Proceedings of the National Seminar in Emerging Trends of Intellectual Property Rights - 2022

Dr. Bhawna Srivastava
Vasudev Jatawan

Organized by
Government College, Nagda, Ujjain, MP

PROCEEDINGS OF THE NATIONAL SEMINAR IN EMERGING TRENDS OF INTELLECTUAL PROPERTY RIGHTS - 2022

Nov 05, 2022

ISBN 978-93-90146-40-6

Editors

Dr. Bhawna Srivastava
Vasudev Jatawan

Organized by
Government College, Nagda, Ujjain, Madhya Pradesh, India

Proceedings of the
National Seminar in Emerging Trends of Intellectual Property Right – 2022

ISBN 978-93-90146-40-6

November 2022 Print.

Published by
International Multidisciplinary Research Foundation
1-90, Near VTPS Main Gate, Ibrahimpatnam, Krishna Dt, A.P., India

DISCLAIMER

The authors are solely responsible for the contents of the papers compiled in this volume. The Publishers or editors do not take any responsibility for the same in any manner. Errors, if any, are purely unintentional and readers are requested to communicate such errors to the editors or publishers to avoid discrepancies in future.

Typeset & Printing by

IMRF INTERNATIONAL PUBLICATIONS
1-90, Near VTPS Main Gate,
Ibrahimpatnam, Krishna Dt, A.P., India
Website :www.imrfedu.org | Email: info@imrf.in
Tel: +91 9618777011

EDITORIAL BOARD

CONTENTS

ISBN 978-93-90146-40-6

CONTENTS

ISBN 978-93-90146-40-6

ASSESSMENT OF INDIAN PATENTS (AMENDMENTS) RULES 2022

JITENDRA SINGH PACHAYA, JAGDISH KANNOJE

Abstract: Intellectual Property Rights (lPRs) are emerging as a strategic business tool for any business organization to enhance industrial competitiveness. Start-Ups, with limited resources and manpower can sustain in this highly competitive world only through continuous growth and development-oriented innovations; for this, it is equally crucial that they protect their IPRs. The Patents (Amendment) Rules, 2021 came into effect on September 21, 2021 by amending the Patents Rules 2003. It is intended at encouraging innovation and expansion of new technologies.By amending the rules, Central Government has reduced the patent filing and processing fees that are charged on educational institutions by 80%. This discount in fees is at par with similar discount available to start-ups under the Start-up India initiative (https://delhipostnews.com).

Introduction: Intellectual Property Rights (lPRs) are emerging as a strategic business tool for any business organization to enhance industrial competitiveness. Start-Ups, with limited resources and manpower can sustain in this highly competitive world only through continuous growth and development-oriented innovations; for this, it is equally crucial that they protect their IPRs. The Patents (Amendment) Rules, 2021 came into effect on September 21, 2021 by amending the Patents Rules 2003. It is intended at encouraging innovation and expansion of new technologies.By amending the rules, Central Government has reduced the patent filing and processing fees that are charged on educational institutions by 80%. This discount in fees is at par with similar discount available to start-ups under the Start-up India initiative (https://delhipostnews.com).

Patents (Amendment) Rules, 2021: Ministry of Commerce and Industry has further amended the Patents Rules, 2003 in a notification dated September 23, 2021, to be called Patents (Amendment) Rules, 2021. The Amendment is brought under Rule 7 which prescribes the fees for grant of patents to applicants. The category of applicants for patent has been amended to specifically include “educational institution” along with a natural person, start-up, and small entity. This is released in Gazette as per the requirement of the Government of India and the present article briefly explains the amendments undertaken vide the Patents (Amendment) Rules, 2021 (https://pib.gov.in/).

To obtain the Patent, the start-up/entity/educational institution needs to pay the fee as per the fee scale specified in the First schedule of Rule 7 of Patents Rules, 2003. The first schedule species the fees payable under section 142 to issue patents and for which fees are required to be payable. The Startups/Small Entity/Educational institution need to pay a 10% additional fee when the applications for patent and other documents are filed through physical mode (in hard copy format). As per rule 7, the small entity needs to submit every document accompanied by Form-28, for which a fee has been specified (https://www.indiafilings.com).

ISBN 978-93-90146-40-6

The fees payable under these rules may be paid at the appropriate office either in cash or through electronic mode or may be sent by bank draft or banker 's cheque payable to the Controller of Patent and drawn on a scheduled bank at the place where the appropriate firm is situated (https://ipindia.gov.in/news).

The Patent Filing fee for Educational Institution:

- Educational institutions engage in many research activities, where professors and teachers, and students generate several new technologies which need to be patented for facilitating commercialization of the same.
- At the time of applying for patents, the innovators have to apply for these patents in the name of the institutions which have to pay fees for large applicants, which are very high and thus work as a disincentive.
- In this regard and to encourage greater participation of the educational institutions, official fees payable by them in respect of various acts under the Patents Rules, 2003, have been reduced by way of the Patents (Amendment) Rules, 2021.
- Benefits related to 80% reduced fee for patent filing & prosecution have been extended to all educational institutions irrespective of them being Government-owned/ aided or private universities (https://ipindia.gov.in/news).

Reasons for the reduction in patent fees: In fact, scientists have to apply for patents in the name of institutes/organizations and have to pay very high fees for large applicants and thus work as a discouragement. Consequently, to boost bigger contribution of the academic institutions which play an important role in India's inventions, the official fees have been reduced. According to DPIIT, (Department for Promotion of Industry and Internal Trade (DPIIT) educational institutes involve and engage in several research activities. Scientists, professors or teachers as well as research scholars create several new technologies that are required to be patented so as to enable marketing of the same. But the high patenting fee restricts these innovations to get patented and thus work as a discouragement for growth of new skills. To avoid this problematic issue, Patents rules have been revised several times with the intention to accomplish the objective of removing technical contradictions and unnecessary phases to process the claims (https://www.mondaq.com/india/patent).

Earlier Amendments: The Patents Rules have consistently been amended in 2016, 2017, 2019, and 2020 to achieve the objective of removing procedural inconsistencies and unnecessary hurdles in the processing of applications thereby accelerating grant/registration and final disposal. Thus, the amendments have resulted in the following initiatives taken by the DPIIT (Saha, P.K. and Kaushik, S., 2021 [a, b]):

Highlights of Patents (Amendment) Rules, 2021: The amendments made in the Patents (Amendment) Rules, 2021 are summarized hereunder:

- ***Clarification for the Educational Institution***: Under the new rules, an Educational Institution has been defined under Rule 2(ca) as follows: *"a university established or incorporated by or under Central Act, a Provincial Act, or a State Act, and includes any other*

educational institution as recognized by an authority designated by the Central Government or the State Government or the Union territories in this regard;".

- ***Adding of the term "educational institution in Rule 7 (1) and Form 28***: The name "educational institution" has been announced into the Guidelines by way of the second proviso to Rule 7 (1) and to Form 28. *Provided further that in the case of a small entity, or star-tup, or educational institution, every document for which a fee has been specified shall be accompanied by Form-28.*
- ***Replacement of Provisions Relating to the Payment of Patent Fee*:** The Amendment is carried under Rule 7 of Patents Rules, 2003 which prescribes the fees for grant of patents in which sub-rule 3 has been substituted as follows:
  - If the patent submission processed by a natural person or start-up or small entity or educational institution is fully or partly transferred to a person other than a natural person, start-up, or small entity or educational institution, the difference in the scale of fees needs to be paid by the new applicant with the transfer request. This rule is applicable in the following two cases:
  - The fees charged from the natural person, start-up, or small entity
  - The fees are chargeable from the person other than a natural person, start-up, or small entity
- ***Amendment in Table I of the First Schedule of Patents Rules, 2003:*** In rule 7 of Patents Rules, 2003, the following table is substituted via Patents (Amendment) Rules, 2021

Rule 7 of Patents Rules – Fee for patent filing: Rule 7 of Patents Rules, 2003 proposes the fees payable under section 142 for the grant of patents. The Amendment is brought under Rule 7 which prescribes the fees for grant of patents to start-up or small entity. At the time of applying for patents, the innovators have to apply these patents in the name of the institutions which have to pay fees for large applicants, which are very high and thus work as a disincentive. In this regard and to encourage greater participation of the educations institutions, who play a pivotal role in country's innovation, official fees payable by them in respect of various acts under the Patents Rules, 2003, have been reduced by way of the Patents (Amendment) Rules, 2021(https://taxguru.in/corporate-law/patents, Saha, P.K. and Kaushik, S., 2021 [a, b]).

Government initiatives to increase the patents: Government of India has taken several initiatives to strengthen Intellectual Property Rights (IPR) ecosystem in the country, which includes digitalization of Intellectual Property Rights offices, adopting e-service delivery system, real-time public distribution of dynamic intellectual property (IP) knowledge, manpower augmentation, setting up of feedback mechanism, amendments in specific IP legislation for simplification of procedures, such as reduction of forms, incentivizing e-filing and reducing compliance burden.

1. The time taken for scrutiny of patents has come down from an average of 72 months in 2015 to 12-30 months at present, depending upon technology fields.
2. **Scheme for Facilitating Startups Intellectual Property Protection (SIPP):** The scheme for Start-Ups Intellectual Property Protection (SIPP) is expected to protect, encourage the

innovation and protection of Patents, Trademark and Designs of innovative and interested Start Ups. Department for Promotion of Industry and Internal Trade (DPIIT) launched the scheme, Facilitating Start-ups Intellectual Property Protection (SIPP) in order to provide facilitators with filing and processing of their applications. Professional charges of such facilitators are reimbursed in accordance with the provisions of the scheme.

3. Hearing of cases in Patents through Video-Conferencing for speedy and contact-less proceedings.
4. Encouraging the digital process for applying & granting patents.
5. The mechanism to lodge feedback/suggestions/complaints in respect of issues related to the functioning of the IP offices has been set up in the IPO website for the benefit of stakeholders.
6. Increase of man power by recruiting new examiners.
7. Dynamic redesigning of website and real-time based hassle-free dissemination of IP information to stakeholders.
8. Encouraging the digital process for applying & granting Patents.
9. Scheme for Facilitating Start-ups Intellectual Property Protection (SIPP) has been launched to provide facilitators to Start-ups for filing and processing of their applications. Professional charges of such facilitators are reimbursed as per provisions under the SIPP scheme.

Benefits of Such Steps:

- The time taken for examination of patents have come down from average 72 months in 2015 to 12-30 months at present.
- Further, it is expected that the time for final disposal of patent applications, which has reduced to average 48 months at present from few years earlier, will be reduced to average 24-30 months from filing by end of 2021.
- Further, an Expedited Examination System has been introduced wherein an application for grant of patent is being decided within one year of filing such request under Expedited Examination as compared to the period of few years required in case of normal examination route.
- The fastest granted patent is the one which was granted in 41 days after filing of such request. This facility of Expedited Examination system was initially provided for patent applications filed by Start-up

Conclusion: Inclusion of educational institutions as applicants of patents creates an encouraging environment for institutions, professors, and students to patent their research. IIT Madras is one of the few educational institutions that has filed over 500 patent applications in India followed by the Chandigarh University which has filed over 336 patents. Some of the universities in the country like the IITs make up for most of the patents filed in India and abroad, evidencing the welcome change in law to further development.

Educational institutions are flourishing and ed-tech has seen a large incentive due to the pandemic. The number of patents filed in this sector, however, are still at a budding stage. We hope that the Patent Amendment has a positive impact the on innovation in the sector by

encouraging the filing of more patents in India. The Patents (Amendment) Rules 2021 are in line with the Government's vision of incentivizing patent filings for educational institutions. The reduced fee should encourage the educational institutions to increase their patent filings.

References:

1. https://delhipostnews.com/newly-amended-patents-rules-2021/
2. https://ipindia.gov.in/newsdetail.htm?758
3. https://pib.gov.in/PressReleasePage.aspx?PRID=1776841
4. https://taxguru.in/corporate-law/patents
5. https://www.indiafilings.com/learn/patents
6. https://www.mondaq.com/india/patent/1131994/patents-amendments-rules-2021
7. Saha, P.K. and Kaushik, S., 2021. How effective are India's model guidelines on implementation of IPR policy for academic institutions? Seeking the answer from the US and the UK experience. *The Journal of World Intellectual Property*, *24*(1-2), pp.100-121.
8. Saha, P.K. and Kaushik, S., 2021. Patents (Amendment) Rules 2020: India's patent working requirement at stake. *Journal of Intellectual Property Law and Practice*, *16*(12), p.jpab149.

***

Jitendra Singh Pachaya, Jagdish Kannoje
Govt. College, Alirajpur. M.P and *Govt.PG College, Barwani.M.P.

PATENT REGIME IN INDIA: PROVISIONS, CHALLENGES AND SOLUTIONS

BHAWNA SRIVASTAVA

Abstract: Intellectual property (IP) refers to creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce. India, the 5th largest economy in the world, has more than 1.2 million businesses and one of the largest workforces. With such a magnitude, it has the potential to create and share a huge amount of patented products with the world. However, India has failed to unleash its potential in this domain. Further, many other nations including the U.S have criticized India's patent regime for being too lenient on violation of patent rights and placing significant barriers for getting a patent. This situation demands a honest introspection along with a plethora of proactive measures for improving the patent landscape in the nation. Recently, the U.S. Trade Representative (USTR) said in a report that India was one of the most challenging major economies as far as IP protection and enforcement is concerned.

Keywords: IPR, India, Innovations, Patents.

Introduction: The twenty-first century will be the era of information, truly the period of the intelligence. A country's capability to decipher information into prosperity and social upright through inventions will govern its future (Ahmad, T. and Godhwani, J., 2011). Consequently, inventions hold the key to the making as well as dispensation of knowledge. Intellectual property can be considered as the assets in thoughts or their expression. It is a conception of the mind, which guards the rights of individuals and businesses who have converted their ideas into assets by granting rights to the owners of those properties (Jagannathan, S., et al 2019).

India's Patent Regime: In India, patents are ruled by the Patents Act, 1970. Under this act, patents are granted if the creation accomplishes the given criteria like novelty, creativity, capable of Industrial application and should not attract the provisions of sections 3 and 4 of the Patents Act 1970 (Pandey, V., 2021).

India has gradually aligned itself with international regimes pertaining to intellectual property rights. It became a party to the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement following its membership to the World Trade Organization on January 1, 1995. Following this, India amended its internal patent laws to comply with TRIPS, most notably in 2005, when it introduced pharmaceutical product patents into the legislation (Dhar, B. and Joseph, R.K., 2019).

India is also a participant to several IPR related conventions like The BerneConvention, which governs copyright, the Budapest Treaty, The Paris Convention for the Protection of Industrial

Property and the Patent Cooperation Treaty (PCT) which direct various patent-related matters (Miyamoto, T., 2019).

Global Patent Landscape:

WIPO: It is the global forum for intellectual property (IP) services, policy, information and cooperation**.** It is a self-funding agency of the United Nations, with 193 member states. The mission is to lead the development of a balanced and effective international IP system that enables innovation and creativity for the benefit of all.

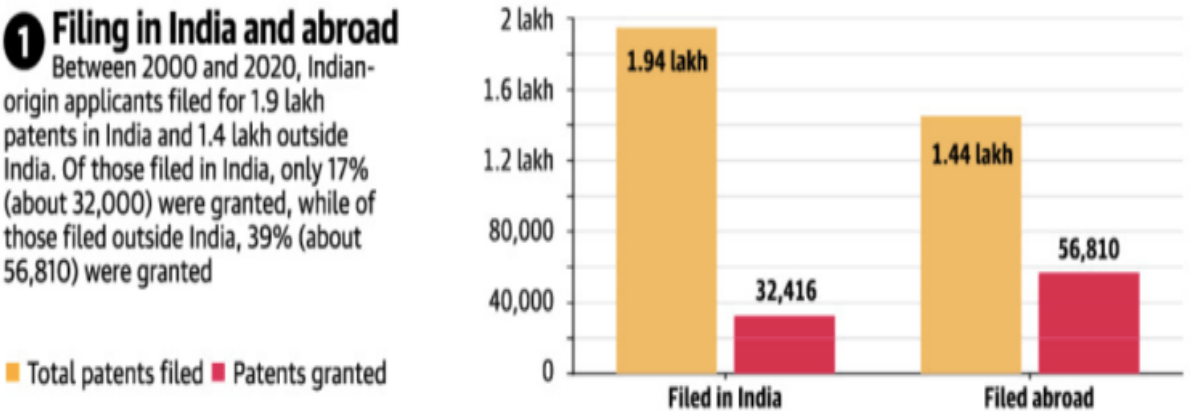
TRIPs: Trade Related Aspects Trade-Related Aspects of Intellectual Property Rights is an agreement on international IP rights. It came into force in 1995, as part of the agreement that established the World Trade Organisation (WTO). It establishes minimum standards for the availability, scope, and use of seven forms of intellectual property. This includes trademarks, copyrights, geographical indications, patents, industrial designs, layout designs for integrated circuits, and undisclosed information or trade secrets.

IP5: It is a forum of the world's five largest intellectual property offices. These offices are set up to improve the efficiency of the examination process for patents worldwide. The forum facilitates greater integration of the global patent system through sharing of patent data.
The members of IP5 are: **(a)** The European Patent Office (EPO); **(b)** The Japan Patent Office (JPO); **(c)** The Korean Intellectual Property Office (KIPO); **(d)** The National Intellectual Property Administration of the People's Republic of China (CNIPA); **(e)** The United States Patent and Trademark Office (USPTO)

Current Status of Patents in India: India has been ranked 40th out of 53 countries on the Global Intellectual Property Index. India's score increased from 36.04% (16.22 out of 45) in 2019 to 38.46% (19.23 out of 50) in 2020. India's relative score increased by 6.71%, according to the International IP Index released by the Global Innovation Policy Centre of the US Chamber of Commerce (https://www.business-standard.com/article/current-affairs/india). Compared to the five big patent offices (the US, Europe, Japan, Korea and China), the patent offices of India show relatively low application volume. According to the annual report by the Ministry of Commerce and Industry, India has a very minute growth, seeing its application-level increase from 8,538 in 2000, to 50,659 in 2019.

