they so frequently include public rights or the interests of third parties, who are subject to special governmental jurisdiction. The arbitrability of an issue is crucial because just because parties have submitted a disagreement to arbitration does not automatically mean that the disagreement is arbitrable. The arbitrability of a possible dispute may not be taken into account by the parties when negotiating a commercial agreement. Most contracts have a general clause that states that any disagreements arising out of the contract must be resolved by arbitration and specifies the law to be applied. Only when the arbitration provision is invoked in the event of a disagreement do parties face the obstacles related to arbitrability only to learn in some situations that the issue is unfit to be decided by a private forum, i.e., an arbitral tribunal. In some additional situations, a dispute's arbitrability may be contested after the arbitral award has been made and is being put into effect. A circumstance like this is most frequently encountered in international business arbitration. While the arbitral proceeding's controlling law may have allowed

DISCUSSION

According to the WIPO, intellectual property includes innovations, literary and artistic works, as well as symbols, names, pictures, and designs that are utilized commercially. Since they are immaterial, their worth is derived on the owner's exclusive usage and granting of licenses. Due to their importance to the economy, they have become one of the most precious commodities in use today. Copyright and related rights and industrial property, which includes both distinguishing signs like trademarks and GI and those properties like patents, industrial designs, and trade secrets that are intended to encourage innovation, design, and technology creation, are the two main categories into which intellectual property is typically divided. According to Article 2(viii) of the 14 July 1967 Convention Establishing the World Intellectual Property Organization, intellectual property was defined as including rights to a wide range of creations and inventions, including literary, artistic, and scientific works; performances of performing artists; phonograms; and broadcasts; inventions in all fields of human endeavor; scientific discoveries; industrial designs; trademarks, service marks, and commercial names. Fields. Since patents and copyrights are typically seen as having a highly technical nature, they require enhanced protection in the global economy. However, as they may be the most valuable assets of a business body, other types of intellectual property, such trademarks and trade secrets, are also given the utmost priority in today's society.

If disagreements are mired in protracted litigation, irreparable loss may result in the area of law known as intellectual property. The many conceptual disparities in how various nations understand such rights are one problem that is relevant to issues involving intellectual property on a global scale. Depending on their viewpoints, domestic laws offer their unique protection systems. Up until the TRIPS Agreement went into effect, achieving pan-national homogeneity was very challenging. Some countries believe that industrialized nations exploit intellectual property as a tool to subjugate less developed countries. Initially, the less industrialized countries, like India, provided very limited legal protection for intellectual property inside their borders. Before the TRIPS Agreement went into effect, governments tackled the subject in different ways on a global scale. Additionally, state regulations that protected intellectual property were frequently at odds with international norms. For instance, domestic law in the United States mandated that patent applications be kept confidential and that publication only occur once the patent has been granted. Comparing domestic law to foreign patent registration procedures, where disclosure takes place at the time of filing, the confidentiality of pending applications set it apart from the latter. Such differences between local and international standards have led to more legal disputes.

Intellectual property-related problems can take many different forms. Invalidity doubts, infringement concerns, and disagreements over the licensing of intellectual property between parties are all possible. Each of these intellectual property problems causes the parties concerned to look for different remedies. Injunctive relief, declarations of the ownership status of intellectual property, and even particular performance are among the civil law systems' most frequently requested remedies. There are some special issues that may develop given the nature of an intellectual property and the effects that result from the resolution of disputes involving it, even though the benefits of arbitration are operationalized even when used to intellectual property disputes. This has led to strong hostility to the idea of arbitrating intellectual property issues in the mainstream intellectual property discourse. Four main arguments could be used to summarize the various arguments against private adjudication of intellectual property disputes:

The State grants or recognizes intellectual property rights: The State grants or recognizes intellectual property rights. It is argued that an arbitral tribunal shouldn't have the power to void a right that the state has created or granted because it is a private body. In other words, the issuance of an IPR is the result of the State exercising its sovereign authority, and only the State should have the power to revoke it. The State has the authority to remove items from the public domain and place them in the private domain in order to further the public interest. These grants have an erga omnes effect, which means that the owner of a piece of intellectual property has the right to prevent others from using it. Therefore, a grant subjects the third parties to a duty. As a result, a private tribunal lacks the capacity or power to dissolve a monopoly because doing so would require the consent of the sovereign.

Limited authority of an arbitral tribunal: An arbitral tribunal is also established and receives its authority from the agreement of the involved parties. As a result, an arbitral tribunal typically has no authority or power over those who are not parties to the arbitration. They are unable to impose obligations or provide rights to third parties. In theory, a restriction of this kind would prevent the cancellation of an obligation erga omnes. The pursuit of specific socioeconomic objectives motivates the creation or granting of intellectual property rights. These objectives can be to increase domestic research, transfer technology, or improve skill sets, to mention a few.

Knowledge of Arbitrability:

The New York Convention on the Recognition and execution of Arbitral Awards of 1958 places a strong emphasis on the notion of arbitrability and gives domestic courts the authority to reject the recognition and execution of a foreign arbitral award if it relates to an issue that is regarded in arbitrable by the domestic legal system. Additionally, arbitration was included in the UNCITRAL Model Law, which allowed for an arbitral ruling to be revoked on the basis that According to State legislation, the dispute's subject matter cannot be resolved by arbitration [5]–[7].

Although the extent of this ground has consistently decreased over time, it continues to be important since national courts continue to have authority over determining the precise boundaries of arbitrability. A term like international arbitrability may not really exist, in contrast to the concept of international public policy, which is becoming more widely accepted.

This understanding is the bare minimum in any understanding of the phrase arbitrability, even when the definition of the term is unclear. In general, there are two types of arbitrability: objective arbitrability, or what the law allows to be arbitrated, and subjective arbitrability, or what the parties have or have not agreed to submit to arbitration. In the first case, the arbitral tribunal's jurisdiction is limited by the application of law without regard to the parties' will or capability, whereas in the second case, it is established by the parties' shared consent. Due to the following reasons, arbitration is not viewed as being particularly suitable to resolve conflicts involving or pertaining to public policy

a. Less rigorous evidentiary procedures and less thorough fact-finding
b. Public laws would not be adequately enforced by private arbitrators.
c. Limited appeals of arbitral decisions (including the entire exclusion of an appeal); and d. Private and secret processes.

The aforementioned factors contribute to national jurisdictions' mistrust of arbitration as a dispute settlement technique. Each of these arguments has its detractors, including those who contend that the existence of these traits does not make arbitration less effective as a method of settling disagreements on public policy. The following are some proposed solutions to the problem of the arbitrability of IP issues in light of the debate above:

Limits of changing public policy - Determining the precise boundaries of public policy can occasionally be very challenging. It might be challenging to compile the criteria used to judge whether a certain issue falls under the purview of public policy. Therefore, it is important to identify the precise causes that would bring a disagreement over a specific intellectual property inside the purview of public policy. IPR stands for a collection of unique rights, each of which has a unique legal status and was obtained in a unique way. Because of this, there is no one method that works for all situations when deciding whether or not an intellectual property issue needs to be arbitrated. Because it might be challenging to determine the exact boundaries of public policy, it would be incorrect to use it as a general test to reject arbitrability. Public policy cannot be understood as a fixed, unchanging concept.

1. Inter partes effect: Arbitral awards do not have an erga omnes effect; instead, they just bind the parties to the arbitration. As a result, it does not reverse any actions taken by a State. An innovative way to think about it is to consider a favorable award as an unrevocable, royalty-free license grant.
2. Limited jurisdiction of arbitral tribunal - Since an arbitral tribunal, unlike a State court, gets its authority from parties, it is unlikely that its jurisdiction will overlap with that of public agencies. Therefore, an exclusive jurisdiction clause would apply to state tribunals that are part of a hierarchy, but not to tribunals that are not part of the hierarchy.
3. Making a distinction between whether a validity question is the primary concern or is secondary to the primary concern. If the problem is incidental, it is up to the arbitral tribunal to decide whether or not it is necessary to address the incidental issue in order to resolve the main issue. If so, the standard of inarbitrability would not apply to the case un question.

India's established norms for arbitrability:

The range of arbitrability in India is viewed as a component of the broad range of public policy and is addressed separately under section 34.2.b.i of the UNCITRAL Model Law of 1985. Ex officio grounds are those covered by this clause, which denotes that the court has the authority to review an arbitral decision brought before it even if the opposing party hasn't formally claimed them. According to 34.2.b.i, an award will be void if the dispute's subject matter cannot be resolved by arbitration under Indian law as it is now applied.

Despite the lack of a clear definition, the phrase "subject matter" has always been interpreted to refer to a property interest that includes a claim for damages and other remedy.45 As a result, the lex specialis and the 1996 Act would be the applicable laws in India. To start, the latter does not specify a list of topics it thinks are inarbitrable, leaving it up to other laws to specify which conflicts are not subject to arbitration. As a result, the 1996 Act gives way and treats an issue as being ineligible for arbitration if the lex specialis renders it so.46 The 1996 Act must be consulted for guidance if the lex specialis is silent on the issue of arbitrability. A review of India's arbitration law reveals that some disputes are not subject to arbitration. For example, in cases of international commercial arbitration, a dispute that does not concern a clearly established legal relationship would be unresolvable. According to Indian law, a similar relationship should also be regarded as commercial. This distinction is not the same as one made between relationships that are contractually binding and those that are not. Then, the presence of a clear legal relationship and commerciality becomes a prerequisite.

It follows that the applicable law clearly stipulates that any matter becomes unarbitrable in the following two situations: (a) when reference to arbitration is expressly prohibited; and (b) when the dispute's subject matter cannot be resolved through arbitration as a method of dispute settlement. Different laws withdraw issues to exclusive public realms for a variety of purposes, including the establishment of exclusive courts. In India, a few examples of exclusions include criminal offenses, matters relating to company winding up, amalgamation, or takeovers under the Companies Act 1956, bank debt recovery under the Recovery of Debts Due to Banks and Financial Institutions Act 1993, disputes under the Electricity Act 2003, matrimonial and guardianship matters, testamentary matters, etc. When one tries to interpret the idea of "incapable of settlement by arbitration under the law," a separate issue comes up. If this principle had been interpreted strictly, it would only have applied to situations where arbitration had been expressly disallowed by a particular statute. However, it is not how the arbitration conspectus has interpreted this particular concept. According to how it has been read by Indian courts, it encompasses an implicit removal based on the idea of public right.

Arbitration for intellectual property in India:

In India, problems involving intellectual property are typically regarded as being unresolvable by arbitration. However, this is not a rigid law. Intellectual property can be the subject of a variety of business transactions, including as sales and assignments. Most of these transactions would be made in accordance with a contract, and it is also feasible that these contracts would include an arbitration clause. In most cases, arbitration is used to resolve disputes arising out of or related to such contracts. Such contractual issues would also satisfy the Booz Allen maxim that they are in personam disputes and hence qualify for arbitration. In EROS International Media Limited v. Telemax Links India Private Ltd. a case involving a copyright infringement claim, the defendant refused to arbitrate the dispute on the grounds that it was not subject to arbitration because it involved intellectual property. It further argued that only a civil court, not an arbitrator, could give relief for the breach of a right in rem [8]–[10].

The court said clearly from the outset that there could not be an absolute rule mandating that all conflicts involving intellectual property be settled through arbitration. It continued, and properly so, by pointing out that the dispute—while including copyright infringement—arose from the operation of a contract and that the current situation obviously involved an in personam right because it was based on a contract. Thus, it came to the pertinent conclusion that even when real property rights are at issue, if a dispute developed over those rights under or in connection with a contract, that dispute might be arbitrated as long as the parties to the contract had made a legally binding arbitration agreement .In a case involving trademark infringement that was covered by the deed of assignment, Suresh Dhanuka v. Sunita Mohapatra, the apex court did not object to a request for arbitration .As was mentioned before, the aforementioned cases confirm that when intellectual property rights are protected by a contract, any dispute relating to those rights that results from that relationship would be arbitrable. Therefore, assessment is required [11]–[13].

CONCLUSION

There is a distinct difference between intellectual property that is granted but does not require State action, such as patents and trademarks, and other intellectual property that does not need to be registered. In addition, a separate line is made between conflicts that are solely contractual in nature, where ownership or validity are not contested, and those that are not. On the basis of whether the disagreement calls for a ruling regarding the legality or ownership of the relevant intellectual property, further demarcation is made. The Indian statutory and case laws initially give the impression that issues involving intellectual property are universally unarbitrable. The courts have, however, also accepted the arbitrability of supplementary in personam conflicts resulting from in personam rights. The issue of privately settling intellectual property disputes has primarily been addressed within the arbitration law spectrum and has never really been within the intellectual property rights area, according to a review of the body of extant literature. While one of the goals of the National Intellectual Property Rights Policy 2016 is "strengthening of enforcement and adjudicatory mechanisms for combating intellectual property rights infringements," it also makes a vague note that ADR techniques may also be investigated. The issue of whether disputes involving intellectual property rights can be arbitrated is barely broached. While the effects of arbitrating intellectual property issues have been extensively studied internationally, India falls behind in effectively addressing this issue through legislation or national policy. The terrible duty of determining and, in certain cases, creating the policy is ultimately left to the courts.

REFERENCES

[1] R. Kumar, "Bilateral Investment Treaty Negotiations between India and U.S: Problems and Prospects," *IRA Int. J. Educ. Multidiscip. Stud. (ISSN 2455–2526)*, 2016, doi: 10.21013/jems.v4.n1.p1.

[2] P. P. Viscasillas, "THE UNCITRAL MODEL LAW ON INTERNATIONAL COMMERCIAL ARBITRATION: INTERPRETATION, GENERAL PRINCIPLES AND ARBITRABILITY," *J. Law, Soc. Dev.*, 2016, doi: 10.25159/2520-9515/889.

[3] A. Haghpanah and N. Ali Almasi, "Regulations of determining law governing to arbitrability," *Ius Humani. Law J.*, 2018, doi: 10.31207/ih.v7i0.189.

[4] R. Nazzini, "Arbitrability of competition claims in tort and the principle of effectiveness of EU law," *Eur. Bus. Law Rev.*, 2017, doi: 10.54648/eulr2017042.

[5] L. C. de Mello Senra, "Arbitrating Disputes Between Public Servants and Public Entities under Brazilian Law," *Rev. Bras. Arbitr.*, 2019, doi: 10.54648/rba2019016.

[6] P. Obo Idornigie, "The Principle of Arbitrability in Nigeria Revisited," *J. Int. Arbitr.*, 2004, doi: 10.54648/joia2004013.

[7] V. NAHNYBIDA, "The Influence of the Law of the Country of the Place of Enforcement of the Arbitral Award on the Settlement of Disputes in the International Commercial Arbitration," *Univ. Sci. Notes*, 2020, doi: 10.37491/unz.73.8.

[8] D. Mathew, "Arbitrating Intellectual Property Disputes in India," *J. Natl. Law Univ. Delhi*, 2019, doi: 10.1177/2277401720959174.

[9] N. Bhatia, "Amenability of Intellectual Property Rights to Arbitration in India," *SSRN Electron. J.*, 2020, doi: 10.2139/ssrn.3558494.

[10] B. Srinivasan, "Arbitrability of Intellectual Property Disputes In India: A Critique," *NLS Bus. Law Rev.*, 2020.

[11] U. Srivastava, "Putting the jig saw pieces together: An analysis of the arbitrability of intellectual property right disputes in India," *Arbitr. Int.*, 2017, doi: 10.1093/arbint/aix024.

[12] D. Mathew, "Arbitrating Intellectual Property Disputes in India," *SSRN Electron. J.*, 2017, doi: 10.2139/ssrn.2942684.

[13] S. Basu and R. Jones, "Development of Information and Technology Law in Asia," *Int. Rev. Law, Comput. Technol.*, 2005, doi: 10.1080/13600860500140391.

CHAPTER 14

PERFORMERS 'RIGHTS IN INDIAN COPYRIGHT LAW: LEGAL DEVELOPMENTS AND PRESENT SCENARIO

Sourabh Batar, Assistant Professor
College of Law, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India
Email Id- battarsourabh@gmail.com

ABSTRACT:
Copyright is primarily intended to protect creators and support them as they create new works with the help of their own blood, sweat, and tears. It is possible to view the copyright protection as compensation for the creative work. It is clear that the copyright is the foundation of the cultural industries and is essential to their efficient operation. The copyright protection makes it possible for authors and performers to profit financially from their original works. The unlawful use of performers' and authors' works is highly vital to protect in the present period, which is dominated by the use of technology. The rights of performers have been ignored in India for as long as it has been feasible, and there has been extensive exploitation of them. The protection given to performers' rights needs to be handled carefully because it is strongly correlated to the position that a nation achieves in the international arena. The performers' rights and protection are expanded by international mechanisms. The breadth of the term "performer" is thoroughly studied and thought through in this article in an effort to discuss it clearly. Additionally, it explores the performer's protection as well as the rights to instruments with an international impact. The essay ends by praising the efforts made by the global community to protect the rights of authors and performers in order to protect their financial investment in intellectual property.

KEYWORDS:

Copyright, Judicial Approach, Neighboring rights, Performers' rights, World Intellectual Property Organization (WIPO),

INTRODUCTION

The Copyright Act of 1957 provides protection for some works. It might be stated that copyright protection was initially solely offered to creative and literary works. However, as time passed, it is possible to say that other types of works received protection under the same conditions that dramatic works did in later phases. The performers' visual arts are an integral part of the creative process, and the artists' acoustic performances require a lot of work from the creators, necessitating the preservation of unique rights. It may be said that the Rome Convention was the first to acknowledge the rights of performers and that it forbade the use of their works without their permission.4The Convention further stated that the performers must be compensated if they utilize it without such authorization [1]–[3].

The Copyright Act of 1957 provided a fairly late affirmation of the performers' rights in the Indian Scenario. The rights of the performer are protected by the same law, and any acts carried out without the performing artists' consent are punishable. The phrase "neighboring rights" is used, and it refers to the rights of phonogram makers, rights held by broadcasting companies over radio and television programs, and performances by performing artists. The performers work extremely hard as well and integrate themselves into the intellectual community. The copyright is something that concerns global involvement and should not be considered to be restricted to the borders of a single nation. The Berne Convention, which was adopted in 1886, provided enormous protection for the rights of copyright owners. The Berne Convention grants the authors rights over how they will manage the works. The Berne Convention provides three different types of protection. First of all, a contracting state's works will be protected in the same way that they are in that particular state. Thirdly, the work will continue to be protected in the contracting state even though it is still protected under the laws of the nation from which the creator is originally from, in this scenario the principle of independence is followed. Second, the protection that is guaranteed by the states should be unconditional

and it will follow the principle of automatic protection. The Rome Convention for the Protection of the Performers, which was created in 1961 by phonogram manufacturers and broadcasting organizations, gave performers their own rights.

The term "performers" and "fixation" have both been defined in the Rome Convention. The Rome Convention also explicitly outlined the restrictions and exceptions that may be made for the protection of the rights of performers, phonogram manufacturers, and broadcasting organizations. The authority to oversee the convention has been delegated to the WIPO, or World Intellectual Property Organization. Due to the different criteria of protection that are clearly described in the TRIPS agreement, the rights of performers are also somewhat protected. The general ideas linked to the principles of national treatment are discussed in section I of the article. The forms of intellectual property are covered in detail in Part II.

The Berne Convention will be followed in the case of copyright under the TRIPS, according to the statement. In the year 2012, there were a number of changes made to the area of performer rights. The modification placed Indian law on an equal footing with WIPO-managed treaties. The 2012 change to the Copyright Act was enacted in accordance with Article 14 of the TRIPS. The authority and function of copyright societies in defending the works of authors has undergone a substantial change, according to article. A copyright society in India must be registered in accordance with Section 33 of the Indian Copyright Act, 1957. Only one society may register with the copyright society in the case of a certain type of work. The 2012 revisions also included suggestions for the copyright societies' regulatory system. A 1994 revision to the Indian Copyright Act added performers rights under Section 38.

By creating a separate piece of legislation for the performer, the measure markedly differed from early attempts made in the UK. If any of the people listed in Section 2(qq) (such as an actor, singer, musician, dancer, acrobat, juggler, conjurer, snake charmer, person giving a lecture, or any other performer) appear or engage in a performance, certain "performers rights" become his. According to Section 2(q), a performance is any live visual or aural presentation given by one or more performers. It is notable that the terms "cinematograph" or "audio visual" are never used in connection with them since they appear to be entirely excluded from the scope of the rights. The definition further restricts the protection to the public display of live performances rather than recordings. Although the term "performer" has been given an open-ended, inclusive definition, it should be noted that no requirements for originality or creative merit have been made explicit. A definition of performers' rights hasn't even been tried.

Section 38, which also specifies the duration for which the right shall subsist, explains the nature and bounds of the rights that accrue. The interests of persons who help make "works" accessible to the public are protected by performers' rights, which are categorised as related rights. Performers act as catalysts to transmit the "works'" pertinent original material. To ensure that transmitters are likewise encouraged to exist, such neighboring rights are recognized. The provision (i.e., Section 38(4)) that performers are excluded from any rights in a performance that constitutes a component of any audio-visual fixation or cinematograph governs the protection of non-fixed or live performances [4]–[6].

The sections of Section 38(3), which address actions that violate a performer's right, are excluded by Section 39. The fair use provisions are covered under Section 52. The special rights granted to the performer may be inferred by reading Sections 38(3), 39 and its clauses together to include: a) The right to make a sound recording or visual recording of the performance; b) The right to reproduce a sound recording or visual recording of the performance; c) The right to broadcast the performance; and d) The right to communicate the performance to the public in a manner other than by broadcast. The introduction of Section 39A expanded the scope of how Sections 18 and 19 applied to performances. It is important to note that Sections 18 and 19 provide for copyright assignment and the inalienable equitable right to royalties of the authors, respectively. Section 39A: Is it prospective, retroactive, or both?

The question of whether Section 39A, which grants performers the unassignable right to receive royalties in cases of assignment, use, and broadcasting of the qualifying performance for commercial purposes, applies prospectively, retrospectively, or retroactively is one of the most well-known arguments surrounding

Performers Right. It is obvious that no retrospective application can be proposed due to the enormous volume of claims that would arise from previous to 2012 in such a case. The need for a retroactive interpretation is brought up by the issue of the unauthorized reproduction of performances that were recorded before 2012 and are now being duplicated or transmitted after the change. It is important to note that the definition of the word "retroactive" is "extending the application or effect (of a law, decision, etc.) to matters that have occurred in the past.

The Apex Court has interpreted ix to be a subset of retrospective. According to the Court, retroactive refers to the establishment of new obligations and duties based on transactions or considerations that have already happened in the past when a specific new cause of action is performed, whereas retrospective refers to looking backward. In the context of performance, this formulation is pertinent. There doesn't seem to be any justification for not paying royalties to vocalists whose work was recorded before the amendment but is still used for commercial purposes. The prohibition against retroactive construction can be changed by reading a legislation because secundum materiumxi. To put it another way, Section 39A must be applied retrospectively in order to be consistent with the main principles established by WPPT and a beneficial construction of the Act.

Debates over the term "Live":

Major debates have surrounded the word "live" in the definition of performance under section 2(q). The Delhi District Court limited the definition of "live" to only those performances made in front of an audience or in a concerted setting, whether in a studio or elsewhere, despite the fact that Explanation of Rule 68 in the Copyright Rules states that the definition of "live" includes performances given in a studio. The Delhi High Court thankfully rejected this strict literal rule of construction without any application of mind, which goes against the principle of purposive construction of a statute in Neha Bhasin vs. Anand Raj Anand because it goes against the purposive nature of performers' rights.

According to the court, a performance that is initially recorded in a studio or in front of an audience is considered a live performance, and if that performance is used without the performer's permission, performer's rights have been violated. In fact, all legal experts agree that the definition of "live" can only be limited to exclude performances that incorporate portions of a previously recorded song into a new one (mashes or remixes) or if the performance is completely/effectively computer-generated. Application of Performers Rights in a Retroactive or Limited Retrospective Manner

The legislature advanced a proactive move towards the advantageous protection of performers by amending the Copyright Act in 2012, whereby Section 39A was added. With the required changes and adaptations, this Section expands the application of Sections 18 and 1916 to performances and performer rights. The Copyright Act's Sections 18 and 19 address "Assignment of Copyright" and the inalienable equitable right to royalties shared by the assignor and assignee upon exploitation of the work.18 The extension of the same to performances and performers entails an unassailable right to royalties for the performers in the event that their performances are exploited, assigned, or televised. The Delhi High Court will hear arguments over whether or not performances that took place before 2012 are also covered by this unalienable right to royalties. However, this question relates to acts of unauthorized reproduction of performances recorded prior to 2012 (performances that took place prior to the amendment), even though reproduced or broadcast after the amendment. It is obvious that no complete retrospective application can be suggested due to the unimaginable number of claims from prior to 2012 that would come up for litigation, including the royalty claims thereto. In the parliamentary discussions over the 2012 Amendment Act, Javed Akhtar also raised and argued this problem, which the Parliamentary Committee acknowledged.

The Legislature's Goals:

The Statement of Objects and Reasons is thought to be a good and effective instrument, albeit it is not conclusive owing to the arguments before the law is approved, to establish the genuine historical aim and motivation of the legislature when bringing in a statutory provision. One of the main goals of this amendment,

according to the Statement of Objects and Reasons of the 2010 Copyright Amendment Bill (which later became the Copyright (Amendment) Act, 2012), is conformity and concurrence (to the extent necessary) with the international standards of Performer's protection outlined by the World Intellectual Property Organization in the WIPO Performers and Phonograms Treaty (WPPT).22 Additionally, the recent formal ratification of this treaty by the Government of India confirms the rationale behind this clause.

The WIPO Performances and Phonograms Treaty, 1996 declares in its Preamble that the purpose of this international agreement is to establish and maintain the effective and uniform protection of the rights of performers and producers of phonograms. The contracting countries shall provide performers and phonograms establishing an obligation with the protection granted under this Treaty upon accession, according to sub-section 1 of Article 3 of this agreement. In addition, Article 15 of this treaty guarantees the performers and producers of phonograms the right to a single equitable compensation for any direct or indirect use of phonograms for commercial broadcasting or public communication of such performances. This right is outlined in subsection (1) of the article. This is in accordance with Section 39 A of the Indian Copyright Act, 1957, read in conjunction with Section (proviso 3 and 4).

Importantly, sub-section (1) of Article 17 of the WPPT provides that the duration of the performers' protection must last at least 50 years from the end of the year in which the performance was fixed in a phonogram.27 This makes it plain that it is the goal to include performances that took place before the treaty as long as the cause of action (broadcasting) occurs after the treaty's enactment and within 50 years of the performance's start date. Even the Indian Copyright Act, 1957 contains a similar clause in Section 38 (2), which likewise appears to apply to all performances, whether made before or after the modification took effect [7], [8]. The clarification and advantageous objective of the Amending Act on the payment of royalties to creators of literary and musical works and performers is further stated in the Statement of Objects and Reasons.

DISCUSSION

Performers' Rights and the Call for Their Protection:

Actors, circus performers, singers, and musicians have the right to perform, and their protection is demanded by significant laws all over the world. When musicians and singers made their very first recordings, it became clear that these performers needed to be granted rights immediately. These particular rights, which are those connected to the copyright, are also known as adjacent rights. The adjacent rights pertain to the creator's work since they cannot be considered established authors. It must be considered that copyright laws are a major component of all major international laws, and since artists put a lot of work into creating their works, they should be protected from others taking advantage of them. After the recording of music and performances was made possible by technological advancements, performer's rights were quickly introduced and accorded protection. It should be mentioned that original literary, musical, and creative creations are the only types of works that are covered by copyright when there is a need for the protection of an author's works. However, in the case of adjacent rights, the restriction on the original subject matter is not necessary, therefore a wide range of works, whether original or not, are protected under this. According to copyright law, authors have an equal amount of rights to those granted to music producers and composers. There are several rights that are provided to the performers, including moral rights and exclusive rights; a few of these rights are enumerated here [9]–[11].

World Conventions for the Protection of the Rights of Performers:

There are some conventions that safeguard performers' rights in a significant way, and these conventions serve as a guide for the drafting of municipal copyright laws. The following list includes the conventions that safeguard performers' rights.

Rome Convention, 1961: As implied by the name, the Rome Convention safeguards the rights of phonogram manufacturers and performers. The Rome Convention, a subsidiary of the Berne Convention, was the first step taken at the international level to protect the rights of performers. There was hesitation during the Rome Convention's discussion to provide the performers' rights, but a member of the Berne Convention urged that

there should be some sort of protection for the manufacturers of phonograms and the performers' rights. The Rome Convention gives the broad angled meanings of terms like deliver, declaim, and play in to define performers in the most thorough manner possible. According to the Rome Convention, the performers are granted a plethora of rights. The convention's problematic clause can be that if a performer of a certain work has given his agreement for it to be included in the There must be a renunciation of rights for audiovisual works. This is a difficulty because the performer, if he has agreed that his work would be used in the movie, must entirely renounce his rights.

WIPO Performers and Phonograms Treaty, 1996: The WIPO Performers and Phonograms Treaty, 1996 was passed in response to a new market and technology advancement that allowed for a significant amount of distribution of digital works in digital form. The WPPT is known as the "internet treaties" because it defends the interests of phonogram producers and performers online.30 Although the WIPO Copyright Treaty and the WIPO Performers and Phonograms Treaty (collectively known as the WIPO internet treaties) were released in 1996 to coincide with the development of the internet, India did not ratify the internet treaties until the year 2018. India did not legally adhere to the WPPT's terms and conditions until the year 2012, however that same year saw significant changes to The Copyright Act of 1957. Although there are many advantages that can come with India becoming a party, it can also be noted that the revisions will appear in a negative light. The Indian Amendments stipulated requirements for 'communication to public' that included the need for digital rights management, technology protection measures, and safe harbor principles. Technology protection measures can be defined as any software, hardware, or other technological feature that limits public access to a particular type of work. According to the "safe harbor" principle, when the works of a particular person are accessible, certain security precautions must have been adopted for that purpose. Indian artists and creators worry that the US and EU will have a certain monopoly in these fields.

According to the TRIPS Agreement of 1999, copyright has come to include the performer's rights, phonogram makers' rights, and broadcasting agencies' rights as well. The specifics of the relevant rights are described in Article 14 of the TRIPS Agreement. When the Rome Convention and the TRIPS agreement are compared, there is a slight difference; in some cases, the protection provided by the Rome Convention is greater, and in other instances, the protection provided by the TRIPS agreement is on terms that are increasing when it comes to "related rights." However, it is also true that the Rome Convention served as the model for the TRIPS Agreement. With regard to the balance of the rules relating to the design of domestic laws, the TRIPS agreement offers some freedom that may be linked to it.

