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"Intellectual Property Rights and Technological Innovation: Analyzing the Indian Patent Act's Influence on Industrial Development"

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ABSTRACT

This paper investigates the many-sided connection between licensed innovation privileges (IPRs), mechanical advancement, and modern turn of events, with an emphasis on the Indian setting. The Indian Patent Demonstration, established in 1970 and amended in 2005, fills in as a vital piece of regulation forming the scene of development and modern development in the country. Through an exhaustive examination of verifiable and contemporary viewpoints, this study explores the effect of the Indian Patent Follow up on different features of modern turn of events, including innovative work (Research and development) ventures, innovation move, business, and admittance to fundamental meds. Drawing on observational proof and hypothetical systems, the paper basically assesses the viability of the Indian patent system in encouraging development, adjusting the interests of various partners, and advancing financial advancement. Also, it analyzes the difficulties and amazing open doors presented by the advancing worldwide licensed innovation system and recommends strategy suggestions for improving India's seriousness in the information based economy. Eventually, this exploration adds to a nuanced comprehension of the complicated exchange between IPRs, mechanical advancement, and modern improvement in the Indian setting, offering bits of knowledge for policymakers, researchers, and professionals the same.

Key Word: Intellectual Property, Patent Act, Copyright, Research and Development etc.

I. INTRODUCTION:

Intellectual property (IP) is the foundation of innovation, investment, and competition in the dynamic pharmaceutical industry. It includes a variety of legal rights that enable pharmaceutical companies to safeguard groundbreaking discoveries, novel formulations, and intricate processes necessary for the creation of life-saving medicines and treatments. This presentation digs into the essential job of protected innovation inside the drug business, clarifying its multi-layered parts and suggestions.

At its center, drug protected innovation envelops licenses, brand names, copyrights, and proprietary advantages, each assuming an unmistakable yet joined part in defending development and encouraging advancement. Patents are the primary means of protecting inventions because they grant inventors exclusive rights for a predetermined period of time. In the drug domain, licenses frequently cover substance compounds, definitions, strategies for amalgamation, and remedial applications, protecting these advancements from impersonation and replication. Supplementing licenses, brand names act as the watchmen of brand personality, protecting drug items' names, logos, and bundling from misappropriation. In a crowded market, they not only differentiate one company's offerings from those of others but also cultivate customer trust and loyalty.

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Original literary, artistic, and pharmaceutical product-related promotional materials are protected by copyrights, which are less common. From patient data handouts to advertising guarantee, copyrights safeguard innovative works, forestalling unapproved multiplication and appropriation.

In the mean time, proprietary innovations shroud exclusive information, like assembling processes, clinical preliminary information, and definition mysteries, in a cloak of privacy. Not at all like licenses, have proprietary innovations offered unending security as long as they stay undisclosed and defended through proper measures.

The combination of these protected innovation shields shapes a powerful defense against encroachment and encourages a climate helpful for advancement, boosting drug organizations to put vigorously in innovative work. Notwithstanding, this unpredictable exchange between licensed innovation freedoms and general wellbeing highlights a sensitive equilibrium. While IP security boosts advancement, it additionally can possibly hinder admittance to fundamental meds, especially in asset compelled locales where reasonableness is central.

Thusly, exploring the crossing point of drug licensed innovation and general wellbeing requires nuanced contemplations, striking a sensitive harmony between encouraging development and guaranteeing evenhanded admittance to life-saving medicines. In the always advancing scene of drugs, understanding the intricacies of protected innovation is fundamental, molding the direction of development and openness for a long time into the future.