Furthermore, a recent study pointed out that between 2000-2020, more than 40% Indian-origin applicants chose to file patents in foreign countries (https://pib.gov.in/PressRelease).

ISBN 978-93-90146-40-6



Source: The Hindu

Five Reasons for improving Patent Regime: Patents have a positive effect on society because they promote innovation and help develop new product**s**. They also protect intellectual property. The following are the main reasons for improving the patent regime.

a) High technology exports constituted an inadequate 0.81% of total exports in 2014 and India still depend on deeply on agriculture exports. There is a huge potential to advancement India's patent regime and increase exports.
b) A vigorous patent regime is a basic prerequisite for generating a culture of research and designing innovative products in a nation. Patent is simply a reward conferred on the creator for making his/her invention public. Effective rewards provide incentives to innovate and create new products.
c) Patents would play a crucial role in solving the current issues of poverty, hunger, climate change etc.
d) The world is currently being dominated by MNCs and the investment they pour into any nation. Having a robust patent regime will allow India to attract greater investment.
e) India, as a member of the WTO and party to the TRIPS is obliged to line up its intellectual property rights laws with the TRIPS agreement. If the domestic law is not supported, then it will weaken India's global image.

Initiatives taken towards improving Patent Regime in India: Several actions have been **taken** to guarantee constant and everlasting **upgrading** of the **Indian** IP ecosystem in the country.

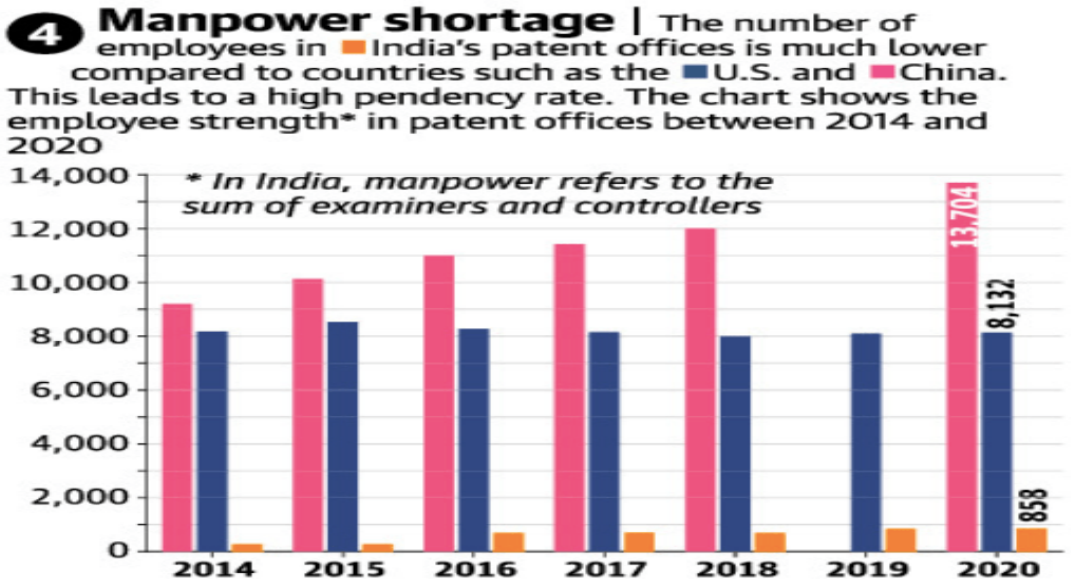
a) The National IPR Policy (2016) purposes to push IPRs as a merchantable financial benefit, encourage invention and entrepreneurship, while protecting public interest.
b) Kalam Program for Intellectual Property Literacy and Awareness program was launched by the Indian government to increase IP awareness and literacy.
c) The program of Cell for IPR Promotion and Management (CIPAM) guarantees attentive action on issues related to IPRs and addresses the 7 recognized points of the policy. CIPAM supports in shortening and restructuring of IP processes, apart from undertaking steps for furthering IPR awareness, commercialization and enforcement.
d) Undertaking a huge digitisation workout to clear the excess of patent and trademark applications.

ISBN 978-93-90146-40-6

e) Recent government initiatives and investments such as Make in India, Skill India, Digital India, and Start-up India have meaningfully contributed to establishing the country as an striking end point for Engineering R&D and innovation.

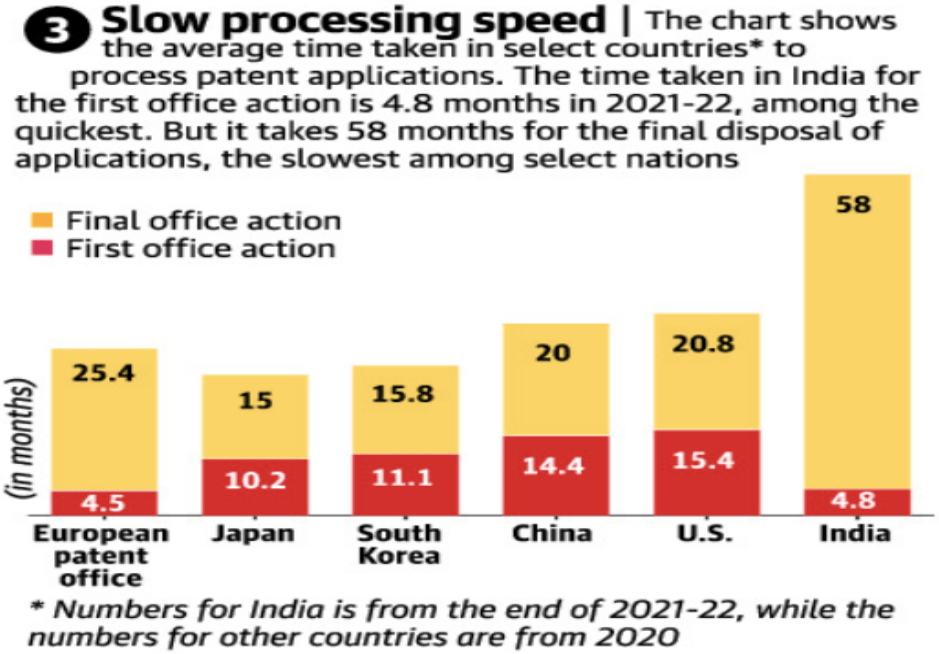
Challenges in India's Patent Regime: India enjoys several strengths in the patent regime amongst several developing and least developing countries (Panda, S. and Sharma, R., 2020)**. The major issues in Indian patent regime are as follows.**

a) India is a centre of immense economic activity, but consequently its efforts to boost R&D and innovation are lagging (Panda, S. and Sharma, R., 2020). India contributes about 0.7% of its GDP on R&D. This ratio is much higher for the US (2.8%), China (2.1%), Israel (4.3%) and Korea (4.2%). Contrasting other economies, most R&D investments in India are made by the government. For instance, in 2015 Indian corporates spent a meagre $17 billion in R&D while their Chinese and American counterparts spent $286 and $ 341 billion respectively (https://www.fastscience.tv/insights/india-innovation-patents).
b) India has been suspecting of having weak legislative and implementation mechanisms to protect the rights of patent holders. This phenomenon is more prominent in the pharmaceutical industry where culprits are not severely punished for copying the patented product (Thakur, D.S. and Thikkavarapu, P.R., 2022).
c) Some professionals claim that strict provisions like Section 3d of Patents Act, 2007 and power to issue compulsory licenses also disheartens corporations from sharing their patented knowledge with India. They argue that based on the explanations and decisions of the Courts, the Section 3(d) objection should theoretically be raised only for derivatives of pharmaceutical substances. Instead, the objection is invariably raised for all applications relating to pharmaceutical drugs even in the case of innovator compounds (Babalola, A., 2018, Nagappa, A. N et al 2022). Similarly, Section 3(k) blocks patent ability of computer programs per se or algorithms. This protest happens as default for all computer-related inventions. The life sciences sector faces sprints in terms of patentability of in-vitro diagnostic methods and kits because they fall within the category of diagnostic/treatment methods. Isolated DNA sequences are also the subject of objections for not satisfying the novelty requirement (https://www.mondaq.com/india/patent)..
d) Thelack of higher payment and services for research professionals induces them to travel to other nations resulting in brain drain. This harmfully impacts patent creation in India.
e) The low IP literacy in India is one of major issues. Of the 50,000 patent applications filed in India in 2018-19, only 30% came from local companies or individuals while the rest were foreign applications. Now compare that 1.4 million patent filings China received mostly by its local inventors (https://timesofindia.indiatimes.com/business/india).
f) The poor infrastructure and limited resources delay in filing and grant of patents e.g., India had only 858 people working in patent offices in India, compared to 13,500+ in the US.



Source: The Hindu

Lack of manpower is a major reason for slow processing speed of patent applications in India.



Source: The Hindu

g) India is fronting burden from the US, European Union, Switzerland and Japan to adopt stricter intellectual property measures which India calls as TRIPS plus provisions. These nations often attempt to drive severer IP clauses via trade or investment agreements. Recent U.S. Trade Representative's Special 301 report has again criticized India for having stricter

patent laws along with poor implementation that discourages patent filing (Sumaita, I., 2021).

h) T**here are** several encounters in implementation of Patent Rights in India **e.g., there are no** special IP courts set up to deal with cases. A patent complaint may take five to seven years to be settled after trial.

Way Forward: The government should partner with industry and academics to identify various intellectual property rights issues and proactively address them. Vibrant incentives should be provided to firms to capitalize in research and development through safeguarding their property and innovation. Effective controlling regimes should be fortified to support intellectual property and the longer-term investments of firms. Public awareness should be created about the economic, social and cultural benefits of IPRs among all sections of society.

Conclusion: The advancement and protection of intellectual property enhances economic growth, generates new occupations and manufacturing, and improves the quality and satisfaction of life. They are significant not only for persons or a group but for the whole of humankind. Thus, the necessity of the hour is to balance between incomes of the group and needs of the poor through a robust Patent Regime.

References:

1. Ahmad, T. and Godhwani, J., 2011. Current Trends of Intellectual Property Law in India.
2. Babalola, A., 2018. Pharmaceutical Patent Protection and Public Health Crises: Seeking a Balance. *Available at SSRN 3512025*.
3. Dhar, B. and Joseph, R.K., 2019. The challenges, opportunities and performance of the Indian pharmaceutical industry post-TRIPS. *Innovation, economic development, and intellectual property in India and China*, pp.299-323.
4. https://pib.gov.in/PressReleasePage.aspx?PRID=1815852.
5. https://timesofindia.indiatimes.com/business/india
6. https://www.business-standard.com/article/current-affairs/india
7. https://www.fastscience.tv/insights/india-innovation-patents/
8. https://www.mondaq.com/india/patent
9. Jagannathan, S., Ra, S. and Maclean, R., 2019. Dominant recent trends impacting on jobs and labor markets-An Overview. *International Journal of Training Research*, *17*(sup1), pp.1-11.
10. Miyamoto, T., 2019. International treaties and patent law harmonization: today and beyond. *Research Handbook on Patent Law and Theory*, pp.27-54.
11. Nagappa, A. N., and Jovita Kanoujia. "Ethics and Regulations: Pharmacist Oath, Drugs and Cosmetics Act 1940, Pharmacy Act 1948, Pharm D Regulations, Bridge Course for Pharmacist, Pharm Drugs and Magic Remedies Act, Pharmacy Practice Regulations 2015, and Jan Aushadhi Scheme." In *Perspectives in Pharmacy Practice*, pp. 159-180. Springer, Singapore, 2022.

12. Panda, S. and Sharma, R., 2020. Impact of patent rights on innovation: A meta-analysis. *Journal of Public Affairs*, *20*(2), p.e2000.
13. Pandey, V., 2021. Patent Legalities in India. *Jus Corpus LJ*, *2*, p.312.
14. Sumaita, I., 2021. The Importance of Being Earnestly Innovative: The Increasing Role of Intellectual Property Law in the Global Economy. *IPCLJ*, *6*, p.1.
15. Thakur, D.S. and Thikkavarapu, P.R., 2022. *Truth Pill: The Myth of Drug Regulation in India*. Simon and Schuster.

***

Bhawana Srivastava
Department of Zoology, DAV College, Kanpur U.P

INDIAN PATENT REGIME CLASH WITH THE U.S. NORMS

R.K. GUJETIYA

Abstract: The U.S. Trade Representative (USTR) highlighted IP challenges in India in its yearly Special 301 report in May 2022.The statementemphasized a range of problems in fields ranging from copyright and piracy to trademark counterfeiting and trade secrets, saying that India remained one of the world's most challenging major economies with respect to protection and enforcement of IP.It has decided to retain India on its Priority Watch List along with six other countries- Argentina, Chile, China, Indonesia, Russia and Venezuela.U.S. trade law ("Special 301") requires an annual review of intellectual property protection and market access practices in foreign countries.Trading partners that currently present the most significant concerns regarding IP rights are placed either on the Priority Watch List or Watch List.

Background: The U.S. Trade Representative (USTR) highlighted IP challenges in India in its yearly Special 301 report in May 2022.The statementemphasized a range of problems in fields ranging from copyright and piracy to trademark counterfeiting and trade secrets, saying that India remained one of the world's most challenging major economies with respect to protection and enforcement of IP.It has decided to retain India on its Priority Watch List along with six other countries- Argentina, Chile, China, Indonesia, Russia and Venezuela.U.S. trade law ("Special 301") requires an annual review of intellectual property protection and market access practices in foreign countries.Trading partners that currently present the most significant concerns regarding IP rights are placed either on the Priority Watch List or Watch List.

Indian Patent Regime:

- A patent is an exclusive set of rights granted for an invention, which may be a product or process that provides a new way of doing something or offers a new technical solution to a problem (Chandran, S., Roy, A. and Jain, L., 2005, Manzini, R. and Lazzarotti, V., 2016).
- Indian patents are governed by the Indian Patent Act of 1970 (Mehrotra, N.N., 1987). Under the act, patents are granted if the invention fulfils the following criteria:
  - It should be novel
  - It should have inventive step/s or it must be non-obvious
  - It should be capable of Industrial application
  - It should not attract the provisions of sections 3 and 4 of the Patents Act 1970.
- India has gradually associated itself with international regimes pertaining to intellectual property rights (Kumar, R., 2022).It became a party to the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement following its membership to the World Trade Organization on 1st January, 1995.Following this, it revised its internal patent laws to comply with TRIPS, most notably in 2005, when it introduced pharmaceutical product patents into the legislation (Chitra, M. and Kumar, N., 2020).
- **Other IPR related conventions**

ISBN 978-93-90146-40-6

  - India is also a signatory to several Intellectual Property Rights (PR) related conventions, including the Berne Convention, which governs copyright, the Budapest Treaty, the Paris Convention for the Protection of Industrial Property, and the Patent Cooperation Treaty (PCT), all of which govern various patent-related matters (https://www.wipo.int/treaties/en/ip)
- The original Indian Patents Act did not grant patent protection to pharmaceutical products to ensure that medicines were available to the masses at a low price (He, J., 2019).This was based on the recommendations of a 1959 commission chaired by the jurist Rajagopala Ayyangar.Patent protection of pharmaceuticals was re-introduced after the 2005 amendment to comply with TRIPS (Kaur, M., 2008).

Indian Issues that Highlighted by USTR:

- Patent issues continued "to be of particular concern in India," highlighting the threat of patent revocations, lack of presumption of patent validity and narrow patentability criteria as issues which "impact companies across different sectors".The issue of narrow patentability criteria was again raised in relation to Section 3(d) of the Indian Patent Act, with the report saying that in the pharmaceutical sector, the United States "continued to monitor the restriction on patent-eligible subject matter in Section 3(d) of the Indian Patents Act and its impacts (Ganguly, Š., 2022).

Role Section 3 and section 3 (d) of Indian Patent deal:

- Section 3 deals with what does not qualify as an invention under the Act.
- Section 3(d) in preciseeliminates "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 (https://indiankanoon.org/doc/874310) or the mere discovery of any new property or new use for a known substanceor of the mere use of a known process, machine or apparatus unless such known process results in a new productor employs at least one new reactant" from being eligible for protection under patent law.Section 3(d) prevents what is known as "evergreening" of patents.It is a corporate, legal, business, and technological strategy for extending/elongating the term of a granted patent in a jurisdiction that is about to expire, in order to retain royalties from them, by taking out new patents (https://www.mondaq.com/india/patent/120288).
- According to the Committee's report, Section 3(d) allows for generic competition by patenting only novel and genuine inventions.The seminal judgment in the case ***Novartis vs. Union of India (2013)***, upheld the validity of section 3(d). (Basheer, S. and Reddy, P., 2008, Sampat, B.N. and Shadlen, K.C., 2018).

Semi Judgement in Novartis vs. Union of India: In this case, pharmaceutical company Novartis filed a patent for the final form of cancer drug Gleevec, which was challenged in the Supreme Court (Lee, L.L., 2008).The Supreme Court held that Gleevec was merely a beta crystalline form of a known drug, namely, i matinib mesylate, and did not differ significantly in properties with regard to efficacy (Brougher, J.T., 2013). Hence, it could not be patented in

India**.**The judgment also says that the section 3 complies with the TRIPS agreement and the Doha Declaration.

The Doha Declaration on the TRIPS Agreement and Public Health was adopted on in November 2021, by the WTO member states (Kerry, V.B. and Lee, K., 2007).This declaration recognises the "gravity of public health problems affecting developing and least developed nations" and stresses the need for TRIPS to be part of the wider national and international action to address these problems.The declaration points out that the agreement "can and should be interpreted and implemented in a manner supportive of WTO members' right to protect public health and, in particular, to promote access to medicines for all (Hilty, R et al 2022).