Rights of Performers and Court Decisions

The question of performers' rights in India was never directly brought up in court through litigation, hence it was not a topic of judicial discussion. It is important to note that India was never included in the Dramatic and Musical Performances Act, a pre-independence piece of legislation, and as a result, prior court decisions on the subject of performers' rights in the context of the aforementioned Act would not be relevant to the Indian subcontinent. The existence of common law property rights in intellectual creations other than those entities specifically listed by statute has not been discounted by any UK case law, even if the scope of Article 372 of the Indian Constitution is expanded to include court rulings from the UK prior to independence.

The only known instances where the matter was addressed by the courts were once in 1977 as a self-admitted and once in 1978 in the case brought by actor Devanand. In the earlier case, Justice V.R. Krishna Iyer called for the inclusion of performers in the copyright protection system. The learned Judge drew attention to the lack of respect accorded to performing artists in the music business as opposed to composers and lyricists, who were safeguarded and benefited from the legislative requirements. Whether artists had a right under the Copyright Act was not definitively decided in the IPRS case. Justice Iyer merely bemoaned the situation and wished legislation would be passed. As a result, IPRS should not be used as a guideline when deciding whether or not the Copyright Act provides any protection for performers. Regarding the dispute between Fortune Films and Devanand, the issues concerned the rights to remuneration and distribution for the Devanand-starring movie Darling-Darling.

The film artist claimed that due to a contract, he was to become the owner of the copyright of the motion picture, subject to the requirement of payment. He claimed that the terms "artistic work" and "dramatic work" in Sections 2(c) and 2(h) of the Copyright Act applied to the artist's performance. On the other hand, the appellant producers argued that the cine artiste did not own the copyright to the motion picture. The Court looked into the producers' argument that the Indian copyright law did not recognize such a copyright in the performer's work. Because it was comprehensive in the five categories it addressed, the Court rejected the idea that a performance would fall within the definition of an "artistic work." In terms of being eligible under the concept of dramatic work.

Examining the Global Position:

In a decision stating that performances that occurred decades before the enactment of the legislation are also covered, the UK High Court acknowledged the retrospective application of Performers Rights to the extent that including performances, which took place before its enactment, within its purview. It also stated that an act of broadcast or reproduction post-enactment would result in the accrual of royalties to the performers. In addition, and this is crucial, the UK CDPA explicitly declares that all performances are covered by performers' rights, whether or not they were staged before or after the act establishing those rights. Following the UK, Ireland also acknowledges this stance, and the Ministry of Economic Development of New Zealand has argued in favor of such a construction with regard to that country's national statute governing performers' rights.

In terms of the United States, the Music Modernization Act of 2018's Title-2 required the payment of royalties for performances and recordings made prior to the passage of the Copyright Act. This useful objective was spelled forth in the law. Following intense lobbying by artists and performers active before 1972, the Title establishing the same has been aptly named the "Compensating Legacy Artists for their Songs, Service and Important Contributions to the Society or CLASSICS Act." It is crucial that the Indian Judiciary examine this policy issue when interpreting the 2012 Amendment Act in light of the foregoing.

CONCLUSION

The rights required for the protection and benefit of the performers have been developed under specific international instruments as well. The adequacy of the same is the significant issue that may be identified and examined. The Indian Copyright Act, 1957 the legislation that governs performers' rights in India—as well as municipal laws have generally been considered to have fallen behind in terms of technical advancement. Even while authors have had copyright protection for a long time, performers' rights have just recently been acknowledged. It puts a nation on the map of the globe and is directly correlated to the fame that a certain country achieves in the international arena when the performers' rights are respected. At The first is that there needs to be uniformity in the protection that is offered, as it's possible for one nation to defend its own citizens' performers while denying rights to those from other nations. The second reason is the presumption that developing countries won't offer performers' rights until the seriousness of the protection may be increased through the implementation of a convention to the works and how they should be protected. Digital rights management, safe harbor concepts, and technology protection measures can all be used to prevent unlawful access to works. While the EU/US wants to maintain free and open access to employment to some extent. Even yet, it can be argued that significant amounts of effort have been made to safeguard performers' rights both in India and around the world. This is true even though there have been drawbacks in the awarding of rights to performers. Only time will tell if there will be a problem protecting the laws to the extent that it will**.**

REFERENCES

[1] A. Trika and A. Pattnaik, “Performer’s rights under the copyright law,” *Int. J. Psychosoc. Rehabil.*, 2019, doi: 10.37200/IJPR/V23I5/PR190662.

[2] R. S. Meena, “Possession and transfer of copyrights of a cinematograph film,” *J. Intellect. Prop. Rights*, 2016.

[3] Z. Thomas, "Overview of changes to the Indian Copyright law," *J. Intellect. Prop. Rights*, 2012.

[4] S. Ambast, "Protecting performers' rights: Does India need law reform?," *J. Intellect. Prop. Rights*, 2008.

[5] A. Panda and A. Patel, "Role of Collective Management Organizations for Protection of Performers' Right in Music Industry: In the Era of Digitalization," *J. World Intellect. Prop.*, 2012, doi: 10.1111/j.1747-1796.2012.00436.x.

[6] S. S. Rao, "IPR in the ensuing global digital economy," *Libr. Hi Tech*, 2001, doi: 10.1108/07378830110394321.

[7] P. Prasad, B. Ronald, and A. Sapatnekar, "Protecting the rights of filmmakers in a cinematographic film," *J. Crit. Rev.*, 2019, doi: 10.22159/jcr.06.06.47.

[8] S. Pramod, "Performers' Rights: The Need for a Sui Generis Regime," *SSRN Electron. J.*, 2015, doi: 10.2139/ssrn.2604814.

[9] D. A. Farber, "Constitutional Cadenzas," *SSRN Electron. J.*, 2011, doi: 10.2139/ssrn.1122064.

[10] J. Page, "Counterculture, Property, Place, and Time: Nimbin, 1973," *M/C J.*, 2014, doi: 10.5204/mcj.900.

[11] M. Gregg, "Normal Homes," *M/C J.*, 2007, doi: 10.5204/mcj.2682.

CHAPTER 15

MORAL RIGHTS AND AUTHOR'S RIGHTS IN INDIAN COPYRIGHT LAW: PROBLEMS AND CHALLENGES

Bhirgu Raj Maurya, Assistant Professor
College of Law, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India
Email Id- brmourya.mourya321@gmail.com

ABSTRACT:
This article was produced with the intention of identifying the Indian legal system's moral rights-related regulatory framework. In order to achieve this, the author starts by outlining a number of situations and events that historically mark the emergence of this concept both globally and inside India. In spite of the formal rhetoric of legal systems all over the world, this note reveals that moral rights have been handled incorrectly, insufficiently, and in contrast to their economic counterparts within the copyright bundle, which have been given much more careful consideration. The author not only aims to bring evidence of this situation and reasons therefor, but also highlights its impact on Indian Intellectual Property Law, which has evolved concurrently through legislation, amendments, and case law. These political biases, regressive policies, and stark contradictions are plainly obvious from the final texts of initiatives such as the TRIPS Agreement. The Indian legislature and courts, who are purportedly constrained by the aforementioned international convictions, have asked for an analysis of them to the degree that it reveals unfair predispositions. With the aim of identifying and exploring current approaches to dealing with ambiguities inherited through legislation, recent developments through case law are also explored. Finally, a case is made for evaluating and returning to the comprehensive and forward-thinking ideas reflected in the Berne Convention in light of emerging difficulties.

KEYWORDS:

Authors' Rights, Berne Convention**,** Copyright, Moral Rights, TRIPS agreement,

INTRODUCTION

In order to honor and recognize the creators' creative intellectual labor, copyright protection is given to particular sorts of work creators. This protection appears to be based on a number of different theories, but regardless of the concept, copyright has always been intended to safeguard the interests of authors while also promoting knowledge and information. Although this protection began with the acknowledgement of authors' rights in their books, we can see that modern technology has altered things to the point that equivalent protection can now be asserted in a number of different contexts. Remember that copyright protection has always been mandated by law, even though it was initially accomplished through charters issued by the Crown. Therefore, copyright has always been the state's acknowledgement of the author's original intellectual labor and its ensuing award of the author's ownership rights over that work. Despite creating a monopoly, this property right has always been constrained by the public interest. In other words, the statute that grants the monopoly itself has always set restrictions on how it may be used [1]–[3].

There are two types of rights granted to writers of works protected by copyright. They are:

1. Moral rights;
2. Economic rights.

Economic rights are those that enable the authors of the work to profit financially from it. These rights pertain to the management of all forms of economic, commercial, and industrial exploitation of the works as well as other ways to utilize them, including acts like reproduction, public communication of the work, modification, etc.

Copyright's History Economic Rights:

The first theory on copyright protection dates to the sixth century A.D. The argument between St. Columbia and his instructor Finnian of Moville is described in an Irish tale.3 St. Columbia duplicated Finnian's plaster but insisted on keeping it. When Finnian claimed both the original and the duplicate of his property, there was a disagreement. When making his decision, King Diarmid said, "To every cow her calf; therefore, to every author his copy." This was the first legal ruling concerning an author's ownership exclusivity. One can only determine which right the monarch was referring to by interpretation. Is it the author's moral or economic right in current terms? It's because the teacher ran into trouble when the student did it in his name.

Whatever the interpretation, the economic right was legally acknowledged earlier in the form of the "right to publish," and shortly after that, in 1436, Johannes Gutenberg invented the printing press. The device gained popularity in the UK, the US, and other countries from Europe. When printing was a well-established craft in 1556, legal restrictions were imposed in England. For the purpose of regulating particular genres of religious literature, Stationer's Company, an organisation of publishers, was granted a royal charter. It should be remembered that the idea of copyright was unheard of at the time. The Licensing Act of 1662 followed, making it illegal to print any book that had not been authorized and registered with the Stationer's Company. This was the first law that made it explicit how to protect copyright and stop piracy. Therefore, it is convenient to say that copyright laws date back to the 17th century. After the Act was revoked in 1679, England lacked statutory protection for the following 30 years. Only the Common Law provided protection.

The Statute of Anne's enactment in 1709 marked a significant development. It became operative in 1710 when the exclusive right and liberty of printing was granted for a period of 14 years in the first instance, and another 14 years if the author was still living. One was forced to pay fines for violations, which were split between the author and the Crown. After the Statute of Anne's restrictions were put into effect, the House of Lords made it clear in 1774 that no other protected rights to publish copies of a literary work remained. This indicated that there was no common law protection for copyright and that it was a legislative right. Although the Licensing Act guaranteed author rights in principle, only the Statute of Anne provided a specific protection of copyright. Later, the Copyright Act of 1911 took its place. In this sense, the first statute in the US was passed in 1790. The rules had changed all throughout the world, and this development in England was not the only one of its kind. The distinction was whether it was protected as property or as a privilege, according to the underlying ideology. Berne offered the standardized system that was required internationally.

Types of Moral Rights:

According to the Berne Convention, moral rights are a collection of rights rather than a single right. According to the Convention, the rights protected therein are independent of the economic rights that authors hold, therefore even if an author transfers his economic rights, he can still exercise his moral rights. Even after the author's passing, these rights will remain in effect, at least until the commercial rights expire. The Meeting has granted member nations the opportunity to extend this period of protection, allowing them to choose their own policies. The paternity right and the integrity right are two examples of the several categories of rights recognized as moral rights under the Convention.

Parental Rights

This legal designation is also used for the "attribution right" or the "identification right." It developed from the droit de paternité principle in France. The author has the option to include his name in the work or decide whether it should be published under a pseudonym or anonymously. This right imposes a duty on the publisher to make sure that the work is associated with the author and the author alone, even if the author has provided the publisher his work without specifying that his name must be connected to it. This right is especially important in cases where an author has given up all of his commercial rights to a publisher or another party. There will be no contractual connection between the second assignee and the author if there is a subsequent assignment, making the right to assert authorship particularly relevant in that circumstance.14

Corporate companies and employers who engage outside artists to produce a work for them are not permitted to use this right because it directly relates to the author's identity, even though by law they may be the original proprietors of the copyright.

Integrity Rights

This privilege, which stems from the French notion of droit au respect de l'oeuvre, forbids any type of alteration, distortion, or mutilation of the work by prohibiting changes and adaptations to the work that would harm the author's reputation, this right serves to safeguard the author. Any changes or additions to the work that have the effect of severing the author's connection to his or her creation will likewise be regarded as a breach of the integrity right. The violation of the integrity right will also be called into question when the work is transformed into another form. For instance, when a literary work is made into a cinematograph film, it cannot be altered in a way that represents a negative portrayal of the author's work, even for the purpose of effective commercial exploitation of the work. Another crucial problem with the question of whether destroying the work will constitute mutilation with respect to this right. There are compelling defenses and objections to this. Some contend that destroying a work is the most severe kind of mutilation and is therefore covered by Article 6bis of the Convention. Others believe that because the work has been destroyed and is no longer visible to the public, it cannot be considered disparaging toward the author and is not covered by moral rights. In addition to these two, two other rights are included in the category of moral rights. The disclosure right and the retraction right are what they are called. These rights were developed by Continental jurisprudence and are generally recognized in European statutes, as was previously indicated in this article.

The right to Divulgence

The "dissemination right," which derives from the term "divulgation right," refers to the author's authority to determine how, when, and where their work is made available to the public.18 This right is regarded as a component of the economic right of publication under the legal systems of the majority of nations. However, under the continental systems in France and Germany, this is viewed as a distinct right with a broader scope.

Right of Retraction

The retraction right, which derives from the French droit de repentir, gives authors the freedom to withhold their works from the public if they believe that doing so is prudent given the passage of time and shifting public opinion. Most common law nations regard this right in a manner similar to how they treat the right of dissemination because the right to publishing also includes the freedom not to publish. As was already said, the Berne Convention obliges its signatory nations to amend their domestic legislation as needed in order to adequately protect moral rights (such as the integrity and paternity rights). The United States did not join the Berne Convention until 1989, it should be noted. The U.S. has allegedly been responsible for this.

DISCUSSION

Legal Principles of Moral Rights

Older than the conception of author's right as a personality right are the concepts of "copyright" and "economic right." The origin of moral rights is explained by two different hypotheses. One is the Joseph Kohler-founded dualist thesis, which claims that moral rights are distinct from economic rights. The monist theory, which is acknowledged in German law, comes in second. The Ulmer-developed view contends that "material rights" and "ideal rights" are not divided [4]–[6].

The idea of moral rights comes from French jurisprudence, which gave the rights the broadest interpretation. The idea that certain brilliant artists are the unworldly victims of the copyright industry's vultures has served as one of the main sources of inspiration for moral-right ideology. Torremn, on the other hand, has a claim of its own that is marginally distinct from Cornish. He claims that a very strict protection of the author-creator may make it impossible for the entrepreneur to carry out their work. As the latter will be unable to profit from the work, this may have a significant negative impact on the author's motivation to produce works and

lessen their prospects of making a livelihood as authors. Therefore, balance is necessary to achieve a perfect copyright system because it reconciles the need to preserve the author's control over his work after assignment, avoid the possibility of unfair use that could discourage the author from continuing to create, and, on the other hand, the freedom of the businessperson to fully exploit the work. These two goals are combined by moral rights.

Status at Global Level:

The Berne Convention, TRIPS, and WIPO Copyright Treaty status have already been observed. Aside from them, there are other treaties like the Rome Convention, the Phonograms Convention, and the Universal Convention on Copyright, which do not mention moral rights and neither do the EC Directives or NAFTA. America, a common law nation, had always been certain that moral rights were not statutory rights. It is felt that there were sufficient protections against the author's alleged moral rights being violated, negating the necessity for a separate provision for them. As a result of its adherence to the Berne Convention, it later had a duty to include moral rights in the statute because it was uncertain whether the provision under the Lanham Act63 was adequate to abide by the Berne Convention.

The Convention Implementation Act of 1988 provided a favorable response and went on to state that any modifications made in order to comply will neither increase nor decrease existing author rights that already existed. The Visual Artists Rights Act, which recognized moral rights with regard to visual art, was only passed in 1990, marking the beginning of the positive trend. There are no more works, such as literary or musical compositions or motion pictures. According to Brain A. Lee. Paintings and sculptures can be duplicated in some ways, but the technology to create exact copies does not exist. Even if it did, the fact that there is only one original means that, if a copy was not made before the buyer made an alteration, the original would be lost forever. As a result, we would anticipate finding a right to integrity provided here, which we do... Since it's simple and common to copy texts and musical scores exactly, creators of written works like books and musical compositions equally predictably don't receive a claim to integrity. Music is either completely ephemeral since it was a live performance that was not documented, in which case intellectual property issues are unimportant, or it is recorded, in which case the recording is the significant artwork. We would anticipate the law not to grant musicians a right of integrity because it is easy to produce numerous copies that are similar in quality to an original recording, and it does not... The case of motion pictures is an intriguingly complex one. The VARA and several state statutes expressly forbid the grant of Moral Rights to motion films. This exclusion is expected given that numerous, identical prints are created from the original master film.

India’s Human Rights:

The moral rights of the author are covered by Section 57 of the Copyright Act of 1957 under the term "special rights of the author." Only the two types of rights specified by the Berne Convention, namely the right to paternity and the right to integrity, are covered under Indian law. Regarding derived rights, they are also somewhat acknowledged in our nation. For instance, the right to the integrity of the work can include the right against destruction. However, there is a rider. Soon following the case of Amar Nath Sehgal v. Union of India, by a change to Section 57. The modified provision states that the right can only be exercised if the author's reputation has been harmed. It appears that France, where only negative rights are passed, served as an inspiration for the right to transmission after death.

The right granted to the author of a work by sub-section other than the right to claim authorship of the work, may be exercised by the author's legal representatives, according to Section 57. Last but not least, the power of waiver is not covered under the Indian Copyright Act. Only the renunciation of economic rights is included in Section 21 of the Act. The French way of life is what India has embraced. The Mannu Bhandari v. Kala Vikas Picture Ltd. case is significant in this aspect because it shows how an agreement can waive a person's moral right to honesty. Garapati Prasad Rao v. Prarnandi Saroja and Ved Prakash v. Manoj Pocket Books are two further significant decisions relating to moral rights in India.

In our nation, the rights belong to all creators who are considered authors under clause 2(d) of the Act. They are the literary work's author, an artist, a producer, and a photographer. The beneficiaries specifically exclude the author under Section 2(d). Similar restrictions apply in the UK, where any computer-generated work—including software, typeface designs, and computer programs—is not permitted. German law, on the other hand, guarantees the computer program's creator unrestricted moral rights. France adopts a middle ground where the author cannot exercise the right to revision or retraction or restrict program change within the parameters of the rights, he has succeeded. In addition, he is free to exercise all of his rights. Once more, unlike in the UK, the director of a movie is not considered an author by Indian law and does not have copyright. subsequent recognition of the third category as the According to the Copyright Amendment Act of 2012, 'performers' who were granted rights under English law of 1988 by an amendment Act in the year 2006 are the beneficiaries of the moral rights. It is clearly stated in Article 5 of the WIPO Performances and Phonograms Treaty that the performer has moral rights.

The copyright's term also serves as the period during which moral rights expire. The rights are permanent in France and identical to copyright in Germany. The phrase "moral right" isn't particularly unique to the UK. The right to be recognized as an author or director, the right to privacy, the right to integrity, and the right to copyright protection all last as long as the copyright is in effect. The right to be protected from false attribution lasts for 20 years after the author's passing.

Except for the computer program, for which copyright is conferred by statute, the works listed under Section 13 that have copyright are those for which the author is granted protection. Only after the Start Software v. Karan Khanna case, in which the judiciary supported the progammer's moral right, were computer programs made an exception. Due to the commercial nature of most computer programs and output, as well as the necessity to prevent former employees of the computer department from trying to obstruct modifications to the software they developed, these exclusions may be warranted. Given that many computer programs are the result of collaborative efforts, a problem may arise if computer programmers and system analysts requested authorship credit [7]–[9].

Indian Moral Rights in The Future:

When examining the aforementioned instances, particularly Amarnath Sehgal and Neha Bhasin, it becomes clear that the courts have recognized certain rights that are not explicitly recognized by the Copyright Act (1957), as revised in 1994. In the earlier case, the Delhi High Court granted Indian writers a dissemination right and a retraction right that neither TRIPs nor the Berne Convention recognize. In the later instance, which likewise involved the moral rights of artists, the Delhi High Court upheld a right that was not established by law. The WPPT's acceptance of this privilege may be the root cause of this.

The Copyright Amendment Act (2012), which took effect on June 21, 2012, reveals that several adjustments have been made in relation to the current provision in order to eliminate any prior inconsistencies. The sentence that said that the right to integrity could only be exercised when copyright was in effect was removed. This amendment is intended to extend the right of integrity beyond the duration of copyright, as is made plain by the "notes on clause" provided with the presented Bill. The Act also changed section 57's clause 2 so that the authors' legal representatives will also be able to exercise the ability to assert ownership. As a result, it is clear that the 2012 Act has made moral rights everlasting, which is much in line with the concept that underlies the establishment of this right.

Section 38B of the Amendment added a new clause that only addressed performers' moral rights.52 Performers are now granted both the right of paternity and the right of integrity under the new clause, putting them on par with authors in terms of moral rights so should be remembered that Indian law has long recognized moral rights, even though TRIPs does not require so. Even though there was a legislative omission, the judiciary went one step further and acknowledged it to a very significant level, but it is still unclear if such a judiciary use of power is legal. The amendment improved the clause further by aligning it not just with the WCT and WPPT (which can be interpreted as reflecting India's intention in signing the Internet treaties), but also bringing Indian copyright law in line with the underlying moral rights theory. Thus,

it is accurate to say that moral rights of authors in India are now fully safeguarded, however the actual practical implications won't be known until after legal rulings on the recently modified rules.

CONCLUSION

In conclusion, the researcher believes that the moral rights enforcement conundrum is still present, unsolved, and extremely distant from a solution. The first issue that needs to be resolved in light of globalization and access is that of long-standing traditional viewpoints and legal distinctions among various jurisdictions that have frequently ran opposite to one another. Only then can the difficult process of harmonizing and then successfully enforcing moral rights even appear to be moving forward. Though the Indian judiciary's efforts to create a hybrid copyright regime that is arguably tailored to meet local needs are to be applauded (bridging the Hegelian model with the Kantian model is one such initiative), it appears that maintaining such a separate regime for the protection of moral rights, independent of the global trends towards copyright harmonization, may have more unfavorable effects than favorable ones. For instance, it can discourage authors who are protected by other copyright systems from taking part in or interacting with the Indian system. Therefore, initiatives in the domestic and foreign arenas must be carried out concurrently. What needs to be understood and internalized is the already-existing legal precedent of the Berne Convention, which anticipated the interdependence of moral and economic rights and obligations, while renegotiating initiatives that are politically sound but logically flawed, such as the non-conformity clauses in TRIPS, which have the effect of stifling domestic initiative.

REFERENCES

[1] M. F. Makeen, “Moral rights protection under Egyptian author’s rights law,” *IIC International Review of Intellectual Property and Competition Law*. 2007.

[2] M. A. Santoro, “Post-Westphalia and Its Discontents: Business, Globalization, and Human Rights in Political and Moral Perspective,” *Bus. Ethics Q.*, 2010, doi: 10.5840/beq201020201.

[3] A. Etzioni, “Communitarianism revisited,” *J. Polit. Ideol.*, 2014, doi: 10.1080/13569317.2014.951142.

[4] J. Favre, T. Germond, P. Clavert, P. Collin, A. Michelet, and A. Lädermann, “Want a better h-index? – All you need to know about copyright and open access,” *Orthopaedics and Traumatology: Surgery and Research*. 2020. doi: 10.1016/j.otsr.2020.05.015.

[5] V. Candy, “Social responsibility and globalization,” *J. Appl. Bus. Res.*, 2013, doi: 10.19030/jabr.v29i5.8019.

[6] D. Bartram, “Happiness Is the Wrong Metric: A Liberal Communitarian Response to Populism,” *Contemp. Sociol. A J. Rev.*, 2020, doi: 10.1177/0094306120915912q.

[7] S. Passini, “Individual responsibilities and moral inclusion in an age of rights,” *Cult. Psychol.*, 2011, doi: 10.1177/1354067X11408130.

[8] B. O’Neill, “Media literacy and communication rights: Ethical individualism in the new media environment,” *Int. Commun. Gaz.*, 2010, doi: 10.1177/1748048510362445.

[9] J. Mikhail, “Emotion, neuroscience, and law: A comment on darwin and greene,” *Emotion Review*. 2011. doi: 10.1177/1754073911406150.

CHAPTER 16

PATENT RIGHTS AND CORVID 19: EXCLUSIVE RIGHTS VS PUBLIC INTEREST

Yogesh Chandra Gupta, Assistant Professor
College of Law, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India
Email Id- cognitor.yogesh@gmail.com

ABSTRACT:
The pandemic compelled everyone in society to adjust to the altered circumstances. People's working methods had to be rethought and reevaluated as a result of Covid-19. The IPR field was not any different. Since the treatments and vaccines that were at the forefront of fighting the epidemic were being studied and developed with considerable resources, both monetary and intellectual, the pandemic required dramatic changes in the IPR regime, especially Patents. This reignited a long-running discussion about the protection of pharmaceutical and medical device patents. While the TRIPS waiver and other domestic legal and policy changes allowed for relaxed patent protection and widespread exploitation, enabling the mass production and distribution of drugs and vaccines, this also led critics to question the IPR regime's rigidity and, most importantly, the certainty of protection for capital-intensive research. These include immediate measures like mandatory licensing and governmental use as well as the long-term design of a new innovation model like state-coordinated pharmaceutical research and open innovation. To ensure the rapid advancement of COVID-19 therapy that is accessible to everyone and complete preparedness for the pandemics of the future, the current system should be reevaluated. This paper seeks to provide a broad overview of the incentives provided by IPR, particularly patents, and the changes in dynamics that occur in times of need, like as the Covid19 pandemic.

KEYWORDS:

Covid 19, Pandemic, Patents, IP waivers, Vaccines,

INTRODUCTION

A patent is a type of legal protection that grants monopoly rights on new product or process inventions. It prevents anybody other than the patent holder from creating, utilizing, selling, or importing the patented good or service without their permission for a set amount of time, which is typically 20 years. In exchange for complete disclosure about the newly created process or product, patents are issued. The legal concept of patenting dates back to the 15th century in England, when the king issued some manufacturers and merchants letters patent. Domestic statutes and international treaties and conventions have now envisioned and codified the idea. By using his Labor Theory, John Locke defended the use of patents as a means to give one-person exclusive property rights over another. This argument contends that when someone utilizes their efforts to produce anything from naturally occurring resources, they should be granted exclusive ownership rights to that production. However, Locke also included a requirement for giving property rights in his Second Treatise of Government. He argued that only resources that are plentiful and accessible to others can have property rights granted to them.

However, such property rights cannot be awarded if a person uses his work to obtain scarce resources. This means that even if someone has put a lot of effort into the discovery, development, or identification of a resource like a gene, monopoly rights cannot be awarded over them. Furthermore, the utilitarian theory, which seeks to achieve a balance between public and private rights, is a significant theory for the goals of this research article. The utilitarian theory of John Stuart Mill advises assessing the results of making decisions exclusivity rights, and if such a provision of protection would result in satisfaction that would outweigh any pain or harm that might result. Such protection shouldn't be given if the total happiness is lower than the total harm caused to society. This theory is helpful for researching and assessing the granting of patent protection to the pharmaceutical business since in practically all situations, particularly during times

of a global health emergency, the welfare, survival, and general well-being of the society are pitted against the granting of commercial protection. This kind of analysis serves as the basis for this essay and is covered in the following sections [1]–[3].

As the pharmaceutical sector is heavily dependent on research funding, patents are extremely important. That is to say, large funds must be set aside for research and development of the goods and procedures created in the pharmaceutical sector. These high-risk expenditures on infrastructure, personnel, etc. are necessitated by the propensity for failure of research in this field. Every new medicine that is approved for clinical use requires an average expenditure of $1-2 billion, spread over a period of 10-15 years, which is a lengthy, expensive, and high-risk process. For the rare research products that do pass the clinical trial stage and become ready for commercial usage in such a scenario, the necessity for legislative protection and monopoly rights becomes even more crucial. As a result of the protection provided by patents and related rights, this industry is encouraged to pursue further research and development and can operate using a high risk/high reward strategy. Statistics show the significance of patents in this sector, with 80% of pharmaceutical businesses' total revenue coming from patents. The proprietary model with extensive patent protection is the current model for pharmaceutical innovation.

Despite the fact that patents frequently result in unaffordably high medicine prices, pharmaceutical corporations assert that they require strong patent protection to safeguard their R&D investments. Because of this, the existing legal system has evolved around the paradigm of proprietary research carried out by for-profit pharmaceutical companies, the results of which are frequently covered by numerous patents. Such exclusive research has a number of drawbacks. Due to the dispersion of information and the multiple pharmaceutical companies' duplicative research efforts, it can first result in a considerable loss of time and resources. In order to acquire market exclusivity, which gives them the power to choose the price of their products, these businesses often attempt to get the broadest and strongest patent protection possible for the findings of their research. Due to the high cost of these products, this frequently results in access issues.

However, the exclusive system of pharmaceutical invention as we know it today just recently began to take shape. In the past, nations had the freedom to create their own national IP-related laws to lower drug prices and improve access to care in accordance with their unique local requirements. In many nations, the method of making medicines is not fully protected by patents or is only partially protected. This strategy was founded on the worry that patents would lead to monopolies over such a crucial good as pharmaceuticals. The WTO Agreement on Trade-Related Aspects of IP Rights (often referred to as "TRIPS"), which required all WTO members to grant patent protection to all types of technologies, including pharmaceuticals, brought about a change in this situation in 1995. Together with bilateral agreements that strengthen the protection even more, these new international regulations. Many nations were unable to give their inhabitants adequate access to crucial medicines due to patent-related issues and pharmaceutical companies' efforts to "evergreen" their market monopoly. Diseases like HIV, which have evolved into treatable chronic disorders in rich nations, continue to claim millions of lives in low- and middle-income countries, according to the UN High Level Panel on Access to Medicines' 2016 report. Regulatory Framework

After the Patent (amendment) Act of 2005, which permitted the patenting of pharmaceuticals, the domestic legal system underwent a significant transformation in the area of patent laws. This was accomplished following lengthy discussions about whether or not pharmaceutical items should have patent protection, as such a grant of monopoly rights could cause drug prices to skyrocket, rendering affordability and accessibility of medicines unattainable for the majority of people. Section 5 of the Patents Act of 1970, which limited patent claims relating to foods, medicines, medications, and chemicals to just methods of manufacturing processes and not product patents, was eliminated as a result of the Amendment. Therefore, the issue was that the finished product was not protected and might be manufactured by rivals using techniques for reverse engineering or by changing the patented process.

