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Global Compliance, Local Realities: A Study of Intellectual Property Rights Alignment in India under TRIPS

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Abstract

Intellectual property rights (IPR) are one of the pillars of modern economic governance and directly impact and enhance the ability of the country to innovate, attract investment and be competitive in the global market. This study analyses how India's broad framework of intellectual property rights, comprising patents, trademarks, copyright, geographical indications, trade secrets, and industrial design, is aligned with international standards, especially the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS). The evolution of IP legislation in India has been examined using doctrinal and comparative legal methods to determine the extent of harmonization of IP legislations in India with TRIPS and European Union IP Legislations and to find out how it has affected Indian business. The study shows that India has undertaken significant legislative reforms after 1994 to comply with international standards. However, there are substantial gaps in the enforcement mechanism, awareness at SME level, and institution capacity. The paper proposes that a strong, well-enforced and internationally harmonized IPR regime is not just a compliance requirement but also a means for countries like India, especially the emerging economies of the world, to become a global innovation hub. The study also includes policy suggestions aimed at policy makers, thought leaders, legislatures, practitioners and business entities.

Keywords: *Intellectual Property Rights, TRIPS Agreement, India, Patents, Trademarks, Legal Harmonization, Business Competitiveness, Innovation*

JEL Classification: *K11, K33, O34, F13, L51*

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Declaration of Conflicting Interests

The Author declares that there is no conflict of interest.

1. Introduction

In a world that is defined by knowledge economies, the control over and the governance of intellectual property has attained a significance that transcends beyond the traditional legal boundaries and has significant impact on business enterprises. Intellectual Property Rights (IPR) - the legal instruments that confer exclusive privileges to innovations serve as measures of competitive differentiation and are a non-monetary indicator of credibility in international business. In the case of a fast-growing economy such as India, the setting of its IPR regime is not a peripheral matter but a pivotal factor in its economic trajectory. India's engagement with intellectual property law dates before the country's independence, the membership of the World Trade Organization (WTO) in the year 1995 and the subsequent need to adhere to the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) is a landmark milestone that prompted the most radical period of intellectual property (IP) law reform (Kumar, 2003). As a result of the Uruguay Round of trade negotiations in 1994, the TRIPS Agreement was concluded, which laid down minimum standards of protection and

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enforcement of the intellectual property in the world and obliged its 164 member states to a common normative floor (WTO, 1994). In the case of India, an archaically regulated system of patent protection with historically low protection levels, rendering such an arrangement to protect the health of the population and the domestic industry was necessitated by the compliance with TRIPS, which ensured a radical redesign of the IP architecture. This realignment has far-reaching multidimensional implications on Indian businesses. On the one hand, while the grip of IPR dominance motivates local innovations, eases the transfer of technologies, and promotes India as the location of foreign direct investment (FDI), on the other hand, the costs of compliance, threat of monopolistic pricing especially in the pharmaceutical industry, and the possible hindrance of the dissemination of knowledge are challenges that may warrant subtle legislative and policy actions (Basheer & Reddy, 2008). The present study addresses a conceptual and doctrinal analysis of India's broad IPR framework which includes patents, trademarks, copyrights, geographical indications, industrial designs, and trade secrets, with the intention to evaluate the extent of their alignment with the TRIPS obligations and the chosen international standards, such as the ones developed by World Intellectual Property Organization (WIPO) and the European Union (EU). The study further examines the business implications of such alignment both in terms of enabling and structural impediments of the Indian enterprises in all sectors.

The study is structured in the following manner - Section 2 reviews the relevant literature, Section 3 outlines the methodology, Section 4 presents the description of the Indian IPR framework and its alignment across each IP category, Section 5 discusses the business implications of this alignment and Section 6 includes the final conclusions and recommendations.