II. HISTORY OF IPR:

The historical backdrop of drug protected innovation is firmly interwoven with the improvement of present day medication and the development of patent regulation. Here is a concise outline:

- **Early Life Stages:** In the beginning of drugs, protected innovation assurance was negligible or nonexistent. The idea of licenses as we probably are aware them today didn't exist, and proprietary advantages were the essential method for safeguarding drug developments. Early pharmacists and drug specialists depended on mystery and eliteness in recipe definitions and creation techniques.
- **Development of Patent Regulation:** The idea of licenses started to come to fruition in the fifteenth hundred years with the presentation of illustrious imposing business models in Britain, giving select privileges to create specific merchandise. In any case, the principal present day patent regulations arose in the nineteenth 100 years, giving legitimate assurance to developments, including drugs. This established the groundwork for the advanced drug patent framework.
- **Twentieth Century Improvements:** The twentieth century saw critical headways in drugs, especially with the advancement of engineered drugs and the ascent of huge scope drug organizations. This period likewise saw the reinforcing of licensed innovation regulations around the world, remembering the Arrangement for Exchange Related Parts of Licensed innovation Privileges (Outings) under the World Exchange Association (WTO), which set worldwide guidelines for licensed innovation insurance.
- **Ascent of the Cutting edge Drug Industry:** The last 50% of the twentieth century saw the rise of the cutting edge drug industry, portrayed by broad innovative work endeavors, significant interests in drug disclosure, and the commercialization of blockbuster drugs. Licensed innovation assurance, especially through licenses, became pivotal for organizations to recover their speculations and keep up with upper hand.
- **Difficulties and Debates:** In spite of the advantages of protected innovation security in encouraging development, the drug business has confronted analysis and difficulties connected with admittance to meds, high medication costs, and patent questions. These issues have prompted banters about offsetting licensed innovation freedoms with general wellbeing concerns, especially with regards to non-industrial nations and admittance to fundamental meds.
- **Ongoing Patterns:** As of late, the drug business has confronted new difficulties, including strain to increment straightforwardness, address rising medical care costs, and adjust to advancing administrative scenes. Also, the rise of biotechnology and customized medication has brought up new issues about licensed innovation privileges and development motivating forces in the drug area.

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➢ OBJECTIVE OF INTELLECTUAL PROPERTY RIGHT (IPR):

The objective of Intellectual Property Rights (IPR) in the pharmaceutical industry is multifaceted:

1. **Encouraging Innovation**: By granting exclusive rights to inventors and companies, IPR incentivizes them to invest in research and development (R&D) to discover new drugs, treatments, and technologies.
2. **Protection of Investments**: Pharmaceutical companies invest significant resources in R&D, clinical trials, and regulatory approval processes. IPR protects these investments by granting exclusive rights to the resulting products for a limited period.
3. **Ensuring Access to Medicines**: While IPR grants exclusivity, it also encourages technology transfer, licensing, and collaboration agreements. These mechanisms can facilitate the dissemination of knowledge and ensure broader access to medicines, especially in developing countries.
4. **Quality Control and Safety**: IPR regulations often require patent holders to disclose detailed information about their inventions. This transparency promotes quality control and ensures that pharmaceutical products meet stringent safety and efficacy standards.
5. **Economic Growth and Competitiveness**: Strong IPR protection fosters a conducive environment for innovation, which, in turn, drives economic growth and enhances the competitiveness of the pharmaceutical industry on a global scale.
6. **Balancing Incentives and Public Health**: There's a delicate balance between granting exclusivity to incentivize innovation and ensuring affordable access to essential medicines. Policymakers strive to strike this balance through regulatory frameworks, such as compulsory licensing and patent pools, to address public health needs while respecting IPR.