With the advent of product patents, the finished product was safeguarded, and exclusive rights were given to the drug's final formulation. There were discussions shortly after the introduction of product patents in the

pharmaceutical industry, with one side arguing that the protection of end products and the monopoly rights granted therein would result in sharp price increases and have a negative impact on accessibility to important drugs, while the other side claimed that by securing the final product, pharmaceutical companies would receive a reward commensurate with the high risks involved in developing such products. With the addition of several safeguards, the Indian Patent regime has achieved a certain level of equilibrium. Denying incremental innovation patent protection is one such safeguard. What will comprise a patent was outlined by the Patent (amendment) Act of 2005. It was made clear that nothing that already exists or is known cannot be patented as an innovation.

It stipulated three requirements, including "non-obviousness," "inventive step," and "industrial applicability," for patentability. The Act's Section 3(d) promotes novelty and creativity by prohibiting the "evergreening" of patents and raising the bar for what qualifies as an invention or innovation. The provision limits the application of patents and excludes discovery. This means that if a person or organization discovers something that was already there in nature but was not known or acknowledged, then such a finding or discovery cannot be protected by a patent. The section also outlines situations in which patents cannot be issued and states that "the mere discovery of a new form of a known substance which does not result in the enhancement of the known efficacy of that substance" 10 cannot be patented. These provisions have a particularly negative impact on the pharmaceutical industry. Because of the exclusion provided by this clause, a freshly produced drug cannot be patented when the quality, intent, and efficacy of a patented drug remain the same and only minimal modifications are made to the constituent parts.

In this way, generic medications were exempted from the patent regime, and the competition ensured price control, accessibility, and affordability. In the case of Novartis AG v. Union of India, the ideas presented in the preceding section were examined and put to the test. One of the biggest multinational pharmaceutical corporations, Novartis multinational AG, applied for a patent on the anticancer medicine "Gilvec," which was used to treat chronic myeloid leukemia (CML) and gastrointestinal stromal tumors (GIST). The medicine was previously anticipated by a prior publication, and the patent application was rejected for failing to meet the standards of innovation and non-obviousness. Additionally, it stated that compared to its predecessor, the drug's therapeutic efficacy did not show any significant modifications.

DISCUSSION

Is the current pharmaceutical innovation system capable of containing the COVID-19 worldwide pandemic? The issue of access to medicines, which is a result of the current system, is not new, but what is alarming in the present is that we are depending on this broken system to find a cure for the global coronavirus pandemic by creating breakthrough medications and ensuring affordable and equitable access everywhere. Understanding that cooperation and data sharing are the most practical ways to battle the pandemic, the WHO has started an unprecedented collaboration between nations and other institutions. The worldwide community, as well as important stakeholders, are urged to "voluntarily pool knowledge, intellectual property, and data necessary for COVID-19." Tedros Adhanom Ghebreyesus, director general of the WHO, stated that this information-sharing platform "based on strong science and open collaboration, will help provide equitable access to life-saving technologies around the world."

The Technology Access Partnership, hosted by the UN Technology Bank , and the Open COVID Pledge Initiative are two additional initiatives for voluntarily sharing the pertinent knowledge, intellectual property, and data to enable widespread and international production, distribution, and use of such technologies and necessary raw materials. Although such efforts to pool patents and exchange IP information are not new, their expertise in facilitating access to medications may be extremely helpful in hastening the development of COVID-19 vaccines and treatments. Even the European Commission is making a temporary adjustment to its position because it recognizes that "this extraordinary situation may trigger the need for companies to cooperate in order to ensure the supply and fair distribution of scarce products to all consumers," and it will "not actively intervene against necessary and temporary measures put in place in order to avoid a shortage of supply." All of these initiatives lack the pharmaceutical industry, which is a crucial critical stakeholder

despite being spectacular in terms of their prospective scope. The likelihood of these and other endeavors succeeding without its active participation in them is quite low [4]–[6].

Sadly, it appears that pharmaceutical corporations are hesitant to participate in these projects because doing so would require them to share their intellectual property. The chief executives of Pfizer, GlaxoSmithKline, AstraZeneca, and J&J, which are all competing to develop COVID-19 vaccines and treatments, recently spoke at a briefing hosted by the International Federation of Pharmaceutical Manufacturers and Associations and expressed their disapproval of the WHO initiative to share intellectual property 5,41,44.This epidemic has revealed how much we rely on for-profit pharmaceutical businesses. Even while a number of pharmaceutical firms have stated that they will offer their vaccines for cost throughout the duration of the COVID-19 pandemic we must keep in mind that the pharmaceutical sector is a profit-driven enterprise. Additionally, it is not intended to function in such unusual scenarios.

Pharmaceutical corporations are responding to the problem by continuing to do what they have been aiming to accomplish in recent years: a competitive race of proprietary research running concurrently, collaborating with universities or small tech startups to improve their chances. While under normal circumstances, this competition might be advantageous by offering many approaches to treating an illness, the current conditions and deadlines are not typical. Therefore, the development of the solutions that are figuratively expected to save the world should not be subject to the normal mechanisms of competition. Pharmaceutical corporations have repeatedly asserted that things aren't "business as usual" longer, but49The truth is otherwise.

The industry's functioning has not changed as a result of COVID-19. Pharmaceutical firms conduct proprietary research and produce their own data, the results of which will still be covered by IP rights. This has a significant time and resource cost with unknown effects. Long-term strategies to promote equal and cheap access to medications worldwide in the medium run, the above-discussed methods might allow for more cheap access to some COVID-19 medicines, but they won't address the issue of access in general. An urgent response is required to stop this unprecedented worldwide epidemic, which is the result of a global market failure. The current system needs to be drastically changed in order to prevent the global issue with access to COVID-19 medications and to be ready for upcoming pandemics. Today, there are many possibilities for making such adjustments.

These include, for instance, the creation of a new model of open innovation and state-coordinated pharmaceutical research and development to combat pandemics. The first strategy simply means that the state should take on the role and duty of being prepared for health-related threats like pandemics. A thorough infrastructure that includes both the development and production of the medications required for health security should be put in place. Thus, the creation of new, specifically designated research centers to study and prepare for new pandemics, as well as the establishment of infrastructures for the development and manufacture of medicines by countries, may help to reduce the risks of new pandemics while also ensuring access to crucial medications after the pandemic has ended.

Another possibility is to establish an open innovation system that would allow for unrestricted access to knowledge, data, and technological advancements. Innovation is important, but the standard procedure for managing it no longer seems to be effective. Chesbrough held this opinion almost two decades ago, and it is still true today. He stated that the previous innovation paradigm was centered on the closed model, in which businesses independently create, build, sell, and fund their ideas. This approach includes the underlying principle that "we should control our intellectual property so that our competitors do not benefit from our ideas" (ibid). He further asserted that this paradigm produced a "virtuous circle" in which businesses invested in their internal R&D, which produced breakthroughs and increased their profits, which were then reinvested back into new R&D (ibid). Because IP was others could not benefit from it since it was fiercely guarded (ibid). The pharmaceutical sector is a good example of how this paradigm, which according to Chesbrough was effective for the most of the twentieth century, is no longer viable. Despite the apparent increase in investments in pharmaceutical R&D, the pipeline of ground-breaking drugs is shrinking, and only a small number of truly innovative drugs have been created recently. Pharmaceutical businesses are increasingly

turning to outside sources of innovation as they realize that the closed model of innovation in this industry is no longer viable. Pharmaceutical companies have been collaborating with academic centers of excellence, constructing innovation hubs, forming public-private partnerships with academic institutions, setting up precompetitive consortia, or experimenting with crowdsourcing and virtual R&D in recent years. However, firms tend to use these novel approaches only when they are compatible with their conventional, largely internal (i.e., closed) R&D models and when conducting research in fields unrelated to their key brands (ibid).

The pharmaceutical sector has been reluctant to use the open innovation approach despite the significant promise it may have for society in this area. Their existing methods will need to alter, which is one of the key causes, in addition to their concern over losing control of their priceless IP assets. This system is based on the closed (or semi closed) model of innovation that relies on strong IP protection, which has already proven to be ineffective in the past and poses a risk to humanity by preventing research. The apogee of this state of affairs is the current pandemic, in which pharmaceutical companies have refused to share their IP with the open innovation pledges discussed above. If used, the open innovation model would stop "the fragmentation of knowledge that is inherent to the IP-driven pharma industry and permit a free flow of information, allowing for a more effective use of resources and a quicker development of medications, including for COVID-19. Both solutions offer advantages and disadvantages that should be thoroughly considered before being implemented [7], [8].

For instance, the development of state infrastructure would help nations prepare for pandemics in the future without overdependence on the pharmaceutical industry. However, it might result in access disparities because wealthy nations would be better able to build these infrastructures while less developed nations would not be able to. On the other side, the open innovation system may support the growth of medical research because it will allow scientists throughout the world to share and use vital data without being constrained by IP rights. As a result, a new design for the IP protection system will be required to ensure that access is not restricted. Pharmaceutical businesses, on the other hand, contend that they would lack incentives to conduct R&D if the existing degree of IP protection were to cease. In order to get pharmaceutical corporations interested in this new system, alternative incentives may need to be created. Such incentives might, for instance, be performance-based with governments collectively establishing the standards for what they would buy and at what cost.

Certain problems with denying pharmaceutical companies' monopoly and patent protection rights on goods and methods related to Covid-19 include that such a waiver is would discourage further innovation and investment in R&D and go against the fundamentals of IPR legislation. However, if we go back to John Stuart Mill's utilitarian approach, the award of patent protection can be rejected if it will ultimately do more harm than benefit. In this situation, granting patent protection to Covid-19 medicines and vaccines in the name of defending economic rights would have worsened the global health crisis, putting the most strain on low-income and developing nations. The claim that intellectual property rights serve as incentives to encourage additional innovation cannot hold up under the unusual conditions given by Covid-1919. In addition, the proposal only waives protection for incentives for a brief period of time, namely three years. Additionally, the protection is only waived for low-income and developing nations, not for rich nations, where such pharmaceutical corporations make the most money21. Additionally, government funding for infrastructure and research and development are used as incentives for these pharmaceutical companies and research institutions [9], [10].

CONCLUSION

The long-overdue adjustments to the current system are unavoidable even though the model for a new one of medical innovation and access has yet to be devised. The pandemic has revealed the system's fundamental faults, which the entire world has to address right away. This is due to the past few decades' worth of experience, which have shown that this system failed to ensure that everyone had appropriate access to medications. It has also revealed how heavily we depend on the private pharmaceutical industry to maintain the security of global health. Governments must employ all available tools to guarantee quick and equal

access to COVID-19 therapy, including providing mandated permits and, where necessary, authorizing government uses. Additionally, using past experience as a guide, we urgently need to fundamentally rethink the model of medical innovation and access to ensure that we can quickly develop COVID-19 medicines that are accessible to everyone as well as ensure that we are fully prepared for future pandemics. To identify the most appropriate and practical solution that would be advantageous for society, all the stakeholders including governments, pharmaceutical firms, international non-governmental organizations, non-profit organizations, academic institutions, and public initiatives must collaborate.

REFERENCES

[1] J. C. Lai, "Exclusive rights of patent owners versus rights of chattel owners: The implied Licence approach," *Oxford Univ. Commonw. Law J.*, 2018, doi: 10.1080/14729342.2018.1530862.

[2] T. V. Shatkovskaya, I. A. Isayev, T. V. Epifanova, and M. A. Ismailov, "The application of legal-statistical method in analysing manufacturing property's institutional development," *Int. J. Econ. Bus. Adm.*, 2019, doi: 10.35808/ijeba/267.

[3] F. L. Pramoediyanto, "Essential Facilities Doctrine Untuk Membatasi Hak Eksklusif Paten," *J. Ilm. Pendidik. Pancasila dan Kewarganegaraan*, 2020, doi: 10.17977/um019v5i2p389-397.

[4] R. S. Eisenberg, "Patents and the Progress of Science: Exclusive Rights and Experimental Use," *Univ. Chicago Law Rev.*, 1989, doi: 10.2307/1599761.

[5] C. Buccafusco, M. A. Lemley, and J. S. Masur, "Intelligent design," *Duke Law J.*, 2018, doi: 10.7551/mitpress/9780262014366.003.0114.

[6] P. Thalib, "PERLINDUNGAN HUKUM TERHADAP PEMEGANG HAK CIPTA DAN PEMILIK LISENSI REKAMAN BERDASARKANUNDANG- UNDANG TENTANG HAK CIPTA," *Yuridika*, 2013, doi: 10.20473/ydk.v28i3.351.

[7] M. Z. M. Nomani, A. K. K. Alhalboosi, and M. Rauf, "Legal & intellectual property dimension of health & access to medicines in india," *Indian J. Forensic Med. Toxicol.*, 2020, doi: 10.37506/v14/i1/2020/ijfmt/192878.

[8] K. D. A. Adnyani, I. N. P. Budiartha, and N. M. P. Ujianti, "Perlindungan Hukum terhadap Penerima Lisensi Paten dalam Alih Teknologi," *J. Interpret. Huk.*, 2020, doi: 10.22225/juinhum.1.1.2180.24-29.

[9] T. Hidayati, "PATEN DAN KOSMOPOLITANISME ISLAM: PROBLEMATIKA DI PERGURUAN TINGGI ISLAM," *Nurani J. Kaji. Syari'ah dan Masy.*, 2019, doi: 10.19109/nurani.v19i1.3162.

[10] H. Toivanen and M. Novotny, "The emergence of patent races in lignocellulosic biofuels, 2002–2015," *Renewable and Sustainable Energy Reviews*. 2017. doi: 10.1016/j.rser.2017.03.089.

CHAPTER 17

INTRODUCTION TO TRADEMARKS LAW IN INDIA: EVOLUTION AND DEVELOPMENT

Pradip Kumar Kashyap, Assistant Professor
College of Law, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India
Email Id- pradiprgnul@gmail.com

ABSTRACT:
In the same way that people can claim ownership rights over physical property, intellectual property rights enable them to do the same with the products of their creative and innovative activities. Since intellectual property is a product of human labor, it is subject to numerous modifications. Patents, Trademarks, Designs, and Copyrights are the four primary categories of Intellectual Property. Trademarks will be covered in this article because they are a crucial component of intellectual property. The goal of the trademark is to safeguard the producer or trader as the owner by making the producer's or dealer's goods known to the general public. As a result, a trademark has the potential to develop a strong reputation and serve as a symbol of excellence in the marketplace. Therefore, different regulations were developed by the relevant government in each country to protect the owners of trade marks. The fundamentals of trademarks, their historical context, and contemporary developments in the field of trade mark law, particularly in the Indian context, will be covered in this article. It can be concluded that recent changes to Indian trade mark rules, if correctly applied, could aid the country's development in the area of intellectual property and offer stronger protection to trade mark owners.

KEYWORDS:

Domain Name**,** Nice Convention, IPR, Trademarks, World Intellectual Property Organization (WIPO),

INTRODUCTION

The term "trademark" refers to a recognizable emblem, expression, word, or symbol that designates a particular good or service and legally distinguishes it from all other goods and services of a similar nature. The trademark basically recognizes ownership of the goods and distinguishes it as coming from a specific company. They are regarded as intellectual property rights that enable individuals to claim ownership of the products of invention and creativity. Although the trademarks may or may not be registered, doing so has advantages. No one else may use the same logo, term, or phrase once the owner holds the trademark for that product phrase, pattern, or anything analogous. In order to prevent product misunderstanding and help consumers identify the specific product they require for their purpose [1]–[3].

For instance, no shoe manufacturer may use the BATA sign or even the name of a sound that sounds similar to it to advertise and sell their own products. Unregistered trademarks can be distinguished by the sign TM in the United States, as they do not need to be registered in order to grant the owner the property rights. Trademarks are registered through the United States Patent and Trademark Office (USPTO) and are denoted with the symbol ®. Although there is no set time limit or duration for utilizing a certain trademark, it is typically advised for the owner to use the brand consistently and legally in order to benefit from trademark laws. The trademark owner must declare in Section 8 whether the trademark is being used in connection with the products or services indicated in the registration or whether it is not being used because of extenuating circumstances which can be confusing. As a result, it aids the producer or vendor in maintaining steady sales by allowing customers to choose a certain good or service.

The objective of a trademark is to protect the identifier of a good or service, and it may also include the shape of the goods, their packaging, and the combination of colors; it may also contain a name, signature, word, letter, or number, as well as the shape of the goods, their packaging, and other things.

Although trademark registration is not required, it is strongly advised to do so given the current situation, where there is an increase in the number of infringement lawsuits. Therefore, a trademark is a tool for providing particular goods or services distinction. Currently, nations are putting more of an emphasis on the registration of less conventional trademarks, such as solitary colors, three-dimensional signs, auditory signs, and olfactory indications. The distinction between trademarks and brands is frequently erroneous. Although a trademark is not always a brand, a brand is always a trademark. A trademark, on the other hand, is a distinguishing sign that is also regarded as a symbol or guarantee for the product's quality.

You can find trademarks on products, their packaging, tags, and labels for both goods and services. A successful trademark is frequently prized since it is legally protected. Owners of trademarks succeed in differentiating their products from competitors and building consumer loyalty. It causes the establishment of a desired goodwill and market power that limits the ability of new entrants to establish themselves in the relevant industry.

The Historical Evolution of Trademark Law:

A "trademark for commercial goods" necessitates the existence of commercial commodities; as a result, in societies founded on the barter system, "trademarks for goods" were not possible. Trademarks distinguish differentiate items from different origins in addition to identifying particular goods. As a result, there is a rivalry between the two parties, and an extremely straightforward mark is insufficient to qualify as a trademark. Trade in goods began long ago, and it is believed that this is where trademark usage first arose. Trademarks have existed since the beginning of the exchange of goods, according to historical records. Nearly as old as human history and religious history is the history of marks. Scientists have discovered archaeological items with symbols etched on them for religious and superstitious purposes from places like ancient Egypt. To identify the creator (potter) of a specific vessel, "potters marks" were visible on artifacts from the Greek and Roman eras. The "potters marks" studies are well-known among those who specialize in studying the cultural heritage of marks. However, it would be challenging to categorize these markings as trademarks in the current sense.

Different techniques for identifying and distinguishing people emerged over time. Names were given to loved ones and pets. "Proprietary marks" (in the form of a name or symbol) were placed on products to allow one person to tell their possessions apart from those of others. To identify the products they made, artisans used their names, distinctive artwork, or plain inscriptions. It is difficult to conclude that these markings were trademarks with uniqueness in the modern meaning of the word, even though they undoubtedly assisted in differentiating items. The trademarks of today's world are similar to the symbols on items used in ancient Rome and other Mediterranean region nations.

It is generally accepted that trademarks developed in response to the creation of a culture in which products circulate in commerce since this ancient region is supposed to be the first to actively circulate goods. But even then, there wasn't yet a property rights-based system for trademarks. The use of symbols by traders and merchants considerably rose around the time that a mark known as a "merchants mark" first appeared. These markings, which may be regarded as a particular type of "proprietary mark," were mainly used to establish ownership rights of commodities whose owners were missing as a result of shipwrecks, pirates, and other catastrophes. Horses, sheep, and other animals are still marked with an owner-identifying mark all throughout the world to this day. In Japan, a sign is attached to lumber before it is lashed to a raft and transported to a river's mouth. These marks have a "merchant's mark" feel to them that dates back in time.

Case Law of Baker:

Anglo-Indian trademark law dates all the way back to 1266. The first trademark law, the Bakers' Marking Law, mandated that each baker put his mark on the bread he produced. The local officer registered these marks. They were constructed from metal and wood, with simple flower patterns incorporated. The British Parliament took this action to guarantee the superiority and distinction of the final product. In this instance,

the "officer of abundance" seized a loaf of bread that was being sold but wasn't stamped, and the violator was significantly penalized.

Changing Trademark Laws

Since the beginning of time, people have been inventive and creative, creating things like stones, jewelry, and tools for hunting. Usually, the marks were applied to the items so that the owner could be found. By doing this, the quality of the goods could be regulated, and anyone found violating the other people's property rights would face punishment. When a mark was applied to an item, a third party was no longer allowed to claim ownership of it.

The Middle Ages saw the appearance of two different marks:

The Merchants Mark and the Production Mark:

The Production Mark was used to denote origin, whilst the Merchants Mark was used to denote ownership. The very first technique of trademark usage was discovered when individuals began inking their names on ships so that they might be recognized in the event of a shipwreck. Businesses also began claiming marks in their products in the form of trademarks. This improved the quality of the products and assisted the manufacturers in keeping their clientele. In contrast to now, trademarks were employed to denote ownership in the medieval times. Today, trademarks are a valuable asset, but in the middle Ages, they were a problem [4]–[6].

Indian Trademark Laws Developing:

The 1940 passage of the Indian Trademark Act, which was similar to the English Trademark Law. In India, there was no trademark law in place prior to 1940. Section 54 of the Specific Relief Act of 1877 dealt with any infringement, passing off, and other related issues that might have arisen. The Indian Registration Act of 1908 also served to establish trademark ownership for the purposes of registration. However, these were causing issues with implementation, thus the aforementioned legislation from 1940 was introduced to address them. The preceding act was replaced as demand for greater trademark protection increased over time. As a result, the Trademark and Merchandise Act 1958 (6) was passed. The act's goals included enhancing trademark protection and banning the use of misleading markings on products. Additionally, it makes it possible for the owner to receive exclusive usage rights through trademark registration. The act's goals were to make trademark registration simple and improve trademark protection to stop fraud.

The Trademarks and Merchandise Act was repealed in 1999 when the Trademark Act was established. To comply with the TRIPS duty, as suggested by the World Trade Organization, the Indian government created the Trade Mark Act 1999 (7). The 1999 Act provides legal remedies to uphold one's rights as well as protection for trademark users. The first law to safeguard service marks was the Trademark Act of 1999. This law made a distinction between common trademarks and famous trademarks, giving the latter particular recognition and rights. It also punishes breaking the law on trademarks. Given the additions and changes made to the 1958 Act, the Trade Mark Act, 1999 can be considered an improvement. The 1999 Act provides a thorough definition of a number of words, increased the severity of the penalties for violators, extended the registration period from seven to 10 years, and allowed for the registration of non-conventional trademarks. The Trade Mark Rules of 2002 apply to this statute. They all went into effect at the same time on September 15, 2003, and currently control India's trade mark laws.

New Developments:

The 2017 Trade Mark Rules were released by the Indian government. On March 6, 2017, it went into effect with the goal of streamlining and accelerating the entire trademark administration process. These Rules placed a strong emphasis on digitizing the entire process and even permitted electronic filing and communication. The Trade Marks Act of 1999 and these Trade Mark Rules from 2017 work in tandem. Trade Mark offices had discontinued printing hard copies of registration certificates after these modifications.

Therefore, the digital registration certificates can serve as registration proof because they are equivalent to the physical certificates. Even before these Rules were put into place, there had been significant improvements occurring in the registration of trademarks, such as the quicker processing of trade mark applications, publishing in trademark journals, and issuing of registration certificates.

The following list of key features of the new Rules can be summed up:

Sound markings may be registered: This clause allows for the filing of sound in MP3 format. Additionally, musical notation must be included in the relevant trademark application.

Request to enlist as Well-Known Mark: In accordance with Rule 124, anybody may submit a request to enroll a mark as a well-known mark along with a description of the case, supporting documentation, and other relevant materials. In addition, he must pay fees of Rs. 1,00,000 (about $1400).

Application processing that is expedited: In accordance with Rule 34, the applicant may ask for express registration. After paying further expenses, the application will be sent out for examination, hearing, and registration. Prior to this rule, it was only permitted to issue examination reports. The applicants must submit an online request to make this request.

Hearing by Video Conferencing: Rule 115 permitted hearings to be held via video conferencing or any other audio-visual means of communication. This process promotes efficiency.

DISCUSSION

Types of Trademarks:

Service marks, collective markings, certification marks, and trade dress are the four main categories of trademarks. All of these trademark categories are equally significant because they both encourage action and preserve a product's uniqueness.

Marks of Services:

Any word, name, symbol, device, or combination thereof that is used or intended to be used in commerce to identify and distinguish the services of one provider from those of other providers, as well as to designate the source of services, is referred to as a service Mark. In essence, it helps to set one service provider apart from another. Service marks only apply to the delivery of services; they do not cover tangible objects. As trademarks are intended to protect things, service marks are used to identify a service. Several commonplace services employ service marks. Among them are, among others: Management and investment services, Services for housing development, Services for promotion and advertising, Sponsorship, instruction in rapid reading, hotel and motel facilities, and Entertainment services provided by a single person, a group, or a theater. A service mark is typically established so that it can be used to refer to a specific quality or standard for which the service mark is utilized. It also plays a role in marketing, advertising, and sales of a product or service. The letters SM stand for service mark. Due to the close but not exact similarity of the phrases "mark" and "service mark," it is occasionally possible to use both to refer to a trademark or service mark. Similar to choosing a name for a trademark, thorough research must be done to ensure that no other company is utilizing the same name.

Collective Mark:

A collective mark is one that is used to indicate the source of goods or services by members of a cooperative association, union, or other collective entity. A collective mark is one that is used to distinguish a product or service from others of the same kind that share similar qualities and are to be sold by one or more people working collectively or by a legal body [7]–[9].

There are two basic forms of collective marks or legal entities used to distinguish one product or service from others of the same kind. They include:

1. **Mark of Collective Membership:**

These marks serve to identify the vendor as a member of a specific group rather than as a source of products or services.

2. **Collective Services Marks and Trademarks:**

These serve as a source indicator. A group may use such collective marks to designate that the goods or services provided by each individual member of the group are those of the collective. A collective mark is registered as a whole but is intended for use by each individual member of the organization. The collective association that owns the mark may utilize that collective mark. This clause was added to the Trademark Revision Act of 1988, which went into effect on November 16, 1989 in the United States, making the collective the owner of the mark. A certificate is a piece of evidence or probative documentation that attests to the performance or non-performance of an act, the occurrence of an event, or the fulfillment of a legal requirement. A certification mark is a mark that denotes the certification of specific characteristics of the goods or services associated with which the mark is used. Accordingly, a certification mark is one that indicates that the goods or services in connection with which it is used have been approved by the owner of the mark in terms of quality, accuracy, or other characteristics. This definition is found in Section 50 of the Trademarks Act of 1994.

A certification mark is registered in accordance with the Trademarks Act of 1994. An essential prerequisite for the registration of a certification mark is that the company making the application must be "competent to certify" the products in question. As a result, the owner of the certification mark must represent the goods to which it is applied. An authorized certification holder. In certain cases, such as when the mark is applied to a certain type of material without authorization, when the importation of counterfeit goods is prohibited, and when there is a ruling regarding the disposition of counterfeit goods, the mark is specifically compared to a trademark license. According to the registrar, a registered mark may be assigned.

Borderlines of Scope of Trademarks Domain Name Expanding:

Every online company has a domain name, which serves as the website's individual address in cyberspace. Due to the distance between the production and the consumer as well as the fact that every industry is now worldwide, firms of all sizes now have websites. The internet has also become an indispensable tool in business. The Domain Name System (DNS) was created as a result of the difficulty in remembering IP numbers, which led to the development of the system.

The domain name will be of great assistance to an internet user in locating the products or services he was looking for. But occasionally, a particular name of a highly regarded company or individual may be taken and used in place of the real thing. It has occurred to Google, Tata, and Maruthi. Through a website or a URL (Uniform Resource Locator), users can access a domain name or website. Cyber-squatting, often known as cyber piracy, is the practice of registering a domain name that contains someone else's trademark with the intention of either profiting from the sale of the domain name to the rightful owner or exploiting the goodwill attached to the mark. 41A domain name must be distinctive and unique, and it must be related to the services or goods offered. Hiring a search company to determine whether a specific domain

Shape:

By distinguishing one product from another, one can prevent confusion among customers caused by related products. According to M. Porter, differentiation is essential for being competitive in today's dynamic, customer-driven market. As long as a product's shape is not useful, it may be registered as a trademark. If a shape has an impact on how well a product works or is used, it is functional. If an object's shape does not serve a superior function, it can be a trademark. In the perceptions of consumers, shape has come to represent the company. When a product's utility is taken into account, aesthetics shouldn't be given greater weight than functionality. As long as a product's shape is not useful, it may be registered as a trademark. As a result, a shape may be registered if it is purely decorative rather than utilitarian.

Sound:

Every nation has its own rules for registering sounds and marks. Since a sound cannot be perceived visually, it must be graphically represented by unambiguous, objective images, lines, or characters rather than by a simple written description of the sound, which necessitates that the sound be represented by notes. In some circumstances, the notes must also be represented graphically. Sound Successful trademark registrations include those for Nokia and MGM Corporation. A sound that is onomatopoeic cannot be heard. Following the 2003 implementation of the New Trademark Act of 1999, sound marks are now being registered in India. When a sound trademark is registered, it is a given that the particular sound's distinctiveness must in every manner be distinct and distinguished from others.

CONCLUSION

The concept of intellectual property expresses the notion that its subject matter is a creation of the mind or intellect. It is a work of creativity and art; thus, adjustments are inevitable. It may be bought, sold, bequeathed, or owned. There will undoubtedly be problems as a result of all this that need to be resolved. Patents and trademarks are two crucial facets of intellectual property. In today's competitive world, trademark protection has become crucial since every manufacturer of a good or service will want his mark to be distinctive, eye-catching, and easily distinguished from others. A mark like this is difficult to create, and as a result, the maker will have the greatest trouble when the mark is violated. Intellectual property is not a foreign concept; rather, it is a concept that is present in many aspects of daily life, including movies, books, plants, foods, cosmetics, electrical devices, software, etc. It is now a widely used notion in daily life. On April 26 each year, people have begun to observe World Intellectual Property Day. In this case, public policy tries to preserve an intellectual property system that promotes innovation through proactive protection measures, while also ensuring that this does not come at the expense of social interests. The challenge for the World Intellectual Property Organization in this situation would be to include public policy problems in initiatives with developing nations, such as educating people about the flexibility of current international intellectual property treaties.