2. Literature Review

The relationship between intellectual property protection and the economic development has generated a large and contested body of literature. Foundational theoretical work Arrow (1962) and Nordhaus (1969) established the economic motivation for IP protection: unless inventors are granted exclusive rights, they will not be able to recover the cost of R&D and underinvestment in the creation of socially valuable knowledge will persist. The modern architecture of international IP law, such as the TRIPS Agreement, is based on this market-failure argument. However, the developmental consequences of robust IP regimes on the fast-industrialising economies, like India, have been much more debated. Chang (2001) is famously known to have argued that even the developed countries industrialised under conditions of weak IP protection, however the subsequent introduction of TRIPS-compliant standards has put pressure on the developing countries and is to be seen as a form of kicking away the ladder. Maskus (2000) on the other hand argues that the stronger the IP rights, the lower the risk of imitation and the signalling of institutional reliability, the higher the FDI inflows and technology licensing even in the developing economies.

The Indian pharmaceutical industry has been the focal point of these arguments. The Patents Act that existed in India before the amendment in 2005 only allowed process patents on pharmaceutical products and hence created a thriving generic drugs industry (Chaudhuri, 2005). Post TRIPS, the emergence of product patents has redefined the competition landscape, and there have been significant implications for the domestic industry as well as the public health policy (Basheer & Reddy, 2008). The amended Patents Act, section 3(d) which prohibits the patenting of new forms of known substances without proof of superior efficacy has emerged as a distinctive and internationally relevant mechanism for striking a balance between protection of IP rights and the public interest (Novartis vs. Union of India, 2013).

In trademarks, the literature emphasizes the dual commercial and consumer-protection functions of mark protection. The dilution theory by Schechter (1927) which became part of the modern law and the global shift towards well-known mark protection under the Paris Convention and TRIPS Article 16 has significant implications for domestic industry and companies operating in global markets

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(Dinwoodie & Janis, 2021). The digitisation of commerce has also paved the way for increased implications in cybersquatting, domain name disputes, and cross border infringement of trademarks.

Copyright law in the digital era poses its own problems in terms of alignment. Although not strictly speaking a TRIPS instrument, the WIPO Copyright Treaty (WCT, 1996) and the WIPO Performances and Phonograms Treaty (WPPT, 1996) are the so-called TRIPS-Plus tier of international obligations in IP, which many developed countries are attempting to spread through bilateral and multilateral agreements. The copyright protection laws in India have shifted significantly towards the compliance of WCT since the amendments in 2012 of the copyright acts of 1957, although there are still gaps in enforcing copyright in India, especially the enforcement of copyright in online piracy and digital rights management.

Geographical Indications (GIs) is one of the fields where India has shown legislative activity, as well as strategic commercial ambition. The Geographical Indications of Goods (Registration and Protection) Act, 1999, which was enacted in accordance with the TRIPS Articles 22-24 given protection to iconic Indian goods such as Darjeeling tea, basmati rice and Kanchipuram silk. The literature however identifies tensions between the GI regime and interests of artisan communities where registration is not necessarily translated into market leverage for producers (Rangnekar, 2009). The most persistent challenge that has been determined in the literature is enforcement.

Literature on industrial designs and trade secrets in the Indian context is relatively sparse demonstrating a lack of domestic scholarly attention to this and nascent stages of India's design economy. The Designs Act 2000 broadly aligns with TRIPS Article 25-26, however comparative studies point that India's Design protection regime is underutilised by domestic businesses, particularly Micro Small and Medium Enterprises (MSMEs) and Small and Medium Enterprises (SMEs) largely due to lack of awareness as well as cost barriers (FICCI, 2016). Also, the absence of a comprehensive trade secrets legislation represents a notable gap relative to TRIPS Article 39 and International best practice (Rowe, 2017). Article 41 of TRIPS provides that there must be effective enforcement practices, yet there is a consistent empirical study that point out that Indian courts are overburdened, IP specialisation amongst the judiciary is sparse and that police capability to investigate IP crimes is limited (USTR, 2025). The introduction of IP divisions into High Courts starting with the Delhi High Court is a good move towards institutional development, although a complete reform is yet to be done.

3. Research Methodology

The research has a doctrinal and comparative legal research methodology that is in line with the accepted practices in the intellectual property and corporate law literature (Hutchinson & Duncan, 2012). The doctrinal method consists of a systematic study of the primary legal materials, i.e., statutes, judicial rulings, international agreements, and regulatory systems, to identify the normative content of the Indian IPR regime and its alignment with international standards.