➢ TYPES OF IPR:

Pharmaceutical Intellectual Property Rights (IPR) encompass various types of protection mechanisms, each serving distinct purposes in safeguarding innovation and commercial interests in the industry. Here are the primary types:

1. Patents

Patents play a central role in pharmaceutical Intellectual Property Rights (IPR) protection, serving to safeguard innovation and incentivize investment in drug discovery and development. Here's a closer look at patents in the context of pharma IPR:

- **Innovative Drug Molecules:** Pharmaceutical patents commonly protect novel drug compounds or compositions. These patents cover the chemical structures of new molecules, their formulations, and methods of synthesis. Patents on drug molecules provide exclusive rights to manufacture, use, and sell the specified compounds for a limited period, typically 20 years from the filing date.
- **Drug Formulations and Delivery Systems:** Beyond the active pharmaceutical ingredient (API), patents may also cover specific formulations and delivery systems that enhance drug efficacy, bioavailability, or patient compliance. These formulations can include controlled-release formulations, liposomal formulations, transdermal patches, and nanoparticle-based drug delivery systems.
- **Synthetic Processes and Manufacturing Methods:** Patents are also granted for innovative methods of synthesizing drug molecules and manufacturing pharmaceutical products. These patents protect proprietary processes that enable cost-effective production, improved yield, or enhanced purity of drug substances.
- **Therapeutic Methods and Uses:** Pharmaceutical patents may extend to methods of using drugs for therapeutic purposes, such as treating specific diseases or conditions. These method patents cover aspects like dosage regimens, treatment protocols, combination therapies, and diagnostic methods associated with drug administration.
- **Biotechnological Innovations:** In recent years, biotechnology has become increasingly important in pharmaceutical R&D. Patents in this domain protect inventions related to recombinant DNA technology, gene therapy, monoclonal antibodies, therapeutic proteins, and genetically modified organisms (GMOs) used in drug development.
- **Secondary Patents and Lifecycle Management:** Pharmaceutical companies often pursue secondary patents to extend the exclusivity of their products beyond the expiration of the primary compound patent.

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These secondary patents may cover new formulations, dosage forms, manufacturing improvements, methods of treatment, or combinations with other drugs.

- **Patent Prosecution and Strategy:** Building a strong patent portfolio requires careful prosecution and strategic decision-making. Pharmaceutical companies invest in patent filings, prosecution activities, and portfolio management to maximize protection for their innovations while navigating complex regulatory landscapes and competitive challenges.

2. Trademark

Trademarks play a crucial role in pharmaceutical Intellectual Property Rights (IPR) protection, serving to distinguish the products of one pharmaceutical company from those of others. Here's how trademarks are utilized in the pharmaceutical industry:

- **Brand Names:** Trademarks are commonly used to protect brand names associated with pharmaceutical products. A distinct and memorable brand name helps consumers identify and differentiate one drug from another. Pharmaceutical companies invest significant resources in developing and promoting their brand names to establish market recognition and build brand loyalty among healthcare professionals and patients.
- **Product Packaging and Labeling:** Trademarks extend to product packaging, labeling, and design elements used in pharmaceutical packaging. Eye-catching packaging and labeling with distinctive trademarks help attract consumer attention and convey important information about the product, including dosage instructions, indications, and safety warnings.
- **Over-the-Counter (OTC) Medications:** For over-the-counter medications, trademarks are particularly important as they are often the primary means by which consumers recognize and choose between competing products on store shelves. Strong trademarks can influence consumer perceptions of product quality, safety, and efficacy.
- **Generic Naming Conventions:** In addition to brand names, pharmaceutical trademarks also apply to generic naming conventions, such as the International Nonproprietary Names (INN) or United States Adopted Names (USAN) assigned to active pharmaceutical ingredients (APIs). These generic names serve as standardized nomenclature for drugs and are often used in scientific and regulatory contexts.
- **Corporate and Product Logos:** Trademarks protect corporate logos and product logos associated with pharmaceutical companies and their product lines. These logos serve as visual representations of the company's identity and reputation in the marketplace.
- **Advertising and Promotional Materials:** Trademarks extend to advertising and promotional materials used to market pharmaceutical products. Pharmaceutical companies use trademarks in various promotional activities, including print advertisements, television commercials, digital marketing campaigns, and promotional giveaways.
- **Online Presence and Domain Names:** In today's digital age, trademarks also apply to domain names, social media handles, and other online identifiers used by pharmaceutical companies to establish an online presence and engage with customers on the internet.