REFERENCES

[1] S. R. Bhat, “Innovation and intellectual property rights law—an overview of the Indian law,” *IIMB Manag. Rev.*, 2018, doi: 10.1016/j.iimb.2017.12.003.

[2] P. B. Venkatasubramanian, “The law of trademarks in India,” *World Dev.*, 1979, doi: 10.1016/0305-750X(79)90085-8.

[3] A. Vatsa, “Subject Matter and Pre-Requisites for Protection of Non-Conventional Trademark,” *Christ Univ. Law J.*, 2019, doi: 10.12728/culj.14.3.

[4] V. Singh, “Trademark law and comparative advertisement in India,” *Int. J. Inf. Commun. Technol.*, 2016, doi: 10.1504/IJICT.2016.078877.

[5] N. Mishra, “Registration of non-traditional trademarks,” *J. Intellect. Prop. Rights*, 2008.

[6] P. Kumari, “Graphical Representation of ‘Smell’ and ‘Sound’ Mark - Critical Analysis,” *Asiat. Soc. Soc. Sci. Res.*, 2020, doi: 10.46700/asssr/2020/v2/i1/196118.

[7] K. C. Liu and S. Zheng, “Asian IP Law: An Area of Rising Importance,” *GRUR Int.*, 2020, doi: 10.1093/grurint/ikaa013.

[8] V. Singh, “Trademark law and comparative advertisement in India,” *Int. J. Inf. Commun. Technol.*, 2016, doi: 10.1504/ijict.2016.10000118.

[9] R. Aggarwal, H. Singh, and S. Prashar, “Branding of geographical indications in India: A paradigm to sustain its premium value,” *Int. J. Law Manag.*, 2014, doi: 10.1108/IJLMA-08-2012-0029.

CHAPTER 18

INTRODUCTION TO STANDARD ESSENTIAL PATENTS: PROBLEMS AND CHALLENGES

Dal Chandra, Assistant Professor
College of Law, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India
Email Id- degautambahjoi@yahoo.co.in

ABSTRACT:
In standard-setting bodies, standard-essential patents (SEPs) have emerged as a crucial component of technical coordination. However, it's not always evident whether a SEP that has been declared is actually standard-essential. There is currently no automated method that enables a scalable and impartial evaluation of SEP status. In this study, a semantics-based approach to roughly estimating the standard essentiality of patents is presented. We outline the process used to create the measure of standard essentiality and give the findings from various validation tests. We demonstrate the measure's value in assessing the share of true SEPs in company patent portfolios for several mobile telecommunication standards in a first empirical application. We discover statistically significant and economically significant differences at the firm level. This paper presents a semantics-based method for approximating the standard essentiality of patents. We describe how the measure of standard essentiality was developed and present the results of numerous validation tests. In a first empirical application, we show the measure's utility in estimating the proportion of real SEPs in business patent portfolios for a number of mobile telecommunication standards. At the firm level, we find differences that are statistically significant and economically significant. We also see a general drop in the average share of true SEPs between succeeding standard generations.

KEYWORDS:

Royalty, SEP, Standards, TRIPS agreement, World Intellectual Property Organization (WIPO),

INTRODUCTION

Standardization has emerged as a key component of technological innovation as the demand for the interoperability and interconnection of information and communication technologies grows. However, ex ante collaboration between technology contributors and implementers is necessary for the successful development and acceptance of standards, particularly if proprietary technologies are to be included Standard-essential patents (SEPs) guard innovations that are necessary for the implementation of certain technological standards and are thus infringed upon by default. The identification of SEPs, however, presents a significant difficulty to potential implementers because of the enormous number of patents and ambiguous patent breadth. Rarely do standard-setting organizations (SSOs) conduct independent searches for SEPs. Instead, they demand that their members declare SEPs in a timely manner. In most cases, no additional verification by the SSO or a third party is required after the declaration of standard essentiality, which is based on the evaluation of the relevant patent holder [1]–[3].

Only patents that actually provide a significant contribution to the chosen technological solution, or that are truly standard-essential, should ideally be designated as standard-essential. Although there is empirical support for the notion that patents that have been declared standard-essential are comparatively more valuable (Rysman and Simcoe, 2008), there are other considerations besides technical merit that may impact this decision. Most significantly, there are worries that patents are designated as SEPs due to strategic incentives of their holders, regardless of the technical merit and applicability to the relevant standard (Dewatripont and Legros, 2013).1 Case studies and policy reports provide anecdotal evidence that standard essentiality is not always ensured by the patent holder's claim (for a summary, see Contreras, 2018). In reality, if the patent is challenged in court, standard essentiality typically fails to withstand scrutiny (Lemley and Simcoe, 2018). Because it increases transaction costs throughout the standardization process and subsequent licensing discussions, uncertainty about the genuine relevance of a patent to a standard may cause legal and contractual

frictions. One of the main objectives of SSOs is to ensure an equitable and effective environment that will encourage the creation and implementation of technical standards, which puts present intellectual property (IP) rules, in particular essentiality checks, in the regulatory spotlight (EC, 2017).

In order to identify systematic inconsistencies between the declared and actual standard essentiality of patents, this work introduces a semantics-based method to approximating the standard essentiality of patents. This approach is based on a brand-new index of semantic similarity between standards and patents. Text-based measures have emerged as effective in recent years for the empirical evaluation of technological relatedness and patent similarity (e.g., Arts *et al.*, 2018; Natterer, 2016; Younge and Kuhn, 2016). These applications have thus far concentrated on writings that fall under the purview of patents. In contrast, we suggest a technique for comparing patent papers on the basis of semantics. And accepted guidelines. We demonstrate through a number of validation activities that the estimated similarity acts as a useful approximation of standard essentiality. By contrasting SEP declarations with control groups of patents in the same technology class and standard papers from the same standardization project, we first look into the semantic similarity of patent-standard pairs. Second, we reproduce the Bekkers *et al.* (2017) study on the (beneficial) impact of SEP declarations on the quantity of later forward patent citations. We demonstrate that when focused on subsets of SEP declarations with particularly high semantic similarity, the size of this "disclosure effect" is noticeably bigger. Third, we compare our findings to SEPs that were manually reviewed for a number of mobile telecommunication standards that were applied in the TCL v. Ericsson case. We confirm the accuracy of our similarity measure on the patent level based on these data.

Recent legal challenges serve as an example of how the computation of licensing fees for standard technologies frequently takes into account entire portfolios rather than just one SEP. This necessitates scalable methods for determining standard essentiality. The recent TCL v. Ericsson case highlights the potential importance of necessity determinations that are not made on a patent-by-patent basis, but on an aggregate basis," according to Contreras (2017a). In a first empirical application of our method, we therefore estimate the proportion of real SEPs in company patent portfolios for the GSM, UMTS, and LTE standards. We offer proof that our method, when used to anticipate standard essentiality on an overall level, is highly accurate. Our findings demonstrate significant firm-level variations in the estimated percentage of real SEPs. These variations are both statistically and economically significant. The share of true SEPs for the highest-ranked firm across all SEP portfolios is nearly twice as large as the share for the lowest-ranked firm.

It's interesting to note that across the three successive generations of mobile telecommunication standards, the share of actual SEPs has generally decreased. So far, there hasn't been much of an option except to accept SEP disclosures at face value in economic and legal evaluations of the link between patents and standards. Therefore, this study offers a number of advances that are both academically and practically relevant by presenting a new approach to approximating standard essentiality. We first show how a semantics-based technique may be used to assess how crucial a patent is to a given technical standard. Second, even though it requires a lot of work, this approach is scalable, objective, and repeatable, offering up fresh opportunities for empirical study in the fields of standards, patents, and business strategy. The newly introduced approach, for instance, may assist in identifying the current or historical population of both over- and under-declared SEPs for a specific standard, SSO, or sector. Such information should make it easier to determine whether present SSO policies are successful in reducing frictions related to patents during the standard-setting and implementation process.

The relationship between standards and patent rights is discussed in Section 2 after a review of the earlier research. The mechanism of our semantics-based approach is described in Section 3. The data utilized in the studies that follow are introduced in Section 4. The results in Section 5 describe the method's validity. An initial application case for determining Organizations that set standards and SEPs. Technical standards frequently include numerous complementary technological products that belong to different businesses, research institutions, or academic institutions. SSOs coordinate the creation of such standards in order to reduce transaction costs and increase efficiency in the development and distribution of standardized technologies. SSOs vary in a number of ways, including their emphasis on technology, the makeup of their

membership, and their policies and practices. The IP-related laws and regulations, with an emphasis on the actual licensing regime in use and the disclosure of SEPs, are a significant and widely studied feature of SSO policies.

SSO-specific rules on the declaration of SEPs may or may not be binding and may address specific issues, such as upfront patent searches, the content of the disclosure, and the timing of the disclosure. For instance, while other SSOs just urge members to report pertinent intellectual property, certain SSOs require it. Additionally, businesses may be compelled to make a reasonable attempt to find IP that could be standard-essential. In terms of the required declaration content, SSOs can vary. For instance, detailed SEP disclosure is required by ETSI, but blanket disclosures are permitted by other significant SSOs like IEEE or ITU-T. In a similar vein, disclosure time requirements may be seen as recommendations rather than rigid obligations. Most SSOs outline requirements for a timely disclosure either before to the standard's acceptance, as soon as is practical, or in response to a formal request for patents. Infringing on the obligation to disclose pertinent intellectual property rights may have negative legal and financial repercussions.

Declared SEPs and real essentiality of the standard:

Standard-essential patents (SEPs) are the usual name for patents that defend technological solutions necessary for the application of a specific standard. An SEP's status is frequently determined by the rights holder's own declaration. However, in practice, determining standard essentiality is difficult, and it is frequently necessary to resolve the issue of whether a patent is actually standard essential in court. Standard essentiality is typically outlined by the patent claims that protect a specific section of the technical standard. In other words, a patent is standard-essential if the invention required to implement a given standard is covered by the claims of the corresponding patent. However, standards outline a variety of technical procedures and fixes and thus encompass a number of patentable inventions. Conversely, patented creations may be crucial to several different standard specifications. As a result, it is important to comprehend (and eventually evaluate) a patent's standard essentiality in relation to a specific standard.

In addition to the intricate many-to-many link between standards and patents, the essentiality of a standard under a patent may change over time. SSOs frequently urge the prompt submission of patents for even potentially standard-relevant technology because they want to incorporate the finest technological solutions into a standard. However, standards change with time, therefore outdated technologies are eliminated from standards and replaced by more modern substitutes [4]–[6]. Similar to this, patent claims are not entirely static. Changes made to the patent application's claims during the patent examination may alter how applicable the patent is to a particular standard. In the event that a patent's validity is contested after grant, the breadth of the patent's protection may be reduced, which is likely to have an impact on the standardness of the invention.

SEP declarations are often neither checked nor contested by the relevant SSO at the time of disclosure. This is probably due to financial and legal concerns. SEP declarations are also infrequently revised or withdrawn after the completion of the standard due to their non-binding character. SEP announcements may therefore be a subpar indicator of real standard essentiality. Normally, the genuine standard essentiality of a patent is kept secret and held by the respective right holder, however on rare occasions, the true standard essentiality of a patent is made public. First, court rulings reveal the findings of common essentiality analyses. Instead of dealing with entire SEP portfolios or, let alone, all SEPs for a specific standard, SEP litigation typically focuses on particular subsets of SEPs.8 Second, third-party SEP assessments, which do not take place in the context of SEP cases, can be used to deduce the genuine standard essentiality of patents.9 Depending on the level of inspection used by the assessors, the expenses of such legally non-binding contractual essentiality determinations vary greatly. Last but not least, certain patent pools adhere to the practice of performing standard essentiality analyses prior to including a specific SEP (Contreras, 2017a; Quint, 2014). Therefore, even if this again only applies to a specific subset of SEPs, patent pool participation can act as a signal for actual standard essentiality.

DISCUSSION

Patent laws and competition laws in conversation:

When examining the two laws, one could initially think that they are in contradiction with one another and inconsistent. This is so because their fundamental goals diverge and seem to contradict one another. It can appear that using patent rights goes against the fundamental tenets of competition law. In order to promote innovation and growth in the market, patent laws grant rights to an inventor or patentee. As an additional incentive for investing the time and effort to create the innovation, they grant the patentee monopoly-inducing rights for a specific length of time. A free and fair marketplace is supported and ensured by competition legislation, on the other hand. This is achieved through monitoring monopolies or businesses with a dominant market position and preventing them from abusing their position. The preservation of consumer interests and welfare is the ultimate purpose of any competition law or policy. These two laws may appear to be at odds with one another when viewed separately since they have different objectives, yet both are continually working to strike a balance between two opposing interests in order to safeguard the public interest. The safeguards built into the patent system, which state that any invention that may be damaging to society and the public at large or do not benefit the public, shall not be granted a patent protection, show that both systems are ultimately constantly working to strike a balance. Patents and patents that are Standard Essential. As Shown in Figure 1: Evolution of SEP [lords flaw].

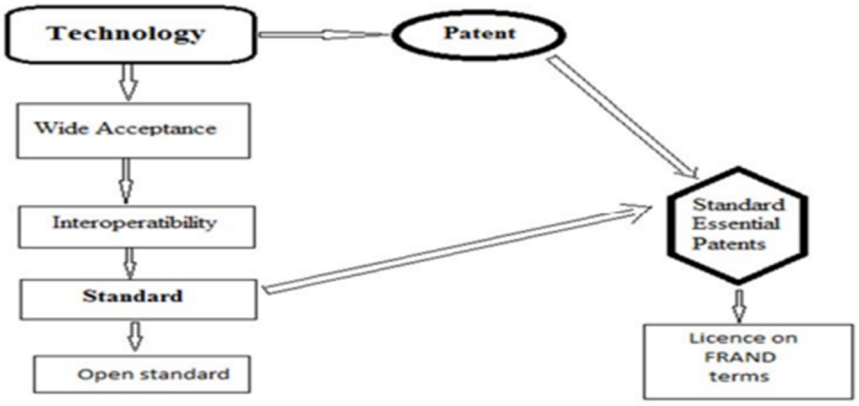

Figure 1: Evolution of SEP [lordsoflaw].

The reader must be able to distinguish between patents and standard essential patents and understand their respective social functions after having an understanding of how the two systems interact. They have a varied impact on the competition because they are unique from one another. As a result, the two sorts of patents have different rights when interacting with the competitive system, and regulators' responses to the two are likewise very different. In contrast to a conventional patent, a standard essential patent is given to an invention or technological development that becomes the norm in a certain industry. Additionally, because there are no substitutes, it is impossible to create goods without violating the proprietary technology. The standard-setting body for a certain industry determines the requirements for a SEP. As shown in Figure 2: Benefits of SEP [lordsoflaw].

Figure 2: Benefits of SEP [lordsoflaw].

Another point of distinction is the requirement that standard essential patents (SEPs), which benefit society as a whole, be licensed under fair, reasonable, and non-discriminatory (FRAND) terms, even though the patentee is free to set their own terms and conditions when licensing their patented technology. This is basically a precaution taken to make sure the owner of the SEP patent does not abuse their patent rights and the market monopoly they control. According to Article 30 of the TRIPS agreement, the regular utilization of a patent may only be restricted or limited with exceptions when doing so does not unreasonably jeopardize the patent owner's legitimate interests. This means that the restrictions of competition law cannot restrict the use of a standard patent. As may be seen in the case analysis below, it is a distinct scenario for a conventional essential patent.

Telephone Holdings Limited v. the Indian Competition Commission

Facts:

One of the biggest telecommunications firms in the world, Ericsson is based in Sweden and holds the standard-essential patents for the 2G, 3G, and 4G technologies. The informants in this case were Micromax Informatics Ltd., Intex Technologies, and Best IT World. They filed a complaint with the CCI alleging abuse of dominant position, or a violation of section 4 of the Competition Act, 2002, by imposing an excessive royalty fee for its standard essential patent, despite having agreed to license it under fair, reasonable, and non-discriminatory (FRAND) terms. Since the royalty rate was based on the end product's value rather than the true value of the patented technology, it was deemed to be excessive. In essence, this meant that if smartphone prices increased, so did the royalty rates. It was unfair because the technology didn't give the smartphone any more value over a traditional phone [7], [8]. Being a standard essential patent, there were also no other options that the businesses that were not infringing could utilize. This finally put the onus of higher costs on the final consumers and was therefore detrimental to their wellbeing. The Director General was given the go-ahead to conduct an investigation by the CCI. The High Court received a writ petition under Article 226 from Ericsson.

Issues:

Whether the CCI had the authority to really consider the informant's accusations and make orders was one of the primary questions that the court reviewed. The Patents Act of 1970 was also examined by the court to see if it was in conflict with the Competition Act of 2002. It was argued that CCI lacked the authority to hear a patent-related case since the Patents Act superseded the Competition Act as a special law and because the Patents Act has its own remedies, the Competition Act's remedies were inapplicable.

Ratio:

When determining the jurisdiction of the CCI, the court examined the provisions of both laws and came to the conclusion that, because the patents act is a special law, it would take precedence over the competition act in the event of a dispute; however, the two laws can be construed harmoniously because there is no inconsistency. Additionally, it was decided that despite the fact that the two laws' remedies differed, CCI's jurisdiction was unaffected because the granting of one remedy did not nullify the other. The court further stressed that the CCI can and should safeguard licensees and customers against a patentee's abuse of dominant position when standard essential patents are involved and there are no substitutes or alternatives.

CONCLUSION

The two laws must be interpreted in harmony, as has been established, but the jurisprudence and precedents regarding the role to be played by the regulatory body, the Competition Commission of India, are far from sufficient and are still evolving, particularly in the area of intellectual property rights and patents. This is crucial to understand because a competition authority, like the Competition Commission of India, only steps in when the use of a patent holder's rights results in a noticeable decrease in market competition and when a patent holder, particularly one who holds a standard essential patent, abuses their dominant position by engaging in anti-competitive behavior. It is also clear from the Ericsson case that when it comes to standard essential patents, the CCI has the authority to investigate any information or complaints of abuse of dominant position, entering into anti-competitive agreements, or exploitative pricing practices, but only in exceptional circumstances like the right to fix prices of a patented invention or products. In order to stimulate and nurture market development and innovation while preserving fair competition in the market, India is working to establish a balance between the two regimes with its emerging jurisprudence and case laws in this regard. In the future, we need to keep an eye out to observe how the relationship between these two systems and the regulators' role plays out.

REFERENCES

[1] J. Dai, “Competition and antitrust enforcement against standard essential patent in Asia: Introduction and overview,” *Antitrust Bull.*, 2017, doi: 10.1177/0003603X17718682.

[2] Z. Wu, “Anti-monopoly Regulation on the Standard Essential Patent-On Huawei v. the US IDC,” *Int. J. Innov. Educ. Res.*, 2017, doi: 10.31686/ijier.vol5.iss6.743.

[3] B. Heiden, J. Padilla, and R. Peters, “The Value of Standard Essential Patents and the Level of Licensing,” *SSRN Electron. J.*, 2020, doi: 10.2139/ssrn.3717570.

[4] J. Baron and H. Delcamp, “The strategies of patent introduction into patent pools,” *Econ. Innov. New Technol.*, 2015, doi: 10.1080/10438599.2015.1004245.

[5] L. Kai-sheng, “The Problem Faced and the Solution of Xiaomi Company in India,” *Int. J. Adv. Manag. Econ.*, 2017.

[6] R. Bekkers, J. Baron, A. Martinelli, Y. Meniere, nder Nomaler, and T. C. Pohlmann, “Selected Quantitative Studies of Patents in Standards,” *SSRN Electron. J.*, 2014, doi: 10.2139/ssrn.2457064.

[7] J. Baron and D. F. Spulber, "Technology Standards and Standard Setting Organizations: Introduction to the Searle Center Database," *SSRN Electron. J.*, 2017, doi: 10.2139/ssrn.3073165.

[8] A. Layne-Farrar, "The economics of FRAND," in *The Cambridge Handbook of Antitrust, Intellectual Property, and High Tech*, 2017. doi: 10.1017/9781316671313.005.

CHAPTER 19

INDIAN PHARMACEUTICAL PATENTS AND SECTION 3(D) OF INDIAN PATENT ACT

Amit Verma, Associate Professor
College of Law, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India
Email Id- amitverma2@gmail.com

ABSTRACT:
Due to the denial of a patent application for the renowned anticancer medication Glivec by Novartis, Indian patent law has recently found itself in the center of a TRIPS controversy. The rejection was caused, among other things, by a special provision of the Indian patent law (section 3(d)) that aims to avoid "ever-greening" by forbidding the patenting of novel variations of already-existing pharmaceutical substances without showing noticeably improved "efficacy." Novartis not only appealed the patent office's ruling but also, in a very contentious move, questioned whether section 3(d) was constitutional and compliant with TRIPS. The Madras High Court upheld the constitutionality of section 3(d). Additionally, it declared that it lacked jurisdiction to decide the TRIPS controversy. This essay examines this choice in the context of section 3(d) as a whole and its objectives. Although the Madras High Court correctly determined that section 3(d) is constitutional, the court's justification is far from convincing. The court, in particular, does not completely comprehend the boundaries of section 3(d) and Novartis' asserted invention. While some of the recommendations in the paper can be put into practice right now, others would necessitate more in-depth empirical/policy research. This paper outlines some of the variables that might be taken into account when conducting such an empirical investigation, a task that is likely to cut to the core of the long-standing argument over what constitutes the best intellectual property norms for developing nations.

KEYWORDS:

Efficacy, Indian patent law, Judicial Responses, Pharmaceutical patents, Section 3d

INTRODUCTION

Due to the denial of a patent application for the renowned anticancer medication Glivec by Novartis, Indian patent law has recently found itself in the center of a TRIPS controversy. The denial resulted, among other things, from a special provision of the Indian patent law (section 3(d)) that tries to avoid "ever-greening" by forbidding the patenting of novel variations of already-existing pharmaceutical compounds that do not show noticeably improved "efficacy." Novartis not only appealed the patent office's ruling but also, in a very contentious move, questioned whether section 3(d) was constitutional and compliant with TRIPS3. The Madras High Court upheld the constitutionality of section 3(d). Additionally, it declared that it lacked jurisdiction to decide the TRIPS controversy. So now is a good time to look at the different problems that section 3(d), which has no equivalent anyplace else in the world, raises. The report starts out by introducing the reader to section 3(d) and the facts surrounding the Glivec patent issue. The article then reviews the Madras High Court's ruling and contends that while the court was correct in determining that section 3(d) is constitutional, its justification was woefully inadequate. The court, in particular, does not completely comprehend the boundaries of section 3(d) and Novartis' asserted invention.

Although this lack of understanding does not render the court's consideration of the constitutionality of the law fatal, it does highlight some of the ambiguities in section 3(d)'s wording. In addition to making recommendations for how to smooth out these wrinkles, this essay also suggests amending section 3(d). While some of the recommendations in this study can be put into practice right now, others would necessitate more in-depth empirical/policy research. One such concern is the definition of "efficacy": Should "efficacy" be broadly defined to include non-therapeutic benefits as well, such as heat stability, manufacturing efficiency, etc.? Or should it be limited to simply therapeutic efficacy? In many ways, this issue will define the extent of incremental pharmaceutical inventions' protection in India. As an example, innovative

medication delivery mechanisms a class of discoveries in which Indian companies are particularly skilled—will no longer be covered by the protection if efficacy is limited to simply "therapeutic" efficacy. Glivec Patent Scandal. Like other medication sagas, the history of Glivec begins with two brilliant scientists, who are hardly mentioned in the current "patent" mythologies [1]–[3].

Together with graduate student David Hungerford, Peter C. Nowell, then a young faculty member at the University of Pennsylvania School of Medicine, identified a genetic mutation in patients with chronic myelogenous leukemia (CML), a life-threatening form of cancer, in 1960. The identification of this anomaly dubbed the Philadelphia chromosome after the location of its discovery broke new ground and sparked efforts to find a therapeutic treatment for CML Researchers discovered that the chromosomal defect generated a kinase enzyme that causes cancer in the 1980s. In order to find a molecule that would target this enzyme while not interfering with any of the hundreds of other similar enzymes in a healthy cell, Novartis researchers (led by Drs. Zimmermann and Buchdunger) and a renowned scientist, Brian Drucker, created and tested 400 molecules. They focused on "Imatinib," a free base, a potential candidate using the idea of rational drug discovery Novartis registered a patent for this free base and all salts that meet pharmaceutical standards in 1993.

Then, imatinib was further studied and enhanced; initially, it was changed into the salt form imatinib mesylate. Novartis discovered that the beta crystalline form of a specific polymorphic form was the most stable form of this salt. Then Novartis created a formulation of imatinib mesylate in beta crystalline form. The drug Glivec is useful in medicine. Glivec has been heralded as nothing less than a wonder medicine since the FDA approved it in 2001 and has proven successful for countless people. The beta crystalline form of imatinib mesylate mentioned above is at the center of the patent dispute that serves as the backdrop for this paper. According to Novartis, it has received about 40 patents covering this polymorph from different nations. However, Novartis asserted this polymorph in a "mailbox" application because drug patents were not yet available in India as of January 1, 2005.

In addition, Novartis requested an exclusive marketing privilege (hereafter EMR) pending the issuance of a product patent, and it was given this privilege in November 2003. On the basis of its EMR, Novartis consequently filed lawsuits against producers of generic medications like Ranbaxy and CIPLA before the High Courts of Madras and Bombay. On a number of grounds, including, among others, the fact that Novartis ran a free patient access program called "GIPAP" (Glivec International Patients Assistance Program) and committed to making this program even more user-friendly for patients who could not afford the drug, the Madras High Court upheld the EMR and restrained the said drug producers. According to the court, this was enough to resolve any "public interest" objections that would have prevented the issuance of an injunction. However, the Bombay High Court dissented from the Madras High Court's decision, pointing out that the defendants had vigorously contested the legality of the freshly issued EMR. In addition, the plaintiff's importation of the more expensive drug raised concerns about its continued availability in India, which led the court to reject the plaintiff's request for an injunction.

The Novartis mailbox application, as previously indicated, was opened and investigated in accordance with the 2005 change to India's patent regime, which added product patents for pharmaceuticals. Several generic drug companies (as well as an NGO, the Cancer Patients Aid Association (CPAA)) opposed the granting of a patent on a number of grounds, including:

i) Lack of novelty/anticipation;
ii) Lack of significantly enhanced "efficacy" under section 3(d);
iii) Obviousness; and
iv) Incorrect priority.

The Assistant Controller of Patents denied the patent application after agreeing with the aforementioned justifications. It is important to highlight that the EMR by Novartis died naturally when the patent application was rejected. Novartis AG and Novartis India, its Indian affiliate, filed two writ petitions in the Madras High Court after being incensed by this refusal. In addition to asking for the Assistant Controller's order to be

overturned, these petitions demanded that Section 3(d) be declared illegal and incompatible with India's TRIPS responsibilities. The Intellectual Property Appellate Board (IPAB), a specialized body established to handle appeals from the numerous intellectual property offices throughout the nation, received the first petition as per a government notification23. The case was still pending before the IPAB as of the day when this document was being written. India's Pharmaceutical Industry and Patent Laws

Prior to independence and up until 1970, when The Patents Act, 1970 (hence referred to as The Patents Act) superseded it, India had a law protecting IPRs known as The Designs and Patents Act. This regulation changed the focus of patents from goods to processes and shortened their duration from 16 to 7 years. The Patents Act enabled India to become a global leader in the production of generic drugs by enabling reverse engineering, which entails disassembling or dismantling a known compound or substance to determine its composition and lead to alternative and less expensive ways to produce them. In India, there were 2,000 pharmaceutical businesses in 1970, 20,000 in 2000, and 95% of the home market was supplied by Indian pharmaceutical companies in 2006, up from 20% in 1970.8 the nation expanded its role as a significant pharmaceutical provider to the developing globe. The pharmaceutical industry since 1987; in the 2000s, industry growth was 10% annually, while pharmaceutical export growth was 20%.18 with a market value of $ 2 billion, India had the third-largest active pharmaceutical ingredients (API) market globally in 2005.

India signed the TRIPS (1995) Agreement in 1994, with modifications that were to be put into effect within ten years.20 The Patents Act was amended in 1999, 2002, and 2005 to comply with TRIPS. These modifications added definitions for inventions, increased the length of patents from 7 to 20 years, and added a mailbox system that allowed businesses to submit for patents before the 2005 law was passed. India is now "the single largest (generic) pharma player in the world, post TRIPS," thanks to significant investments made there by international generic pharmaceutical businesses in research centers [4]–[6].

DISCUSSION

Section 3(d): The Organization and Setting

The Indian Patents Act defines what are not "inventions" in part 3, which is the essential part on "patent eligibility." One of these non-eligible patentable subject matters is listed in Section 3(d): the mere use of a known process, machine, or apparatus unless such use yields a new product or uses at least one new reactant; the mere discovery of any new property or use for a known substance; or the mere use of a known substance in a new form that does not increase the known efficacy of that substance.

Explanation: For the purposes of this clause, the same substance shall be deemed to include salts, esters, ethers, polymorphs, metabolites, pure forms, particle sizes, isomers, mixtures of isomers, complexes, combinations, and other derivatives of known substances, unless their properties significantly differ with regard to efficacy. By stating that only pharmacological compounds that demonstrate noticeably improved "efficacy" are patentable, section 3(d) essentially seeks to prevent a phenomenon known as "evergreening" The US National Institute of Healthcare and Medicines (NIHCM) published a paper that states the following: Pharmaceutical companies patent a wide range of innovations relating to modest adjustments to their medications, such as inert components and the shape, color, and scoring of tablets.

Section 3(d) is based on the premise that derivatives of known pharmaceutical substances, such as salt forms, polymorphs, isomers, etc., are likely to be functionally equivalent as well. If this is not the case and the new form of an existing substance performs better than the old form, it is the patent applicant's responsibility to show this and support the claim to a patent. Section 3(d) distinguishes between incremental innovation and "ever-greening" to this extent.28 Section 3(d) encourages the successive development of current items or technologies to assist bring in improved solutions that address unmet public health needs by making derivatives with greater efficacy patentable:

i) Making imatinib, a substance with US, EU, and other international patents, as its free basis. However, since India did not offer product patents for pharmaceutical compounds in 1993, this could not be patented there.

ii) Adding methane sulfonic acid to the free base to transform it into the specific salt form imatinib mesylate;
iii) Crystallizing the imatinib mesylate to generate the beta crystalline form, which is purportedly the most stable polymorphic form of the salt. This was the subject of a patent application, which is the application that is in question.
iv) Creating Glivec, a medication that uses imatinib mesylate in its beta crystalline form.