The comparative dimension of the methodology examines India's IP legislation against the commonly accepted standards that are set by the TRIPS Agreement, WIPO administered treaties and the selected EU Directives - particularly the Directive (EU) 2015/2436 on trademarks and Directive (EU) 2019/790 on copyright in the digital single market. This EU framework is selected not because India is bound by the EU law, but because EU IP standards broadly represent the contemporary international edge of IP protection and have influenced the trajectory of global norm setting.

Peer-reviewed journal articles, monographs, institutional reports on WIPO, WTO, FICCI, CII, and government policy documents are secondary sources that are systematically screened to conceptualise the doctrinal analysis into context into the broader theoretical and empirical debates. The study does not include any primary empirical evidence such as surveys or interviews and, as such admits the drawback that the views of business

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practitioners and IP professionals are indirectly reflected in the secondary literature as opposed to the direct fieldwork.

The comparative analysis is organized based on six categories of intellectual property which include patents, trademarks, copyrights, geographical indication, industrial designs and trade secrets, which are evaluated against a standard of three common elements namely, (a) the TRIPS minimum standard; (b) the present legislative provision of India; (c) the extent of alignment or divergence; and (d) the business implication of the observed regulatory position.

4. Findings

Indian IPR Framework: International Alignment and Business Implications

4.1 Patents

4.1.1 TRIPS Requirements and Indian Legislation

Articles 27 to 34 of TRIPS require that all inventions, be it of products or processes, of all the areas of technology should be granted patent protection on the condition of novelty, inventive step, and industrial applicability whereby a minimum of twenty-year period of protection is guaranteed. Article 31 of the Agreement also offers compulsory licensing under certain conditions (Article 31) and, in its Article 27 talks about patentable subject matter. Certain exclusions from patentability are permitted by Articles 27.2 and 27.3. Article 27.2 deals with Order & Morality of a Discourse. To safeguard their members, they can prevent an invention from being patented if such prevention is necessary for maintaining peace and public order, morality, the well-being of human, animal, or plant life and the environment. This exclusion only applies if the prevention is necessary and not merely because the exploitation is prohibited by law. Article 27.3 deals with exclusions from coverage of certain subject matters, members may exclude therapeutic, diagnostic, and surgical methods used for treatment in humans or animals, and essential biological processes used to create plants or animals.

As revised by the Patents (Amendment) Acts of 1999, 2002 and above all 2005, the Indian Patents Act 1970 is the main tool of TRIPS compliance. In 2005, the amendment created the new product patent protection of pharmaceuticals and agro-chemicals, ending the process patent-only regime that had previously, which had previously sustained the generic drug industry of India. The amended Act retains major flexibilities in such amendments as Section 3(d) which is the now internationally renowned anti-evergreening provision and strong compulsory licensing provisions under Sections 84-92, which is in line with the Doha Declaration on TRIPS and Public Health (2001).

The landmark case of the Supreme Court of India, Novartis AG v. Union of India (2013) affirmed the constitutional validity of Section 3(d) and articulated a rigorous standard for pharmaceutical patentability, which has been extensively cited as an example of striking a balance between IP incentive and the access to medicines in developing countries.

4.1.2 Alignment Evaluation and Business Consequences

The patent system in India is largely TRIPS-compliant but has been strategically utilised to leverage the flexibility of the agreement. To the Indian pharmaceutical industry, this has long been used to maintain a competitive edge in generic manufacturing, the industry in which India is the third-largest volume producer in the world. But in case of research-intensive industries and multinational enterprises, the stringent criteria of patentability and compulsory licensing can bring in some elements of regulatory uncertainty, which can influence the decision to invest in R&D and the provision of technology transfer.