3. Copyrights

Copyrights in pharmaceutical Intellectual Property Rights (IPR) protection typically pertain to creative and original works of authorship rather than the chemical or functional aspects of drugs themselves. While patents primarily protect inventions and innovations, copyrights safeguard literary, artistic, and scientific creations. In the pharmaceutical industry, copyrights may apply to various types of works, including:

- **Literary Works:** Copyright protection extends to literary works such as scientific publications, research papers, textbooks, and instructional materials related to pharmaceuticals. Authors, researchers, and pharmaceutical companies hold copyright over these written works, granting them exclusive rights to reproduce, distribute, and display the content.
- **Educational Materials:** Pharmaceutical companies often develop educational materials for healthcare professionals, patients, and consumers. These materials may include brochures, pamphlets, websites, videos, and multimedia presentations designed to provide information about specific drugs, medical conditions, treatment options, and healthcare best practices.

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- **Software and Digital Tools:** Copyrights protect software programs, applications, and digital tools used in pharmaceutical research, drug development, clinical trials, regulatory compliance, and pharmacovigilance. Pharmaceutical companies may develop proprietary software solutions or license third-party software for various purposes, including data analysis, modeling, simulation, and drug discovery.
- **Marketing and Advertising Materials:** Copyrights apply to marketing and advertising materials used to promote pharmaceutical products. These materials include advertisements, product labels, packaging designs, branding elements, logos, slogans, and promotional campaigns. Copyright protection ensures that pharmaceutical companies have exclusive rights to control the use and distribution of their marketing materials.
- **Creative Works:** Copyrights may also cover creative works inspired by pharmaceutical themes or motifs, such as artistic illustrations, photographs, graphic designs, and multimedia presentations. These works may be used in educational materials, marketing campaigns, or corporate communications to enhance visual appeal and engage audiences.
- **Training and Continuing Education Programs:** Pharmaceutical companies develop training programs and continuing education courses for healthcare professionals, sales representatives, and employees. Copyright protection extends to the content, materials, and presentations used in these programs, including slideshows, manuals, videos, and interactive modules.
- **Regulatory Submissions and Documentation:** Copyrights may apply to regulatory submissions, documentation, and filings submitted to government agencies for drug approval and marketing authorization. These documents include drug dossiers, clinical study reports, summary documents, and regulatory correspondence. Copyright protection ensures the confidentiality and integrity of proprietary information submitted to regulatory authorities.

4. Trade secrets

Trade secrets play a significant role in pharmaceutical Intellectual Property Rights (IPR) protection, particularly in safeguarding confidential information that provides a competitive advantage. In the pharmaceutical industry, trade secrets encompass a wide range of proprietary information, know-how, and confidential data that are valuable to companies but not disclosed to the public. Here's how trade secrets are utilized in pharmaceutical IPR:

- **Formulations and Manufacturing Processes:** Pharmaceutical companies may maintain trade secrets related to proprietary drug formulations, manufacturing processes, and techniques used in drug production. These trade secrets can include precise ingredient ratios, process parameters, equipment specifications, and quality control methods that contribute to the unique properties and performance of pharmaceutical products.
- **Research and Development Data:** Pharmaceutical companies invest heavily in research and development (R&D) to discover and develop new drugs, treatments, and therapies. Trade secrets protect confidential R&D data, including preclinical research findings, experimental results, drug screening assays, and molecular modeling data. This information may reveal insights into disease mechanisms, target identification, and drug candidate optimization.
- **Clinical Trial Information:** Trade secrets extend to confidential clinical trial data generated during the drug development process. Pharmaceutical companies may keep proprietary information about study protocols, patient demographics, trial outcomes, adverse events, safety profiles, and efficacy results confidential to maintain a competitive edge in the marketplace.
- **Intellectual Property Strategies:** Pharmaceutical companies often develop strategic plans and tactics to protect their intellectual property, including patents, trademarks, copyrights, and trade secrets. Trade secrets may encompass internal IP strategies, portfolio management approaches, licensing agreements, competitive intelligence, and freedom-to-operate analyses, which are kept confidential to prevent disclosure to competitors.
- **Commercial Formulary Data:** Pharmaceutical companies may maintain trade secrets related to commercial formulary data, pricing strategies, reimbursement rates, and market access negotiations with payers and healthcare providers. This proprietary information helps companies optimize market