These flexibilities include the right to grant compulsory licenses and the grounds for such licenses,the right to determine what "constitutes a national emergency or other circumstances of extreme urgency, including public health crises"and the right to establish its own regime for the exhaustion of intellectual property rights.Compulsory licenses can be invoked by a state in public interest, allowing companies apart from the patent owner to produce a patented product without consent (Bonadio, E., 2012).

Way Forward

- India must not compromise on the patentability criteria under Section 3(d) since as a sovereign country it has the flexibility to stipulate limitations on grants of patents in consistence with its prevailing socio-economic conditions.
  - This ensures the growth of generic drug makers and the public's access to affordable medicines.
- India should resolve its differences with the U.S. regarding the disqualification of incremental inventions through bilateral dialogue.
- The member countries of WTO make full use of the policy space available in the TRIPS agreement by adopting and applying rigorous definitions of invention and patentability that curtail 'evergreening' and ensure that patents are only awarded when genuine innovation has occurred.
- Through Section 3(d), India strives to balance the international patent obligations and its commitments to protect and promote socio-economic welfare and public health.

References:

1. Basheer, S. and Reddy, P., 2008. Ducking TRIPS in India: A saga involving Novartis and the legality of Section 3 (d). *Nat'l L. Sch. India Rev.*, *20*, p.131.
2. Bonadio, E., 2012. Compulsory licensing of patents: the Bayer/Natco case. *Natco Case*, pp.719-728.
3. Brougher, J.T., 2013. Evergreening patents: The Indian Supreme Court rejects patenting of incremental improvements. *Journal of Commercial Biotechnology*, *19*(3).

4. Chandran, S., Roy, A. and Jain, L., 2005. Implications of new patent regime on Indian pharmaceutical industry: Challenges and opportunities.
5. Chitra, M. and Kumar, N., 2020. Pharmaceutical market structure in India & competition concerns. *Shanlax Int J Arts Sci Humanit*, *8*, pp.233-41.
6. Ganguly, Š., 2022. Obama, Trump and Indian foreign policy under Modi. *International Politics*, *59*(1), pp.9-23.
7. He, J., 2019. Indian Patent Law and Its Impact on the Pharmaceutical Industry: What Can China Learn from India?. In *Innovation, economic development, and intellectual property in India and China* (pp. 251-269). Springer, Singapore.
8. Hilty, R., Kim, D., Correa, J.I., Batista, P.H.D. and Lamping, M., 2022. Position Statement of 5 July 2022 on the Decision of the WTO Ministerial Conference on the TRIPS Agreement adopted on 17 June 2022. *Max Planck Institute for Innovation & Competition Research Paper*, (22-14).
9. https://indiankanoon.org/doc/874310
10. https://www.mondaq.com/india/patent/1202884
11. https://www.thehindu.com/news
12. https://www.wipo.int/treaties/en/ip
13. Kaur, M., 2008. TRIPS and the Indian Patent Regime. *Available at SSRN 1305585*.
14. Kerry, V.B. and Lee, K., 2007. TRIPS, the Doha declaration and paragraph 6 decision: what are the remaining steps for protecting access to medicines?. *Globalization and health*, *3*(1), pp.1-12.
15. Kumar, R., 2022. India's multilateral foreign policy strategy: phases of its evolution. *The Round Table*, *111*(3), pp.426-439.
16. Lee, L.L., 2008. Trials and TRIPS-ulations: Indian patent law and Novartis AG v. Union of India. *Berkeley Tech. LJ*, *23*, p.281.
17. Manzini, R. and Lazzarotti, V., 2016. Intellectual property protection mechanisms in collaborative new product development. *R&D Management*, *46*(S2), pp.579-595.
18. Mehrotra, N.N., 1987. Indian Patents Act, Paris Convention and self-reliance. *Economic and Political Weekly*, pp.1461-1465.
19. Sampat, B.N. and Shadlen, K.C., 2018. Indian pharmaceutical patent prosecution: The changing role of Section 3 (d). *Plos one*, *13*(4), p.e0194714.

***

R.K. Gujetiya
Govt. PG. College. Nimach. M.P

INTELLECTUAL PROPERTY RIGHTS: AN OVERVIEW

DR. PRATIBHA TRIPATHI

Abstract: Intellectual property rights (IPR) have been defined as ideas, inventions and creative expressions based on which there is a public willingness to bestow the status of property. A nation's ability to translate knowledge into wealth and social good through innovations will determine its future. Intellectual Property [IP] refers to all the creations of human mind. Throughout history many societies have deemed intellectual creations ---technological inventions, artistic and literary works ---as the property of inventors and authors. Intellectual property rights [IPRs] give the owners of intellectual property the legally enforceable power to prevent others from using an intellectual creation or to set the terms on which it can be used. Thus, innovation hold the key to the creation as well as processing of knowledge in. The growing impact of IP has also become a central topic of discussion. 'According to expert, IP is one of our interconnected features of the modern market economy that are of importance, especially for any discussion of global economic integration alongside with the corporation, innovation and the role and functioning of financial markets. IPR allow the owner to exercise monopoly on the use of the IP for a specified period. Such rights of the owner include right to use IP right to any benefit from the IP, right to transfer it or sell it, right to exclude others from the IP etc. There are many types of IPR which protect different types of intellectual creations. Patent is for inventions, copyright is for artistic and literary work, Trademark is for words and symbols used in trade; Industrial design protects external appearance of a product etc. It is important to protect intellectual properties for the progress of the society. It is the key to expanding knowledge economy of our society. Having grown in leaps andbounds the IP industries is fast reaching new heights. In recent years the Indian economy has opened and grown dramatically. As a result, India's prominence in the global economy has increased significantly.

Keywords: Inventions, Innovations, Global Economy.

Introduction: Property means the highest right a man can have to anything being that rights which one has to land or tenements, goods or chattels which does not depend on another's courtesy; it includes ownership, estates and interest's incorporeal things, and also rights such as trademarks, copyrights, patents and even rights in person am capable of transfer or transmission. Throughout history many societies have deemed intellectual creations-technological inventions, artistic and literary works—as the property of inventors and authors. Intellectual property rights {IPRs} give the owners of intellectual property the legally enforceable power to prevent others from using an intellectual creation or to set the terms on which it can be used. Intellectual property plays a key role in society. Intellectual Property Rights {IPRs} encourage innovation by protecting intellectual activity and granting their older, the creator or innovator, the ability to exclude others from certain activities for a defined period of time. Laws protect intellectual property for two main reasons. One is to give statutory expression to the moral and economic rights of creators in their creations and the

rights of the public in access to those creations. The second is to promote, asa deliberate act of Government policy, creativity and the dissemination and application of its results and to encourage fair trading which would contribute to economic and social development.
Intellectual Property has seen numerous modifications. Different intellectual Properties have come about to exist, which some would say is the impact of IP maximalism and some would regard them as a matter of necessity of changing times. Intellectual property is the key to India's expanding economy. Having grown in leaps and bounds, the Indian IP industry is fast reaching new goals.

The purpose of intellectual property right is to encourage new creations, including-technology, artwork and inventions that might increase economic growth. Therefore, we can say, the main purpose of intellectual property law is to encourage the creation of a wide variety of an intellectual goods. To achieve this, the law gives people and businesses property rights to the information and intellectual goods they create, usually for a limited period. Intangible assets mainly patents, copyrights, franchise licensees, government licenses, trademarks, trade names, goodwill and other items that no physical substances but provides long term benefits to the company. Companies account for intangible assists much as they account for depreciable assets and natural resources.

Brief History: The concept of rewarding innovators or creators for their ideas can be traced back to the debate between Aristotle and Hippodamus of Miletus {who supported the concept} in the fourth century B.C. There is some evidence of the recognition of the concept of authorship. The laws and administrative procedures relating to IPR have their roots in Europe the trend of granting patents started in the fourteenth centuries. In some matters England was technologically advanced and used to attract artisan from elsewhere, on special term. Patent act in India is more than 150 years old. The inaugural one is the 1856act, which is based on the British patent system. The Universal declaration of human rights ,1948 clearly states that "everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production.

Types of Intellectual Properties: Originally, only patent, trademarks and industrial designs were protected as 'Industrial property' but now the term 'IP' has a much wider meaning. IPR enhances technology advancement in the following ways: -

1. It provides a mechanism of handling infringement, piracy and unauthorized use.
2. It provides a pool of information to the public since all terms of IP are published except in case trade secrets.

Patents: A patent is a legal document granted by the Government giving an inventor the monopoly right to exploit and market the fruits of his innovative technical or scientific invention, a new product or process for a period of twenty years from the date of the filling of the patent application; and during that period to prevent others from making using , offering for sale ,exporting and importing that product without the authorisation of the patent holder. Patents are legal titles granting the owner the exclusive right to make commercial use of

inventions. To quality for patent protection, inventions must be new, non-obvious, and commercially applicable. The patent system is one of the oldest and most traditional form of IPRs protection. Almost all manufacturing industries make use of the patent system to protect inventions from being copied by competing firms.

Trademarks and Trade Secrets: "Trademarks" means a mark capable of being represented graphically and which is capable of distinguish the goods or services of one person from those of others. The Trademark protection ensures that the proprietors of marks have the exclusive right to use them identify goods or services, or to authorize others to use them in return for payment. Every man has exclusive right to the name under which he carries on business or sells his goods to this extent at least that no one is at liberty to use that name for the purpose of deceiving the public and so injuring the owner of it. Trade secrets are one of an organization's most important assets. Trade secrets are protected without registration, that is, trade secrets are protected without a procedural formality. A trade secret can be protected for unlimited time period. Finally, the protection of trade secrets relates to almost any kind of formal or informal business activity. By nature, trade secrets leave few traces, and as a result their overall economic significance is hard to evaluate Sometimes the economic significance of this form of IPRs protection is revealed in legal claims.

Copyright: 'copyright' is a protection that covers published and unpublished literary, scientific and artistic works, whatever the form of expression, provided such works are fixed in a tangible or material form. When early enacted, American copyright law protected expressions of information in the form printed text and graphics; books, maps and charts. Anyone seeking to fix or store these expressions for dissemination had to make a relatively large investment in capital goods, movable type, volumes of paper and ink mechanical presses, and other equipment. They had to obtain skilled labour, typesetters, printers, draftsman and others. These activities were difficult to conceal. They also had to offer copies in the open marketplace. The public quality of these operations meant that copyrights owners could detect and stop large-scale, economically damaging infringements thus controlling the cloning of their work. The growing use of computers to handle and store information could make it even harder for copyright holders to enforce their rights. Related rights are rights related to copyright. Traditionally, related rights have been granted to three categories of beneficiaries:
-performers
-producers of phonograms, and
-broadcasting organizations.
The purpose of related rights is to protect the legal interests of certain person and legal entities who contribute to making works available to the public.

Industrial Property: The expression "industrial property" covers inventions and industrial designs. Inventions are new solutions to technical problems and industrial designs are aesthetic creations determining the appearance of industrial products.

Recent Changes in IP Education: With the acceleration in the globalization of a world economy that is becoming increasingly knowledge –based in the last decades, IP was recognized as a trade related issue. With the adoption of the World Trade Organization {WTO}Agreement on trade related aspects of intellectual property rights the obligations arising from its implementation prompted a comprehensive review of national IP legislation.

Nature of Intellectual Property Rights: Intellectual property is in the nature of intangible incorporeal property. Intellectual Property Rights are essentially economic or commercial rights. The TRIPs agreement treats them as economic or commercial rights while recognizing the need to strike a balance between the rights of inventor and creators to protection, and the rights of users of technology. Everyone has the right to the protection of the moral and material interests resulting from any scientific or literally artistic production of which he or she is the author.

Impact of Intellectual Property: Intellectual property Rights affect the economic process and development of a country. The impact of IPR on developing, or developed countries, isa difficult task. Sustainable development in any country is the development of an indigenous scientific and technological capacity. It is essential to permit countries to develop their own process of technological innovation, and to enable them to absorb effectively technologies. The evidence shows that strong intellectual property rights protections are vitally important for both developed developing countries. India is member of the world trade organisation.

Conclusion: The management of IP and IPR is a multidimensional tsk for many different activities, programme and strategies which need to be aligned with national law and international treaties and conventions. IP and its associated rights are seriously influenced by the market needs, market response, cost involved in translating IP into commercial venture. Different forms of IPR demand various treatment, handling, planning and involvement of people with different knowledge of such as science, medicine, law, finance, marketing and economics. The Indian IP regime has taken great strides towards the increased protection and enforcement of IP rights. Protection of intellectual properties is a very critical element in the offshore business. IPR influence in the current regime is much affected by its awareness and nature. People are still not aware about IPR and their advantages in taking rights for their intellectual property.

***

Dr. Pratibha Tripathi
Assistant Professor, D.A.V. College, Kanpur
Email: drpratibha032@gmail.com

INTELLECTUAL PROPERTY RIGHTS (IPR): ACCOUNTING ASPECTS

DR. UMESH KUMAR AGRAWAL, HEMLATA RATHORE

Abstract: In an increasingly knowledge-driven economy, Intellectual Property (IP) is an important key consideration in day-to-day business decisions. Intellectual Property (IP)is the intangible property which is the creation of human intellect (mind). Intellectual property rights (IPR) are the rights given to people over the creation of their minds. It is legal right**.** As per WTO, "Intellectual property rights (IPR) are the rights given to persons over the creations of their minds. They usually give the creator an exclusive right over the use of his/her creation for a certain period of time. It is customarily divided into two main areas as Copyright and rights related to copyright &Industrial property"**.** This paper discusses about IP & IPR in India. Further, this paper also present accounting aspects regarding to intellectual property rights (IPR). Here, we discuss about legal auditing of intellectual property, strategies for effective IPR management, valuation of intellectual property, accounting standard 26 and disclosure of intangible assets (IPR) in financial statement.

Keywords: Intellectual Property (IP), Intellectual Property Rights (IPR), Accounting Aspects.

Introduction: Competition and intellectual property law are closely linked, as intellectual property law rewards innovation by granting exclusive rights, the competition law ensures that companies do not restrict freedom to compete or exploit market power with anti-competitive consequences. Generally, the small and medium companies in India either do not understand the value of their intellectual property assets or are not aware of the intellectual property system or the protection it can provide for their inventions, brands, and designs. The laws dealing with restrictive trade practices in India are contained under the Patents Act and the Competition Act.

Intellectual Property (IP) & Intellectual Property Rights (IPR): Intellectual property (IP) is an idea, a design, an invention which can ultimately give rise to a useful product and application. It is an intellectual work which is produced by the intellect of human brain. It is the intangible property which is the creation of human intellect (mind). Intellectual property rights (IPR) are the rights given to people over the creation of their minds. It is legal right. It is referring to the creations of the minds, inventions in artistic, literary & scientific. It prevents other to use of his/her creations for a certain time period.

Review of Literature: Moerman, Lee (July 2006) his paper named "Accounting for Intellectual Property: Inconsistencies and Challenges" highlights that author describe about an International Standard for Intangible Assets, IAS 38, Intellectual Property: A 'Right' or 'Asset' or Both? And Challenges. Potential solutions may lie in the harmonization across regimes, how this may be affected remains a challenge for policy makers in a globalized environment.

Nath saha, Chandra & Bhattacharya, Sanjib (2011) their paper named "Intellectual property rights: An overview and implications in pharmaceutical industry" find out that words, trade and commerce considerations are important in the management of IPR. Each industry should evolve its own IP policies, management style, strategies, etc. depending on its area of specialty. Pharmaceutical industry currently has an evolving IP strategy. Since there exists the increased possibility that some IPR are invalid, antitrust law, therefore, needs to step in to ensure that invalid rights are not being unlawfully asserted to establish and maintain illegitimate, albeit limited, monopolies within the pharmaceutical industry. Still many things remain to be resolved in this context.

Objectives of the Study: The present study will be based on the following objectives:

- To study the concept of intellectual property and intellectual property rights in India.
- To study accounting aspects related to intellectual property rights i.e. Legal auditing of intellectual property, strategies for Effective IPR Management, valuation of intellectual property, accountings standard 26 and disclosure of intangible assets (IPR) in financial statement.

Legal Auditing of Intellectual Property: Intellectual property (IP) audit involves undertaking a comprehensive review of a company's IP assets, related agreements, relevant policies and compliance procedures. Generally, there are three types of IP audits: General purpose IP audit, Event driven IP audit and Limited purpose focused IP audit. There is no hard

and fast rule as to who should conduct such an audit. However, for an audit to be effective it is best done by a team that includes expertise in IP and representatives of the relevant technical areas of the company as may be appropriate for ensuring maximum effectiveness. The IP audit team should have a basic understanding of the product lines, the relevant business environment and the future plans of the company so that the audit remains focused on IP assets of maximum business relevance. Dynamic IP asset managers have used IP audits to build corporate value in many different ways. An IP audit helps a business to make an inventory of its IP assets or update it and analyze, how the IP assets are used or unused, whether the IP assets used by the business are owned by the company or by others, whether these IP assets are infringing the rights of others or others are infringing on these rights. An IP audit seeks to uncover unused or under-utilized assets, to identify any threats to a company's bottom line, and to enable business managers to devise informed business and IP strategies that help maintain and improve its competitive position in the relevant market(s).

Strategies for Effective IPR Management: The effective management of intellectual property assets requires implementation of a comprehensive asset management plan. In this process one of the most important step is to review the existing intellectual property assets, so as to identify and locate the company's key intellectual property assets Effective intellectual property management requires a company to commercialize its inventions and effectively monitor and enforce its intellectual property rights. Intellectual capital is recognized as the most important asset of many of the world's largest and most powerful companies. For a better understanding of the IPRs of a company, some of the questions to be answered should often be. What are the IPRs used in the business? What is their value (and hence level of risk)? Who owns it (could I sue or could someone sue me)? How may it be better exploited (e.g. licensing in or out of technology)? At what level do I need to insure the IPR risk?