The patent system poses a different set of problems to Indian technology start-ups and innovation driven businesses: delays in the process, with the average time to examinations historically longer than five years; high cost as compared to the revenue history of start-up companies; and insufficient understanding of the strategic benefits of patent portfolio. The establishment of the IP Facilitation Centre and initiatives under the National IPR Policy 2016, including fee concessions for start-ups,

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represent policy responses that have begun to yield measurable results — India's patent filings reached 92,168 in 2023-24 (an 11.3% year-on-year increase), rising further to 110,375 in 2024-25, with domestic applicants now exceeding 61% of all filings — a structural shift that signals the deepening of India's innovation culture (CGPDTM, 2024, 2025).

4.2 Trademarks

4.2.1 TRIPS Requirement and the legislative Response of India

Articles 15-21 of TRIPS provides the basic structure of protection of trademarks in which member states must protect any sign that can differentiate goods or services such as personal names, letters, numerals, and figurative elements. Well known trademarks though may not need registration but need to be protected (Article 16.2), and seven years terms should be the minimum protection is to be renewed indefinitely.

The Indian Trademarks Act 1999 which replaced the earlier Trade and Merchandise Marks Act 1958 is an exhaustive legislative response to the TRIPS obligations and has been assessed as broadly compliant with international standards. The Act provided protection to service marks, introduced multi-class applications, incorporated well-known trademark provisions, and significantly enhanced remedies for infringement such as the provision for statutory damages and Anton Piller orders. The 1999 Act aligns with the framework of the EU Trademark Directive, particularly in relation to the relative grounds of refusal, dilution protection and border enforcement, as it is indicative of India’s desire to gain international credibility in IP.

4.2.2 Alignment Assessment and Business Implications

The trademark protection has emerged as a strategic business tool to the Indian businesses because domestic brand equity has increased and businesses have ventured beyond national borders into international markets. The entry of India into the Madrid Protocol in 2013 was a historic move, as Indian brand owners can now seek international trademark registration in many jurisdictions with a single application - a facility that has made the process of protecting the brand of internationalising Indian enterprises more economical and simpler.

However, enforcement challenges remain significant. The Trademarks Registry is still experiencing the problem of backlogs even though it has been modernised. Counterfeiting, especially of consumer products, pharmaceuticals, and automotive parts, is a cost to both the brand owner and consumer in terms of economic damages. Federation of Indian Chambers of Commerce and Industry (FICCI) has estimated that the Indian economy has lost several billion dollars in counterfeits annually with the disproportionately negative effects on the SMEs, which do not have the resources to organize a sustained campaign against counterfeiting (FICCI, 2016).

The virtual aspect of the trademark law is also challenging. Domain kidnappings, cybersquatting, internet marketing and the application of marks within online markets have spawned a new and developing collection of case law and Indian courts, and especially the Delhi High Court, have shown growing expertise in applying the doctrine of trademarks to the online marketplace.

4.3 Copyrights

4.3.1 TRIPS Requirements and Legislative Response of India

TRIPS Articles 9-14 incorporates the substantive stipulations of the Berne Convention (1971), and necessitate protection must be to literary, artistic and scientific works, computer programs and compilations of data. The minimum protection term is the life of the author plus fifty years. Other related rights are the rights of performers, phonogram producers and broadcasting organisations, which are also provided by the Agreement.

India’s Copyright Act 1957 was amended recently in 2012 and is largely Berne compliant and has been revised to deal with new challenges in the digital environment. The 2012 amendments introduced provisions related to digital rights management, technological protection processes, and the rights of performers and authors in the cinematographic work, which were especially relevant due to India’s significantly large entertainment industry, with its

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cinematographic industry, the music industry, and software development ecosystem.

4.3.2 Alignment Testing and Business Consequences

The copyright sector is one of the economically most important areas of IP in India, which includes film, music, publishing, software, and the fast-growing gaming and non-film animation industry. The alignment of India's Copyright Act with the TRIPS and Berne provides sound and effective legal framework to these sectors which allows these industries to license and form co-production and content distribution partnerships with other international counterparts.

India is however not a signatory to the WIPO Internet Treaties (WCT and WPPT) which is the international standard of digital copyright protection. Although the amendments that were made in 2012 did include certain provisions that are more WCT aligned, a full accession would make the Indians more reflective of the digital standards of copyright and would allow India to enter the global content markets on more favourable terms. Online piracy is a burning problem, and India is one of the top traffic sources of piracy websites worldwide that causes significant damages to local and international right owners.