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positioning, pricing competitiveness, and revenue generation for their pharmaceutical products.

- **Supplier and Partner Relationships:** Trade secrets protect confidential information about supplier relationships, manufacturing agreements, distribution networks, and partnership arrangements within the pharmaceutical supply chain. This includes proprietary terms, pricing structures, service levels, and contractual obligations that contribute to operational efficiency and business continuity.
- **Regulatory Compliance and Market Authorization:** Pharmaceutical companies navigate complex regulatory landscapes and seek market authorization for their products from government agencies worldwide. Trade secrets may include confidential regulatory strategies, submissions, interactions with regulatory authorities, and compliance initiatives aimed at securing drug approvals, maintaining regulatory compliance, and addressing post-marketing requirements.

5. Data exclusivity

Data exclusivity is a regulatory measure that grants pharmaceutical companies exclusive rights over the clinical trial data submitted to regulatory authorities to obtain marketing approval for a new drug. Unlike patents, which protect inventions and innovations, data exclusivity focuses on protecting the proprietary data generated during the drug development process. Here's how data exclusivity works in pharmaceutical Intellectual Property Rights (IPR) protection:

- **Duration of Exclusivity:** Data exclusivity typically provides a period during which regulatory authorities cannot rely on the originator's data to approve generic versions of the drug. The duration of data exclusivity varies between jurisdictions but commonly ranges from 5 to 10 years, depending on the regulatory framework and the type of drug.
- **Protection of Clinical Trial Data:** Pharmaceutical companies invest significant resources in conducting clinical trials to demonstrate the safety, efficacy, and quality of their drugs. Data exclusivity protects this proprietary clinical trial data from unauthorized use by generic manufacturers seeking marketing approval for equivalent versions of the drug.
- **Market Exclusivity for Originator:** During the data exclusivity period, generic manufacturers are typically prohibited from relying on the originator's data to demonstrate the bioequivalence or therapeutic equivalence of their generic versions. As a result, the originator enjoys a period of market exclusivity, during which it can commercialize the drug without direct competition from generic competitors.
- **Incentive for Innovation:** Data exclusivity serves as an additional incentive for pharmaceutical companies to invest in drug development and clinical research. By providing a period of market exclusivity, data exclusivity rewards innovators for the substantial investments and risks associated with bringing new drugs to market.
- **Access to Medicines:** While data exclusivity grants exclusivity to the originator, it may also impact access to medicines, particularly in developing countries. Generic manufacturers often rely on originator data to expedite the regulatory approval process for generic drugs, which can lead to earlier market entry and lower prices for essential medicines once data exclusivity expires.
- **Regulatory Harmonization:** Data exclusivity regulations vary between countries and regions, leading to differences in market access and competition dynamics. Efforts to harmonize data exclusivity regulations aim to streamline regulatory processes, promote fair competition, and ensure timely access to affordable medicines while respecting intellectual property rights.

6. Regulatory Exclusivity

Regulatory exclusivity is a form of protection granted to pharmaceutical products by regulatory authorities, typically following marketing approval, to encourage innovation and reward companies for conducting research and development in specific areas. Unlike patents or data exclusivity, which protect intellectual property rights, regulatory exclusivity focuses on granting market exclusivity for a defined period. Here's how regulatory exclusivity works in pharmaceutical Intellectual Property Rights (IPR) protection:

- **Duration of Exclusivity:** Regulatory exclusivity provides a period during which regulatory authorities cannot approve competing versions of the same drug, even if the patent has expired or data exclusivity has

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ended. The duration of regulatory exclusivity varies depending on the regulatory authority and the specific regulatory pathway, but it commonly ranges from 3 to 5 years.