Valuation of intellectual property: Valuation is, essentially, a bringing together of the economic concept of value and the legal concept of property. The presence of an asset is a function of its ability to generate a return and the discount rate applied to that return. There are four main value concepts, namely, owner value, market value, fair value and tax value. There are quasi-concepts of value which impinge upon each of these main areas, namely, investment value, liquidation value, and going concern value. Acceptable methods for the valuation of identifiable intangible assets and intellectual property fall into three broad categories. They are market based, cost based, or based on estimates of past and future economic benefits. The methods of valuation flowing from an estimate of past and future economic benefits (also referred to as the income methods) can be broken down in to four limbs; (1) capitalization of historic profits, (2) gross profit differential methods, (3) excess profits methods, and (4) the relief from royalty method.

Accounting Standard 26: In accounting there are two types of assets i.e. Tangible assets (Fixed assets) & Intangible assets. Tangible assets (Fixed assets) are a monetary asset which have physical evidence. Intangible assets are a non-monetary asset which have no physical evidence. It is use in the production or supply of goods or services, for rental to others or for

administrative purposes. This accounting standards is close to intangible assets. This accounting standards was first issued by ICAI. The objective of Accounting Standard 26 relating to intangible assets is to prescribe the accounting treatment for intangible assets that are not covered specifically in another accounting standard. This standard is mandatory in nature and comes into effect in respect of expenditure incurred on intangible assets during accounting period commencing on or after 1st April, 2003. This accounting standard has been made mandatory for the following entities or companies with effect from this date. All companies which listed on any stock exchange locked in India. All companies which are process of issue of equity share and debt securities and will be listed on any stock exchange locked in India in the near future. All entities or undertaking in which the total sales exceeds 50 crores in any accounting period. This accounting standards expressed the intangible assets in the form of following item: Startup cost, advertising expenses, computer software, goodwill, patents, copyright, trademark brands and licensing agreements etc. Three elements such as, ability to be recognized, control over resources & possibility of getting economic benefits in future, must be available in an asset to be considered as an intangible asset.

Determination of Recognition Criteria for Intangible Assets: For any asset to be classified as an intangible asset, it must have an element of recognize ability. If an asset is able to generate future economic benefits by sharing substantively with other assets, then those future economic benefits will be recognized by the entity, only then the asset will be recognized as identifiable.

Control: If the enterprise has the right to obtain future economic benefits from the available resources, then that enterprise can control the property. The ability to control the property in the enterprise arises only as a result of its statutory recognition and authority. The profits to be generated in the future are influenced and determined by the knowledge of employees and loyalty of customers, but these profits cannot be controlled by the enterprise.

Initial Measurement of Intangible Assets: After an item is recognized as an intangible asset, the enterprise has to display them in its financial statements. At what value should they be displayed in the financial statements? This question arises before the manager. The determination of the value to be performed depends on the fact how the intangible asset has been acquired. The amount of intangible assets can be determined as follows: Intangible if the cost of the asset can be measured reliably. The cost of the asset is determined at the initial value. When an intangible asset is acquired by purchasing it separately, its cost should also be assessed separately. In determining the cost of the property thus obtained, its purchase price, import duty, non-refundable duty etc. are all included. When an intangible asset is acquired in exchange for an asset. The fair value of the abandoned asset is considered the cost of the intangible asset. When an intangible asset is acquired in exchange for the issue of shares and securities, the fair value of the intangible asset received or the fair value of the securities issued, the evidence of which is more, is treated as the cost of the intangible asset. Any intangible asset arising out of research should not be quantified. Expenditure on research

should be determined on the basis of their payment. Research means research and development obtained scientific and technical knowledge.

Research and Development: Prior to the issue of Accounting Standard-26, a separate Accounting Standard-8 was prevalent for R&D expenses but after the issue of Accounting Standard-26, Accounting Standard-8 has been removed by ICAI. The most important question that arises in the accounting of expenditure incurred on research and development is that how should these expenses be determined as capital or income? It is determined keeping in mind the common sense, purpose of spending, amount of expenses etc. Following remedies exist for accounting in respect of R&D cost. According to the Accounting Standard, the cost of research should be accounted for at the same time when they are paid. The cost of research is usually capitalized is not done. Intangible assets acquired through research and development cannot be included in the normal assets of the enterprise. Research expenses incurred while acquiring such assets should be shown as ordinary expenses in the financial statements of the enterprise. If intangible assets arise from the cost of development in accordance with this Accounting Standard, those assets may be called identifiable assets. Expenses so incurred are considered to be capitalized in nature and included in the cost of the asset.

Future Expenses: After the purchase or completion of an intangible asset, future expenses are certified when those expenses have already been paid. After the following conditions are met, subsequent expenses should be included in the cost of the intangible asset. The measurement of future expenses on trade marks, publication rights and similar items is done on the basis of the amount of expenses incurred. Initial Any accumulated loss or profit must be adjusted for when computing the operating cost of the intangible asset after the measurement is done.

Write-off period: The depreciation amount of an intangible asset should be allocated on the basis of the estimated useful life of the asset. Depreciation in the value of the property i.e. write-off should be done only when the asset has been put to use. More caution should be exercised while estimating the useful life of intangible assets as the useful life also depends on how much of the asset is being used. As per accounting standards, the life of intangible assets does not normally exceed 10 years. In some circumstances, the useful life of intangible assets may exceed 10 years due to the availability of effective evidence. For such assumption to be used, the available effective evidence must be reliable and reasonable.

Write-off Methods: A variety of write-off methods can be used to allocate the amount of depreciation related to assets over the use life of the asset. These methods mainly include fixed installment method, progressive depreciation method, production unit method etc. The selection of the appropriate method for property depends on many factors. In which mainly the way of consumption of economic benefits, efficiency of property etc. The method prescribed for depreciation may change due to a change in the efficiency of the asset and the way in which the economic benefits are used. Depreciation for each period should be measured as an expense only. Expenses must be capitalized if any other accounting standard permits expenses incurred to be included in the asset amount.

ISBN 978-93-90146-40-6

Disclosure of Intangible Assets (IPR) in Financial Statement: Managers must disclose the following facts in their financial statements. Years of useful life of intangible assets and the evidence gathered for their determination, the amount of the contract paid for the acquisition of intangible assets, the changes in the operating amount during the specified period and the amount of damages withdrawn in the statement of profit and loss during the specified period. There are two main financial statement of a company i.e. Balance sheet and Statement of Profit and Loss. Intangible Assets (IPR) shows at assets side as Intangible Assets and Intangible Assets Under Development under the head of non-current asset sub head fixed assets in balance sheet. Intangible Assets (IPR) shows as Research and development Expenses & Depreciation and Amortization Expenses under expenses head in statement of profit and loss.

Balance Sheet

Name of the Company:

Balance Sheet as at:

Particulars	**Note No.**	**As at 31st March 2021**	**As at 31st March 2022**
I EQUITY AND LIABILITIES			
(1) Shareholder's Fund			
(a) Share Capital			
(b) Reserve and Surplus			
(c) Money received against share warrants			
(2) Share Application Money pending allotment			
(3) Non-Current Liabilities			
(a) Long-Term Borrowings			
(b) Deferred Tax Liabilities (Net)			
(c) Other Long-Term Liabilities			
(d) Long-Term Provisions			
(4) Current Liabilities:			
(a) Short-Term Borrowings			
(b) Trade Payables			
(c) Other Current Liabilities			
(d) Short-Term Provisions			
TOTAL			
II ASSETS			
(1) Non-Current			
(a) Fixed Assets			
(i) Tangible Assets			
(ii) **Intangible Assets**			
(iii) Capital work-in-progress			
(iv) **Intangible Assets Under Development**			
(b) Non-Current Investments			

(c) Deferred Tax Assets (Net)			
(d) Long-Term Loans and Advances			
(e) Other Non-Current Assets			
(2) Current Assets			
(a) Current Investments			
(b) Inventories			
(c) Trade Receivables			
(d) Cash and Cash Equivalents			
(e) Short-Term Loans and Advances			
(f) Other Current Assets			
TOTAL			

Statement of Profit and Loss

Name of the Company:

Profit and Loss statement for the year ended:

Particulars	**Note No.**	**Year Ended 31st March 2021**	**Year Ended 31st March 2022**
I. Revenue from Operations			
II. Other Incomes			
III. Total Revenue (I+II)			
IV Expenses:			
Manufacturing Expenses			
Cost of Materials Consumed			
Purchases of Stock-in-Trade			
Changes in Inventories			
Research and development Expenses			
Other Manufacturing Expenses			
Adm. & Selling Expenses			
Employee Benefit Expenses			
Other Adm. & Selling Expenses			
Other Expenses			
Finance Costs			
Depreciation and Amortization Expenses			
Total Expenses			
V. Profit (III-IV)			

Conclusion: There are three words in IPR. I is stand for Intellectual means mind & creativity. P is stand for Property means asset & bundle of rights. R is stand for right means power to use, sell & mortgage. Intellectual property rights are the rights given to people over the creation of their minds. It is legal right. In this paper, we discussabout the concept of intellectual property and intellectual property rights in India and accounting aspects related to intellectual property rights i.e. Legal auditing of intellectual property, strategies for Effective IPR Management,

valuation of intellectual property, accountings standard 26 and disclosure of intangible assets (IPR) in financial statement. We found that there is no hard and fast rule as to who should conduct such an audit. However, for an audit to be effective it is best done by a team. Accounting standards 26 is apply on accounting treatment of IPR in India. IPR shows as Intangible Assets and Intangible Assets Under Development in balance sheet & as Research and development Expenses & Depreciation and Amortization Expenses in statement of profit and loss.

References:

1. Moerman, Lee (2006), "Accounting for Intellectual Property: Inconsistencies and Challenges", Journal of Intellectual Property Rights Vol 11, July 2006, pp 243-248.
2. Lapiţkaia, Liudmila&Leahovcenco, Alexandru (2020), "Features of intellectual property reflection in accounting and in financial statements", eastern european journal of regional studies, Volume 6/ Issue 1/June2020.
3. Nath saha, Chandra & Bhattacharya, Sanjib (2011), "Intellectual property rights: An overview and implications in pharmaceutical industry", Journal of Advanced Pharmaceutical Technology & Research, 2011 Apr-Jun; 2(2): 88–93.
4. Chudasama,Dhaval (2022), "Importance of Intellectual Property Rights", Journal of Intellectual Property Rights Law, Jan 2022, Volume 4, Issue 2, ISSN: 2582-9742.
5. Kanthababu, Dr. M., Director, "Overview of intellectual property rights (IPRs)", Centre for Intellectual Property Rights, Anna University, Chennai, web site: http://www.annauniv.edu/ipr.
6. Journal of Intellectual Property Rights (JIPR), CODEN: JIPRFG 16(3) 213-298(2011) ISSN: 0971-7544, e-ISSN: 0975-1076.
7. https://www.wirc-icai.org
8. https://www.wto.org
9. https://www.icsi.edu
10. https://unece.org

***

Dr. Umesh Kumar Agrawal
Head & Assistant Professor, Department of Commerce,
Government Vikram College, Khachrod, District- Ujjain (MP).
Hemlata Rathore
Assistant Professor, Department of Economics,
Government Vikram College, Khachrod, District- Ujjain (MP).

COVID-19 INTELLECTUAL PROPERTY RIGHTS (IPR) WAIVER: A CRITICAL REVIEW

BHAWNA SRIVASTAVA, REDDY. P.B

Abstract: Covid-19 pandemic has shocked human rights, social, and economic costs across the globe. India, with South Africa, piloted a proposal to waive key provisions of the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement on Covid-19 vaccines, drugs, therapeutics, and related technologies as a measure that it would increase access to lifesaving vaccines and other health products. Several civil society organizations including Human Rights Watch extended its support for the TRIPS waiver. Though the waiver proposal has attracted support from many WTO Members and non-governmental organizations (NGOs), but it has also demonstrated to be antagonistic and has not been permitted by all WTO Members. This article reviews the explanations put forward for the proposal before presenting counter arguments that the waiver is unnecessary, would not lessen the burden of access to real and cheap medicines and vaccines and could possibly hamper R&D and invention in the pharmaceutical sector.

Keywords: Covid-19, Intellectual Property, TRIPS, WTO, COVID-19.

Introduction: The COVID-19 pandemic has taken millions of lives and continues to imperil people's health regardless of race, colour, national origin, sex, religion or age. Its prevalence weakens our social institutions. In early 2021, Israel led the world in early vaccinations, and covid-19 cases weakened quickly. A similar pattern of vaccination and recovery was repeated across many developed countries (https://www.bloomberg.com/graphics/covid-vaccine). Unvaccinated patients met severe and complex risk of hospitalization and death during new contagious variants which caused new outbreaks. This inequality in consequences led health officials to label the current phase of Covid a "pandemic of the unvaccinated (Zamir, E. and Gillis, P., 2022).

Since the twitch of the global immunization campaign, countries have experienced inadequate access to vaccines and fluctuating degrees of success in getting doses into people's arms. In the first two years after a pandemic was professed, a dozen new vaccines were produced and more than 10 billion doses were administered. The rollout was extraordinary in its pace and possibility, but distribution has been uneven. Countries with the highest incomes have been vaccinated 10 times faster than those with the lowest (Solís Arce, J.S et al 2021). Distributing billions of extra doses to poor nations remains one of the major challenges for global health. The destruction caused by the second Covid wave in India and the possibility of new mutant variants impacting the world at succeeding waves has prompted out the debate on how countries can guarantee cheap and equitable access to key drugs and vaccines. In times of such crisis, one of the key priorities for any country is ensuring effective management and rapid

availability of cost-effective medical supplies. Inoculating the masses completely has been one of the biggest challenges for governments across the globe (Thakur, V et al 2021).

The subject of intellectual property rights (IPRs) is posturing a big task in manufacturing of the required drugs and vaccines. In such a situation, India and South Africa wished-for a provisional abandonment of the World Trade Organisation's (WTO's) treaty on trade related aspects of intellectual property rights (TRIPS). Waiver has been also wanted for other Covid prerequisites such as vaccines, medicines, diagnostic kits, personal protective equipment ((PPE) kits and ventilators (https://timesofindia.indiatimes.com).Finally, on 5th May 2021, the US Biden government declared its support for waiving intellectual property rights and patents for COVID-19.

The decision is a revolution in India and South Africa's efforts to get World Trade Organisation (WTO) member countries to agree to such a waiver to fight the pandemic equitably (Burki, T.K., 2021). However, the European commission (EU) has constantly opposed India and South Africa's proposal at the World Trade Organization (WTO) to temporarily waive certain intellectual property rules under the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) (Paradise, J. and Conroy, C., 2022). However, the arguments raised by the European Commission to defend its opposition are inaccurate, misleading, and misguided. In this paper, we discourse the arguments individually by concentrating on the following seven truths.

Methodology: The present review paper is constructed on the basis of a systematic and thorough literature survey on Google Scholar, news media, World trade organisation(https://www.wto.org), NITI Ayog (https://niti.gov.in) and world intellectual property organisation (https://www.wipo.int/) to obtain the up-to-date literature. Information was also obtained from various blogs. A separation of all applicable literature was selected, sorted by part, further reviewed, and assembled in the document. Information was also gained from local print media and periodicals.

Results and Discussion: The results our literature survey yield following truths against the arguments of European Commission (EU) which believe in waiver policy is unnecessary.

1. ***Intellectual Property Rights (IPR) are Presently A Barrier:*** The European Commission (EU) argue that existing IP rights are needed for the promotion of innovation. There are many pharmaceutical companies that manufacture to produce Covid-19 vaccines and other health products in India, Bangladesh, and Israel. But they are unable to contribute due to lack of the right licenses. So, IP is a barrier to them. Intellectual property rights (IPR) are presently a barrier to quickly scaling up and expanding the production of Covid-19 products and vaccines (Le, V.A. and Samson, L., 2021). Several existing examples show that how enforcement of IP rules blocked, delayed or restricted the production of chemical reagents used for Covid-19 tests, ventilator valves, treatments and vaccines. IP restrictions have not only led to vaccine shortages but also led to shortages of key raw materials like bioreactor

bags and filters (Bown, C.P. and Bollyky, T.J., 2022). Instead of vaccine producers being held back by an intrinsic lack of manufacturing and technological capability.

2. ***Waiver Will Pave The Way for Speedy Technology Transfers and Manufacturing***: The waiver by itself will not routinely upshot in extensive and expanded manufacturing, but it will break complex global rules governing IP and exports and give administrations freedom to work together on technology transfers and exports without fearing trade-based punishment. It will help to lessen the dependency on any one nation or province for therapeutic products and mitigate the risks of transfer limitations. With the onset of new variants, the IPR waiver will permit governments to be prepared for a long-term response to Covid-19. The IP waiver dramatically increased the manufacturing of mRNA and other vaccines in a relatively short period of time (Jecker, N.S. and Atuire, C.A., 2021). Waiving certain IP rules in the TRIPS agreement over the next three years could aid create various regional manufacturing hubs and protect the world from future pandemics, supply chain disruptions, and resulting economic disaster. However, experts' express concerns that broadening the space of producers may lower or compromise WHO quality standards.
3. ***Vaccine Nationalism' and COVAX Facility****:* The present battle to store Covid-19 vaccines hears back to a similar situation that happened in 2009 during the H1N1 flu pandemic. Developed countries manage to secure doses of vaccines for its own citizens or residents and prioritises its own domestic markets before they are made available in other countries (Chohan, U.W., 2021). This is done through pre-purchase contracts between a government and vaccine manufacturers. For instance, the United States, the United Kingdom, Japan, and the European Union have spent tens of billions of dollars on deals with vaccine front runners such as Pfizer Inc, Johnson & Johnson and AstraZeneca Plc even before their efficacy is proven. Such pre treaties will make the early few vaccines unaffordable and inaccessible to poor and developing countries. If nations with a huge number of cases lag in gaining the vaccine, the pandemic will continue to disrupt global supply chains and, as a result, financial prudence around the world. Hoarding Covid-19 vaccines while excluding others would deepen the health crisis (Su, Z et al 2021).