The active ingredient of Glivec, imatinib mesylate in beta crystalline form, according to Novartis, is more potent than imatinib free base because it has greater bioavailability qualities, or the capacity to enter the bloodstream more readily. To that end, it presented proof to the Assistant Controller showing a 30% increase in bioavailability or more. The Assistant Controller, however, decided that this was insufficient to qualify as "increased efficacy:" According to the affidavit, the technical expert has performed studies to compare the relative bioavailability of the free base with that of the beta crystalline form of imatinib mesylate and has concluded that there is only a 30% difference in bioavailability. The difference in bioavailability may also be caused by a difference in how soluble each compound is in water. Instead, it indicates that the base can be employed equally in the treatment of diseases or in the manufacturing of pharmacological agents wherever the beta crystal is utilized. The present patent specification makes no claims regarding an enhancement in the efficacy of the beta crystal form over the existing substances. Even the affidavit provided on the applicant's behalf fails to demonstrate any appreciable improvement above the existing efficacy [7]–[9].

As can be seen from the foregoing, the patent office's decision is not particularly illuminating, and the patent controller provided no specific justification for his conclusion that the beta crystalline form lacked greater efficacy

i) What was the definition of "efficacy"? Did it refer to "therapeutic efficacy" alone? If so, would "bioavailability" meet the criteria.
ii) What does the Explanation to section 3(d) define as a "significant enhancement in efficacy"? Would a bioavailability increase of 30% be sufficient?
iii) What would be considered a "known substance" for the purposes of section 3(d) comparison? Would the imatinib free base with which it is much simpler to demonstrate enhanced efficacy or the subsequent salt, imatinib mesylate, be the "known" chemical in the current situation?35 or the imatinib mesylate alpha crystalline form? It is hoped that the IPAB's final decision in this case would offer direction in this area. Section 3(d): Analysis of Constitutionality

According to Indian constitutional law, a statute can be contested as a violation of the constitution on two primary grounds: that it violates the petitioner's fundamental rights; and 2. that the parliament lacked the legislative authority to adopt the contested statutory provision.

As part of its argument against the legitimacy of section 3(d), Novartis solely emphasized the first of these two arguments. First, it claimed that clause 3(d) infringed upon Article 14 of the Indian Constitution's fundamental right to equality. More specifically, it was contended that section 3(d) was arbitrary and ambiguous due to the use of phrases like "enhancement of known efficacy" and "differ significantly in properties with regard to efficacy" without accompanying rules defining their scope. And this arbitrary behavior, which is made possible in large part by the grant of unrestricted jurisdiction to a statutory authority strikes at the very foundation of the idea of equality established in Article 14 of the Indian Constitution.

The patent office had unrestricted freedom to create its own policy and decide what constituted a considerable boost of efficacy, according to Novartis' second argument, which was connected to the first one outlined above in many respects.38 Given that it amounted to the outsourcing of a crucial legislative role, Novartis argued that this was unconstitutional. However, the court rejected each of the aforementioned arguments. First off, it takes a very high standard for any statutory provision to be deemed "arbitrary" and hence in violation of Article 14, and Indian courts have been very reluctant to invalidate laws for this reason.

The Madras High Court continued the pattern of judicial caution by emphasizing that just because a piece of legislation is skeleton and devoid of definitions or rules does not automatically imply that it is arbitrary. Instead, to determine the scope of a section, one must consider variables such the statute's wording, the degree of discretion granted, the potential of an appeal to overturn an incorrect decision, and the purpose of the law. Furthermore, there is no universal formula for determining when a new form exhibits a "significant" improvement in efficacy over the original drug; rather, this assessment must be made based on the facts of each individual case. It is therefore very difficult to characterize section 3(d), which was introduced to forbid a practice known as "ever-greening," as "arbitrary" or "vague." What Is "Efficacy"? A View from the Madras High Court The court's ruling that the phrase "enhancement of known efficacy" is not ambiguous was partially predicated on the idea that by "efficacy" they meant medicinal efficacy. The court determined based on a medical dictionary that: According to Dorland's Medical Dictionary, "efficacy" in the context of pharmacology refers to a drug's capacity to have the desired therapeutic outcome. "Therapeutic" is defined by the dictionary as having a positive impact on the body and treating an illness.

The court emphasized that "efficacy is independent of potency of the drug," and went on to hold that: the position is, if the discovery of a new form of a known substance must be treated as an invention, then the Patent applicant should demonstrate that the substance so discovered has a better therapeutic effect. And later: Considering the definitions of "efficacy" and "therapeutic" as they were extracted above, what the patent application is expected to demonstrate is how successful the new discovery will be in curing an illness / having a positive impact on the body. The types of derivatives that are eligible for patent protection are likely to be constrained under such a definition. For example, it is unclear if improved "bio-availability" (which Novartis asserts in its application for Glivec) may be considered "therapeutic" efficacy. Imagine that a previously discovered drug (X) is completely non-bioavailable and cannot be given to a patient. It makes sense to presume that a subsequent discovery (Y, a new form of X) that is more bioavailable than X and hence "druggable" should qualify as "therapeutically" more effective than X. The solution, however, becomes less obvious if we slightly modify the hypothetical. Assume X is a druggable substance in and of itself, but X is less bioavailable than Y. In other words, Y is better than X because a patient only has to take slightly more of Y to have the same effect as X. Is Y more efficient than X "therapeutically"? It could be challenging to qualify Y (the new form) unless one can convincingly show that both X and Y have side effects (toxicity) and that smaller amounts of Y would indicate less toxicity [10], [11].

CONCLUSION

Section 3(d) detractors contend that this legal provision is being abused. Concerns that this section of the legislation would be often employed are supported by the fact that roughly 45% of the sample cases had 3(d) objections. Additionally, the statistically significant influencer of patent decisions is the Section 3(d) objection. If there is a Section 3(d) objection, the likelihood that the case will be denied and/or abandoned doubles. This alone would not point to a violation of Section 3(d). We also draw two other important inferences from our case study and regression results. The Supreme Court's decision in the Novartis case is the first was supported by a Section 3(d) protest. After this decision, the likelihood of being rejected unexpectedly decreased significantly. This can be as a result of examiners becoming more circumspect due to the additional scrutiny brought on by the contentious case. This might ease concerns about Section 3(d) being abused. But we discover that this drop in rejections is connected to instances that are not Section 3(d) situations. Another finding has to do with the variations in patent rulings based on jurisdiction. Applications to the Chennai Office are most likely to be declined and/or abandoned. Invoking Section 3(d), the Patent Office rejected Novartis' request for a patent. Therefore, it could be fair to infer that Chennai grants fewer Section 3(d) cases than other offices. That applies to non-Section 3(d) circumstances as well, though. Additionally, for matters that do not fall under Section 3(d), Chennai's difference from the other offices (Kolkata, Mumbai, and New Delhi) is significantly bigger. We can therefore conclude that even though Chennai has tighter laws, this is not due of Section 3(d).

REFERENCES

[1] R. Gabble and J. C. Kohler, "‘ To patent or not to patent? The case of Novartis’’ cancer drug Glivec in India",’" *Global. Health*, 2014, doi: 10.1186/1744-8603-10-3.

[2] " Novartis AG v. Union of India and Others ," *Int. Law Reports*, 2018, doi: 10.1017/cbo9781108291521.004.

[3] V. Mathur, "Patenting of pharmaceuticals: An Indian perspective," *Int. J. Drug Dev. Res.*, 2012.

[4] K. Shanmugaiah, "THE IMPACT OF TRIPS AGREEMENT ON ACCESS TO MEDICINES IN DEVELOPING COUNTRIES: LEGAL CHALLENGES FACED BY THE PHARMACEUTICAL INDUSTRY PARTICULARLY IN INDIA," *UUM J. Leg. Stud.*, 2012, doi: 10.32890/uumjls.3.2012.4549.

[5] A. Kant, "Section 3(d): ‘New’ Indian perspective," *J. Intellect. Prop. Rights*, 2009.

[6] S. Kochhar, "Indian perspective for sustainable development agenda and functional IPR and ABS domains in agriculture," *J. Intellect. Prop. Rights*, 2016.

[7] K. Kataky, "Flexibilities under TRIPS-An analysis of Indian patent regime in respect of section 3 (d)," *Clarion- Int. Multidiscip. J.*, 2019, doi: 10.5958/2277-937x.2019.00003.0.

[8] Kevin Tarsa, "Novartis AG v. Union of India: Why the Court’s Narrow Interpretation of Enhanced Efficacy Threatens Domestic and Foreign Drug Development," *Boston College Int. Comp. Law Rev.*, 2016.

[9] S. Arora and R. Chaturvedi, "Section 3(d): Implications and key concerns for pharmaceutical sector," *J. Intellect. Prop. Rights*, 2016.

[10] D. Rangnekar, "The supreme court judgment: ‘Lawmaking’ in the south," *Econ. Polit. Wkly.*, 2013.

[11] N. Pandit, "Indian patent act- What to know as health professional?," *J. Integr. Heal. Sci.*, 2016, doi: 10.4103/2347-6486.240038.

CHAPTER 20

ARTIFICIAL INTELLIGENCE AND IPR: COMPLICATIONS AND SOLUTIONS

Sourabh Batar, Assistant Professor
College of Law, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India
Email Id- battarsourabh@gmail.com

ABSTRACT:

From literature and movies to our world, artificial intelligence has already made countless advances in almost every field. At one point, it seemed like a distant possibility, but in recent years, it has gained momentum. Every sector of the economy will be impacted by artificial intelligence, including Intellectual Property Rights (IPR). IPR will be impacted by artificial intelligence (AI) in two different ways. To some extent, it will seem to be advantageous in areas like patents and patent search engines, accurate and pertinent research, and providing a way to classify ideas and discoveries. On the other hand, AI may turn out to be a threat to innovation and growth, which are the true essence of IPR, by giving the inventor a tool to check for existing patents that are similar to his idea and other things. This study examines how digital technologies affect intellectual property rights, the benefits and drawbacks of AI for IPR innovation and advancement, and the potential applications of AI in IPR in the future. In terms of intellectual property rights, artificial intelligence will have a dual impact. On the one hand, it will be useful for patent and patent search tools, accurate and timely research, sorting out inventions and ideas, giving inventors a way to see which patents already exist that are similar to their ideas, and many other things, but on the other hand, it may also have negative effects. The research paper will go into great detail regarding the effects of artificial intelligence on intellectual property rights, the advantages and disadvantages of AI in terms of creativity and innovation in IPR, and AI's potential future applications in IPR.

KEYWORDS:

Artificial Intelligence (AI), Copyrights, Intellectual Property Rights (IPR), Innovations, Patent Law,

INTRODUCTION

The phrase "Artificial Intelligence (AI)" describes tasks that machines can carry out without human intervention. The term "computer" can also be used to refer to the device. Cognitive technologies include things like natural language processing, sentiment analysis, face identification and detection, risk assessment, and fraud detection. To provide real-time data for supply chain monitoring and real-time notifications for industrial processes, the sector may use AI. The ability of a computer program to solve a problem or make a decision in a situation is referred to as artificial intelligence. It is a branch of science that aims to understand the nature of human intelligence through the work of a computer program and the ability to simulate intelligent human behavior. Artificial intelligence also refers to the ability of a computer program to find the approach that should be taken to resolve the problem or make a decision, to recognize similarities between various situations, and more [1]–[3].

It is possible to protect millions of data sources, both domestically and internationally organized and unorganized. A significant portion of this data can be used to create customized displays for clients. Automated vehicles powered by AI can take the place of human error. AI and the internet of things working together could create smart cities with reduced pollution and better traffic control. Since John McCarthy defined artificial intelligence as "the engineering and science of producing machine intelligence" in 1955, he predicted that it would take five to five centuries for it to achieve its theoretical heights. He wasn't wrong. Systems may now produce an astounding amount of content, help process enormous volumes of digital data, and even predict the outcome of legal proceedings. However, the intellectual property (IP) market is becoming more competitive, and businesses that rely on IP portfolios have less time than in the past to ensure their usage and protection on a global scale.

Artificial intelligence is a component of machine learning. The system is composed of convolutional neural networks, which appear to be essentially computer programs. These optimization algorithms, which are made up of a number of variables and mathematical operations, yield outcomes that are on par with human intelligence. The two most important components of AI may be deep learning and machine learning, and deep supervised machine learning seems to be the best method to define AI. Machine learning does away with the requirement for step step-by-step instructions for getting the result. The system develops its own ability to recognize informational trends. Based on these frameworks, the hardware or system makes intelligent decisions, just like a human might. The key word here is cognition. Four cognitive cerebral processes observation, memory, recall, and reasoning make up human growth. A computer is capable of handling, processing, and analyzing enormous amounts of unprocessed data when given the chance to develop intellectually. Unstructured information includes, but is not limited to, books, magazines, metadata, analog data, emails, media files, webpages, audio recordings, and scientific and medical materials.

This unstructured data includes all verbal, auditory, and visual components of human interaction. Machine learning uses these forms to recognize vast volumes of data. AI-based teachers in the field of education can give students individualized instruction and monitoring. The needs of the students are served in a customized environment. AI has several applications in the field of healthcare. It is used for things like hospital administration, disease diagnosis, patient monitoring, clinical outcomes, enhancement of the healthcare system and therapeutic decision-making, enrichment of care management, and facility effectiveness.

Intellectual Property Rights and Artificial Intelligence:

AI & Copyright in general, copyright is a right that belongs to the person who developed their original work, which can be a song, a literary work, a piece of software etc. Although the intersection of AI and copyright is not new and has existed for a while, there used to be no disagreement regarding who would own the copyright over the work because the program or machine only served as a tool for creating that work, similar to pen and paper, and the idea or the work belonged to the programmer. However, as AI has advanced and we are developing machines with human intelligence that are capable of creating original works, this has changed. Machine learning is a branch of AI in which data is provided to the program or machine and the AI machine learns to produce creative works independent of any human after a period of time.As a result, as AI has grown, there are also a lot of issues regarding copyright, and clear norms and policies are required to avoid disputes in this area.

Patents and AI:

In the present, there is growing interest in the interaction of patent laws and artificial intelligence. Though on the one hand, AI will prove to be beneficial for patent protection, patent search, patent search tools, and innovators as well by providing them with an early indication of whether or not a similar idea already exists. Patents are all about creativity and invention, and AI that is able to match human intelligence can create inventions without the help or input of a human. We must pay close attention to a few key topics while discussing patents and AI, such as:

Weapon: There is an international trend toward deploying AI tools and systems in combat. The debate over how AI will be governed by international humanitarian law cannot be disregarded, but it is outside the scope of this study. The problem is that if any weapons are developed by an AI machine or program, it is unclear who will receive the patent for them.

Pharma/medical sector: The pharmaceutical industry or the creation of new drugs are of the utmost importance when discussing patents. When artificial intelligence successfully develops a medication, a patent issue will then arise. For instance, if an AI machine develops a vaccine for the global pandemic corona virus at a time when everyone is searching for a cure, there will be much uncertainty regarding who will own the patent for the vaccine, whether it belongs to the AI machine or program, the programmer who developed it, or the person who bought the vaccine. If this problem is not overcome, it will also be impossible to decide how and how much to charge other countries for the vaccination. Road safety is one area where difficulties

need to be addressed early on. Although numerous initiatives are being created to promote road safety, the number of people who die in crashes cannot be disregarded. There is a chance that AI come up with a method that will allow us to stop the loss of human life, similar to how autos without drivers can be created. In addition, there are businesses who are already utilizing AI in this area of road safety. For example, Microsoft is developing facial recognition software that will track a driver's actions and send out alerts in time to prevent accidents, we make several inventions every day, and patent law is all about creativity and invention. As was mentioned above, a clear understanding of who would own the patent in the event of an invention by an AI machine or programmer is necessary to determine if the machine will hold the patent or the programmer will [4]–[6].

Traditional Knowledge and AI

Traditional knowledge is something that has been learned or occasionally practiced (it could be a skill, knowledge, or practice in general). That community transmits the knowledge from one generation to the next. In some cases, artificial intelligence (AI) may violate existing traditional knowledge by using abstractions from that knowledge. In light of the foregoing reasoning, it is therefore possible that an artificial intelligence machine or program may violate the customary knowledge that is a valuable component of many communities' rich legacy.

Charges of Infringement

Who is responsible when an AI computer violates intellectual property rights is one of the most hotly contested issues. Whether the machine will be at fault, whether the programmer will be at fault, or whether someone else will be at fault. There is still uncertainty in this area.

DISCUSSION

The National Commission on New Technological Uses of Copyrighted Works (CONTU) stated in one of its reports from 1974 that the development of an AI with the ability to create works of its own is theoretical and not practical, so the ambiguity regarding the position on AI is not new.20 In 1986, the Office of Technology Assessment (OTA) looked at the problem once more when it assessed how IP might be affected by the rapid improvements in interactive computing. OTA disagreed with CONTU and proposed that AIs be regarded as valid co-authors of works protected by copyright. In thirty years, the dispute over artificial intelligence (AI) will be at its height, with one side arguing that computers are unable to be as creative as humans, and the other disagreeing under the guise of defining creativity

Sarony v. Burrow Gilles Lithographic Co.

The question of whether an image might receive copyright protection was at the center of this lawsuit.Because it addressed the contrast between creative and mechanical labor, it was a pertinent case. The Court addressed whether a product that is a machine's output might receive copyright protection. By ruling that simply mechanical work is not by definition creative, the Court limited the scope of their protection. As a result, it would be challenging to issue copyright for works produced by AI systems if a rigid method like this were to be used.

Bleistein v. Donaldson Lithographing Co.

The legal issue raised in the previous case was continued in this one. The Court here made a distinct distinction between something created artificially and something created by a human. In his majority opinion, Justice Holmes outlined the distinctiveness of human personality and emphasized that it is a requirement for a copyright. The Court's use of the phrase "something irreducible, which is one man's alone" made it apparent that it did not allow for the possibility of anything that was not an expression of human creativity.

Catalda Fine Arts, Inc. v. Alfred Bell & Co.

In this decision, the Courts adopted a more accommodating stance regarding copyrights. The Court lowered the bar for originality and ruled that a work must not be a direct copy of another artistic creation of a comparable nature in order to be considered original. It even said that an author may claim ownership of inadvertent or accidental modifications. This decision provided a reprieve to those who were claiming copyrights for works produced by AIs since, despite being the result of specific programming and algorithms, they weren't copied. These three decisions help to somewhat resolve the uncertainty surrounding the award of protection. A patent can be thought of as the sole ownership of an innovation. This term "invention" has been interpreted to refer to any product or procedure that offers people a fresh way to carry out a certain action, even those that present a fresh approach to an existing technical issue. For a specific period of time, the owner of such a right may be required by law to prevent others from producing, offering for sale, or even utilizing the patented innovation. Thus, it can be claimed that the right protected in such a situation justifies the establishment of a monopoly in favor of the original invention.

As was previously stated, AI-enabled systems are capable of performing tasks and even coming up with ideas, which typically come about as a consequence of the application of human cognitive According to U.S. patent law, a "inventor" is defined as a person or group of people who created or discovered the invention's main idea. This disproves the idea that the United States' legislative objective sought to encompass innovations or rather the prospect of inventions being generated by anyone other than humans. However, these queries necessitate legal review due to the growing engagement of AI systems in invention processes. A semblance of this examination may be seen in the European Union's efforts to persuade countries to broadly broaden their national laws to include copyrightable works produced by computers and other devices under the heading of "own intellectual creation." While this is a step forward in the recognition of the creativity displayed by these systems when producing poetry, artwork, and other creative works, proper consideration must also be given to include inventions and the application of patents by AI systems and robotics [7], [8].

The European Parliamentary Committee has underlined how, in a few decades, AI systems may outperform human intellect in certain tasks, which, if unchecked, could provide problems for how these AI systems control and direct their own course of action. When discussing AI systems, consideration of patent rights is necessary owing to the high level of such systems benefit from autonomy. This autonomy enables systems with AI to carry out tasks without any kind of major human involvement. As a result, this increased capability enables the use of these programs or machines at the beginning of research, which may ultimately result in some sort of "discovery" based on the capabilities of the machine. This highlights the conundrum encountered when considering how to safeguard such a "discovery."

Whether or not an innovation can pass the patentability requirements successfully is a critical component in determining whether or not it will be granted a patent. This necessitates that it be innovative, creative, and have an industrial application. The main obstacle to getting a patent for inventions involving AI-enabled systems or technology is passing this three-step examination. It becomes required for the invention to depart from what is known in the prior art in order to indicate novelty. To properly identify at the invention stage itself whether or not his innovation can be easily expected or is an output of future research and a creative mental component, it typically takes a thorough examination of the existing prior art by the inventor. Due to the oversight of human scientists who provide information, an AI system will undoubtedly have access to prior art. However, is an AI system genuinely independent, let alone competent to decide whether or not its innovation can account for something novel? Regarding the issue of an innovative step, it is undoubtedly more difficult to achieve innovations on current models or concepts that are not clear to a person knowledgeable in the art if novelty itself is difficult for the AI system to evaluate. Currently, AI is typically fed with pre-existing goals that it is trained to accomplish. First, the technology must progress to give these systems a human-like intelligence so that they can make decisions on novel situations.

The Next Steps:

There is no disputing that AI will advance more and more with each passing day. Complex AI-based technologies will inevitably expand the number of potential software solution "inventions" as businesses like GE, IBM, Apple, and others push forward with their efforts to revolutionize related technology. There is a lot of room for lawmakers to create rules for judging these circumstances and giving them the best possible legal protection. The author does, however, agree with Stephen Hawking that the autonomy of AI may undermine the value of human thought and creation. Giving AI-generated inventions a more cooperative kind of patent protection might be a better course of action. This is due to the fact that administering the rights and obligations related to patents requires a human element and cannot be done purely by a machine. Further, with the possibility of employing thousands of AI-enabled networks that run with or without human intervention, it is necessary to grant some anthropomorphic agent patent protection so that they can be identified in the event that an invention malfunctions or potentially violates the law, exposing the inventor to criminal liability. It must be kept in mind that in the effort to adapt IP laws to evolving technologies, one cannot choose to skew the balance by minimizing the desirable effects of criminal laws, which inevitably depend on the presence of human factors. Additionally, we can't totally rely on AI because that would diminish the importance of the human species as a whole [9], [10].

CONCLUSION

The patentability of AI will have a significant impact on its progress, the economy, and society. Given the quick development of AI technology, it is crucial that interested parties, including academics and patent experts, have discussions about how the patent system might encourage innovation. Additionally, adequate safeguards must be put in place to guarantee that negative social and moral repercussions are avoided. To determine if the existing patent-eligible subject - particular requirement has a materially negative impact on AI or AI-driven breakthroughs, a comprehensive analysis must be conducted. If this is the case, stakeholders need to decide what regulations may have been changed in order to achieve the main objectives of patent law. The current liability laws do not account for situations in which an AI violates a patent on its own. In such situations, it is necessary to specify who will be held accountable and how accountability will be assessed. All of these challenges need to be handled carefully. The consequences of this chasm are extensive, and they could dramatically halt the advancement of modern society at the expense of industry and the structure of society as a whole. We must navigate this uncharted territory and adjust the legal system to the intricate issues of ownership and patent protection in the Digital age if we don't want to miss out on the benefits of this new era.

REFERENCES

[1] S. Tripathi and C. Ghatak, “Artificial Intelligence and Intellectual Property Law,” *Christ Univ. Law J.*, 2018, doi: 10.12728/culj.12.5.

[2] N. K. Upadhyay and M. Rathee, “Impact of Artificial Intelligence on Intellectual Property Rights,” *Proc. Int. Young Sch. Work.*, 2020, doi: 10.47344/iysw.v9i0.192.

[3] D. Modic, A. Hafner, N. Damij, and L. Cehovin Zajc, “Innovations in intellectual property rights management: Their potential benefits and limitations,” *Eur. J. Manag. Bus. Econ.*, 2019, doi: 10.1108/EJMBE-12-2018-0139.

[4] D. Modic, A. Hafner, N. Damij, and L. Cehovin Zajc, “Innovations in intellectual property rights management,” *Eur. J. Manag. Bus. Econ.*, 2019, doi: 10.1108/ejmbe-12-2018-0139.

[5] S. Basfar, S. O. Baarimah, S. Elkatany, W. AL-Ameri, K. Zidan, and A. ALdogail, “Using artificial intelligence to predict IPR for vertical oil well in solution gas derive reservoirs: A new approach,” in *Society of Petroleum Engineers - SPE Kingdom of Saudi Arabia Annual Technical Symposium and Exhibition 2018, SATS 2018*, 2018. doi: 10.2118/192203-ms.

[6] Y. Wang, H. Gui, and L. Ma, "A Survey on Services Provision and Distribution of Official and Commercial Intellectual Property Platforms," *Security and Communication Networks*. 2020. doi: 10.1155/2020/8833416.

[7] A. J. C. Trappey, M. Lupu, and J. Stjepandic, "Embrace artificial intelligence technologies for advanced analytics and management of intellectual properties," *World Pat. Inf.*, 2020, doi: 10.1016/j.wpi.2020.101970.

[8] M. Z. Naser and A. Seitllari, "Concrete under fire: an assessment through intelligent pattern recognition," *Eng. Comput.*, 2020, doi: 10.1007/s00366-019-00805-1.

[9] K. Marias, G. Giakos, L. Xu, M. Zervakis, and A. Gasteratos, "Guest Editorial: Multidisciplinary advancement of imaging technologies: From medical diagnostics and genomics to cognitive machine vision, and artificial intelligence," *IET Image Processing*. 2020. doi: 10.1049/iet-ipr.2020.1020.

[10] J. Vesala and R. Maria Ballardini, "AI and IPR Infringement: A Case Study on Training and Using Neural Networks," *Regul. Ind. Internet through IPR, Data Prot. Compet. Law*, 2019.

CHAPTER 21

HISTORY AND EVOLUTION OF GEOGRAPHICAL INDICATIONS IN INDIA

Bhirgu Raj Maurya, Assistant Professor
College of Law, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India
Email Id- brmourya.mourya321@gmail.com

ABSTRACT:
A geographical indication (GI) is a label placed on products that have a certain geological origin, are distinctive because they can only be produced in a specific area, and have a guaranteed level of quality. Numerous agricultural goods can benefit from a geographical indicator since they are impacted by unique regional geographical elements, such as soil and climate that can be traced back to their place of origin. The usage of GI, however, goes beyond just agricultural items; it also highlights a product's unique originality as a result of human aspects, such as distinct traditions and manufacturing techniques unique to a given product in its country of origin. Indications of Geographical Origin were primarily protected by three international accords prior to the TRIPS agreement Laws enacted to protect intellectual property will have a positive impact on the economy, employment, and income generation. Protected Geographical Indication (GI) status is given to a group of producers who are associated with the original manufacturing location of the good. The character of the GIs is determined by several variables including climate, terrain, and human labor. GIs identify the commodities based on their country of origin. The purpose of the study is to comprehend and evaluate the function of geographical indications and public awareness of them in achieving social upliftment and rural development in India. GI assists the following generations learn and preserve the ancient knowledge and abilities. It promotes human advancement. GI is a powerful tool for creating rural jobs and income from exports. The regulatory framework needs to place more of an emphasis on quality control requirements for creating brands in global marketplaces.

KEYWORDS:

Economic significance, Geographical Indications, Innovation TRIPS Agreements, Traditional Knowledge,

INTRODUCTION

Today, intellectual property plays a significant role in both the social and economic lives of society. The permitted innovation comprises psyche-related items or manifestations. The goal of intellectual property laws is to protect the interests of creators by granting them some time-limited rights to regulate how those product benefits are used. The Paris Convention for the Protection of Industrial Property (1883) and the Berne Convention for the Protection of Literary and Artistic Works (1886) were the first international agreements to recognize the importance of intellectual property. The World Intellectual Property Organization (WIPO) oversees both settlements. Depending on the context of understanding and method of application, intellectual property rights can be broadly divided into the two categories of industrial property rights and copyright. Industrial property rights allude to the direct examination of matters that will benefit businesses and commerce. Patents for inventions, trademarks, industrial designs, and geographical indicators are all examples of industrial property. As a result, the intellectual property framework aids in achieving some balance between innovators' interests and public enthusiasm, creating an environment that fosters creativity and, more importantly, progress, to the benefit of all [1]–[3].

Geographical Indications are rapidly becoming a key intellectual property right in the current, expanding global economy. Geographical Indications are now seen as having the same quantity of scholarly resources as a range of goods. Each general public accumulates a certain knowledge base over a protracted period of time. Geological conditions and human connections are the origin of this knowledge base's growth, which has a tremendous impact on their economy and way of life. A geographical indication serves as a tool that helps manufacturers distinguish their products from rival products on the market and gives manufacturers the ability to build up a reputation and generosity around their products that will command a premium price.

Geographical indication theory has its origins in the nineteenth century in Europe and has made great progress since then. The current global system is outlined in Article 22 of the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement, which mandates that all parties to the agreement must comply with the requirement that individuals provide "legitimate methods for invested individuals" to ensure the security of their GIs, all other things being equal. Geographical indicator demonstrates that certain items originate from a country, region, or territory and have unique qualities, traits, or renowned that are due to their origin. The relationship between the products and the location ends up being so well-known that any mention of the location brings to mind the items that are being produced there, and vice versa. For instance, the mention of the Champagne region in France implies the production of the Champagne wine.

India is some country rich in natural resources, including agricultural goods and other goods with a high market value. Rustic people in various regions of our country have a unique aptitude and capacity to produce high-quality products like carved works, adornments, materials, and other connected items, and they have been working on the aforementioned skills for a number of years. Geographical indications, which are frequently linked to customs, practices, and culture, are deeply ingrained in provincial lifestyles that rely on traditional tactics, practices, and expertise to supply these items related to land signs. It is India's responsibility to preserve GI as a signatory to the TRIPS agreement. India established the Geographical Indications of Goods (Registration and Protection) Act, 1999, which is sui generis legislation. The protection of the interests of such items' producers is one of this law's primary goals. Another goal is to stop the illicit use of GI, safeguard customers from deceit, and advertise products with GI in the export market.

Geographical Indication: Meaning and Definition

Particularly in developing nations, the significance of the geographical indication is growing in order to safeguard the authenticity of agricultural products. A geographical indication is a signature that confirms the genuineness and the country of origin of a product with distinctive characteristics. According to the TRIPS agreement, a good's GI is defined as "indications that identify a good as originating in the territory of a member, or a region or locality in that territory, where a given quality, reputation, or other characteristic of the good is essentially attributable to its geographical origin." a product must originate from a specific location, have a certain reputation or set of features, or be made or produced by a specific community in order to qualify for the GI label.