- **Incentive for Innovation:** Regulatory exclusivity serves as an additional incentive for pharmaceutical companies to invest in research and development in areas of unmet medical need or for drugs that offer significant therapeutic advances over existing treatments. By granting market exclusivity, regulatory authorities reward innovators for bringing new and beneficial drugs to market.
- **Market Exclusivity for Originator:** During the period of regulatory exclusivity, generic manufacturers are typically prohibited from obtaining marketing approval for generic versions of the drug. This allows the originator company to enjoy a period of market exclusivity, during which it can commercialize the drug without direct competition from generic competitors.
- **Qualifying Criteria:** Regulatory exclusivity is often granted to drugs that meet specific criteria, such as being designated as orphan drugs for rare diseases, pediatric drugs for use in children, or new chemical entities that offer significant therapeutic innovation. In some cases, regulatory authorities may also grant exclusivity for new indications, dosage forms, or formulations of existing drugs.
- **Public Health Considerations:** While regulatory exclusivity incentivizes innovation, it may also impact access to medicines, particularly in cases where the drug addresses critical public health needs. Policymakers and regulators strive to strike a balance between rewarding innovation and ensuring timely access to affordable medicines for patients, especially in developing countries.
- **Global Harmonization Efforts:** Regulatory exclusivity regulations may vary between countries and regions, leading to differences in market access and competition dynamics. Efforts to harmonize regulatory exclusivity rules aim to promote regulatory consistency, encourage innovation, and facilitate timely access to safe and effective medicines on a global scale.

➢ INDIAN PATENT ACT 1970:

The Indian Patent Act of 1970 represents a pivotal moment in India's intellectual property history, shaping the country's approach to patents, innovation, and public health. Enacted shortly after India gained independence from British colonial rule, this legislation was crafted with the dual objectives of fostering indigenous innovation while ensuring access to essential medicines for all segments of society. Prior to the Indian Patent Act of 1970, India's patent regime was governed by colonial-era laws that granted monopolies over inventions, often to the detriment of domestic innovation and economic development. The 1970 Act marked a departure from this approach by introducing significant reforms aimed at striking a balance between the interests of patent holders and the broader public welfare.

One of the most notable features of the Indian Patent Act of 1970 was the shift from a system of product patents to one that primarily recognized process patents in certain sectors, particularly pharmaceuticals and chemicals. This decision was driven by the desire to promote domestic innovation, prevent monopolistic practices, and ensure the availability of affordable medicines for the Indian population.

Additionally, the 1970 Act introduced provisions such as Section 3(d), which imposed stringent criteria for granting patents on incremental innovations in pharmaceuticals. This provision aimed to curb "evergreening" – the practice of extending patent protection for minor modifications of existing drugs without offering substantial therapeutic benefits.

Furthermore, the Indian Patent Act of 1970 included provisions for compulsory licensing, allowing the government to authorize third parties to produce patented products or use patented processes under certain conditions, such as public health emergencies or non-commercial use.

The Indian Patent Act of 1970 was a significant milestone in India's intellectual property (IP) history. Here's an overview of its history and key provisions:

- **Pre-Independence Era:** Before India gained independence from British colonial rule in 1947, patent laws were governed by the British Patent Law of 1852. This law granted monopolies over inventions for a period of 14 years. However, these laws were criticized for favoring British interests and stifling indigenous innovation in India.
- **Post-Independence:** After independence, India faced the challenge of promoting industrial development while safeguarding its national interests. The government recognized the importance of balancing the rights of

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inventors with the need for economic growth and technological advancement.