   COVAX is the vaccines pillar of the Access to COVID-19 Tools (ACT) Accelerator (WHO.2020). The ACT Accelerator is a ground-breaking global collaboration to quicken the development, production, and equitable access to COVID-19 tests, treatments, and vaccines. COVAX is co-led by Gavi, the Coalition for Epidemic Preparedness Innovations (CEPI), and WHO to accelerate the development and manufacture of COVID-19 vaccines, and to guarantee fair and equitable access for every country in the world. The COVAX facility targets to deliver a minimum of two billion doses of safe and effective COVID-19 vaccine that has passed required regulatory approval by the top of 2021 (Wouters, O.J.,2021).The vaccine will be offered to all nations in equal proportion to their population. The doses are going to be later made available to support the country's need and vulnerability to the COVID-19 threat.

Benefits for participating nations:

- The COVAX facility will ensure all the participating nations the simplest chance of gaining fast access to doses of the foremost effective COVID-19 vaccine.

- The collaboration will accelerate the event and manufacture of COVID-19 vaccines and ensure fair and equitable access to vaccines for each country within the world.

4. ***The Temporary Waiver Will Not End Monopolies***: Pharmacological companies and their lobbying groups claim that patent monopolies to commercialize their discoveries shoot invention and that waiving such monopoly rights during a shocking global pandemic, "would endanger future therapeutic innovation, making us more susceptible to other ailments (Kianzad, B. and Wested, J., 2021)." It is a wrong to humankind to claim scientists and researchers would have no interest in developing lifesaving vaccines and drugs without the promise of patent monopolies. Jonas Salk, (the inventor of the polio vaccine), did not claim any monopoly over it and gave it away for free. In fact, IP rights were never designed to be used during pandemics (Bonnemain, B.G., 2022). "Patents erect barricades against contestants when what is needed is technological co-operation, binding our global scientific and technological capabilities to fight the virus together.
5. Some people argue that patents are incentives to scientists to enhance innovation (Trerise, J., 2016). But they ignore the fact that billions of public monies have backed research, development, and delivery of Covid-19 vaccines and other health technologies. For example,97.1 to 99 percent of the funding was given toward research and development of the Oxford-AstraZeneca vaccine. Johnson & Johnson received an estimated US$ billion (€820 million) in funding from the US government for development of its Covid-19 vaccine (Brüssow, H., 2021). Moderna's vaccine was also significantly subsidized by public money from the US government (Light, D.W. and Lexchin, J., 2021). Even where public money was not directly given for research and development, experts say that governments' advance market commitments significantly de-risked the investments of pharmaceutical companies, by providing them a guaranteed market even before their vaccines were proven to be safe and effective. So, the public money spent for the development of the health technologies should be needed for the Covid-19 response, and that public money should be used to maximize public moral.
6. ***Rationalization Compulsory Licensing Systems***: Compulsory licensing is when Compulsory licensing (CL) is a process that allows governments to license third parties (that is, parties other than the patent holders) to produce, use and sell a patented product or process. By that, producers can manufacture patented drugs without the requirement of consent of patent owners. As per the WTO's agreement on intellectual property, TRIPS allows countries to issue compulsory licenses to domestic producers.

   Section 84 of the (Indian) Patent Act,1970: It provides that after three years from the date of the grant of a patent, any person can apply for the compulsory license, on certain grounds:

- the reasonable requirements of the public with respect to the patented invention have not been satisfied
- the patented invention is not available to the public at a reasonably affordable price
- Lastly, the patented invention is not used in the territory of India.
- However, compulsory licenses can also be granted under exceptional circumstances.

   ***Section 92 of the (Indian) Patent Act,1970*:** It authorizes the central government to issue a compulsory license at any time after the grant of the patent, in the case of:

- National emergency; or
- Extreme urgency; or
- Case of public non-commercial use.

After the government issues a notification under Section 92 the companies can approach the government for a license. They can start manufacturing the patented drug by reverse-engineering the product. In India, Compulsory licensing is allowed and regulated under the Indian Patent Act, 1970.

7. ***Voluntary Licensing***: These are non-exclusive or exclusive licences granted by patent holders to third parties to manufacture, import, and sell pharmaceutical products at their choice. Voluntary licensing enables goodwill among Patent right holding companies and general manufacturers (Kim, D.D., 2016). It will allow easy flow of "technology transfer" thereby reducing the cost and time taken to manufacture vaccines. **Voluntary licensing can make essential medical drugs more affordable.**The case study of AIDS drugs can better explain how voluntary licensing can make medical drugs/ vaccines more affordable (Chien, C., 2003). For instance, tenofovir, the first-line treatment for HIV/AIDS, has come down in price from $200-$500 per person per year to $39 per person per year in low-income countries (Gostin, L.O. and Rai, A.K., 2020).
8. ***Easing Export Restrictions:*** Since the twitch of the Covid-19 pandemic, the US has implemented export restrictions on raw materials for vaccine production which affected the production and distribution of covid-19 vaccines (Ibrahim, I.A., 2021). While export restrictions have intricated global access to medicines, policies to ease limitations do not abolish the urgent need to expand and diversify manufacturing through the sharing of IP and open, nonexclusive licensing. Indeed, any given country or region's export restrictions would be far less important or hypothetically damaging if we had larger and more diversified global manufacturing capacity.

Conclusions: Patents are not absolute ownership rights. They are a temporary contract that balances the public interest with the claims of the innovator. Basically, this waiver of Covid-19 vaccine enables the government to license patents of the vaccine to specific companies. This is done to speed up manufacturing and ensure equitable pricing. But lack of a true intellectual property waiver, proposed in October 2020 covering all COVID-19 medical tools and including all countries even during a pandemic was a disappointing tool for people.

In general, the exclusive rights are only applicable in the country or region in which a patent has been filed and granted in accordance with the law of that country or region. Further, billions of dollars are spent through public money to develop COVID-19 vaccines. Considering the above facts, patent owners should enable the mass production of affordable vaccines by granting voluntary licensing for Covid-19 vaccines.

References:

1. https://www.bloomberg.com/graphics/covid-vaccine).
2. Zamir, E. and Gillis, P., 2022. The pandemic of the unvaccinated: a Covid-19 ethical dilemma. *Heart & Lung*."
3. Solís Arce, J.S., Warren, S.S., Meriggi, N.F., Scacco, A., McMurry, N., Voors, M., Syunyaev, G., Malik, A.A., Aboutajdine, S., Adeojo, O. and Anigo, D., 2021. COVID-19 vaccine acceptance and hesitancy in low-and middle-income countries. *Nature medicine*, *27*(8), pp.1385-1394).
4. Thakur, V., Bhola, S., Thakur, P., Patel, S.K.S., Kulshrestha, S., Ratho, R.K. and Kumar, P., 2021. Waves and variants of SARS-CoV-2: understanding the causes and effect of the COVID-19 catastrophe. *Infection*, pp.1-16.).
5. https://timesofindia.indiatime.
6. Burki, T.K., 2021. Ensuring fair distribution of COVID-19 vaccines: is an intellectual waiver the answer?. *The Lancet Respiratory Medicine*, *9*(7), p.e64.
7. Paradise, J. and Conroy, C., 2022. Stumbling over Trips: The International Intellectual Property Waiver Petition and the US Executive. *Mich. St. Int'l L. Rev.*, *30*, p.249.
8. https://niti.gov.in
9. https://www.wipo.int
10. Le, V.A. and Samson, L., 2021. Are IPRs and patents the real barriers to COVID-19 vaccine supplies? *Manchester Journal of International Economic Law*, *18*(2).
11. Bown, C.P. and Bollyky, T.J., 2022. How COVID-19 vaccine supply chains emerged in the midst of a pandemic. *The World Economy*, *45*(2), pp.468-522.
12. Jecker, N.S. and Atuire, C.A., 2021. What's yours is ours: waiving intellectual property protections for COVID-19 vaccines. *Journal of Medical Ethics*, *47*(9), pp.595-598.
13. Chohan, U.W., 2021. Coronavirus & vaccine nationalism.
14. Su, Z., McDonnell, D., Cheshmehzangi, A., Li, X., Maestro, D., Šegalo, S., Ahmad, J. and Hao, X., 2021. With great hopes come great expectations: Access and adoption issues associated with COVID-19 vaccines. *JMIR Public Health and Surveillance*, *7*(8), p.e26111.
15. WHO. 2020. (mondiale de la Santé, O. and World Health Organization, 2020). The Access to COVID-19 Tools (ACT) Accelerator–Dispositif pour accélérerl'accès aux outils de luttecontre la COVID-19 (Accélérateur ACT). *Weekly Epidemiological Record= Relevé épidémiologiquehebdomadaire*, *95*(38), pp.459-460.
16. Wouters, O.J., Shadlen, K.C., Salcher-Konrad, M., Pollard, A.J., Larson, H.J., Teerawattananon, Y. and Jit, M., 2021. Challenges in ensuring global access to COVID-19 vaccines: production, affordability, allocation, and deployment. *The Lancet*, *397*(10278), pp.1023-1034.
17. Kianzad, B. and Wested, J., 2021. 'No-One Is Safe until Everyone Is Safe'-Patent Waiver, Compulsory Licensing and COVID-19. *EPLR*, *5*, p.71.
18. Bonnemain, B.G., 2022. Drug Patents: A Historical Look at a Controversial Subject. *Erciyes Medical Journal*, *44*(1), pp.1-3.
19. Trerise, J., 2016. The influence of patents on science. *Politics, Philosophy & Economics*, *15*(4), pp.424-450.

20. Brüssow, H., 2021. COVID-19: vaccination problems. *Environmental microbiology*, *23*(6), pp.2878-2890.
21. Light, D.W. and Lexchin, J., 2021. The costs of coronavirus vaccines and their pricing. *Journal of the Royal Society of Medicine*, *114*(11), pp.502-504.
22. Kim, D.D., 2016. Voluntary licensing of pharmaceuticals: The strategy against compulsory licensing. *Am. U. Intell. Prop. Brief*, *8*, p.63.
23. Chien, C., 2003. Cheap drugs at what price to innovation: does the compulsory licensing of pharmaceuticals hurt innovation. *Berkeley Tech. LJ*, *18*, p.853.
24. Gostin, L.O. and Rai, A.K., 2020. Expanding Access and Reducing Prices for Drugs to Prevent HIV: Should Government Enforce Its Patent Rights Against the Pharmaceutical Industry? *JAMA*, *323*(9), pp.821-822.
25. Ibrahim, I.A., 2021. Overview of export restrictions on COVID-19 vaccines and their components. *American Society of International Law Insights*, *25*(10).

***

Bhawana Srivastava
Department of Zoology, DAV College, Kanpur U.P.
Reddy. P.B
Department of Zoology, Government Arts and Science College. Ratlam. (M.P)
Email: reddysirr@gmail.com

ASSESSMENT OF US' DIGITAL MILLENNIUM COPYRIGHT ACT (DMCA)

VASUDEV JATAWAN, REDDY, P.B

Abstract: The proficiency of unauthorized copying has significantly increased due to the digitalization of copyrighted works like text, music, and videos. It is now simpler to share files, copy and paste from a web page, and share digital information. The creation of copies is involved in even common activities like sending emails and browsing the internet. The infringers can inexpensively produce thousands of copyrighted works via the Internet. An international treaty (the World Intellectual Property Organization Copyright Treaty), a European Community directive (the Information Society Directive), and significant copyright legislation in the United States (the Digital Millennium Copyright Act) all aim to provide legal protection against copyright infringement. Although national intellectual property laws are generally the same, copyright laws and regulations vary from jurisdiction to jurisdiction. By irrationally restricting access to information and knowledge, overprotection of copyright could pose a threat to democratic traditions and social justice moralities. Competition, innovation, and creativity are limited if copyright protection is overly strict. It is important to strike a balance between copyright users' needs for reasonable access to copyright materials and the interests of copyright owners in receiving a fair reward for their efforts. The present paper explores the key points of DMCA and how does the World Intellectual Property Organization (WIPO) ensure the protection of content on the internet and WIPO treaties. It also compares and discusses various approaches to the problem of reducing digital copyright infringement without limiting creativity and innovation.

Keywords: DMCA, Digitalization, Criminalization, Copyright Infringement, And Copyright Legislation.

Introduction; Stealing of goods, CD, DVD or pen drives deliberately in a store or shop is illegal. Nevertheless, many people don't feel the same way about downloading free movies and music from the Internet. Stealing is simply theft, in and of itself irrespective of whether it is carried out in person or online.

Digital Millennium Copyright Act (or DMCA) is a rather controversial law by US government enacted in 1998 by then-president Bill Clinton. The aim of DMCA is to balance the interests of copyright owners and users and look into any sort of copyright infringement that surface in the digital world including movies, music, and transcript. More importantly, you are a part of the law because there is a good chance that you are in violation of the law, even if you are unaware of it (Hazelwood Jr, C.W., 2009). Simply put, you have broken the law if you have downloaded files that are protected by copyright without paying for them. You have broken the law if you gave your friends music that you downloaded and burned to a CD. You've obviously broken the law if you downloaded a movie to watch on your computer.

Recently, the Union Minister for Electronics and Information Technology Sri. Ravi Shankar Prasad was locked out of his Twitter account for an hour allegedly over a notice received for **violation of the US' Digital Millennium Copyright Act (DMCA) 1998.** However, the union minister claimed that Twitter's actions were in gross violation of Rule 4(8) of the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules 2021 where they failed to provide any prior notice before denying to access the account.

." The present paper explores the key points of DMCA and how does the World Intellectual Property Organization (WIPO) ensure the protection of content on the internet and WIPO treaties. It also compares and discusses various approaches to the problem of reducing digital copyright infringement without limiting creativity and innovation.

Methodology: In this assessment, several data were obtained from Research Gate, Google Scholar, websites of DMCA (dmca.com), Copy rights (copyright.gov.in), digital.gov.in, and congress.gov.in. Relevant information was also obtained from various blogs, news media, print media, periodicals and you tube. The search was conducted using the keywords like DMCA, copy right legislation, and IPR acts. All appropriate literature was selected, sorted by part, further reviewed, and assembled in the form a document.

Results and Discussions: The Digital Millennium Copyright Act (or DMCA is a law passed in the US and is among the world's first laws recognising Intellectual Property (IP) on the internet (Congress, U.S., 1998). The DMCA supervises the execution of two 1996 treaties signed by World Intellectual Property Organisation (WIPO) member nations (the Copyright Treaty and the Performances and Phonograms Treaty (Freeman, E.H., 2002). Both the treaties require member nations and signatories to provide in their respective jurisdictions, protection to IP that may have been created by citizens of different nations who are also co-signatories to the treaty (Freeman, E.H., 2002). It also obligates that signatories to the treaty ensure ways to prevent circumvention of the technical measures used to protect copyrighted work (Gorski, D., 2005). It also provides the necessary international legal protection to digital content.

Any content creator of any form, who believes that their original content has been copied by a user or a website without authorisation can file an application citing their intellectual property has been stolen or violated. In the with a proof of them being original creators. Since these companies operate in nations which are signatories to the WIPO treaty, they are obligated to remove the said content if they receive a valid and legal DMCA takedown notice (Urban, J.M. and Quilter, L., 2005).

WIPO Treaties: World Intellectual Property Organisation (WIPO) is one of the oldest specialised agencies of the United Nations**.** It was created in 1967 to encourage creative activity, to promote the protection of IP throughout the world. It currently administers 26 international treaties**.** As of date, 193 nations across the world, including India, are members of WIPO. WIPO members had agreed upon two treaties, namely the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty. India is a member of

both the treaties. Both the treaties require member nations and signatories to provide in their respective jurisdictions, protection to IP that may have been created by citizens of different nations who are also co-signatories to the treaty (Cohen, J.E., 1999).Protection must not be any less in any way than the one being given to a domestic copyright holder. It also obligates that signatories to the treaty ensure ways to prevent circumvention of the technical measures used to protect copyrighted work. It also provides the necessary international legal protection to digital content (Grey, C., 2022). The rapid commercialization of the internet in the late 1990s started with static advertisement panels being displayed on the internet. It became important for website owners to get the user to spend more time on their webpage. For this, fresh content was generated by creators and shared over the Internet. The problem started when the content would be copied by crooked websites or users, who did not generate content on their own (Kyryliuk, A et al 2019). Further, as the Internet expanded worldwide, websites from countries other than the one where the content originated, also started to copy the unique content generated by the websites. To avoid this and bring to task the unauthorized copiers, the members of WIPO, which was established in 1967, also agreed to extend the copyright and intellectual property protection to digital content (Hombal, S.G. and Prasad, K.N., 2012).

Procedure to Generate a DMCA Notice:

- Any content creator of any form, who believes that their original content has been copied by the user or a website without authorization can file an application citing their intellectual property has been stolen or violated.
- Users can either approach the website on which the content has been hosted, or third-party service providers like DMCA.com, which utilize a team of experts to help take down the stolen content for a small fee.
- In the case of social media intermediaries like Facebook, Instagram or Twitter, content creators can directly approach the platform with proof of them being original creators.
- Since these companies operate in nations that are signatories to the WIPO treaty, they are obligated to remove the said content if they receive a valid and legal DMCA takedown notice.
- Platforms, however, also give the other users against whom allegations of content cheating have been made, a chance to reply to the DMCA notice by filing a counter-notice.
- The platform shall then decide which party is telling the truth and shall accordingly, either restore the content or keep it hidden.

Conclusions: The Digital Millennium Copyright Act (DMCA) is one of the most significant laws touching the Cyberspace and technology added as a supplementary to the U.S. Copyright law on October 28, 1998. It provides a system for removing abuse content that doesn't require copyright holders to directly sue sites using work without permission and also establishes protections for service providers such as web hosts and Internet service providers (ISPs) who are not directly responsible for copyright infringement. It makes it illegal to avoid any copy protection and therefore is applicable only to the websites hosted in the US.We as internet users in India are not only governed by the Intellectual Property Laws in India like the

Copyrights Act, 1957 or the Patents Act, 1970 but also the Digital Millennium Copyright Act, 1998, as it applies to content originating from the USA.