GI is a tool for promoting the products of a specific region. Real California Cheese, Scotch Whisky, Basmati rice, Pilsen and Budweis beers, Tuscany olive oil, Florida oranges, New Zealand lamb, Darjeeling tea, Swiss watches, Indian carpets, Sherry, Chianti, and Cognac are a few of the world's most well-known GIs. GI helps distinguish between comparable products and makes it evident which ones are genuine. For instance, a specific family in Aranmula carries on the tradition of producing Aranmula kannadi. But today, several people in various locations produce the same Aranmula Kannadi. GI aids in locating the genuine product. There is no one GI because it varies from location to region and from product to product. The nomenclature and the legislation vary from nation to nation because each has its own national laws to safeguard GI. GI has been used to describe agricultural products as well as any other goods produced locally or with regional origins. Below is a list of some of the conventional definitions of GI.

1. The WIPO's definition of a geographic indicator is - WIPO states that GI is a hallmark that denotes the veracity of goods produced by a particular community or region and specifies their origin. "...a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin," according to the WIPO, defines GI.
2. Regulation of the European Commission concerning the protection of geographical indications, designations of origin, and certificates of distinctive character for agricultural products and foodstuffs:- The term "geographical origin" (GI) is defined as "...being the name of a region, a specific place, or, in exceptional cases, a country, used to explain an agricultural product or foodstuff: originating in that region, specific place, or country, and which possesses a specific quality, reputation, or other characteristics attributable to that geographical origin... the geographic link must

occur in at least one of the one that powers the stages of production". The Geographical Indication of Goods (Registration and Protection) Act of 1999 of India defines "geographical indication" as an indication that designates certain agricultural goods, natural goods, or manufactured goods as coming from or being produced in a particular country's territory, or a specific region or locality within that territory, where a particular quality, reputation, or other characteristic of those goods is primarily attributable to it.

Explanation: Any name that refers to a specific geographic area and is used on or in relation to specific goods coming from that country, region, or locality, as the case may be, shall also be considered as the geographical indication for the purposes of this clause even if it is not the name of a country, region, or locality of that country. A country's territory or a specific region is what the meaning of "goods" under Section 2(e) is defined as, and this includes manufactured goods, natural goods, and agricultural goods. In the case of agricultural goods, the primary characteristics such as quality, reputation, and characteristics are related to geographical origin, whereas for manufactured goods, characteristics such as production, processing, or preparation of the goods in a specific territory, region, or locality will be taken into consideration. We can conclude from the aforementioned considerations that provision 2(e) combines the TRIPS and WIPO definitions [4]–[6].

Components of GI:

1. **Products have a specific geographic origin, location, or locality:**

The origin of the items is one of the key factors in calculating GI. However, due to the unique character of the product, adequate delineation of the location is required in order to determine the origin. Delimitation refers to the division of a specific territory into suitable administrative zones.7 It will be easier to determine that the place in question is located in a particular zone or region. As an illustration, Aranmula Kannadi. A region in the Pathanamthitta district is called Aranmula. The Kannadi (Mirror) is produced in the Aranmula region. As a result, it is known as Aranmula Kannadi, elevating the significance of the Aranmula region.

2. **Quality:** GI-tagged products' high quality is one of their primary selling points. Two factors,

i. Natural quality and
ii. Quality attributed to the production process, account for the majority of a product's quality.

Natural quality is mostly a result of the physical and chemical characteristics of the raw materials, the local climate and temperature, the soil, the environment, etc. Quality of agricultural goods is influenced by the soil, harvesting techniques, sowing, and final product packaging. For instance, the well-known Palakkadan matta, grown in the Keralan district of Palakkad, is well-known for its distinctive flavor. The rich, black cotton soil is used to grow this rice. Rice gains a natural flavor from the clay and silt in the soil. The quality of the raw materials and the manufacturing process are both qualities that can be attributed to the technique of production. The quality of the product also affects how it is actually presented.

3. **Reputation:** A product's reputation is influenced by its illustrious past. Every nice person with a GI tag has a background. It will make it easier to tell it apart from other product types. The applicants must provide proof of origin, or the product's history, while applying for a GI tag.
4. **Terroir:** Terroir, also known as place of origin, is a factor that can be used to link a product's quality and reputation to its place of origin. The human environment and our innate instincts which can have spiritual undertones are related to terroir. Terroir thus occasionally lacks scientific technique and analysis. As a result, some people believe that terroir cannot serve as the foundation for geographic designations.

DISCUSSION

The Registrar of Geographical Indications receives an application for the registration of GI from any individuals, producers, organizations, associations, or authorities representing the interests of the producers of the relevant goods. Each application must be submitted in triplicate, be on the prescribed form GI-1A to ID, include three copies of the Statement of Case, and include the required fee. The applicant must state the

producers' interests in the items under consideration for registration. An expert panel will initially review the application to look for any errors or objections. If a dispute occurs, it is possible to appeal, and the applicant must respond to the public hearing within two months. Within three months of the application's acceptance, it will be published in the Geographical Indication Journal. The opponent must then file a notice within the allotted time disputing the application of the product when it was published in a journal if there is any opposition. Within two months of receiving notification from the opponent, the applicant must respond with the necessary counterargument in order to defend the same. Both parties (defendant and opponent) will present their evidence by affidavit and accompanying documents during the hearing if the counterstatement has been submitted. If there is no counter-statement, the Registrar will consider the applicant's application for GI acceptance as of the date of filing and issue a certificate bearing the Geographical Indication Registry's seal.

Geographical Indication as an Intellectual Property Rights:

People who develop new knowledge and ideas are given the right to intellectual property. Patents, trademarks, copyright, trade secrets, and geographical indications are all examples of intellectual property rights. All of these terms patent, trademark, trade secret, etc. are connected to fresh concepts and discoveries regarding a specific person or business. The geographical indicator, on the other hand, is a type of intellectual property that is frequently connected to outdated ideas and procedures. Geographical Indication is a case when intellectual property rights are not applicable. Typically, geographical identifiers comprise processing techniques that have been handed down through the centuries. The method employed in the product may be very dated. Why do intellectual property rights include geographical indication? The response to the question is that, in the case of agricultural products, such as Sohrai Khovar paintings and Ratnagiri Alphonso mangoes, respectively, the geographical indicator is only given to individuals who have genuine knowledge about the product. A geographical indication is a tool that can be employed to some extent to safeguard and preserve both community traditions and natural resources. Since agricultural items receive the majority of GI, this will aid in preserving sustainable agricultural methods [7]–[9]. As shown in Figure 1: Registration Process of GI [ipindia].

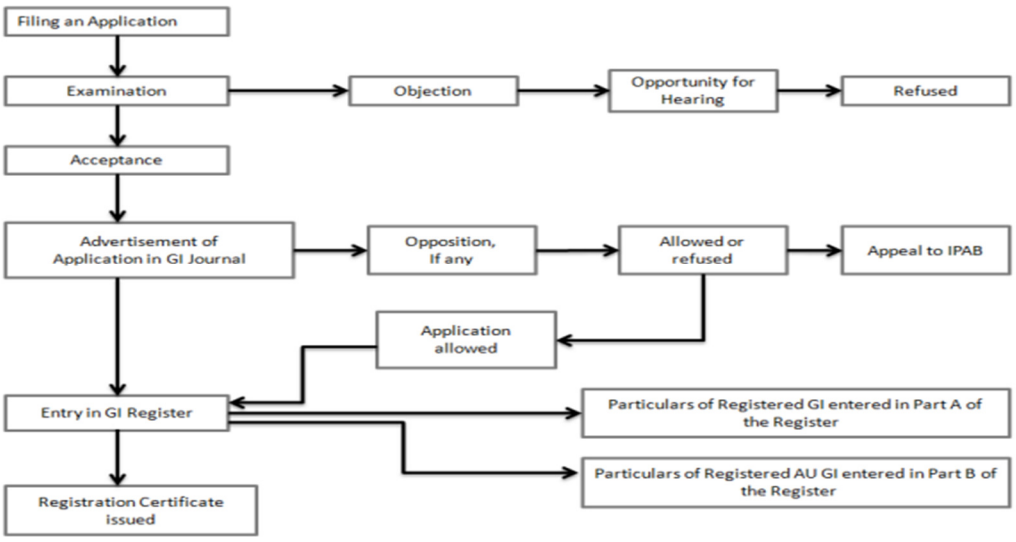

Figure 1: Registration Process of GI [ipindia].

Additionally, GI aids in preventing improper product use by other parties. Since customers are more likely to purchase original products than counterfeit ones, GI can also assist in generating some financial benefit. As a result, GI safeguards not just the goods produced or processed but also the community's knowledge and technical expertise. The TRIPS agreement's clauses make it quite obvious that GI is an intellectual property.

Distinction between trademarks and geographical indications:

Trademarks and geographic indications are two different kinds of intellectual property rights. Trademarks and geographical indications are markers used to distinguish products and services. Consumers can recognize products thanks to both types of intellectual property. This is what these two rights have in common. Both of these rights are frequently used interchangeably due to their similarities. One of the main benefits of GI is that products bearing the GI name never skimp on quality. This expectation encourages more people to buy the product. GI therefore functions pretty similarly to how a trademark would. The primary distinction is that a trademark enables us to recognize the products of a specific company. There is no specific location connected to the trademark. However, when it comes to GI, the country of origin is crucial in determining the product's quality. This distinguishes GI from other forms of intellectual property. Since GI is fixed, the allotted territory cannot be sold apart from it. For instance, GI has been given to the Ratnagiri Alphonso mango, which is grown in the Ratnagiri region of Maharashtra. However, the Alphonso mango cannot be sold with the previous GI rating if any Ratnagiri farmers relocate and begin growing the fruit there. A trademark is a distinctive symbol used by the owner or someone with permission to do so. The same business that owns a trademark may lease or sell it to a different party. The owner and franchise may employ a trademark, such as the McDonald's golden arch, as an example. GI, however, cannot be licensed to anyone else. Trademark creation requires human creativity.

Trademark and GI Disputes:

Only Article 22 of the TRIPS agreement now stipulates that GI must be protected through legal measures. But regrettably, nowhere does it provide the legal ways, which leads to the conflict approach because there are no legal means or procedures.

i. The primary area of contention is the GI and trademark definition. Products with a particular geographic source and a good reputation are given the GI signature. The trademark, on the other hand, is an arbitrary symbol used to designate the products or services of a specific business.
ii. GI is a group effort by a particular group of people, which could be a tribe. A trademark, on the other hand, is an initiative made by a location or at the organizational level.
iii. Different nations have different views on the importance of conserving GI.

The concept of exclusivity and goods that can be sold for more money under the sui generis system were first introduced by the EU. The WTO's many members from Asia and Africa are in favor of the EU's proposal to protect genetically modified organisms (GI). The US and Australia, two economic juggernauts, as well as other Latin American nations, disagreed with the EU's guiding philosophy. The US regards GI as a crucial component of the trademark. The US and Australia are immigrant nations, whereas the EU and nations from Africa and Asia are emigrant nations, and this is where the issue emerges. Since TRIPS does not include any appropriate legal provisions for genetic information, each country has its own system for protecting genetic information. The US protects GI under trademark law, but the EU and others like India adopt a sui generis method. Conversely, several other nations have bilateral agreements. For the preservation of GI, a nation like Australia uses both bilateral agreements and sui generis. The fact that when a trademark is registered as a GI, the items that bear the name are made available to the producers of that geographic region, which harms the trademarks core idea, is another key aspect that causes disputes between nations in the protection of GI. Rural development and geographic indication the things that carry a GI marking are without a doubt of high quality. GI guarantees the product's quality. This assurance has helped GI products become more well-liked in the marketplace.

Additionally, the market price of the goods has increased. Consumers today are mostly concerned with the quality of the goods they purchase. If the goods are of high quality, they are willing to spend. From the perspective of the consumer, GI ensures that a particular product is produced using traditional methods and upholds the required standards of quality. For instance, Darjeeling tea, which is grown in the Darjeeling district of West Bengal, is preferred over other teas due to its reputation for quality and unique qualities. This raises the likelihood of introducing regional goods to global markets. The trading of goods with a GI tag can

be used to estimate the economic worth of GI. According to a consumer study funded by the EU Commission, 40% of customers are willing to pay a higher premium price for authenticated original products. The most valued GI goods in terms of economic value are the wines and spirits. As a part of the product, GI plays a significant role. It might aid in the overall growth of rural communities. It has the potential to produce and raise the overall cost of the goods. It results in the creation of jobs and prevents rural residents from moving to urban regions in quest of employment. GI and tourism can be related in some ways. It can boost the rural community's standard of living while also increasing the region's worth.

GI can aid in the development of an appropriate brand if it is correctly steered. GI thus makes it easier to build flexible platforms for rural development. An illustration of how Pochampally silks enhanced the quality of life for a community in a rural area in Telangana state, India, is shown below. Bhoodan Pochampally in the Indian state of Telangana is where the Pochampally Ikat saree is produced. In 2004, it was given a GI tag. Since then, these sarees have increased in commercial worth. The pre- and post-GI eras indicate that there was a 12% increase in 2009. A 5% decrease in overall sales turnover has also been seen. Employment has also increased by 10% as a result. Geographical indications are protected. GI has a tendency to give customers accurate, authentic information about the place of origin and the caliber of the products. Worldwide, there are several high-quality items, and if the reputation and quality are not upheld, it will negatively affect consumer expectations. Therefore, maintaining the reputation and high caliber of the product should be the primary goal of the GI. Every nation has established its own legal theories and standards for the protection of GI because there are no universal ones. However, similar principles occasionally provide distinct outcomes as a result of the functional variations. These many outcomes can occasionally make it difficult to preserve GI consistently, and GI implementation has taken place in a haphazard way. Consequently, it is essential to establish standard methods for GI protection. Unfair competition/passing off; protected appellation of origin and registered GI; collective and certification trademarks; administrative protection schemes; and sui generis protection of GI are some of the current methods for protecting geographical indications [10], [11].

CONCLUSION

A Geographical Indication tag is a source of pride for both the producer and the customer as it serves as a symbol of superiority, a guarantee of originality, and a means of protecting the rights of all parties involved in the production. GI has benefited individuals all around the world, especially the underprivileged craftsmen who work tirelessly to uphold the quality that is renowned and valued globally. A GI tab is a crucial component to keep a product's essence and uniqueness while preserving specific qualities and characteristics. The first nation to create a comprehensive framework for the protection of GIs was France, which later impacted the drafting of both domestic legislation and international treaties. India has not lagged behind in advancing this component of intellectual property rights in a legal manner. Both the producer and the consumer take pleasure in a Geographical Indication marking since it represents excellence, ensures originality, and works to safeguard the rights of all parties involved in the production. People all across the world have benefited from GI, particularly the disadvantaged craftsmen who toil diligently to maintain the standard of quality that is famous and highly esteemed worldwide. A GI tab is an essential component to maintain a product's distinctiveness and essence while maintaining certain traits and features. France was the first country to establish a thorough framework for the protection of GIs, which eventually influenced the writing of both domestic law and international treaties. In terms of advancing this aspect of intellectual property rights in a legitimate way, India has not fallen behind.

REFERENCES

[1] ROSCHEVICZ and J. R., “A contribution to the knowledge of rice.,” *Bull. Appl. Bot. Genet. Plant-Breed.*, 1931.

[2] K. Das, “Protection of Geographical Indications: An Overview of Select Issues with Particular Reference to India,” *SSRN Electron. J.*, 2012, doi: 10.2139/ssrn.1587372.

[3] "Chapter 5 Late mesozoic," *Developments in Palaeontology and Stratigraphy*. 1995. doi: 10.1016/S0920-5446(06)80055-5.

[4] J. Gascón, S. M. Pérez, and J. Tresserras, *Cooperación en turismo. Nuevos desafíos, nuevos debates.* 2018.

[5] E. J. Gangarosa and R. Polliteer, "Cholera. Its Pathology and Pathogenesis," *Am. J. Trop. Med. Hyg.*, 1961, doi: 10.4269/ajtmh.1961.10.792.

[6] J. Gascón, Jordi; Morales, Soledad; Treserras, *Cooperación En Turismo*. 2018.

[7] H. Chinthaginjala, H. A. Ahad, B. Pradeepkumar, S. R. M. Tadapatri, S. P. Manchikanti, and S. S. Vikas, "Challenging Protection for Geographical Indications: The Distinct Intellectual Property Right Based on Local Knowledge and Reputation," *Pharma Times*, 2020.

[8] R. Keesing, "Teori-Teori Tentang Budaya," *Antropol. Indones.*, 2014, doi: 10.7454/ai.v0i52.3313.

[9] E. Vandecandelaere, C. Teyssier, D. Barjolle, S. Fournier, O. Beucherie, and P. Jeanneaux, "Strengthening Sustainable Food Systems through Geographical Indications: Evidence from 9 Worldwide Case Studies," *J. Sustain. Res.*, 2020, doi: 10.20900/jsr20200031.

[10] K. Mulik and J. M. Crespi, "Geographical indications and the trade related intellectual property rights agreement (TRIPS): A case study of basmati rice exports," *J. Agric. Food Ind. Organ.*, 2011, doi: 10.2202/1542-0485.1336.

[11] M. R. A. Palar, D. E. Sukarsa, and A. M. Ramli, "Teori-teori budaya," *J. Intellect. Prop. Rights*, 2018.

CHAPTER 22

GEOGRAPHICAL INDICATIONS VS TRADEMARKS: AN UNSOLVED PUZZLE

Yogesh Chandra Gupta, Assistant Professor
College of Law, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India
Email Id- cognitor.yogesh@gmail.com

ABSTRACT:
Trademarks and Geographical Indications (GIs) have historically had a tumultuous relationship. Each of these conflicting siblings, who are all part of the larger Unfair Competition law family, gives registrants the right to the exclusive use of a sign. What transpires therefore when a trademark owner and GI group both assert ownership of the same symbol within the same jurisdiction? This study investigates a recently developing space that might just be big enough for the two of them as part of the increasing interest in TRIPs flexibilities and attempts at accommodating or reconciling discrepancies between national laws. The research is based on a recent WTO Panel Report that outlines the legal basis for cohabitation. The Report is released at the same time as national and regional doctrinal advances that first recognized this area of compromise: the geographical "descriptive use" defense in trademark law. Coexistence is significant because it changes the nature of a long-standing disagreement between trademark and GI regimes that has remained trumpeds-locked for many years. In accordance with this, this paper introduces the participants and depicts the one-upmanship game that existed before to this development and provides an overview of the WTO decision and also draws comparisons with doctrinal developments in the US and the EU that foreshadowed the prospect of coexistence. Coexistence is endorsed as an egalitarian solution in the conclusion.

KEYWORDS:

Dispute Resolution, Geographical Indications, Trademarks, World Intellectual Property Organization (WIPO), WTO

INTRODUCTION

The TRIPS Agreement, which was signed at the end of the 20th century, is most definitely a turning point in the international evolution of intellectual property protection. The protection of copyright, trademarks, patents, plant breeders' rights, and similar rights has already significantly improved as a result of the TRIPS Agreement's ongoing implementation. In particular, enforcement practices have advanced, and the majority of industrialized and developing nations place a high priority on combating counterfeiting. Geographical indications, however, are one sort of intellectual property that has benefited notably from the TRIPS Agreement. It would have been manifestly false to refer to a comprehensive global system for the protection of geographical indications prior to the implementation of the TRIPS Agreement. Although they only cover a tiny fraction of it, the Paris Convention and the Madrid Agreement on False Designations of Origin from 1891 both deal with the protection of geographical indications. Although the Lisbon Agreement has a wider range of protection, it suffers from a small membership. Every nation is subject to the same analysis. A patchwork of bilateral agreements, sui generis registration systems, certification or collective trademark protection, unfair competition legislation, labeling regulations, and other mechanisms were used to preserve geographical indications.

In light of this, the 1994 TRIPS Agreement's accomplishments are more than impressive. It set a minimal standard of protection for geographical indications that is applicable globally, which I shall go into more depth about below. The TRIPS Agreement also addressed a problem that had prevented the further expansion of GI protection, namely the potential clash with other IP rights, notably trademarks. The TRIPS Agreement strikes a careful and sufficient balance between geographical indications and trademarks, giving exclusivity to the earlier of the two rights on a country-by-country basis. It is the first multilateral agreement to deal with both kinds of intellectual property rights at the same time.

While the majority of WTO members are currently working to implement TRIPS, a new chapter in the history of geographical indication protection has been opened by the Doha Round. Currently, the WTO Member States are in negotiations with discussing touchy subjects like the creation of a multilateral system for the notification and registration of geographical indications, the expansion of the so-called additional protection for wines and spirits to include products other than wines and spirits, and the elimination of what some Member States perceive as illegitimate trade restrictions on goods bearing geographical indications. The balance between trademarks and geographical indications that was achieved through the TRIPS Agreement may eventually be maintained and clarified, if needed. They might, however, also cast doubt on the Uruguay Round's successes at the expense of trademark owners. In order to ensure that there is harmony rather than conflict in the protection of geographical indications and trademarks after Doha, we must carefully study the protection of geographical indications and analyze the ongoing trade discussions [1]–[3].

Geographical Indications Protection and The TRIPS Agreement states

Geographical indications are described as follows in the TRIPS Agreement's Article 22 (1): For the purposes of this Agreement, "geographical indications" are indications that place a good's origin in a member's territory, or in a particular region or locality therein, where a particular quality, reputation, or other aspect of the good is primarily attributable to its geographic origin. (Articles 22(1) TRIPS) Protection of Geographical Indications

According to the TRIPS Agreement

Geographical indications are defined as follows in Article 22 (1) of the TRIPS Agreement:

The term "geographical indications" as used in this Agreement refers to indicators that place a good's origin in a member's territory, or in a specific area or locality therein, when a certain quality, reputation, or other attribute of the good is principally attributable to its geographic origin. (TRIPS, Article 22(1))

Trademarks:

The TRIPS Agreement is significantly less revolutionary when it comes to the protection of trademarks than it is when it comes to the protection of geographical indications. This is not shocking at all. Since more than a century ago, trademarks have been protected on broadly comparable grounds everywhere throughout the world. In an industrialized culture, trademarks are firmly established and acknowledged as the main assets of brand owners. The primary means of communication between a manufacturer and the consumer is through trademarks. In addition to providing information about a product's origin, trademarks serve a number of other purposes in the dialogue between brand owners and customers. Trademarks convey feelings, a certain lifestyle, and other information to buyers about the caliber of a product. When using identical or similar signs for goods or services that are similar to or identical to those for which the trademark is registered, the owner of a registered trademark shall have the exclusive right to prevent all third parties without the owner's consent from doing so in the course of trade. It is anticipated that there will be confusion when the same sign is used for different items or services. The aforementioned rights do not conflict with any already-existing rights and do not prevent members from making rights available based on use [4]–[6].

In essence, the trademark gives its owner the sole authority to use it. In the course of trade for identical or comparable goods or services, the owner of a trademark has the right to ban all third parties from using any signs that are confusingly similar. The exclusivity of a trademark is its fundamental quality. At the Melbourne Symposium on Geographical Indications in 1995, Florent Gevers stated that "the right to use includes the right to exclude. The TRIPS Agreement just affirms what has long been acknowledged at the level of member states as well as in international accords by providing this breadth of protection. The exclusivity granted to a trademark is not only essential for the proper operation of a trademark system, but it also expresses the trademark as an emanation of the fundamental right to private property, which is something that is frequently ignored and thus probably merits bringing up in the context of this paper. A trademark's intellectual property right is just as exclusive as any other type of tangible property right. A private property right's fundamental feature is its ability to legally bar others from using it.

Geographical Indications and Trademarks: A Conflict of Interest

The TRIPS Agreement, which deals with trademarks and geographical indications simultaneously, is the first global agreement on intellectual property rights, as was already mentioned. The TRIPS Agreement established an appropriate remedy for any potential conflict between a geographical indicator and a trademark by granting the exclusivity of a prior, legitimate, and lawful trademark registration in accordance with TRIPS Art. 16(1).

The majority view among WTO Member States is probably that this interpretation of the TRIPS Agreement is correct. In all certification mark or collective mark systems for the protection of geographical indications (such as those in the United States, Canada, and China), exclusivity of the prior right is the predominant dispute resolution method; however, this dispute resolution method is also included in the statutory law of nations that permit sui generis registration of geographical indications, such as in Article 106 of the Hungarian Trademark Act. However, not all WTO Member States share the understanding of the TRIPS Agreement that grants the prior trademark exclusivity. The European Communities, in particular, have historically pursued a concept of geographical indication protection that presupposes a certain level of superiority of geographical indications over trademarks.

This may have historical roots in arguments over Champagne's appellations of origin in the early 20th century and the idea of common vs private property. Examples of this notion of superiority of geographical indications, which is not reflected in the TRIPS Agreement, which places both trademarks and geographical indications on an equal footing as private property rights, are readily available in secondary legislation of the European Community. For instance, EC Regulation 1493/1999 on the common organization of the market in wine provides for the discontinuation of the use of a prior trademark, if a confusingly similar designation is later registered. In other words, even though a trademark had been properly registered in good faith with a greater priority, the mark would have to be struck off the register and its use forbade. The A trademark would be taken away. Compensation is not mentioned in the Regulation.

The European Community Regulation (EC) No. 2081/92 on the protection of geographical indications and designations of origin for agricultural products and foodstuffs is another instance where the earlier trademark would continue to exist but lose its exclusivity. This piece of EC legislation is predicated on the idea of a previous trademark coexisting with a later geographical indication (but not the other way around).

According to the European Commission's report to the Trade Barriers Regulation Committee regarding Canadian practices affecting Community exports of Prosciutto di Parma, the European Community believes that its approach to the conflict between trademarks and geographical indications is consistent with the TRIPS Agreement. This lawsuit involves the fact that the word PARMA has been a trademark for cured ham in Canada for more than 30 years. On May 3, 1999, the Italian Consorzio del Prosciutto di Parma filed a complaint in accordance with Article 4 of the EC Trade Barrier Regulation, asserting that because the designation is protected as a trademark, it may find it difficult to use Parma in Canada. The Commission determines that as Article 24(5) of the TRIPS Agreement contemplates coexistence, the sale of Italian cured ham marketed as "Parma" cannot be prohibited in Canada under any circumstances.

The Commission claims that this clause does make an exception to the general rule that a geographical indicator should take precedence over a trademark. Once more, the EC reads the TRIPS Agreement to reflect its belief that geographical indications are superior to trademarks. It is acknowledged in the study that "the language is not precise."36 However, it considers that only if Art. 24(5) TRIPS is construed as permitting cohabitation does the entire structure make sense.

(2) The WTO is currently engaged in dispute resolution proceedings about the broad issue of how to resolve a conflict between a prior trademark and a subsequent geographical indication. However, it is apparent that does not believe in the idea of the superiority of geographical indications, which includes an interpretation.

DISCUSSION

The Doha Declaration's paragraph 18 summarizes the discussions and conversations planned as part of the Doha Round:

We decided to negotiate the establishment of a multilateral system of notification and registration of Geographic Indications (GIs) for wines and spirits by the 5th Session of the Ministerial Conference in order to complete the work begun in the Council for the Protection of Trade-Related Aspects of Intellectual Property Rights (Council for TRIPS) under the implementation of Art. 23.4. We take note that, in accordance with paragraph 12 of this declaration, concerns relating to the extension of the protection of geographical indications provided for in Art. 23 to products other than wines and spirits will be discussed in the Council for TRIPS. Some progress has been made in the talks and agreements around geographical indications since the Doha Declaration of November 2001. Three issues have come up thus far: - The establishment of a multilateral system for the notification and registration of geographical indications for wines and spirits by 14 September 2003, i.e., the conclusion of the 5th Ministerial Conference to be held in Cancun; The expansion of additional protection provided for wines and spirits pursuant to Art. 23 to products other than wines and spirits to products other than wines and spirits (discussions) and most recently, An initiative to "claw back". The Multilateral System for the Notification and Recognition of Geographical Indications (Multilateral System).

The most urgent problem is the creation of a system for the notification and registration of geographical indications (hence referred to as the System), as the WTO Member States committed to reaching an agreement by September 2003. This agenda item is already included in the built-in agenda of TRIPS Art. 23(4) whereas the talks are limited to the establishment It is currently quite obvious that the Member States will not likely establish a new notification and registration system for geographical indications for items other than wines and spirits in the future. This is because of the System for Wines and Spirits. It is reasonable to anticipate that the System will be extended to include products besides wines and spirits, either by extending Art. 23 protection to other products or by simply making the System available to those products without expanding the scope of protection concurrently. In paragraph 32 of their communication from June 19, 2002, the EC and a few other WTO Member States relayed the following:

The execution of a more effective protection for geographical indications in general will be aided by the multilateral system of notice and registration of geographical indications. The System should be accessible to all geographical indications equally, according to a coordinated strategy for the preservation of geographical indications. Therefore, it is possible that The System will have an impact on sectors other than just the wine and spirits industry. The negotiations first concentrated on two fundamentally distinct System ideas, one supported by the US, Canada, Chile, and Japan and the other by the EC, its Member States, and a number of other WTO Member States. The conversations have accelerated significantly since the start of this year. With only a few months until the Cancun Ministerial Conference, Hong Kong has presented an additional proposal, the INTA has described its idea of a system, and the Chairman of the Negotiating Committee has also provided his thoughts on the most likely essential components of a System [7]–[9].

The topic is still relevant today, and in 2003, FITFIR was put forth to the US House of Representatives Committee on Agriculture. This has been suggested as a remedy on a variety of international venues with varied degrees of proselytizing fervor. Although they are in the form of non-binding statements and resolutions, they serve to highlight the range of viewpoints in this discussion. The International Vine and Wine Office (OIV)'s General Assembly adopted a Resolution in 1994 outlining the connection between geographical indications and trademarks. Despite implying the significance of priority, it was only one of several criteria to be taken into account when balancing rights, including giving both equal protection and consideration to each party's reputation and distinctiveness. However, when it comes to settling disputes between geographical indications and trademarks, the International Trademark Association (INTA) "supports the principle of "first in time, first in right" priority." In fact, INTA "unequivocally states that coexistence between a later GI and a prior trademark is not an acceptable alternative" due to the strength of the support.

The International Association for the Protection of Intellectual Property (AIPPI) took a more circumspect stance on the subject of geographical indicators in Resolution Question Q 62 at its 37th Congress in Rio in 1998. The 1994 Copenhagen Resolution Question Q 118 on the same subject served as a foundation for this one. While acknowledging that the FITFIR "could be a guiding principle for the resolution of conflicts," it goes on to suggest that the coexistence principle be used, unless the in-question trademark has already built up a reputation.