- **The Patents Act, 1970:** The Indian Patent Act of 1970 replaced the earlier British-era patent laws and introduced significant changes to the country's patent regime. One of the most notable features of the 1970 Act was the introduction of a system of product patents for pharmaceuticals and chemicals. This meant that while process patents were still allowed, patents on the final products themselves were limited, with the intention of promoting domestic innovation, access to essential medicines, and preventing abuse of monopolies.
- **Section 3(d):** Another crucial provision introduced in the 1970 Act was Section 3(d), which laid down stringent criteria for granting patents on incremental innovations. This provision aimed to prevent "evergreening" – the practice of extending patent protection for trivial modifications of existing drugs without offering significant therapeutic benefits.
- **Compulsory Licensing:** The 1970 Act also included provisions for compulsory licensing, allowing the government to authorize third parties to produce patented products or use patented processes under certain conditions, such as insufficient availability or affordability of the patented product.
- **Public Health Considerations:** The Indian Patent Act of 1970 reflected a strong emphasis on public health considerations. It aimed to balance the interests of patent holders with the broader public interest in access to affordable medicines, especially for diseases prevalent in India and other developing countries.
- **TRIPS Agreement:** India's patent laws underwent further revisions in the late 1990s and early 2000s to comply with the provisions of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), following its accession to the World Trade Organization (WTO) in 1995. These revisions included the restoration of product patents in all fields, including pharmaceuticals, in line with international standards.

1856	Act for protection of inventions on the basis of British law of 1852
1859	Patent monopolies called exclusive privileges (14 year)
1872	Patents and Designs Act
1883	Protection of Inventions Act
1888	Inventions and Designs Act
1911-1947	Modern patent era by Patents and Designs Act. First time an authority call Controller General of Patents appointed
1959	Justice Ayyangar‘s report
1967	Patent Act bill introduced in the Parliament
1970	The Patents Act passed by the parliament
1979	The Patents Act-1970 came into force on April 20, 1972
1994	Amendment by ordinance to include Exclusive Marketing Rights (EMR‘s)
1999	Amendment passed by the parliament. New patent amendment bill referred to select committee
2003-2005	Patents Act 1970 with second amendment comes into force Patent Act 1970 (2005 Amendment) comes in to force from 1-1- 2005

Table 1: History of Patent Act 1970

➢ IPR FOR DEVELOPMENT OF PHARMACEUTICAL INDUSTRY:

The evolution of Intellectual Property Rights (IPR) within the pharmaceutical industry has been pivotal in driving innovation and fostering growth. IPR, encompassing patents, trademarks, and copyrights, provides a framework for companies to protect their investments in research and development, encouraging them to invest in groundbreaking treatments and technologies. By granting exclusive rights to inventors for a limited time, IPR incentivizes pharmaceutical companies to pursue risky and expensive research endeavors, knowing that they can reap the rewards of their innovations. This system not only fuels competition among firms but also ensures that patients have access to a diverse range of therapies, ultimately advancing healthcare outcomes globally. However, striking a balance between incentivizing innovation and promoting access to essential medicines remains a continuous challenge, underscoring the need for ongoing dialogue and adaptation within the pharmaceutical industry.

III. CONCLUSION:

This article gives an exhaustive investigation of the multi-layered domain of licensed innovation privileges (IPRs). It enlightens the significant job that IPRs play in cultivating development, safeguarding imagination, and driving financial development across assorted ventures. Through the assessment of key lawful structures, authentic turns of events, and contemporary difficulties, this article highlights the unique idea of IPRs and the developing scene of advancement in the computerized age. Besides, it underscores the significance of finding some kind of harmony between boosting development through hearty IP insurance and guaranteeing openness and reasonableness for the more extensive society. As we explore the intricacies of the worldwide information economy, this survey fills in as an important asset for policymakers, specialists, and professionals trying to explore the complexities of licensed innovation privileges and their suggestions for cultural advancement.

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