References:

1. Cohen, J.E., 1999. WIPO Copyright Treaty Implementation in the United States: Will Fair Use Survive? *European Intellectual Property Review*, *21*, pp.236-247.
2. Congress, U.S., 1998. Digital millennium copyright act. *Public Law*, *105*(304), p.112.
3. Freeman, E.H., 2002. The digital millennium copyright act. *Information Systems Security*, *11*(4), pp.4-8.
4. Gorski, D., 2005. The Future of the Digital Millennium Copyright Act (DMCA) Subpoena Power on the Internet in Light of the Verizon Cases. *Rev. Litig.*, *24*, p.149.
5. Grey, C., 2022. Let's Play and Livestreaming: Does Game Developer Endorsement Preclude a Claim of Copyright Infringement under the DMCA?. *Tex. Rev. Ent. & Sports L.*, *23*, p.89.
6. Hazelwood Jr, C.W., 2009. Fair Use and the Takedown/Put Back Provisions of the Digital Millennium Copyright Act. *Idea*, *50*, p.307.
7. Urban, J.M. and Quilter, L., 2005. Efficient process or chilling effects-takedown notices under Section 512 of the Digital Millennium Copyright Act. *Santa Clara Computer & High Tech. LJ*, *22*, p.621.
8. Kyryliuk, A., Baadzhy, N., Honhalo, R., Kapustina, N. and Galupova, L., 2019. Protection of copyright on the Internet. *Amazonia Investiga*, *8*(24), pp.464-470.
9. Hombal, S.G. and Prasad, K.N., 2012. Digital copyright protection: Issues in the digital library environment. *DESIDOC Journal of Library & Information Technology*, *32*(3).

***

Vasudev Jatawan, Reddy, P.B
Government College, Nagda, Ujjain. M.P
Email: reddysirr@gmail.com

ASSESSMENT OF ARGI IPR THE *PROTECTION OF PLANT VARIETIES* & *FARMERS' RIGHTS* (*PPV&FR*) ACT, (2001)" IN RELATION TO REVOCATION OF PEPSICO'S POTATO

BHAWNA SRIVASTAVA

Abstract: The plant variety breeders' market is steadily dominated by a few of large corporations worldwide including in India. Developing countries like India want to protect their farmers' rights to use, sow and sell the produce, including seeds, of any plant variety they produce, even if International intellectual property rights-registered ones. Directed by TRIPS, India created a sui generis system for protection of plant variety known as "The *Protection of Plant Varieties* & *Farmers' Rights* (*PPV&FR*) Act, (2001) *which contain* 11 chapters and 97 clauses. The law aimed to create an effective arrangement for the protection of plant varieties, the rights of farmers and plant breeders and to inspire the growth of new varieties of plant. The act also establishes Protection of Plant Varieties and Farmers' Rights Authority under the Ministry of Agriculture and Farmers Welfare. Farmers are entitled to save, use, sow, re-sow, exchange, share or sell their farm produce, including seed of protected varieties, in the same manner as they were enables to before the coming into force to the PPV&FR Act (**https://www.livelaw.in/columns/).**

Nevertheless, the act faced its biggest test when PepsiCo India started legal proceedings under section 64 against potato farmers of Gujarat for "illegally" growing its potato variety registered under the PPVFRA. However, farmers have cited Section 39 of the Protection of Plant Varieties and Farmers' Rights (PPV&FR) Act,2001 which specifically says that a farmer is allowed to grow and sell any variety of crop or even seed as long as they don't sell branded seed of registered varieties. Recently, the PPV&FR authority revoked the certificate on multiple grounds being against public interest.This review article shows how national laws based on the UPOV Convention negatively affect smallholder farmers and over the long-run affects the realisation of many countries' policy objectives such as poverty alleviation and human rights protection. We argue that countries should develop appropriate laws in line with their national objectives before committing to any bilateral or regional obligation to accord to the UPOV Convention. Further, we suggest that along with protecting farmers from the detrimental effect of PVP laws, national laws should be designed in such a way that farmers make use these laws and benefit from the PVP regime. We also suggest to review this two-decade old and add some new provisions to ensure the protection to farmers' Rights, and promote EoDB (Ease of Doing Business) in Agriculture sector.

Keywords: Agri resources, Farmer rights, IPR, PEPSICO, PPVFR.

Introduction: The plant biodiversity was a unique resource and is the lifeline of human population providing a sustainable ecosystem to meet the nourishment, clothing, housing, dietary, and health requirements (Heywood, V.H., 2011). Our ancestors at all times considered plant genetic resources (PGR) as gift to be the tradition of humanity. The expansion of

biodiversity is closely linked with the improvement of human evolution. In the past, people started selecting plants from the existing natural biodiversity for their day-to-day needs. In ancient times, when men used to go hunting, it was women who developed the art of selecting and collecting plant species according to the needs of the family/society. Together with the advancement of evolution, a natural evolutionary change or progression or alignment took place in nature due to human interference in different ecologies and changing environmental and biotic conditions (Wong, B. and Candolin, U., 2015).

Among developing countries, India is considered as a framework of agricultural biodiversity, acknowledged for its rich heritage of plant, animal, and fish genetic resources. India is the world's fifth largest market for seeds, plant varieties and vegetatively propagated varieties (potato is one such since the tuber itself is the "seed"). The market size is estimated at $3 billion a year, although the volume is significant, since India is largely a low-value seeds market. The seed sector is also a large one, with more than 540 registered seed companies operating in India (https://www.thehindubusinessline.com/opinion).

Within this framework, India has designated to put in place a sui generis system in the form of The Protection of Plant Varieties and Farmers' Rights (PPV & FR) Act, one that has the declared objective of protecting farmers' rights. The Indian PPV & FR Act is aimed to accelerate agricultural development in the country, protect plant breeders' rights, stimulate investment for research and development both in public and private sector for the development new of plant varieties. More and better varieties for farmers and growers; increased income for farmers; rural employment and economic development; development of international markets. The Plant Breeders' Rights Act provides plant breeders the exclusive right to produce and sell new plant varieties which they have developed. In other words, this act provides exclusive rights to the breeder for commercial production and marketing of his variety. The Act only restricts farmers from selling seeds of a protected variety in packages or containers with labels bearing the brand name of a protected variety.

The farming system in developing countries is characterized by small-scale farming, which relies heavily on the informal seed system. Legal experts, believe that intellectual property rights protection is important to incentivize the development of new plant varieties, a process which takes several years, for better harvests. Most actually multiply seeds obtained from government research labs and agricultural universities. Over and above the known entities, there are also numerous operators, who operate with stock often obtained illegally (Pray, C.E. and Nagarajan, L., 2012).

This paper reviews the PPV & FR Act in the perspective of farmers' right and privilege status of farmers' variety registration and consequence of this act in the farming sector in India. The breeding activities and exploitation of new varieties are the decisive factors for improving rural income and their overall economic development.

Methodology and Data Sources: We carried out a systematic peer-reviewed literature survey using online databases including Google Scholar, news media, World trade organisation(https://www.wto.org), NITI Ayog (https://niti.gov.in) and world intellectual property organisation (https://www.wipo.int/) to obtain the up-to-date literature. Information was also obtained from various blogs. A separation of all applicable literature was selected, sorted by part, further reviewed, and assembled in the document. Information was also gained from local print media and periodicals.

Results and Discussions: This Indian representation isn't just strange with International Union for the Protection of New Varieties of Plants (UPOV 1978) but it also has suitable provisions for safeguarding the benefits of corporate sector and the farmers. The Act takes account of the commitments of both farmers and breeders in plant breeding and also provides for the implementation of TRIPs, which support the particular financial interests of private, open and organizations, and of farmers obliged to acquire property.

The PPVFRA was enacted in 2001 after engaging in several debates in Indian agriculture. Later, the country joined the World Trade Organisation in 1995 and agreed to implement the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). The choice before India was to either enact a law that protected the interests of farming communities or to accept the framework of plant breeders' rights given by the International Union for Protection of New Plant Varieties (UPOV Convention). The latter option was rejected principally because the current version of UPOV 1991 denies the farmers the freedom to reuse farm-saved seeds and to exchange them with their neighbours. Consequently, in the PPVFRA, India introduced a chapter on Farmers' Rights, which has three limbs:

1. Farmers are recognised as plant breeders and they can register their varieties.
2. Farmers engaged in the conservation of genetic resources of landraces and wild relatives of economic plants and their improvement through selection and preservation are recognised and rewarded; and,
3. Protecting the traditional practices of the farmers of saving seeds from one harvest and using the saved seeds either for sowing for their next harvest or sharing them with their farm neighbours.

PepsiCo Issue: The multinational company applied for the registration of two hybrid potato varieties FL 1867 and FL 2027 in February 2011.These varieties were registered under the PPVFRA in February 2016 for a period of 15 years. PepsiCo has prosecuted Gujarati farmers asking them to pay ₹1.05 crore under Section 64 for alleged violation of Intellectual Property Rights. The company has said that farmers overstepped its patent rights by growing the potato variety used in its product called as Lays chips. The section 64 prohibits anyone other than the breeder of seeds or a registered licensee of that variety to sell, export, import or produces such variety. However, farmers groups have said that section 39 of the Protection of Plant Varieties and Farmers' Rights (PPV&FR) Act, 2001 allows farmers to grow and sell any variety of crop or even seed as long as they don't sell branded seed of registered varieties. The farmers have requested the government to interfere on their behalf and ask Protection of Plant Varieties and

Farmers' Rights Authority (PPV&FRA) to make a submission in court and fund legal costs through the National Gene Fund. Also, the FC-5 was registered as an "Extant Variety", which is also a "Variety of Common Knowledge" (Singh, K.K., 2020). It implies that the said variety of potato was already available in the country before it was registered and that there was "common knowledge" about this variety in the country. The authority ruling came over a petition filed by farm activist Kavitha Kuruganti, opposing that the grant of the certificate of registration to PepsiCo India was based on incorrect information furnished by it. She has also opposed that the intellectual property right (IPR) granted to PepsiCo India on a potato variety was not as per provisions laid down for registration and was against the public interest (Das, K., 2020).

- The FL-2027 variety of potatoes, used in Lays potato chips, was grown by about 12,000 farmers with whom the company had an exclusive contract to sell seeds and buy back their produce.
- In 2016, the company registered the variety under the PPV&FR Act, 2001.
- Alleging that farmers who were not part of its "collaborative farming programme" were also growing and selling this variety in Gujarat, PepsiCo had filed rights infringement cases against nine farmers.
- The Frequently Asked Questions or FAQ document had claimed that "only small and marginal farmers involved in subsistence farming" are eligible to claim rights under the Protection of Plant Varieties and Farmers Rights (PPV&FR) Act, 2001. The FAQ also said these rights are not for "commercial farmers" and are only meant for "small scale" use.
- Pepsico cited the FAQ document to justify dragging more than nine farmers to court in 2018 for growing and selling its registered variety without its consent.
- The company faced product boycotts and major protests across the political spectrum for slapping a ₹4.2 crore lawsuit against four farmers, and ultimately withdrew all cases after government intervention just before Lok Sabha elections in May 2019.

Significance of PPV&FR Act:

- India's choice in this regard is a conscious departure from UPOV (International Union for the Protection of New Varieties of Plants) 1991.
- The UPOV 1991 gives breeders the right to monitor all aspects of a farmer's activity and blocks the scope for farmers to re-use seeds without their permission.
- But the PPV&FR Act was formulated to give farmers free access to seeds. Japan and Canada, besides other developing countries, have also voiced their reservations against UPOV. The argument that food should be kept out of rigid patent-like frameworks gains ground here.
- It is not clear whether enhanced breeders' rights under UPOV have enhanced research and public welfare along expected lines. But monopoly concerns as well as those related to health and the environment have assumed centre-stage over time.
- To see in the Green Revolution context in India, indigenous varieties of rice have been rendered extinct by the propagation of hybrids.

ISBN 978-93-90146-40-6

Way Ahead:

- A biodiversity-rich nation like India must shift its agriculture from a high-yield ideal to a high-value one to minimise environmental harm while maximising nutritional gains and farmer welfare.
- Conservation and improvement of traditional/desi (heterogenous) seeds *in situ* should be promoted.
- Small farmers must be educated and encouraged with proper incentive structures in this line. At present, in the costume of protecting this diversity against biopiracy, India is preventing its effective use.
- A permanent record-keeping system, like blockchain software is needed for tracking of seeds/propagation materials and the genetic resources.
- Smart-contract facilitated micropayments could ensure that monetary returns come in from users and buyers of these seeds, from around the globe. The monetary returns would effectively incentivise continuous cultivation and improvement of indigenous seeds. It will also ensure sustainable growth of agriculture and of rural communities.
- India's invaluable traditional ecological knowledge systems need to be revived. It should be made a part of mainstream agricultural research, education and extension services. (E.g., the know-how contained in ancient Indian treatises like the Vrikshayurveda and the Krishi Parashar).
- The revival of these technologies is central to promoting sustainable 'high value' agriculture.
- Government efforts should balance among the aspects of providing for new varieties, farmers rights, and environmental concerns in this regard.

Further, we suggest that along with protecting farmers from the detrimental effect of laws, national laws should be designed in such a way that farmers make use these laws and benefit from the IPR regime. We also suggest to review this two-decade old and add some new provisions to ensure the protection to farmers' Rights, and promote EoDB (Ease of Doing Business) in Agriculture sector.

References:

1. Das, K., 2020. The global quest for green gold: implications of bioprospecting and patenting for indigenous bioresources and knowledge. *Society and Culture in South Asia*, *6*(1), pp.74-97.
2. Heywood, V.H., 2011. Ethnopharmacology, food production, nutrition and biodiversity conservation: towards a sustainable future for indigenous peoples. *Journal of ethnopharmacology*, *137*(1), pp.1-15.
3. https://www.thehindubusinessline.com/opinion
4. Pray, C.E. and Nagarajan, L., 2012. Innovation and research by private agribusiness in India. *IIFPRI, WA, USA*.

5. Singh, K.K., 2020. The biotechnology sector in India. In *Forgotten Intellectual Property Lore*. Edward Elgar Publishing.
6. Wong, B. and Candolin, U., 2015. Behavioral responses to changing environments. *Behavioral Ecology*, *26*(3), pp.665-673.

***

Bhawna Srivastava
Department of Zoology, DAV College, Kanpur U.P.
Email: bhawnasrivastava11@gmail.com

A COMPARATIVE ANALYSIS OF AWARENESS OF INTELLECTUAL PROPERTY RIGHTS AMONG THE SCIENCE STUDENTS OF METROPOLITAN CITY AND TIER II/III CITIES OF UP

DR. SARAS, DR. PUNEET MOHAN, DR. NAMITA SRIVASTAVA

Abstract: The study is conducted among the science students of undergraduates and postgraduates to critically examine the comparativeawareness of the level of intellectual property rights in Delhi, a metropolitan city, and tier II and tier III cities of Western UP.
The study also covers the broad aspects of IPR, i.e. patent, copyright, trade mark etc. Since, for the last five years, there has been a trend of establishing Entrepreneurship cells at colleges and universities, there is a humble effort to find out the psychodynamics of students who wish to establish their own ventures. It also reveals the anxiety level of students who share their valuable idea with their professors/in charge of E cell in the cell of college or university with/without signing the non-disclosure agreement. The study reveals some eye-opener correlations and analysis related to the awareness and the difference between the expected and actual perceived value of students in their colleges/ universities.

Keywords: IPR, IPR awareness, E Cell, Non-disclosure Agreement.

Introduction: An IP right holder can realize value from its intellectual assets through utilizing it internally for its own processes or share it externally through provision of goods and services to customers. The latter can be achieved through legal mechanisms such as licensing or assignment.

In today's globally competitive environment, intellectual property has placed itself on a pedestal in the context of economic growth and is becoming increasingly important. Intellectual Property (IP) is the fuel that powers the engine of prosperity, fosteringinvention and innovation. The increasing significance of intangible assets in the global economy is forcing business organizations to actively manage their IP as a key driver for building and sustaining their competitive advantage and achieving superior performance.
The generation of IP largely takes place at the national level through small, medium and big industries, academic institutions, research institutions and individuals. Most of them in the country have not yet evolved their IP strategies and ecosystems in terms of effective facilitating services for all sectors including MSMEs and start-ups, creating awareness, conducting training programmes. States needs to maximize the benefits from their intellectual property by stimulating higher levels of innovation through a judicious system of rewards, ensuring timely and effective legal protection for IP and leveraging strategic alliances for enhancing the value of the intellectual property created in the State.

Based on the feedback during the conductance of awareness workshops on IPR, supported by MSME-DI, it came into the light that participants do have new ideas/technologies but are

clueless about the patents & its process. Subsequently, it has also been reflected that India granted 10,398 patents to global firms in mechanical engineering, 9,506 in chemicals, 4,937 in electronics, 2,896 in communications technology, 2,236 in bio-technology and 1,709 in computer sciences in the last 10 years. More than 80 per cent of patents filed in India are by foreign companies. (Ref; "Patenting in India: Policy, Procedure & Public Funding" by IK International Publishing House, 2015)

One of India's biggest strengths is how many innovators and inventors it has. One of its biggest weaknesses is how difficult it is to protect their ideas. The government also made it simpler last year to register trademarksonline, hired 100 trademark examiners, and reduced the 13-month review period for trademarks to eight months, with the goal of lowering it to just one month by March 2017. Cutting the average time for addressing pending intellectual property rights applications from more than five years to 18 months is also on the agenda for this year. (Quartz India, Ananya Bhattacharya, February 09, 2017)

Despite these efforts, India's overall score improved only marginally in the fifth edition of a global intellectual property index (pdf), the US Chamber of Commerce, and published six months back. The annual index, accompanied this year by a report titled "The Root of Innovation," gave the country a score of 8.75 out of 35, compared to 7.05 the previous year, citing "fundamental weaknesses" in the country's intellectual property framework. The index *s*cores countries in six categories: patents, copyrights, trademarks, trade secrets and market access, enforcement, and ratification of international treaties.
India ranked a lamentable 43 out of 45 countries.