System of trademarks supporting GI protection:

When trademarks and geographical indications conflict, it is typically forbidden for either notion to utilize the problematic geographical designation. However, there are times when the two systems work together rather than against each other. GIs and trademarks share numerous commonalities as well as variances. Both ideas help companies differentiate their goods on the market, while GIs are used more on a group level than an individual one. Producers are allowed to use both a trademark and a GI as long as they are both used lawfully. By doing this, producers are given two layers of protection: one for acting as producers in general and another for producing a specific good within a specific geographically defined area. Such combination use will give consumers better knowledge about the commercial and geographic origins of the commodity in addition to the two-tiered protection. As markers of source, neither trademarks nor geographical indications (GIs) may be undistinctive or misleading. Generally speaking, geographically referenced marks cannot be protected under trademark law. It will only be permitted if such a geographical source reference does not lead the general public astray regarding the origin of the items. Therefore, this trademark law restriction will aid in keeping the trademark domain "clean" of GIs[10].

CONCLUSION

Trade disputes might arise between GIs and trademarks because they are two different IPRs. The first is based on the group, whereas the second is based on the individual. But in crucial ways, they also accomplish the same goals identifying the products' origin for consumers and giving manufacturers exclusivity. Additionally in the future, this will be very valuable. They serve as exclusivity rights, preventing non-privileged producers from using the GI or trademark unfairly to their detriment. In order to make wise purchasing decisions, consumers increasingly demand to know the commercial and geographic origin of products. A clear trend among customers to purchase food and other commodities from a specific origin has resulted from a desire to purchase things with specific attributes. GIs serve as assurances for many desired qualities. GIs will become increasingly important as consumers demand greater assurance about the country of origin of their food and other products. The ideas for how to achieve such aspirations have been discussed above. It appears that many countries believe that the protection for GIs can be made more effective. Negotiations need to be conducted on a multilateral scale in order to reach a consensus on GI protection that is durable and acceptable to all parties. Therefore, a successful conclusion of the Doha Round is crucial. Without an internationally recognized, effective, and acceptable protection structure, the benefits of GIs cannot be realized.

REFERENCES

[1] S. Madinah, “Perang Inovasi Teknologi Raksasa Elektronik Di Era Modern (Studi Kasus Paten Samsung Vs Apple),” *Bus. Law Rev.*, 2020.

[2] N. Fithriah, “The Urgency of Trademark Registration for Business Actors (Case Study of Supreme Court Decision No 575 K / Pdt.Sus-HKI / 2020 Between Ruben Samuel Onsu vs PT Ayam Geprek Benny Sujono),” *Bengkoelen Justice J. Ilmu Huk.*, 2020, doi: 10.33369/j_bengkoelenjust.v10i2.13827.

[3] E. C. Creditt, “Terroir vs . Trademarks : The Debate over Geographical Indications and Expansions to the TRIPS Agreement,” *Vanderbilt J. Entertain. Technol. Law*, 2009.

[4] C. Castaldi, "To trademark or not to trademark: The case of the creative and cultural industries," *Res. Policy*, 2018, doi: 10.1016/j.respol.2018.01.006.

[5] S. Nasirov, "Trademark value indicators: Evidence from the trademark protection lifecycle in the U.S. pharmaceutical industry," *Res. Policy*, 2020, doi: 10.1016/j.respol.2020.103929.

[6] M. Flikkema, C. Castaldi, A. P. de Man, and M. Seip, "Trademarks' relatedness to product and service innovation: A branding strategy approach," *Res. Policy*, 2019, doi: 10.1016/j.respol.2019.01.018.

[7] C. Castaldi, "All the great things you can do with trademark data: Taking stock and looking ahead," *Strateg. Organ.*, 2020, doi: 10.1177/1476127019847835.

[8] A. Barroso, M. S. Giarratana, and M. Pasquini, "Product portfolio performance in new foreign markets: The EU trademark dual system," *Res. Policy*, 2019, doi: 10.1016/j.respol.2018.07.013.

[9] C. Castaldi, J. Block, and M. J. Flikkema, "Editorial: why and when do firms trademark? Bridging perspectives from industrial organisation, innovation and entrepreneurship," *Industry and Innovation*. 2020. doi: 10.1080/13662716.2019.1685376.

[10] J. H. Block, G. De Vries, J. H. Schumann, and P. Sandner, "Trademarks and venture capital valuation," *J. Bus. Ventur.*, 2014, doi: 10.1016/j.jbusvent.2013.07.006.

CHAPTER 23

FARMERS RIGHTS IN INDIA: HISTORY AND DEVELOPMENTS

Pradip Kumar Kashyap, Assistant Professor
College of Law, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India
Email Id- pradiprgnul@gmail.com

ABSTRACT:
The International Treaty on Plant Genetic Resources for Food and Agriculture's Governing Body will receive proposals from the Farmers' Rights Project to implement the treaty's provisions on farmers' rights. The project's goal is to foster consensus and create an empirical foundation for these proposals. The results of an extensive review of the documentation and literature on these rights are presented in this background study. It is intended to serve as a reference for negotiators, practitioners, and researchers interested in learning more about the idea and possibilities of farmers' rights. The documents, which are the results of protracted and difficult talks, set the stage for the successful fulfilment of farmers' rights. The negotiation's main focus has been on how to compensate farmers for their past, present, and future contributions to the preservation, enhancement, and availability of crop genetic resources for food and agriculture. The topic of how farmers' rights can balance breeders' rights has also been discussed in order to create an equitable system that can support farmers' ongoing access to and unrestricted use of agricultural genetic resources. The extensive and growing corpus of literature on farmers' rights is a helpful resource for understanding the potential benefits and potential challenges of enacting farmers' rights. The literature offers crucial starting points for comprehending the issue of farmers' rights, as well as the categories of rights, those who hold them, and the best ways to defend and advance them. Additionally, it draws conclusions from early attempts to realize these rights and issues a warning against certain tendencies that might be harmful.

KEYWORDS:

Benefit Sharing, Biodiversity**,** Farmers' rights, TRIPS agreement, World Intellectual Property Organization (WIPO),

INTRODUCTION

The UN Food and Agriculture Organization (FAO) has been debating the subject of farmers' rights in relation to plant genetic resources for food and agriculture for years. The International Treaty on Plant Genetic Resources for Food and Agriculture was adopted in 2001, and on June 29, 2004, it went into effect. The Treaty contains provisions regarding the rights of farmers and makes it clear that it is up to the national governments to put these provisions into effect. Governments are free to select the policies they believe are necessary, based on their requirements and priorities, however a number of policies are recommended to safeguard and advance farmers' rights. These include the rights to preserve, use, exchange, and sell farm-saved seeds and propagation material, fair benefit sharing, the protection of pertinent traditional knowledge, and involvement in decision-making. The International Treaty's preamble emphasizes the need of advancing farmers' rights on a national and international scale. However, there isn't a consensus on how to accomplish this as of yet. If progress is to be made in the fulfilment of farmers' rights, such an understanding is crucial.

In order to facilitate such a shared understanding and create a foundation for suggestions to the Governing Body of the Treaty on specific actions to be taken, the Farmers' Rights Project was established. With respect to the countries' freedom to select measures in accordance with their requirements and priorities, the goal is to move past earlier disputes and, based on the consensual formulations in the Treaty, create bridges to a shared understanding of the activities required. The conclusions of a document and literature review on farmers' rights are presented in this background study. The project was thought to require such a survey in order to establish a thorough grasp of the concept's inception and history. As a starting point for the project and as a reference for negotiators, practitioners, and scholars, we initially intended to concentrate on the literature on farmers' rights. However, it became apparent that a number of key documents from the

negotiations relevant to farmers' rights appeared to have been overlooked in the literature, necessitating in addition to a literature review, a review of key documents. As a result, this overview also serves as a history of the concept's use and development, from its inception in the 1980s until the passage of the International Treaty on Plant Genetic Resources for Food and Agriculture through international discussions. The goal is to display and summarize the information rather than further analyze it because doing so would go beyond the scope of this project's component. It is intended that this overview of key texts and sources will be useful to researchers, practitioners, and negotiators who are attempting to comprehend the idea and potentials of farmers' rights [1]–[3].

FAO's original definition of farmers' rights:

At the FAO Conference (Resolution 8/83, Twenty-second Session of the FAO Conference, Rome, 1983), the International Undertaking on Plant Genetic Resources was approved. The goals were to make sure that plant genetic resources for food and agriculture were investigated, preserved, assessed, and made available for plant breeding and scientific research. Based on the "universally recognized principle that plant genetic resources are a heritage of mankind and as such should be available without restriction," the Undertaking was established (Article 1). This formulation and related papers served as the starting point for fresh debates about plant breeders' rights and intellectual property. These debates eventually served as the backdrop for the introduction of the idea of "farmers' rights" as a political principle. However, there was no recorded mention of farmers' rights in 1983. The Commission on Plant Genetic Resources was established at the same Conference Session (Resolution 9/83, Twenty-second FAO Conference, Rome, 1983) to address matters pertaining to plant genetic resources, including overseeing the operation of the global frameworks stipulated in the International Undertaking. Later, the Commission would play a significant role in discussions around farmers' rights.

Farmers' Rights: Concepts and Rhetoric

The history of farmers' rights is peculiar, both in India and internationally. Despite farmers' customary rights being as old as history, there has never been anything like to a "legal" idea of a farmer's right. With the assemblage of intellectual property rights in plant genetic resources, a legalized conception of farmers' rights started to take shape. It was argued that the two relevant international agreements the Union for Protection of Plant Varieties agreement (UPOV—1961, 1978, 1991)2 and the Trade Related Aspects of Intellectual Property Rights agreement (TRIPS—1995)3 ignore the customary rights of indigenous and farming communities to their genetic resources and related knowledges. Both agreements were created to grant crop plant breeders exclusive rights over the varieties they develop. It was stated that UPOV and TRIPS significantly widened the ownership rights and value disparity between source materials and enhanced varieties.

These agreements excluded farmers, traditional breeders, and knowledge preservers from the purview of intellectual property rights in agro bio resources. This absence served as the impetus for the discussion and movement in favor of the formal recognition and institutionalization of farmers' rights. The concept of farmers' rights emerged in the early 1990s "as a countermove to the increased demand for plant breeders' rights," according to Regime Anderson's study on the history of farmers' rights (Anderson 2005: V). It was intended to call attention to the unpaid agricultural advances that were viewed as the foundation for global sustainability of all current plant breeding techniques Farmers' rights are supported by strong arguments that are presented on several levels. The central claim is that biotechnology-driven advances in plant and animal species did not occur by accident. It was built on the knowledge of seeds, breeds, and plant characteristics that had been developed, shared, and traded through thousands of years. In the majority of developing nations, farmers have been the key players in biodiversity management, saving, choosing, and breeding seeds to create new varieties with better-suited features. They have performed the overlapping functions of producer, consumer, and conservator. As a result, they are the original owners of agricultural resources.

Farmers' rights discourse began to emerge as a recognition that, while commercial breeders were protected by plant breeders' rights or by patents on plant varieties, farmers' contributions as preservers and developers

of the gene pool went unrecognized and unprotected.4 There was also a rising awareness that patenting will severely restrict farmers' access to the genetic resources that are essential to their livelihoods, especially the impoverished. The statement emphasized the need to safeguard farmers' rights to a living by protecting their access to the genetic resources threatened by patents and plant breeder rights, especially in developing nations where small and marginal farmers predominate. The idea of farmers' rights has given the conversation about rights a fresh perspective. As a matter of "right," it was acknowledged that farmers deserved and required protection. At several forums, the concept of farmers' rights was expressed in a different way. On the one hand, groups and organizations like GRAIN6 and Via Campesina recognized farmers' rights as fundamental rights to liberty and security that came before breeders' rights. Contrarily, organizations like the FAO (Food and Agriculture Organization of the United Nations) acknowledged farmers' claims as guardians of crop and plant genetic resources but emphasized the need to synchronize farmers' rights with breeders' rights. In a 1993 FAO report on India, it was recommended that India draft plant breeders' rights in accordance with UPOV while "also" acknowledging farmers' rights. On a website run by the International Treaty for Plant Genetic Resources for Food and Agriculture (ITPGRFA, one of the key tools used by the FAO to defend farmers' rights globally,

The parametric requirements for Indian Farmers' Rights: Historical Background

It is critical to situate farmers' rights within the broader framework of political changes in the late 1980s and early 1990s. Up until the late 1980s, plant breeding in India was predominantly the domain of the public sector, according to well-researched. It was motivated by a generally held belief that the distribution of common pool resources like seeds was threatened by the ownership of plant genetic resources. Though in the late 1980s, there was a noticeable shift in perspective that was fueled by governmental changes that led to the liberalization of the economy and the privatization of resources. In line with these wider trends, the notion that plant breeders' rights and the privatization of the seed industry would make it easier for new breeding techniques to enter the market quickly spread throughout many policy circles and began to influence institutional thinking and design. A correlation between capital accumulation and plant variety protection, and more specifically between the gradual commodification of seeds and the privatization of plant genetic resources, was also seen in these trends. In many ways, in 1995 and 1991, the TRIPS and the UPOV established the worldwide model for the codification of laws and standards that were to control the commerce and innovation of plant genetic resources.

Simply put, India was reenacting the same developmental narrative. However, the path taken by India to achieve "alignment" with global plant variety protection regimes was not as simple as copying the TRIPS patent regime or the UPOV breeders' rights regime. Breeders' rights in India were primarily a result of the inclination of capital to globalize and the requirement that state legislation be integrated with international trade law. However, the tale of the protection of Indian plant varieties took on some particularity. During the discussion on plant variety protection, farmers, especially small and marginal farmers, were occasionally mentioned with concern and advocacy. One of the main forces behind this discussion was opposition to an unmoderated alignment with the world's plant variety protection regimes inside some civil society settings. Farmers' campaigns and movements turned farmers into a distinct political constituency that sought legal and political accommodations, while the impulses of global trade and innovation discourse were driving Indian solutions toward a more globalized regime of plant variety protection.

In response to the danger of privatization and globalization of the seed market required under TRIPS compliance, farmers' lobbies, environmentalists, and civil society networks launched a massive campaign of protest. A historic Bija Satyagraha movement for seed sovereignty, inspired by Gandhi, drew 500,000 farmers to Bangalore's Cuban Park in 1993. The "Bija Satyagraha" movement, which aimed "to keep seed in farmers' hands and to not cooperate with IPR laws that make seed a corporate monopoly, and make seed saving and sharing more difficult," was led by the environmentalist Vandana Shiva [4]–[6].

DISCUSSION

The Farmers Rights and Protection of Plant Variety Act:

The PPV&FR Act begins by outlining its two main goals: (i) To establish an efficient system of plant variety protection in order to promote the development of new plant varieties; and (ii) To protect farmers' rights with regard to their contributions to the conservation, improvement, and stewardship of bio-genetic resources and the availability of plant genetic resources for the development of new plant varieties. Farmers' and breeders' rights were combined under the influence of two overlapping narratives. It was first based on normative considerations, which frequently underlie group and collective entitlements. It was a recognition that farmers' traditional farming practices should be supported and rewarded because they are essential for preserving the livelihoods and food security of the millions of people who depend on agriculture. Developmental issues served as the driving force behind the second school of thought. The general development of the agricultural industry would be aided by an emphasis on assuring access to technology and modernizing and liberalizing seed production.

India institutionalized patent claims in plant varieties to safeguard inventors' rights while balancing them with farmers' rights, keeping both of these goals in mind. Dual protection, it was said, would undoubtedly aid in the development of the seed industry, ensure that farmers had access to high-quality seeds and planting materials, and shield the farmer from the whims of the market. Thus, the law came into being as a result of a process that sought to take into account the interests of various stakeholders, including farmers, private sector breeders, public sector institutions, researchers, non-governmental organizations, and intergovernmental organizations. This resulted in a deeply entwined, dense terrain of entitlements (the implications of which I discuss shortly). In order to accommodate these two objectives, it was necessary to recognize the proprietary rights of both farmers and breeders or, more precisely, of farmers as breeders. When it states in Section 2(c): "'breeder' means a person or group of persons or a farmer or group of farmers any institution which has bred, evolved or developed any variety " the Act expressly endorsed the status of the farmer as a breeder. The Act affirmed that farmers who have chosen plants of utility from the wilderness, domesticated them by mastering their means of perpetuation, have further modified the traits making The following sets of rights for farmers result from the PPV&FR Act's affirmation of their authorial standing.

Original Claims:

The right to store, consume, trade, share, and sell agricultural products of a protected variety, excluding the sale of trademarked varieties. The ability to authorize and control the use of their varieties, as well as to register their variations. If their registered varieties and land races have been exploited to derive new kinds, they have the right to benefit-sharing claims.

Rights and Responsibilities:

In the event that propagating material performs poorly or fails to live up to breeder claims, farmers are entitled to compensation. Farmers are entitled to recognition and compensation from the National Gene Fund for the contribution they made to the evolution of a variety, in recognition of the role that traditional and rural communities play in conserving and preserving the genetic resources of land races and wild relatives of crops. Farmers must be shielded from punishment for unintentional infractions.

These endorsements fall into two categories: First, farmers' claims of ownership as the creators of plant types; and second, the agricultural community's communal, generational rights. While communal stewardship claims are expressed in the vocabulary of privileges and immunities, authorial claims of the farmers are clearly situated within the narrative of ownership and "claims." Hohfeld (1917) referred to the authorial claims as "first order" rights, or rights that are the main claims of a farmer. Protections, benefits, payment, and aid are examples of privileges and immunities, or "second order" rights. These are significant, but they do not constitute the main or enabling element of a farmer's proprietorial system claims. Kochupillai (2012) highlights in "Time to Share Benefits" how agricultural institutes and organizations funded by the Indian government use farmers' varieties but register the plant variety as a "new variety" rather than a "derived

variety," which would have required them to share benefits. In another instance, Monsanto and the State of Andhra Pradesh had signed a Memorandum of Understanding to pay compensation in the event that the Bt cotton harvest failed due to poor seed quality. Despite repeated crop failures between 2004 and 2006, it did not pay up. The fact that incentives, compensation, and benefits take the shape of a "objectively determined value" or a compensation for the destruction or encroachment of an initial entitlement is another crucial aspect that needs to be emphasized. To put it another way, these "protections" are actually liability rules that represent a set of permitted transfers by organizations like courts, government agencies, policymakers, etc. The cost at which these transfers take place will always be subject to pressures that include but are not limited to the market. Many times, particularly in eminent domain situations, the farmer and his valuations may be completely disregarded [7]–[9].

Significant proprietorial claims are essential for farmers for several reasons, including the fact that they include significant duty correlations. A corporate breeder, for instance, has a responsibility to "not" easily access or pirate these seeds without permission or benefit sharing because of a farmer's exclusive claim on her seeds. It legally allows the farmer the ability to reject rival claims to her land. Additionally, it gives the farmer the ability to assign a subjective value to her land and demand the price she believes it is worth; if the offer is made for less, the owner may reject it. In other words, the owner has a transactional veto over what belongs to her. This is the exclusion stick of a property right's bundle. In comparison to privileges of reward or culpability demands for compensation, this is a considerably stronger articulation of rights The fact that the PPV&FR Act expands on the discriminatory, "liability" conceptions of advantages, privileges, and pay is to be commended. Instead of merely prohibiting others from commercializing their expertise, the Act offers farmers authorial standing that enables them the freedom to do so [10].

CONCLUSION

In order to encourage some level of agreement on defining and enforcing Farmers' Rights, a worldwide system is urgently needed. Now, focus must shift to the practical aspects of achieving farmers' rights. Farmers' Rights as IPR-type rights must be complemented by steps to assure economic benefits by emphasizing Farmers' Rights as development rights in order to achieve the political and strategic goals. In addition to ownership rights, Farmers' Rights must also include methods that encourage resource sharing and access. The actual farmers themselves must be regarded as significant policy players. What has been accomplished thus far in the fight to enshrine Farmers' Rights may be lost if the international community does not accept the challenge of clearly expressing Farmers' Rights. It is now necessary to install the nuts and bolts on the machinery moving Farmers' Rights forward. Without clear direction, the Farmers' Rights movement as a whole might collapse.

REFERENCES

[1] K. Peschard, “Seed wars and farmers’ rights: comparative perspectives from Brazil and India,” *J. Peasant Stud.*, 2017, doi: 10.1080/03066150.2016.1191471.

[2] K. Peschard, “Farmers’ rights and food sovereignty: critical insights from India,” *J. Peasant Stud.*, 2014, doi: 10.1080/03066150.2014.937338.

[3] P. Brahmi, S. Saxena, and B. S. Dhillon, “The Protection of Plant Varieties and Farmers’ Rights Act of India,” *Current Science*. 2004. doi: 10.2139/ssrn.3720685.

[4] S. Ragupathy *et al.*, “DNA record of some traditional small millet landraces in India and Nepal,” *3 Biotech*, 2016, doi: 10.1007/s13205-016-0450-6.

[5] R. C. Agrawal, “Opportunities and challenges created by the Plant Variety Protection and Farmers’ Rights Act in India,” in *Intellectual Property Law and Plant Protection: Challenges and Developments in Asia*, 2019. doi: 10.4324/9780429059520-5.

[6] R. Moonka and S. Mukherjee, “Trips flexibilities and India’s plant variety protection regime: The way forward,” *BRICS Law J.*, 2018, doi: 10.21684/2412-2343-2017-5-1-117-139.

[7] S. Chowdhury, T. Laux, M. Morse, A. Jenks, S. Stonington, and Y. Jain, “Democratizing Evidence Production — A 51-Year-Old Man with Sudden Onset of Dense Hemiparesis,” *N. Engl. J. Med.*, 2019, doi: 10.1056/nejmp1907988.

[8] I. S. Bisht, P. S. Mehta, K. S. Negi, S. K. Verma, R. K. Tyagi, and S. C. Garkoti, “Farmers’ rights, local food systems, and sustainable household dietary diversification: A case of Uttarakhand Himalaya in north-western India,” *Agroecol. Sustain. Food Syst.*, 2018, doi: 10.1080/21683565.2017.1363118.

[9] M. Blakeney, J. Krishnankutty, R. K. Raju, and K. H. M. Siddique, “Agricultural Innovation and the Protection of Traditional Rice Varieties: Kerala a Case Study,” *Front. Sustain. Food Syst.*, 2020, doi: 10.3389/fsufs.2019.00116.

[10] R. Vernooy *et al.*, “The role of community seed banks in achieving farmers’ rights,” *Dev. Pract.*, 2020, doi: 10.1080/09614524.2020.1727415.

CHAPTER 24

A BRIEF STUDY ON ECONOMICS AND INTELLECTUAL PROPERTY IN INDIA

Dal Chandra, Assistant Professor
College of Law, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India
Email Id- degautambahjoi@yahoo.co.in

ABSTRACT:
Intellectual property is something which has been created by the human mind and intellect. Intellectual property rights are currently becoming increasingly significant and lucrative. In India, the government has been offering well-established judicial and administrative structures. Intellectual property rights were crucial to a nation's overall development. Every country has a different set of intellectual property laws. Successful planning and stern enforcement of intellectual property rights play a significant role in the economic prosperity of many developed nations. IPR encourages innovation, which boosts the economy. Today, the main activity of every single firm in the world is innovation creation. Countries are currently promoting their industries by highlighting the significance of IPR laws. Intellectual property rights have a significant impact on a country's ability to prosper economically. IPR's effects on economic growth can have both good and negative effects. The interest and rights of individuals to advance in invention and creation, which are closely related to the development and expansion of nation must be protected at all costs. India, one of the world's fastest-growing economies, must prioritize increasing market productivity. India has always been renowned for providing the rest of the globe with excellent services. Innovation has a significant role in investing even though it involves significant financial outlay. We have examples of developed nations like the USA, Japan, and China where the rate of development increased five times after intellectual property rules were implemented. The function of intellectual property rights in a nation's economic development will be represented in this article. The merits and cons of the relationship between IPR and the economy will also be examined in this essay.

KEYWORDS:

Economic growth, Innovation, Intellectual property rights, TRIPS agreement, World Intellectual Property Organization (WIPO),

INTRODUCTION

Economics defines "labor" as any physical or mental effort, and "wages" as any reward sought in addition to the enjoyment of the task. People continue to be the most adaptable and bankable aspect in an organization, notwithstanding significant advancements in work methods, vocations, and the way activities are carried out. A distinctive thought that, when successfully communicated, has the capacity to address an issue is what is valued. Such an expression of an idea is considered to be personal property. Similar to other legal rights, an individual may assert their claim to intellectual property rights (IPR). IPR may be appropriated and delegated, just as sales under property rights. Furthermore, IPR may be licensed out just like real estate. Contrary to rights in tangible property, those in intellectual property may expire after a set amount of time and, as public domain, may be claimed by anybody. Technology and innovation play a significant influence in economic growth in addition to labor and capital [1]–[3].

In trade and the economy, factors including labor, capital, investment, and innovation all contributed to competitive advantage. Anything's economy is based on the exchange of wants. In exchange for the agreed-upon payment, labor is offered. Similar to this, someone who expresses an original thought and contributes to the state of the art usually offers it to the public domain without expecting anything in return, such as particular market monopoly rights. Monopoly is a bad thing, and the law on competition forbids such behavior. Because the competition law forbids monopolies and the IP law grants monopolies, there appears to be a contradiction. Numerous explanations for such exceptions can be offered by economic analysis. It should be recognized that such monopolies, particularly the IP Rights are in the public interest, which

includes the interests of both the IP right-holder(s) and the wider public, including consumers. The strict monopolies necessary to encourage innovation. Rewarding creativity in this way leads to monopolies. A competition law has three main components: 1) Anti-competitive Agreements, 2) Abuse of Dominance, and 3) Control of Mergers, Assemblies, and Acquisitions. The IPR is given due recognition by the Competition Act's section 3(5), which states that the prohibition against anti-competitive agreements does not limit anyone's ability to prevent an infringement of, or to impose reasonable conditions for protecting, any rights under the various IPR Acts.

The Competition Commission of India (CCI) serves as the nation's market regulator, preventing and controlling anti-competitive behavior. Additionally, a quasi-judicial entity known as the Competition Appellate Tribunal was created. Its purpose is to hear challenges against any decision or instruction issued by the CCI. According to the law, monopoly acts (such as IPR) may be limited in the public interest, as in the instance of mandatory licensing for patented medications. A nation's IPR laws and regulatory structure reflect its policies and priorities, which have changed over time while taking into account the dynamics of domestic social change and international obligations. The National IPR Policy, 2016, was created with the goal of encouraging an active, robust, and balanced intellectual property rights system in India. This policy appears to be a key tool for guiding the Indian IP system in a way that will enhance the Indian economy and align it with pertinent international policies. The policy covers every aspect of the IP system in the nation, not only promoting IP but also elevating the IP culture in India. The Policy is anticipated to help innovators, including authors and inventors, realize their potential for producing, safeguarding, and utilizing IP, which would help to create money, open up job chances, and advance businesses. It will incorporate and foster synergies between IP-related elements of other sector-specific policies and offer a roadmap for the comprehensive, successful, and equitable growth of India's IP system. The goal of the policy is to facilitate foreign direct investment and make conducting business in India easier.

TRIPS: The agreement known as the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) is a treaty that the World Trade Organization (WTO) and all of its members have signed. It lays down basic requirements for how many different types of intellectual property (IP) should be regulated by national governments when they apply to citizens of other WTO members. The WTO overseas TRIPS, which was established at the conclusion of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) in 1994. The TRIPS agreement, the most significant international agreement on intellectual property to date, was the first to integrate intellectual property law into the framework of global commerce. TRIPS: The World Trade Organization (WTO) and each of its members have ratified the treaty known as the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). It outlines the fundamental standards for the scope of intellectual property (IP) that national governments must regulate when it pertains to residents of other WTO members. TRIPS, which was created at the end of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) in 1994, is governed by the WTO.

The TRIPS agreement was the first to incorporate intellectual property law into the framework of international trade, making it the most significant intellectual property pact to date. Utilizing a nation's IP system, knowledge-, technology-, and/or creativity-driven businesses can optimize their business returns from their IP assets. Today's IP cell/IP facilitation centers, which are made up of business executives, technology specialists, and IP lawyers, facilitate IP valuation and financial gain through technology transfer, among other things. Such centers offer a wide range of services, from assisting individuals in creating financially valuable IP portfolios, making smart IP investments, and setting up competent IP Departments, to strategically commercializing IP, resolving disputes for the benefit of businesses, and negotiating business-driven IP partnerships. A product or technology needs to innovate throughout time in order to remain competitive and create value. According to the Indian Patent Act of 1970, a "inventive step" is a characteristic of an invention that "means a feature that involve technical advance as compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in the art." As a result, an invention may be deemed innovative if it adds value, is more cost-effective, is more accessible, and is not obvious to a person with ordinary skill in the relevant field [4]–[6].

The IP system of a nation encourages creators and innovators to share their important and useful ideas in public after applying for relevant legal rights for the intellectual property by facilitating and safeguarding their IP rights. The IP system thus makes new intellectual property readily accessible in the public domain. Wide availability does not imply free availability, but it does imply that all industrial participants, including rivals, will have complete access to technological knowledge. Creators occasionally lack the skills necessary to successfully sell their original inventions, but they can nevertheless make them commercially viable by granting permission to others. A license or authorization may be either exclusive or non-exclusive. Anyone with this license is able to sell these works.

Extending and strengthening IP rules worsens the issue of artists and users having unequal bargaining power. Economic and IPR Relationship Now, because it directly influences the fabric cost of the product, it is frequently inexpensive to use fresh creations and ideas. Therefore, it's crucial to continue innovating and updating technologies. It will deter others from using the same if there is an honest IPR statute protecting the interests of the people. A good law is important, but so is the way that legislation is applied. A rigorous law is useless if it cannot be properly enforced. Less creativity may arise from the misuse and exploitation of the loopholes and lax restrictions. IPR now gives the property's owner or creator exclusive rights. The owner may sell them to anyone at fair market value. Developers will be motivated to produce new ideas if they receive a healthy return, and we can stimulate creativity in the same way. However, the owner might also abuse this right by charging significantly more than the item's actual worth. This authority may result in a market monopoly.