US	UK	Germany	Japan	Mexico	China	Kenya	India
32.6	32.4	31.9	31.3	16.9	14.8	14	8.8

This indicates that Indian players are still lagging behind their global counterparts in protecting intellectual property. In fact, SMEs are the ones unable to protect their intellectual property and remain unaware. Industry experts say that the number of patents filed by SMEs in India is also miniscule. Therefore, there is a need to map the bottlenecks in the patenting eco system, so that, the appropriate actions can be taken thereafter.

Opportunity: Considering that the country has one of the largest reservoir of scientists and technologists and given its reckoning as an IT and pharmaceutical hub of the world, it seems extremely unjustified that the levels of patent filings are still fairly low. There is a need to improve the level of Intellectual Property Rights (IPR) awareness across all sectors. It is critical that the need for IP creation and protection percolates down across industries, academic institutions and public funded organisation and PSUs.

Patenting India's innovations will boost country's manufacturing activities and help to achieve its 'Make in India' dream. The initiatives taken by the government to transform India will be accomplished only by fostering innovation and creativity. Also, protecting and utilising

intellectual property assets is significant. Moreover, adopting new technology, establishing new industries, launching new products, expanding and promoting investment are also important for growth.

The country's 'Make in India' initiative will enthuse Indian investors and creators to create IP assets in India and utilise them in manufacturing. Foreign companies will be encouraged to bring their IP-protected inventions and creations to India along with investment and technology transfer and establish their manufacturing, R&D and outsourcing bases in India.

Review of Literature: Due to our globalized, knowledge sharing economy, patenting has gained more importance during the last decades. Patent awareness within startups is low due to the lack of monetary resources, knowledge about patents in general and expertise. Due to the lack of knowledge about the field of patent law, high-tech small firms are not involved in prior patent search - a freedom to operate assessment - which could improve the strategic choices a startup makes with regard to patenting inventions. Research shows that patent awareness is economically beneficial in patent intense industries, like the high tech industry.(http://purl.utwente.nl/essays/70212)

Developing countries share disbelief about the benefits of the endogenous production of science as a tool for economical growth. Hence, public policies to strengthen science and technology and promote the culture of innovation are, in general, weak and sometimes incoherent. Patenting has become not only an icon to protect discoveries which can yield profits and enable socio-economical growth but also a potent informetric tool to assess innovation and certainly, since the seminal work of Narin, to understand the multidimensional interactions between science, technology and innovation.(Manuel Krauskopf Related information, , Erwin Krauskopf Related information, , Bernardita Méndez Related informationLow awareness of the link between science and innovation affects public policies in developing countries: The Chilean case, Scientometrics , Volume 72, Issue 1 ,DOI: 10.1007/s11192-007-1737-5)

A detailed assessment of Indian patenting activity over the period 1990–2002 was undertaken by (a) examining patents granted by the US, European and Indian Patent Office; (b) delineating patents under various types, i.e. entity-wise (Indian organizations, foreign R&D centres in India, resident individuals), proprietary protections (utility, design, plant patents), organization-wise (industry, research organizations, specialized institutions, etc.), industrial sector-wise, category-wise (process/product), etc.; (c) assessing impact through citation analysis, and (d) benchmarking with patents activity of some developed and developing countries. Patent filing through the Patent Cooperation Treaty and patenting during the period 2003–04 in the US was analysed. The strategic options for commercialization of patents were also investigated. Recommendations have been given for strengthening the patenting activity in the country. (Sujit Bhattacharya*, K. C. Garg, S. C. Sharma and BharviDutt, Indian patenting activity in international and domestic patent system: Contemporary scenario, researchgate.net,2007)

Critics counter that although the strategy of patenting everything has created awareness among scientists of the potential worth of their discoveries, it is time to ensure that patents create products and wealth, not just statistics. A. V. Rama Rao, former director of the CSIR Indian Institute of Chemical Technology in Hyderabad, wants the CSIR to set up an independent division to decide which developments are worth patent applications. (ISSN 1476-4687 (online), 12 July 2006)

The country has a sound base for S&T activity in terms of policies and infrastructure. Financial resources devoted to creating new knowledge products and processes though are enhancing year by year, but it has yet to reach the 1% of GDP. The number of patents granted to Indian applicants is far below the number of patents granted to foreign applicants in spite of mechanisms for providing support to patenting activities to researchers. It needs to be researched if it is due to the lack of awareness among the researchers in patenting their inventions. (Dr. Prasad Laxman; Patenting in India, IK International Publishing House Pvt Ltd,2015)

The specific objectives are as follows:

- To assess the awareness level of IPR among students
- To compare the awareness level of IPR between Delhi and Tier II/III cities of UP
- To assess the anxiety reasons faced by students in discussing their"ideas" for start ups
- To understand the psychodynamics of students interested in setting their ventures regarding IPR.

We have adopted the following research design:

1. Designing the methods of data collection:
   The method of data collection has been chosen as a primary survey method.
   Cross sectional study was done with primary objective of finding number of current final year students of science in Delhi &UP. Multi stage sampling was done. In the first stage colleges were selected and in the second stage students were selected.
   Stage 1: Inclusion and exclusion criteria for colleges
   The selection of Colleges/Universities was based on the regions (semi-rural/urban areas of Eastern, Western & Central Uttar Pradesh & Delhi-NCR), the colleges consisted blend of private and government with the relevant & appropriate rankings by National Institute Ranking framework (NIRF), NAAC accreditation (A & B), rankings of State technical University
   Stage 2: Inclusion and exclusion criteria for students
   Only top 15 of students based on academic performance in engineering were selected for the study. **Sample size: Current students**
   The primary objective was to find out the prevalence or number of current final year students of science in UP & Delhi. As this is a cross- sectional study and since there was no published study of the same objective in India. We calculated as per norms taking 50 prevalence:

(Z(1-alpha/2))squared * P*Q/L SQUARE)

P=50, Q=50, L=10 OF 50 i.e 5

So, the sample size came to be 284 for 90 percent power and 95 percent Confidence Interval. As we had 4 zones (Eastern UP, Central UP , Western UP& Delhi), we had the option of dividing it by 4,but we took other way round and multiplied by 4 to increase the power of study so that generalisation of results could be done.

2. Selecting the sample:
   The students from science stream from universities, colleges from NCR and UP (Tier II/III cities) are chosen to fill up the questionnaire.
3. Collection of data:
   The questionnaire was prepared to collect the responses.
4. Processing and analysis of the data:
   Tools like SPSS 12.0 are used to analyze data.
   Sample:
   The Universe of the population is all the students in graduation and post graduation studying in NCR.
   Sample Size: 284 Respondents.

Result & Discussion: The score included 28 components among the students had been taken for factor analysis in order to narrate these components.

The exploratory factor analysis (EFA) had been administered. As a conservative heuristic, items with a factor loading smaller than 0.4 on any factor were deleted. More over, items that demonstrated cross- loadings greater than 0.4 on more than one factor were dropped because they do not provide pure measures of a specific construct.

In addition, the screen test and the Kaiser (1960) Eigen value one intention were both used to identify the number of factors. The remaining factors had been deleted by the factor analysis because of the above mentioned intention. The number of factors extracted by the factor analysis, the components in each factor ,its factor loading, reliability coefficient and percent of variation explained by each factor in the illustrated table

Factor 1 Application of IPR (Copyright/logo/trademark)	**Statements:**	**Factor Loading:**	**Eigen value**	**Percentage of total variance**
	Statement 6	**-.604**	**7.908**	**21.373**
	Statement 15		**.591**	
	Statement 16	**.681**		
	Statement 17	**.729**		
	Statement 21	**.542**		
	Statement 22	**.822**		
	Statement 24	**-.613**		

	Statement 25	**.731**
	Statement 27	**.702**
	Statement 30	**-.674**
	Statement 31	**-.520**
	Statement 33	**.870**
	Statement 35	**.414**
	Statement 36	**-.682**
	Statement 37	**.837**

Factor 2 **Anxiety to reveal the "idea" of business**	**Statements:**	**Factor Loading:**	**Eigen value**	**Percentage of total variance**
	Statement 4	**-.629**	**5.359**	**14.483**
	Statement 5	**-.415**		
	Statement 7	**.492**		
	Statement 9	**-.484**		
	Statement 11	**.538**		
	Statement 12	**.626**		
	Statement 13	**.613**		
	Statement 18	**-.826**		
	Statement 19	**-.529**		
	Statement 29	**.439**		
	Statement 32	**.541**		

Factor 3 **Marks & Grades**	**Statements:**	**Factor Loading:**	**Eigen value**	**Percentage of total variance**
	Statement 2	**.614**	**2.325**	**6.284**
	Statement 8	**.531**		

Factor 4 Usage of IPR in students' life	Statements:	Factor Loading:	Eigen value	Percentage of total variance
	Statement 3	.372	2.106	5.691
	Statement 14	.568		

Factor 5 Early protection for idea	Statements:	Factor Loading:	Eigen value	Percentage of total variance
	Statement 10	.442	1.563	4.226
	Statement 20	.559		

Factor 6 LEVEL OF UNDERSTANDING AMONG STUDENTS	Statements:	Factor Loading:	Eigen value	Percentage of total variance
	Statement 1	.490	1.499	4.050
	Statement 23	.485		
	Statement 26	.400		

Factor 7 Awareness through E Cell/IPR cell	Statements:	Factor Loading:	Eigen value	Percentage of total variance
	Statement 34	.350	1.430	3.866

Factor 8 Project/Assignments/Live projects & IPR	Statements:	Factor Loading:	Eigen value	Percentage of total variance
	Statement 28	.708	1.113	3.007

The components were narrated into eight important factors:

- Application of IPR (Copyright/logo/trademark)
- Anxiety to reveal the "idea" of business
- Marks & Grades
- Usage of IPR in students' life
- Early protection for ideas
- Level of understanding
- Awareness through E Cell/IPR cell
- Project/Assignments/Live projects & IPR

All these factors explain the components of work life to the extent of 62.981%. The most important factor was **IPR and Its application** since its Eigen value and the per cent of variance explained were 7.908 and 21.373 per cent respectively.

- The next two factors were Anxiety to reveal the "idea" of business and Marks & Grades
- Since there Eigen values were 5.359 and 2.325 respectively. The next factor usage of IPR in students' life with Eigen value 2.106
- The fifth and sixth factors were Early protection for ideas & Level of understanding with the Eigen values 1.563 and 1.499
- The next last factors were Awareness through E Cell/IPR cell & Project/Assignments/Live projects & IPR with Eigen values 1.430 and 1.113

Factor loading statements	Initial	Extraction
Nature of course	1.000	0.584
department	1.000	0.712
age of student	1.000	0.643
Gender	1.000	0.634
Medium	1.000	0.607
Exposure of IPR	1.000	0.723
Application of IPR in assignments	1.000	0.589
Anxiety to share new ideas of business	1.000	0.631
experience to study this concept was good	1.000	0.651
I understand IPR	1.000	0.521
I am aware of copyright/trademark	1.000	0.601
I am willing to make my career with the support of IPR	1.000	0.724
I accept that there is no exposure of IPR	1.000	0.792
I know the basics of IPR only	1.000	0.722

The IPR is not applicable in daily life.	1.000	0.683
With the exposure given by E Cell, I am satisfied	1.000	0.738
The other students take keen interest in IPR	1.000	0.814
Science Students must know early protection of "Idea"	1.000	0.872
I read magazines and books on IPR	1.000	0.567
i am/ was unhappy with the additional load of the subject like this.	1.000	0.529
I was least interested in this subject when I heard about it.	1.000	0.807
There is a huge gap between the differences in books and actual patenting system	1.000	0.730
I am in stress due to sharing my idea with my E Cell.	1.000	0.679
Students are not very clear.	1.000	0.764
There is a least interest among the students	1.000	0.670
There is lack of opportunities in getting exposure of IPR	1.000	0.731
I take no interest in my class of IPR	1.000	0.748
Lack of weightage/ marks in IPR, students do not take interest	1.000	0.621
i am overburdened with the other subjects, so can not concentrate on IPR	1.000	0.767
I know that theoretically IPR is boaring but it is also necessary to learn	1.000	0.631
Colleges also don't consider it as "serious subject."	1.000	0.845
We do not have "Non Disclosure Agreement" policy before sharing our ideas of business with E	1.000	0.523

cell of the college.		
Methodology of the subject shall be different from lecture.	1.000	0.721
Faculty member are not interested in conducting the session with practical examples in IPR	1.000	0.906

Extraction Method: Principal Component Analysis.

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.908	21.373	21.373	7.908	21.373	21.373
2	5.359	14.483	35.856	5.359	14.483	35.856
3	2.325	6.284	42.141	2.325	6.284	42.141
4	2.106	5.691	47.832	2.106	5.691	47.832
5	1.563	4.226	52.058	1.563	4.226	52.058
6	1.499	4.050	56.108	1.499	4.050	56.108
7	1.430	3.866	59.974	1.430	3.866	59.974
8	1.113	3.007	62.981	1.113	3.007	62.981
9	1.046	2.826	65.807	1.046	2.826	65.807
10	1.000	2.704	68.511	1.000	2.704	68.511
11	0.938	2.535	71.046			
12	0.854	2.309	73.354			
13	0.822	2.223	75.577			
14	0.762	2.060	77.637			
15	0.739	1.997	79.635			
16	0.672	1.817	81.452			
17	0.629	1.701	83.153			
18	0.578	1.563	84.716			
19	0.568	1.535	86.251			
20	0.537	1.452	87.703			
21	0.515	1.392	89.095			
22	0.508	1.372	90.467			
23	0.425	1.148	91.615			
24	0.396	1.071	92.686			

25	0.372	1.006	93.692			
26	0.346	0.936	94.628			
27	0.303	0.819	95.447			
28	0.280	0.757	96.204			
29	0.264	0.713	96.917			
30	0.225	0.609	97.526			
31	0.206	0.556	98.082			
32	0.181	0.490	98.572			
33	0.163	0.441	99.013			
34	0.124	0.336	99.349			
35	0.103	0.278	99.626			
36	0.080	0.217	99.843			
37	0.058	0.157	100.000			

Extraction Method: Principal Component Analysis.

Using the output, there were 10 Eigen values greater than 1.0. But we have taken 8 values because the remaining two values are almost equal to 1.The 8 component explain 62.981% of the total variance in the variable which are included on the components.

A big percentage of students were not able to apply those concepts in their daily life, they were interested in attending the classes just for the sake of attendance. The lecture method was not appealing to all of them. Universities/ colleges students were found more aware and sensitive towards sensitizing students towards IPR, but students do not take interest. IPR related subjects have no weightage in terms of marks and grades , so students do not take interest. They feel although, its important for all science students and also feel that they have anxiety when they share thir ideas with E cell related with their business.

Questionnaire

Name (optional):

Class: Age :

Gender: Course:

College & City:

1. I understand the application of IPR in assignments
2. I have anxiety to share new ideas of business with my college/E cell
3. My experience to study this concept was good

4. I understand IPR
5. I am aware of copyright/trademark
6. I am willing to make my career with the support of IPR
7. I accept that there is no exposure of IPR
8. I know the basics of IPR only
9. The IPR is not applicable in daily life.
10. With the exposure given by E Cell, I am satisfied
11. The other students take keen interest in IPR
12. Science Students must know early protection of "Idea"
13. I read magazines and books on IPR
14. I am/ was unhappy with the additional load of the subject like this.
15. I was least interested in this subject when I heard about it.
16. There is a huge gap between the differences in books and actual patenting system
17. I am in stress due to sharing my idea w ith my E Cell.
18. Students are not very clear.
19. There is a least interest among the students
20. There is lack of opportunities in getting exposure of IPR
21. I take no interest in my class of IPR
22. Lack of weightage/ marks in IPR, students do not take interest
23. I am overburdened with the other subjects, so can not concentrate on IPR
24. I know that theoretically IPR is boaring but it is also necessary to learn
25. Colleges also don't consider it as "serious subject."
26. Students do/did not take much interest, when there was a session on IPR
27. Methodology of the subject shall be different from lecture.
28. Faculty member are not interested in conducting the session with practical examples in IPR

References:

1. Bhattacharya, K. C. Garg, S. C. Sharma and BharviDutt, Indian patenting activity in international and domestic patent system: Contemporary scenario, researchgate.net,2007
2. Quartz India, Ananya Bhattacharya, February 09, 2017
3. Global intellectual property index (pdf) 2020
4. http://purl.utwente.nl/essays/70212
5. The Chilean case, Scientometrics , Volume 72, Issue 1 ,DOI: 10.1007/s11192-007-1737-5)
6. Rama Rao, AV, Patent applications. (ISSN 1476-4687 (online), 12 July 2006)
7. Dr. Prasad Laxman; Patenting in India, IK International Publishing House Pvt Ltd,2015

***

Dr. Saras
Assistant Professor Zoology, Department of Zoology, D.A-V College, Kanpur
Dr. Puneet Mohan
Associate Professor HR, GL Bajaj Institute of Management & Research, Greater Noida
Dr. Namita Srivastava
Faculty, Vardhman Mahaveer Medical College (Safdar Ganj Hospital), New Delhi

INTELLECTUAL PROPERTY RIGHTS IN LIFE SCIENCES AND CURRENT CHALLENGES IN INDIAN SCENARIO

PRAHLAD DUBE

Abstract: The Intellectual Property rights are set of laws which protects the rights of inventor over his/her intellectual creation. The new innovation and knowledge can be protected by legal patenting system. Intellectual property right (IPR) is important element in developing successful business models. In recent years, India is witnessing a significant increase in start-ups, therefore it is constructive to discuss the types of IPRs, Indian laws and the process of IPR filling. We are a growing economy and currently our GDP ranked 5th in the world. Life science sector is contributing greatly to it and assessed that the industry will grow to dollar 150 billion by 2025. A comparative analysis with top economies of the world is required. In 2020, USA and China has granted 3,51,993 and 5,30,127 patents while India granted 26,361 patents. The figures make it desirable to look at the issues of patenting process and initiate the dialogue. In the present paper, some of the issues necessary to grow patenting ecosystem like shortage of patent officers, ease of application filling and time duration will furthermore be discussed.

Keywords: IPR, Patent, Challenges, Application Procedure, Patenting Ecosystem.

***

Prahlad Dube
Formerly Coordinator, Departments of Zoology and Life Science,
University of Kota, Kota
Email: dube.prahlad@gmail.com

ENFORCEMENT OF INTELLECTUAL PROPERTY RIGHTS AND SOCIAL WELFARE IN INDIA

ARUN KUMAR TEWARI

Abstract: Amid globalisation it is essential for developing countries to adhere the regulations followed by other developed nations to cope up with competitive zeal. India is emerging as fastest growing economy in the world which is encouraging its youth to invest in creating and developing authentic products that can bring some change, therefore intellectual property rights became popular as it dispensed monopoly rights to the owner of the property in the form of patents copyright trademark and design for a period of time thus providing a successful legal structure to protect them against unlawful activities and brand recognition. Since 1980 there has had been global trend in harmonising IP laws around the world, India had always preferred a weak IPR regime because of its huge population and limited technical resources but with changing technological and economic environment huge investment in the field of scientific research and development the need for fair strong and non-discriminatory enforcement of IPR arises which encourages further development and welfare, India introduced its first IPR in 2016 by now As per international IP index 2022 It has improved its IP score by 13% reaching near to an effective IPR implementation in the country.

Countable parallel considerations suggest that a uniformly strong IPR in India that covers all industries might at the least require more thought. Policy prescriptions based on statistics and aggregate cross-country comparisons especially in the absence of causal links, often mask the underlying idiosyncrasies of different participants in the Indian innovation ecosystem and strength of IPR influence on innovation productivity and consequently social welfare.

***

Arun Kumar Tewari
Department of Zoology, DAV College Kanpur

OVERVIEW OF THE RENEWABLE ENERGY- THE ULTIMATE NEED OF THE WORLD

S. MUKHERJEE

Abstract: In the present global scenario of great energy demands and with minimal risk of climate change, the renewable or clean sources remains the only alternative. It is a well-known fact that, the non-renewable energy sources, such as coal, nuclear, petroleum are the natural resource that cannot be re-made or re-grown at a scale comparable to its consumption. A matter which is converted by process into a sustainable energy then that is known as the source of energy. One of the beneficial factors for the use of the renewable energy is that they are naturally generated. These sources are constantly regenerated, such as sunlight, wind, heat, and water. The common energy sources are hydropower, biomass, biofuels, wind, geothermal and solar energy. However, there lies some risk factors in certain geographical and ecological regions. More studies are required to understand the environmental impacts, because there is a rapid global increase in demands of these so called clean and green energy. The potential of renewable energy sources is enormous as they can in principle meet many times the world's energy demand. An overview of this interesting topic will be presented. The potential of renewable energy sources is enormous as they can in principle meet many times the world's energy demand. The potential of renewable energy sources is enormous as they can in principle meet many times the world's energy demand. The potential of renewable energy sources is enormous as they can in principle meet many times the world's energy demand. The potential of renewable energy sources is enormous as they can in principle meet many times the world's energy demand. The potential of renewable energy sources is enormous as they can in principle meet many times the world's energy demand.

***

S. Mukherjee
Manipal Institute of Technology, Manipal &
The Maharaja Sayajirao University of Baroda, Vadodara

ISBN 978-93-90146-40-6

INFLUENCE OF STRONGER IPR REGIMES ON RESEARCH AND DEVELOPMENT OF PHARMACEUTICAL INDUSTRY

RITA GANAVA, REENA GANAVA, RANJANA RAWAT, MANISHA SISODIA

Abstract: Patents offer pharma firms special rights to market medicines and stop others to manufacture, trade, and brand these medicines for a period of 20 years. IPR is a prerequisite for pharma companies for identification, planning, commercialization, and protection of invention. IPR offer certain special rights to the discoverers or inventers of that belongings, in order to permit them to gain monetary benefits from their inventive efforts or reputation. The present review article is an effort to analytically explain the technology behaviour (R&D) of the Indian Pharmaceutical Industry (IPI) during the post Trade Related Aspects of Intellectual Property Rights (TRIPS) regime. The study based on the secondary data obtained from the websites of 164 pharma companies firms belonging to the IPI for the period 2010–2018. The experiential study is based on collective cross sectional and random effects panel to bit models. The outcomes of the analysis show that the TRIPS regime had a significant positive impact on R&D in the IPI. Companies owned by Indian groups are found to be more R&D concentrated compared to stand-alone private and foreign firms. Moreover, exportation strength and magnitude are found to have substantial impact on R&D intensity. In conclusion, we find that *old and temporary* firms, created under the weak IPR regime, have lesser tendency to invent and have greater scopes of process innovations while the firms which are newer and founded under TRIPS, have higher inclination to transform and greater share of product innovations.

Keywords: Innovations, India, IPR Regimes, Pharma Industry,

***

Rita Ganava, Reena Ganava, Ranjana Rawat, Manisha Sisodia
Government PG College. Jhabua, M.P.

RESEARCH METHODOLOGY AND INTELLECTUAL PROPERTY RIGHTS

S. MUKHERJEE

Abstract: Research methodology is a systematic approach to handle all the relevant techniques and methods in order to bring out a suitable theory or result. This approach must be acceptable to the entire research community. In other words, research in a particular problem may lead us to a new information and knowledge. For example, the research and discovery on Higgs Boson, has solved a few mysterious concerning the forces of nature. Thus, rresearch is a systematic effort to gain new knowledge and information. The research innovations, that are being published in a relevant journal needs to be protected suitably. Intellectual Property Rights (IPRs) are such legal devices that give protection to inventions and innovations in any field of research against against unlawful copying or forging. The need of the hour is that a researcher must have a thorough knowledge of the IPR.

***

S. Mukherjee
The Maharaja Sayajirao University of Baroda, Vadodara

AN OVERVIEW ON IPR: PROVIDE BENEFITS TO ORGANIZATION BY LAWS

DR. RAJU SINGH GAUR

Abstract: In this paper we study the role of IPR, which help Indian firms and the Indian Government to protect their rights while doing business not only in domestic as well as in international market. IPR provide certain exclusive rights to protect the set of intangible assets owned by a company or an individual. We will also discuss the important role of IP system which helps in protecting technological innovations and inventions, increasing the visibility of the product, distinguish the business in terms of products from the compatriotism, obtained technical and business knowledge and information, avoiding the risk of using third party proprietary content of your valuable information, inventions or creative output without your consent.

Keywords: Technological Innovations, Inventions, Intangible, Creations.

***

Dr. Raju Singh Gaur
Assistant Professor, Dept. of Mathematics
D.A-V. College, C.S.J.M. University, Kanpur

CONCEPT OF VIRTUAL VACCINATION

DR. K. C. MISHRA

Abstract: The concept of virtual vaccination is to be in contact with mild vulnerable things or areas of viruses orbacteria rather avoiding them. So that body may acquire sufficient antibodies to face the accidental actual and mass exposure to particular viruses/bacteria. By having said this In this regard some research is required to scale the immunity, so that we can avoid the unnecessary vaccination (real vaccination) to those who are above the threshold value of immunity in calibrated scale.

Keywords: Virtual Vaccination, Antibody, Viruses, Bacteria, Diseases.

***

Dr. K. C. Mishra
Department of Physics, Govt. Arts Science Commerce College, Nagda

AN IPR TO PROTECT INDIGENOUS AND AGRO PRODUCTS-A GEOGRAPHICAL INDICATION

CA UMESH KUMAR BHAVSAR

Abstract: A geographical indication points to a specific place, or region of production, that determines the characteristic qualities of the product which originates from that place. It is important that the product derives its qualities and reputation from that place. Like trademarks or commercial names, geographical indications are also IPRs, which are used to identify products and to develop their reputation and goodwill in the market. TRIPS Agreement prescribes minimum standards of protection to the geographical indications that WTO members must provide. Notably, under the Agreement on Trade Related Aspects of Intellectual Property (TRIPS), countries are under no obligation to extend protection to a particular geographical indication unless that geographical indication is protected in the country of its origin. India did not have a specific law governing geographical indications of goods which could adequately protect the interest of producers of such goods. This resulted into controversial cases like turmeric, neem and basmati. To prevent such unfair exploitation, it became necessary to have a comprehensive legislation for registration and for providing adequate legal protection to geographical indications. Accordingly the Parliament enacted a legislation titled the Geographical Indications of Goods (Registration and Protection) Act, 1999. The legislation is administered through the Geographical Indication Registry under the overall charge of the Controller General of Patents, Designs and Trade Marks."Geographical indication" in relation to goods under the Act means an indication which identifies such goods as agricultural goods, natural goods or manufactured goods as originating, or manufactured in the territory of a country, or a region or locality in that territory, where a given quality, reputation or other characteristic of such goods is essentially attributable to its geographical origin and in case where such goods are manufactured goods one of the activities of either the production or of processing or preparation of the goods concerned takes place in such territory, region or locality, as the case may be. Any person claiming to be a producer of the goods in respect of which a geographical indication has been registered may apply for registration as an authorized user. "Authorised user" means the authorised user of a geographical indication registered under Section 17. Geographical indication may be registered

in respect of any or all of the goods, comprised in such class of goods as may be classified by a region or locality in that territory, as the case may be. Any association of persons or producers or any organisation or authority established by or under any law representing the interest of the producers of the concerned goods can apply for the registration of a geographical indication. A registered geographical indication shall be valid for 10 years and can be renewed from time to time on payment of renewal fee. The Act places prohibition on registration of certain geographical indications. The legislature has taken a strong view of infringement, piracy, falsification, misrepresentation of geographical indications and has now made them penal offences.

Keywords: Trade Related Aspects of Intellectual Property (TRIPS),Geographical Indications of Goods (Registration and Protection) Act, 1999.

***

CA Umesh Kumar Bhavsar

Assistant Professor, Commerce Government Girls College Sehore

बौद्धिक सम्पदा अधिकार : उभरती सम्भावनाऐं एवं चुनौतियॉं

डॉ. कपिला बाफना

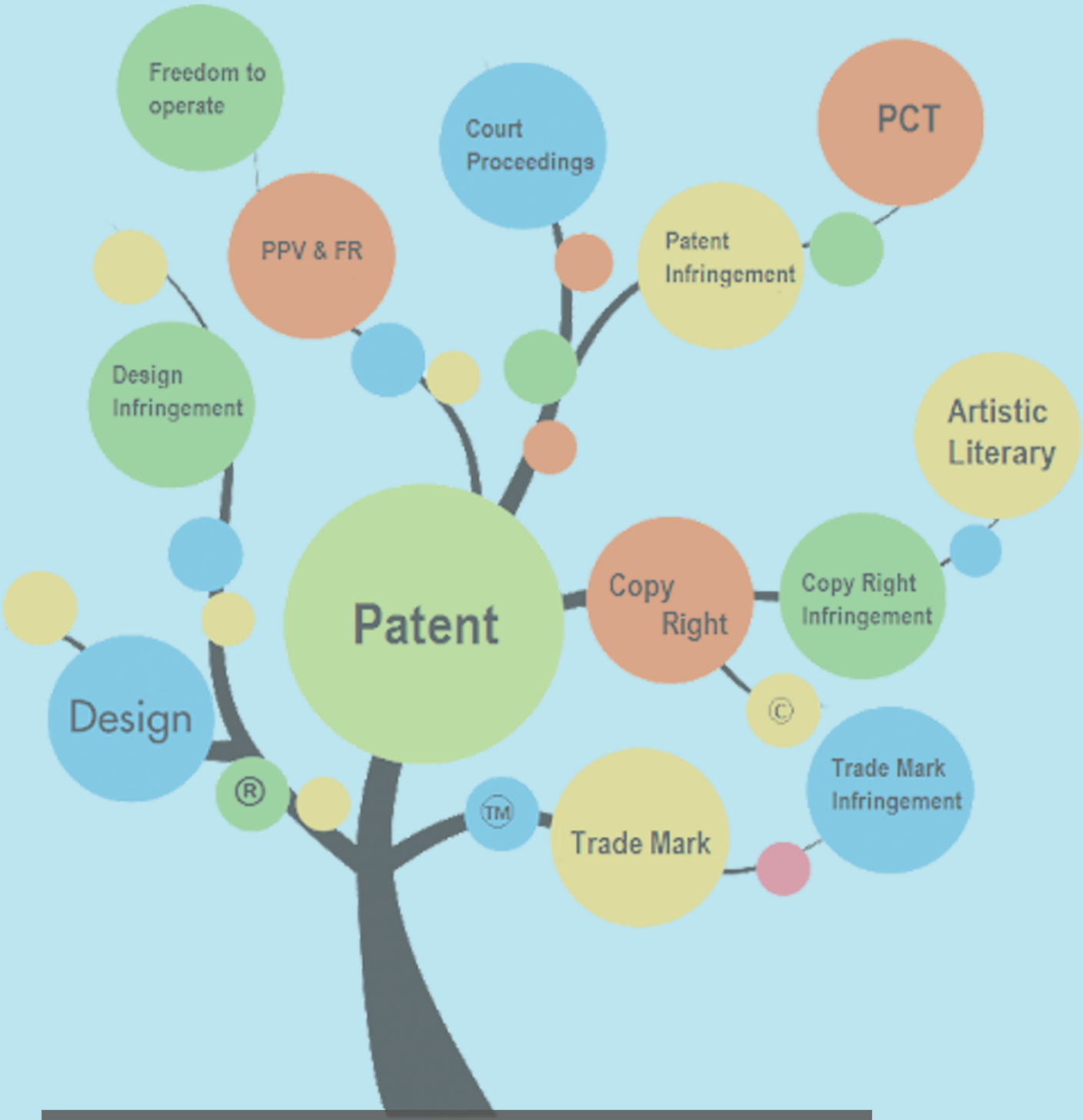
सहायक प्राध्यापक एवं विभागाध्यक्ष – वाणिज्य

शासकीय आदर्श महाविद्यालय झाबुआ (म. प्र.)

शोध सारांश :– बौद्धिक सम्पदा अधिकार एक विशिष्ट कानूनी एकाधिकार है, जो मानव की बुद्धि या मस्तिष्क की कृति से उत्पन्न किसी सकंल्पना को दिया जाता है। इसकी आवश्यकता अविष्कारक के मौलिक रचना की सुरक्षा करने हेतु महसूस की गई। बौद्धिक सम्पदा को दो श्रेणियों में विभाजित किया गया है, पहला औद्योगिक सम्पत्ति, जिसमें आविष्कार (पेटेंट), ट्रेडमार्क, औद्योगिक डिजाइन और स्त्रोत के भौगोलिक संकेतो को शामिल किया गया है, और दूसरा कॉपीराइट, जिसमें साहित्य और कला से सम्बन्धित कार्यो जैसे– उपन्यास, कविताऐं, नाटक, फिल्मों और संगीत जैसे कार्यो को शामिल किया जाता है। भारत में बौद्धिक सम्पदा अधिकार व्यवस्था को सूचारू रूप से लागू नहीं किया गया है। जिसके कारण भारतीय अर्थव्यवस्था प्रगति के पथ पर सतत् गति से कार्य नहीं कर पा रही है। भारत में सर्वप्रथम सन् 1911 में भारतीय पेटेंट और डिजाइन अधिनियम बनाया और लागू किया गया जिसमें भी कई बार संशोधन किये गए, इसके साथ ही सन् 2005 से भारत में दवाओं पर भी पेटेंट देना शुरू किया गया। वर्तमान समय में भारत की बौद्धिक सम्पदा अधिकार व्यवस्था रूग्ण अवस्था में है। वैश्विक बौद्धिक सम्पदा सूचकांक – 2020 में भारत 38.46 प्रतिशत के स्कोर के साथ 53 देशों की सूची में 40 वें स्थान पर थ। भारत में बौद्धिक सम्पदा अधिकार के प्रभाव ने सरकार को इस सम्बन्ध में व्यवस्था को बढाने के लिए प्रेरित किया है, जिसके फलस्वरूप सन् 2016 में राष्ट्रीय बौद्धिक सम्पदा अधिकार नीति को मंजूरी दी गई जो इस सम्बन्ध में आने वाले वर्षो के लिए एक व्यवस्थित रोडमैप तैयार करेगी। इस नीति का उद्देश्य बौद्धिक सम्पदा अधिकार के सम्बन्ध में जागरूकता को बढाना, निर्माण को प्रोत्साहित करना साथ ही मजबूत और प्रभावी कानूनी व्यवस्था को बनाना है। बौद्धिक सम्पदा अधिकार के प्रति संरक्षण और जागरूकता अभी भी भारत में सीमित है। नवाचार की संस्कृति को बढावा देने के लिए इसमें परिवर्तन की आावश्यकता है। साथ ही सरकार द्वारा मजबूत बौद्धिक सम्पदा मानकों को लगातार लागू करने के लिए गंभीर कदम उठाऐं जाने की भी जरूरत है।

मूल शब्द :– बौद्धिक सम्पदा अधिकार, औद्योगिक, संरक्षण, जागरूकता, पेटेंट।

***



ISBN 978-93-90146-40-6

IMRF Publications
#1-90 Near VTPS Main Gate
Ibrahimpatnam, Krishna Dt, AP
Ph : +91 9618777011