DISCUSSION

Property rights' beneficial effects on the economy:

A nation like India, one of the largest developing economies in the world, must focus on increasing market productivity. India is renowned for providing the rest of the world with excellent services. Innovation always requires investments. These investments are costly but play a crucial part, and they must be made in large quantities. We have examples of developed nations like the USA, Japan, and China where the pace of development accelerated five times after the adoption of property laws. Some ideas contend that IPR has a negative impact on the economy. As an illustration, trademark infringement badly impacted Chinese creative firms in the 1980s. Local businesses began taking advantage of the well-known corporation by creating products that were false and releasing them onto the market. The effects of copyright breaches are the same. In nations with strong copyright regulations, piracy businesses begin to take advantage of the regulations and the resulting market. Although there would be low-quality or counterfeit copies on the market. The economy will be directly impacted by technological advancement. Property rules give producers and consumers incentives to participate in the market. The protection of the interests of the buyers depends on this characteristic. Customers are frequently put in danger by counterfeit pharmaceuticals, food, beverages, and cosmetics. The market began to change following the adoption of Trade-Related Property Rights (TRIPS). The IPRs started giving enterprises a place to run their operations and chances to innovate. Research and development investments have also started to come from the private sector. The number of patents filed in India has increased since TRIPS was implemented.

Additionally, there are numerous ways in which the various appropriability processes interact with one another. Some mechanisms, lead-time benefits may be facilitated by patents or secrecy. At different stages of the innovation process, several mechanisms might also be used. Before a new product is commercialized, for instance, a company might rely on secrecy, yet then apply for a patent and/or use aggressive lead-time and marketing tactics and lead time can also be leveraged to acquire an edge in marketing (by developing marketing sales and service skills) and manufacturing (by advancing along the learning curve and achieving economies of scale). It can also be used to prevent competitors from imitating your strategy [7]–[9].

Additionally, when an innovation contains individually protectable components or characteristics or when legal provisions permit the "piling up" of IPRs over the same invention, more than one mechanism may even be used simultaneously for that innovation. Last but not least, the effectiveness of the various methods

changes over time. Trade secrets may be compromised, patents may lapse and be circumvented, yet trademarks, for example, may see a sharp rise in value and be renewed indefinitely In this complicated situation, it is sometimes difficult to forecast how certain companies, industries, technological aspects, and the use of various appropriability techniques will interact. For instance, there are arguments that could lead us to predict that small businesses will value patents more than large businesses, but there are also considerations that could lead us to expect the opposite. Small businesses might use patents to temporarily fend off rivals as they develop the production and marketing capacities necessary to succeed as innovators, but it's also possible that the costs associated with filing for patents and defending them against infringement will cause them to value confidentiality over patents. Furthermore, given that they may focus primarily on incremental improvements, small businesses may produce fewer patented ideas than large businesses. Large companies sometimes have IP departments or other comparable organizational structures, which may also cause them to exhibit a higher propensity for patents. In addition, found that large firms have a much higher percentage of unused patents than SMEs (small and medium-sized enterprises) and may also patent minor innovations. This is not surprising given that they incur relatively lower costs for patent applications and litigation.

The fact that various IPRs, particularly patents, are increasingly exploited for purposes other than capturing the profits from innovation further complicates the examination of the topic. The use of patents for "strategic" purposes, such as patent blocking, use in negotiations, averting lawsuits, etc., is becoming more widespread Therefore, we cannot infer that a company's intent is inevitably to allow for the appropriation of the outcomes of some innovation when we observe the firm applying for a patent. In other words, since companies may utilize patents to achieve other goals, there may be a disconnect between the usefulness of patents as appropriability tools and their rate of usage.

Since the majority of the world's knowledge is created in developed nations and a sizable number of businesses have strong innovation capabilities, as the reader has probably noticed by this point, the issues raised so far are primarily related to the dynamics of technological change in these nations, making the appropriability problems more pressing. What happens when this discussion is attempted to be applied to the realities of developing nations? First, it must be highlighted that the term "developing countries" encompasses a wide range of countries with wildly divergent degrees of technological advancement and economic growth. Since most least developed countries (LDCs) rely on traditional agricultural activities and have inferior productive and technological capabilities, the dynamics of innovation-appropriability will be very different, for example, in advanced developing countries like some Latin American or Asian economies. These economies have stronger industrial, export, and innovation capabilities.

Second, it's commonly believed that developing nations mostly copy or incorporate knowledge and technologies created abroad. Therefore, the discussion of IPRs in developing nations frequently centers on whether weak or strong IPRs are better for the development of technology in those nations. It is frequently stated that strong IPRs are a requirement for developing countries to receive updated technology transfers through licenses and foreign direct investment, whereas lax IPRs are thought to favor imitation, copying, and reverse engineering and are thus seen by some authors as a favorable factor for the deployment of learning processes that may eventually lead to the creation of true innovation capabilities in those countries.

Although this is a significant topic, it is frequently addressed primarily theoretically, utilizing aggregate data (such as attempting to link foreign direct investment (FDI) flows with the strength of IPR legislation), or by using anecdotal evidence. On the other hand, there aren't enough micro-level research, which makes it challenging to understand the factors that influence IPR use across various enterprises and industries in developing nations. In other words, nothing is known about the appropriability techniques used by various business entities or the methods by which various technologies are safeguarded in these nations. Furthermore, there is a dearth of reliable data addressing how domestic companies in developing nations view the role that intellectual property rights (IPRs) play or might play in the context of their innovation plans.

Contrary to the presumption made above, there are domestic innovative activities even if developing countries are mostly dependent on sources of foreign technology. According to strict definitions, reverse engineering and copying are both considered forms of invention. The evidence that is currently available, which demonstrates the existence of a wide range of technological capabilities in those countries, from the more common adaptive and incremental ones to the rarer but far from insignificant "genuine" innovative capabilities, clearly demonstrates that innovation activities, at least in more advanced developing countries, go well beyond copying. Some East Asian nations, like the Republic of Korea, have followed an evolutionary trajectory that demonstrates how economies that start out by appropriating and duplicating foreign technologies may eventually develop endogenous innovation skills when their businesses develop into world-class innovators.

We should anticipate finding differences in the pattern of use of IPRs and other appropriability mechanisms because the relationship between competition patterns, productive structures, and innovation in developing countries is very different from that in developed countries (differences should also be found when comparing developing countries that are at different stages of industrial and technological development). Unfortunately, we frequently lack the theoretical resources necessary to draw precise conclusions about how these dynamics will behave.

However, there are some fairly broad defenses that may be made. First, one can anticipate that as the development process advances, the relevance of all (or most) appropriability mechanisms grows. Second, since SMEs are typically at a disadvantage when employing IPRs of any form (most notably patents), this trend may be even more pronounced in developing nations where SMEs are frequently less competitive than those in industrialized nations. Impact on Business Activities: India's real GDP has expanded at an average yearly pace of about 6% since the liberalization process started in 1991, and it is anticipated to reach above 9% in fiscal year 2006/07 and beyond. The two major industries, manufacturing and services, have seen the most growth, with agriculture increasing considerably more slowly. The Indian government wants to see growth of between 8% and 10% annually in the longer term. Total factor productivity (TFP), which measures the effectiveness with which the factors of production are employed, is a crucial aspect in determining an economy's performance, particularly its level of international competitiveness.

TFP should be distinguished from labor productivity, or the quantity of production produced by each employee, which affects living standards and wage rates. Growth in TFP and investment, which gives workers more capital to work with, are two of the key factors contributing to gains in labor productivity. Higher labor productivity can only be attained at the expense of reduced capital productivity if there is no concurrent improvement in TFP. The development of technology is one of the main factors contributing to TFP growth in the long run. Data analysis reveals that India's average yearly output growth climbed from 4.5% prior to the reforms of 1991 to 6.5% between 1993 and 2006. Improved TFP, which more than quadrupled from an average annual rate of 1.1% during the period 1978–93 to 2.3% during the period 1993–06, was responsible for 1.2 points of this 2 percentage point improvement. Increased investment was mostly responsible for the remaining increase. The rise in labor productivity, which nearly doubled between the two periods, was mostly attributable to higher investment, with improved TFP accounting for about half of the gain. Additionally, the significant improvement in the rate of growth of capital productivity was substantially attributable to improved TFP. The services sector has experienced substantially faster output and TFP growth than the manufacturing sector. Agriculture's growth in output and TFP, in contrast, has stagnated. It follows that moving resources, particularly labor, from agriculture, where currently two thirds of the labor force is employed, to the more productive services and industries sectors will help the economy's overall production and TFP expand quicker.

IPR's negative impact on economic development:

IPR occasionally makes it more difficult to use technology in its most basic forms. Sometimes those who own IPRs abuse their rights. They will continue to charge what they do because IPR protection prevents competitors from using the innovation. Competition is the most crucial factor affecting an economy's

outcome. The competitive spirit maintains equilibrium in terms of both pricing and product quality. Laws governing IPRs monopolize the market. IPR laws such as copyright, trademark, and patents are preventing competitors from using innovations. Because there are alternative producers in the market to choose from if a customer isn't satisfied, competition forces producers to take the customer's benefit and contentment into account. Producers are free to set any price they like, and this has an immediate impact on the consumer and the market. The law of demand states that if the value is high, then the demand will also be high. However, when there is a monopoly in the market, this legislation does not apply. The only alternative available to the consumer is to purchase the product at the producer's set price. The producer cannot charge more than the monetary worth because of competition [10]–[12].

CONCLUSION

In the system of material possession rights, a number of questions about the impact on the potential for monetary development arise. Enhancing the progression process is necessary for two important reasons. To begin with, a number of factors affect how actions take place that may have an impact on TRIPS and second, the monetary theory raises the possibility that licensed invention rights could have a variety of effects on development, both positively and negatively. Every firm needs protected inventions, especially those that have invested significant sums of money in research and development to create unique products and services. IPR has certain limitations in that it occasionally restricts the use of technology in the best possible manner. Sometimes the individual or group owning the rights abuses them. In order to process their rights, they will impose higher fees at the bottom of monopoly. Due to the indirect manner in which these rights affect economic behavior as well as the dispersed and frequently difficult to interpret data on intellectual property-related transactions, it is difficult to assess the importance of material possession rights in economic activity in developing countries.

REFERENCES

[1] N. Kopytko, “Supporting Sustainable Innovations: An Examination of India Farmer Agrobiodiversity Conservation,” *J. Environ. Dev.*, 2019, doi: 10.1177/1070496519870299.

[2] Y. Ma and H. Zhang, “Development of the Sharing Economy in China: Challenges and Lessons,” 2019. doi: 10.1007/978-981-13-8102-7_20.

[3] W. Zhang, “Constitutional Governance in India and China and Its Impact on National Innovation,” 2019. doi: 10.1007/978-981-13-8102-7_3.

[4] T. J. Tanke, “Capital and Ideology,” *Isr. J. Foreign Aff.*, 2020, doi: 10.1080/23739770.2020.1794534.

[5] K. C. Garg, J. Srivastava, and Bebi, “Journal of intellectual property rights: A bibliometric analysis of cited references,” *DESIDOC J. Libr. Inf. Technol.*, 2015, doi: 10.14429/djlit.35.6.9410.

[6] D. Mahipal and K. Shankaraiah, “E-Commerce Growth in India: a Study of Segments Contribution,” *Acad. Mark. Stud. J.*, 2018.

[7] S. Verma, R. Kumar, and S. K. Yadav, “An empirical study on consumers’ buying intentions of counterfeit products in India,” *J. Intellect. Prop. Rights*, 2018.

[8] K. Liu and U. S. Racherla, *Innovation, Economic Development, and Intellectual Property in India and China*. 2019.

[9] J. Padilla, D. H. Ginsburg, and K. Wong-Ervin, “Antitrust Analysis Involving Intellectual Property and Standards: Implications from Economics,” *SSRN Electron. J.*, 2018, doi: 10.2139/ssrn.3119034.

[10] D. E. Kolady, D. J. Spielman, and A. Cavalieri, "The Impact of Seed Policy Reforms and Intellectual Property Rights on Crop Productivity in India," *J. Agric. Econ.*, 2012, doi: 10.1111/j.1477-9552.2012.00335.x.

[11] S. Menon, S. K. Jha, and K. Jain, "Patent landscape analysis for crop biotechnology in India," *Int. J. Intellect. Prop. Manag.*, 2015, doi: 10.1504/IJIPM.2015.076543.

[12] Á. M. de Aragão and A. M. de Oliveira Júnior, "Socioeconomic and demographic scenario of Brazil, India and Australia," *Int. J. Innov. Educ. Res.*, 2019, doi: 10.31686/ijier.vol7.iss9.1725.

CHAPTER 25

ISSUES IN INTELLECTUAL PROPERTY RIGHTS IN INDIA AND DIFFERENT DEVELOPING COUNTRIES:

Bhirgu Raj Maurya, Assistant Professor
College of Law, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India
Email Id- brmourya.mourya321@gmail.com

ABSTRACT:

A multitude of policies, legislation, and international agreements that influence domestic right holders' safeguards as well as how the nation regards its commitments to the world are highlighted by India's IPR system. India's IPR system has its roots in the British colonial era, when the country passed a number of laws and enforcement measures governing intellectual property rights. India kept some of these structures in place after becoming independent, while also modernizing several governing laws and other governmental structures. India's transition to liberalism, privatization. The exclusive rights for an inventor's or creator's valuable innovation or production are granted by the intellectual property rights (IPR), which are intangible in nature. The current globalization environment places IPR at the center of international trade and daily life. While the lack of awareness of IPR and its ineffective application may impede the economic, technological, and societal advancements of a country, these rights foster an environment that is more creative by providing acknowledgment and financial rewards to creators or inventors. Thus, it is essential for every country to spread awareness about IPR and apply it properly. The current paper discusses a number of IPR concepts, including patents, trademarks, industrial designs, geographic indications, copyright, etc., along with its accompanying rules, regulations, needs, and roles, particularly in the context of India. Additionally, a brief discussion on the state of India's involvement in IPR-related activities worldwide has been made.

KEYWORDS:

Developing Countries, Geneva Conventions, Intellectual Property Rights, TRIPS agreement, World Intellectual Property Organization (WIPO)

INTRODUCTION

India demonstrated signals of resistance to the developed nations, especially the United States of America, who requested that international intellectual property rights (IPR) protection laws be swiftly enforced. This was also the case with China. India had to comply, but China could get away with it because it isn't a World Trade Organization (WTO) member. In accordance with WTO rules, India must put WTO-compliant IPR protection laws into effect by 2005. It must be acknowledged that IPR protection for software and movie goods has advanced significantly in recent years. India's main defense was that while it agreed in principle with the need for rigorous IPR protection, it could only implement this in steps that were appropriate given its local circumstances. Since millions of people have found work due to the absence of international IPR protection for several decades, a sudden crackdown on IPR violators would cause societal upheaval. Intellectual property rights (IPR), which are intangible in nature, give an inventor or creator the exclusive rights to their valued discovery or production. The current state of globalization placed IPR at the core of daily life and international trade.

IPR promote a more creative atmosphere by giving innovators or inventors recognition and financial incentives, even though a lack of awareness of IPR and its ineffective use may inhibit a nation's economic, technological, and societal achievements. Therefore, it is crucial for every nation to raise knowledge of IPR and implement it correctly. The current paper examines a variety of IPR concepts, such as patents, trademarks, industrial designs, geographic indications, copyright, etc., as well as the associated laws, rules, requirements, and functions, particularly in the context of India. In addition, a brief overview of India's participation in international IPR-related activities has been presented. However, India strengthened its

copyright legislation in May 1994, bringing it into line with international practice in response to criticism from its own domestic sector and the United States [1]–[3]. The new law, which became effective in May 1995, fully complies with the copyright obligations of the Berne Convention, to which India is a party. India's status as a "priority foreign country" under the Special 301 list of the United States was canceled in light of its enhanced copyright protection, and India was added to the "priority watch list." Additionally, copyright enforcement is advancing quickly. The classification of copyright violations as "cognizable offenses" broadens the scope of police search and seizure powers.

Local attorneys claim that several technical flaws in the rules, which require administrative permission prior to police action, need to be remedied. This is despite the fact that the creation of appellate boards under the new legislation should speed up prosecution. Drug manufacturing processes are patentable, although the patent period is only five years from the day the invention was granted or seven years from the filing date of the application, whichever comes first. Product patents in other industries are granted for 14 years starting on the filing date. However, as a participant in the Uruguay Round of the GATT and a party to its trade-related intellectual property (TRIPS) clauses. The exclusive rights to a valuable discovery or production are granted to an inventor or creator by means of intellectual property rights (IPR), which are intangible in nature. IPR is now at the center of both daily life and international trade due to the current condition of globalization. Even if a lack of awareness of IPR and its ineffective implementation may impede a country's achievements in the fields of economics, technology, and society, IPR foster a more creative environment by rewarding innovators or inventors with recognition and financial incentives.

Therefore, increasing IPR awareness and properly implementing it are vital for any country. The current paper looks at a number of IPR concepts, including patents, trademarks, industrial designs, geographic indications, copyright, etc., as well as the laws, regulations, requirements, and functions that go along with them, especially in the context of India. A brief summary of India's involvement in global IPR-related initiatives has also been provided. Intellectual property rights (IPR), which are intangible in nature, are used to award an inventor or creator the exclusive rights to a valuable discovery or output. Due to the current state of globalization, IPR currently occupies a vital position in both domestic and international trade. IPR encourage a more creative atmosphere by rewarding innovators or inventors with recognition and financial incentives, even if a lack of understanding of IPR and its inadequate execution may hinder a country's achievements in the economic, technological, and social spheres. Therefore, it is crucial for any country to raise IPR awareness and effectively apply it. The current study examines a number of IPR concepts, such as patents, trademarks, design patents, geographic indications, copyright, etc., as well as the associated laws, rules, requirements, and functions, particularly in the context of India.

India's participation in international IPR-related activities has also been briefly summarized. The exclusive rights to a valuable discovery or output are granted to an inventor or creator using intellectual property rights (IPR), which are intangible in nature. Because of the current level of globalization, intellectual property rights (IPR) now play a significant role in both domestic and international trade. Even if a lack of understanding of IPR and its ineffective implementation may impede a country's advancements in the economic, technological, and social realms, IPR encourage a more creative environment by rewarding innovators or inventors with recognition and financial incentives. Therefore, increasing IPR knowledge and efficiently implementing it are vital for every nation. A range of IPR concepts, including patents, trademarks, design patents, geographic indications, copyright, etc., as well as the corresponding laws, rules, requirements, and functions are examined in the current study, particularly in the context of India. A brief summary of India's involvement in international IPR-related initiatives has also been provided.

DISCUSSION

The Potential of Intellectual Property Rights to Promote Domestic Innovation:

How IPRs impact technological innovation, propagation, and learning is a key question. Many developing (and some now developed) nations created systems in the past that encouraged the low-cost dissemination of information through the copying of foreign goods and technologies. If indigenous innovation hasn't matured

enough to merit protection, this strategy would be preferred. Nevertheless, weak IPRs can Even at modest levels of economic growth, trade secrets, petty patents, and utility models can be used to protect innovations that are directed at local markets and can restrict technical change. The majority of innovation in developing nations consists of small modifications to already developed technology, which when combined can lead to an increase in both knowledge and economic activity. Businesses in emerging nations may need to implement new organizational and management systems as well as quality control procedures in order to flourish economically. Because they increase productivity and stimulate greater adoption by rival companies, these investments typically yield substantial social benefits [4]–[6].

They are expensive and are probably only implemented when the risks of unfair competition and theft are low. Similar to this, technological change and learning often occur through the adaptation of existing technology to regional requirements. IPRs offer protection to businesses incurring those costs. Additionally, strong and enforced IPRs encourage new businesses to take risks. For instance, data suggests that some technology-following nations' dependence on utility models increased productivity. Utility models promoted the successful adaption of rice threshers in the Philippines while helping domestic makers in Brazil obtain a sizable portion of the farm machinery market by adapting foreign technologies to local conditions.

Maskus and McDaniel examined the pathways via which the post-war Japanese patent system (JPS) encouraged Japanese technological advancement in an econometric analysis. They calculated an index known as total-factor productivity (TFP), which economists use to quantify growth by gains in the combined productivity of labor and capital. Evidently, the JPS was created to foster incremental and adaptive innovation as well as information transmission across the expanding industrial industry. Narrow claim requirements, a broad system of utility models, early disclosure of patent applications with ongoing opposition proceedings, and other regulations were used for this purpose. The authors discovered that this system led to a significant number of utility model applications for incremental inventions, some of which were generated using insights gained from reading earlier inventive patent applications.

Together, these utility models and patent applications had a strong, yet still favorable, positive effect on productivity growth. As a result, utility models played a significant role in Japan's technological advancement, and patent applications both directly and indirectly increased productivity. It's interesting to note that as Japan rose to prominence as a producer of essential technologies in recent years, its patent system dramatically changed to strengthen protection for fundamental inventions. Recent data suggests that insufficient trademark protection in developing countries restricts product development and new business entry. On this assertion, information was recently provided by a study on trademark usage in Lebanon.6

IPR rules are well-established in Lebanon, however they are not strictly enforced. Designing high-quality, fashionable clothing specifically for Middle Eastern consumers is a strategy used by clothing companies. Trademark infringement in Lebanon and its surrounding nations, where protection is even worse, has occasionally hindered this economic strategy. The issue is worse with food goods, as businesses suffer from widespread trademark infringement. Furthermore, efforts to create specialized markets for Lebanese foods in the Middle East and beyond have been hampered by this appropriation. Innovative manufacturers in the cosmetics, pharmaceutical, and metal products industries have raised similar issues. The premise is that trademark infringement directed at domestic businesses restricts product development and new company entry.

Information gleaned from enterprise managers' interviews strongly suggested that trademark infringement has a big, detrimental impact on creative Chinese businesses. Examples of challenges faced by Chinese manufacturers of their own brands of consumer goods, including soft drinks, processed meals, and clothes, were given. Costly investments in marketing and distribution networks are necessary to establish brand recognition in China. Businesses that gain this recognition frequently discover that their trademarks are used on imitation goods across a range of product categories. These items are typically of lesser quality and can harm a company's reputation, sometimes requiring them to shut shop or give up their trademarks. The authors asserted that the circumstance is likely to have a significant deterrent effect on Chinese firm development

and effectively hinders cross-regional marketing, which would promote economies of scale. Be aware that China has a large comparative advantage in labor-intensive products, where trademark infringement is concentrated. This data suggests that trademark infringement may hinder the growth of businesses especially in developing countries.

Additionally, copyrights may considerably aid business growth. Copyright industries including publishing, entertainment, and software are likely to be controlled by foreign enterprises (who can bear temporary losses and afford to deter infringement) and pirate companies when there is inadequate and poorly enforced protection. As a result, imitations are inexpensively available, but Economic costs that new or stronger systems of protection could create would be a counterbalance to these potential long-term rewards. The costs of creating a system capable of addressing even straightforward patent disputes, much less complex counterfeiting instances, can be high. The creation of examination and registration offices and related equipment, the creation of administrative rules, and the instruction of judges, examiners, and customs officials are all substantial fixed expenditures. Additional ongoing expenses will increase if IPRs are used more frequently. Rough expenses for complying with TRIPS in a few developing nations are provided by UNCTAD24.25 Additional fixed costs in Chile were expected to be $718,000, and yearly recurring expenses to be $837,000. According to one Egyptian expert, the fixed costs would likely total $800,000, with additional annual training expenses coming in at about $1 million.

Bangladesh anticipated one-time administrative TRIPS compliance costs of $250,000 and annual costs for judicial work, supplies, and enforcement of more than $1.1 million. It should be noted that professional judges and administrators are hard to find in Egypt and Bangladesh, indicating that these numbers could be low. In fact, one of the major expenses of putting in place an efficient system is that it would divert limited professional and technical resources away from other useful endeavors. These high fixed costs imply that there must be a high demand for IPRs for a nation to be able to realize administrative economies of scale. Therefore, small, developing nations are unlikely to commit themselves to institutional reform for a while unless they can recoup these costs through fees, receive outside technical and financial assistance, and benefit from cooperative international agreements to share costs. By allowing examiners to read the findings of important patent offices about innovation and industrial applicability rather than conducting such examinations themselves, membership in the Patent Cooperation Treaty, for instance, offers significant savings [7]–[9].

Prevention of Infringing Activity by Using Intellectual Property Rights:

The majority of emerging economies employ a sizable number of people in the manufacturing of piracy-related products, including music and video. As stricter requirements are applied, these workers must find alternative employment. The main initial policy difficulty is the requirement for labor adjustment. The severity of this issue is not supported by any concrete evidence. A recent survey of Lebanese businesses produced some illustrative data. The potential static employment and pricing consequences of stronger IPRs were calculated using survey data. For instance, it was predicted that software copyrights would reduce software piracy by 50%, which would result in the loss of 717 jobs. The employment of legitimate manufacturers and distributors would climb by 426 workers as a result of the change in demand toward their products, resulting in a net employment loss of 291 workers. Keep in mind that workers in ethical businesses received significantly higher pay than those in unethical ones. Interviews revealed that many of the displaced workers will either start their own businesses or be employed by expanding companies. Similar calculations demonstrated that when unlawful copying was decreased, there would be net job losses in the fields of printing, publishing, music, video, and cinema. Food, cosmetics, and pharmaceutical products were among the other sectors taken into account; these businesses all experienced trademark and patent infringement [10], [11].

The pharmaceutical industry in Lebanon is built on the theft and sale of active substances that aren't protected by local patents. The model made the assumption that patents would increase patent licensing costs by 50% and end commerce in products that violated the law, while trademark enforcement would decrease

counterfeiting by 50% and increase licensing costs by 20%. Both of these effects would result in less infringement and more costs for legal businesses. As a result, both activities would experience a decline in employment, which would result in a loss of 550 jobs overall. The sector of food items had much greater job losses. Intellectual Property Rights may lead to market power abuse. IPRs could support monopoly prices and unfair business practices, which is another issue. For instance, securing product patents in biotechnology and medicines, together with plant breeders' rights, should provide rights holders more market sway. In order to set monopolistic prices for medications, industrial inputs, and agricultural inputs, these businesses may reduce sales. According to evidence, patents allow for far higher costs for protected treatments compared to similar and generic medications. According to Watal30's calculations, India's patent coverage might result in an increase in average, patented medicine prices of up to 50% from 1994 levels.

The amount of drug manufacture that is copied from other products, the competitiveness of pharmaceutical markets, and the elasticity of the demand for medicines are only a few examples of the reasons that could cause such price hikes. Due to widespread imitation, India's present market structure is competitive. Thus, the adoption of patents might significantly push the price of covered drugs upward. For instance, after the adoption of exclusive marketing rights in 1991 and patents in 1993, the average price of protected pharmaceuticals at small pharmacies in Beijing and Shanghai may have increased by a factor of three or four. There are no comprehensive studies that compare the costs of software in nations with various degrees of copyright protection. In light of the variations in retail costs between genuine and cloned programs, it might be assumed that program prices would be significantly higher. For instance, a pirated edition of Microsoft Office 97 could be bought in Hong Kong in December 1997 for about $6 whereas the retail cost of an authentic copy was over $1,500. In Beijing during the summer of 1998, the same item went for about $1,000.32 Therefore, if there were to

CONCLUSION

The complicated trade-offs between intellectual property rights and global economics are now well understood by economists. Due to the wide range of national interests in protection, the global component makes analysis more difficult. Both optimistic and pessimistic predictions about how countries will be impacted are supported by the complexities of intellectual property protection. Theoretical or empirical investigation cannot definitively invalidate any of these arguments. The research examined here, however, supports a single, comprehensive perspective. First, as was already mentioned, open economies are better able to boost growth with IPRs. In order to promote dynamic advantages from IPRs, market liberalization, the encouragement of free entry, and the dismantling of distribution monopolies are all necessary. Second, it's crucial to make significant investments in basic and secondary education since having a sufficient supply of labor skills encourages innovation and technology adoption. Third, IPRs are only economically beneficial in markets where innovations can be freely introduced. Therefore, nations should remove obstacles from their national innovation systems that prevent the commercialization of new information. Finally, competition authorities must be able to investigate complaints and implement appropriate remedies when necessary because anticompetitive exploitation of IPRs may hurt consumers and rivals. For the majority of emerging nations, competition regulation is a novel and challenging topic. Therefore, when IPR systems are strengthened, competition regulations aiming at limiting unfair licensing practices, monopoly pricing, and arbitrary market segmentation should also be developed. Implementing this difficult area calls for careful consideration.

REFERENCES

[1] P. A. L. Prasanna *et al.*, "Intellectual property rights protection for plant varieties in India: status, emerging issues, and challenges," *Agric. Econ. Res. Rev.*, 2019, doi: 10.5958/0974-0279.2019.00037.5.

[2] K. Gupta, "FRAND in India: Emerging developments," *IIMB Manag. Rev.*, 2018, doi: 10.1016/j.iimb.2017.07.005.

[3] J. W. Khobragade, "Interface between human rights and intellectual property rights with special reference to patent regime and right to health in India," *J. Intellect. Prop. Rights*, 2020, doi: 10.56042/jipr.v25i6.31669.

[4] S. Gandhi and S. Sukumar, "Competition and antitrust enforcement against standard essential patents in India," *Antitrust Bull.*, 2017, doi: 10.1177/0003603X17718679.

[5] N. Lalitha, "Diffusion of agricultural biotechnology and intellectual property rights: Emerging issues in India," in *Ecological Economics*, 2004. doi: 10.1016/j.ecolecon.2004.03.022.

[6] P. Drahos, "Developing Countries and International Intellectual Property Standard-Setting," *J. World Intellect. Prop.*, 2005, doi: 10.1111/j.1747-1796.2002.tb00181.x.

[7] A. Singh, "Critical Issues Relating to Intellectual Property Rights (IPR) in Biotechnology: Developing Countriess Perspective and India," *SSRN Electron. J.*, 2014, doi: 10.2139/ssrn.2383027.

[8] G. Javed, R. Priya, and D. V. K, "Protection of Traditional Health Knowledge: International Negotiations, National Priorities and Knowledge Commons," *Soc. Cult. South Asia*, 2020, doi: 10.1177/2393861719883069.

[9] M. M. Sharma, "Role of Courts in Settling Conflict of Jurisdiction Between Sector Regulators and Competition Regulator in India," *US-China Law Rev.*, 2019, doi: 10.17265/1548-6605/2019.02.004.

[10] K. Peschard and S. Randeria, "Taking Monsanto to court: legal activism around intellectual property in Brazil and India," *J. Peasant Stud.*, 2020, doi: 10.1080/03066150.2020.1753184.

[11] A. Patnaik, J. Jongerden, and G. Ruivenkamp, "Rights or ability: Access to plant genetic resources in India," *J. World Intellect. Prop.*, 2018, doi: 10.1111/jwip.12102.