In the Indian software and IT services market, which is the biggest export market in the country, source code, database and software architecture copyright is of commercial importance. This industry is well-equipped with a proper legal foundation by the acknowledgment of computer programs as literary works under the Copyright Act, which is in line with the TRIPS Article 10 and which the implications of copyrighting the works of AI as well as the fair dealing in software development scenarios are the developing areas of doctrinal ambiguity.

4.4 Geographical Indications

4.4.1 TRIPS Demands and Legislative reaction of India

TRIPS Articles 22-24 designed a two-tier protection framework of GI: the basic protection to all goods (against use of signs that confuse as to geographical origin) and the enhanced protection to wines and spirits. Also in the Agreement is the possibility to negotiate a multilateral register of wines and spirits - an issue that has been dominated by many countries especially developing countries like India to be extended to other products. The Geographical Indications of Goods (Registration and Protection) Act 1999 of India and the associated Rules 2002 are a set of obligations due to TRIPS and can be generally considered to be some of the more progressive GI regimes in the developing world. More than 500 GI have been registered in India, including agricultural products (Darjeeling Tea, Alphonso Mango), handicrafts (Pashmina, Kondapalli Toys), and manufactured goods (Kanjeevaram Silk, Agra Petha).

4.4.2 Alignment Assessment and Business Implications

The GI regime is especially strategically important to the Indian agricultural and artisanal sectors that involve millions of producers and have high potential of exporting. A defended GI grants the brand equity on a geographic area of a product, allowing high prices and establishing a differentiation in the marketplace commercially comparable to trademark protection on the collective level.

The GI protection has a business implication that is however dependent on how the protection is managed after registration. It has been noted by critics that not all registered Indian GIs have active producer groups that can provide marketing of the GI, quality standards and enforcement in foreign markets (Rangnekar, 2009). The Indian GIs being misused in other countries, the Basmati scandal with the United States and Pakistan, and the Darjeeling tea controversy in Europe, shows the relevance of the proactive international GI management as a dimension of trade policy.

4.5 Industrial Designs

4.5.1 TRIPS Requirement and legislative Response of India

In TRIPS Articles 25-26, the member states are obliged to enforce independently made industrial designs, which are new, or original, at least ten years. The Agreement allows exemptions relating to

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designs which are necessitated basically by the technical or functional factors. The Designs Act 2000 that supersedes the Patents and Designs Act 1911 in India is widely in line with the TRIPS requirements. The Act offers registration of original designs with a term of protection of ten years, which can be further extended to five years, just as per the international minimum standards. India is also open to the international practice by ratifying the Locarno Agreement on the International Classification of Industrial Designs.

4.5.2 Alignment Assessment and Business Implications

Although the laws are adequate, it can be stated that design protection is underutilised in the Indian business environment. Design registrations, although expanding, are small in comparison to the size of the manufacturing sector of India - a particularly significant gap is seen since the consumer goods industries, electronics industry, and the automotive industry of India are all design-intensive industries. The underutilisation of design protection among Indian SMEs embodies a lack of awareness, possible resource constraints and the value of design.

The internationalization of design as a competitive differentiator – as reflected in landmark cases such as Apple v. Samsung, highlights the business value of design IP. For India, to realise its potential as a global manufacturing and designing hub in the world, India needs a concerted effort to enhance design IP awareness, lower price of registration and simplify examination procedures.

4.6 Trade Secrets

4.6.1 TRIPS Requirements and the Indian Legislation

Article 39 of TRIPS affirms secrecy of undisclosed information (trade secrets) to remain undisclosed or used in a way that is against the honest business practices as long as the information remains undisclosed, has commercial value due to such secrecy, and has undergone reasonable measures to maintain secrecy.

In India, there is no single statute protecting trade secrets and it must rely on common law principles of breach of confidence, contract law and in a case involving employment, equitable remedies. Although this method is efficient in practice because of a well-established body of case law, it is short of the systemic legislative framework that TRIPS Article 39 considers and which most of India trading partners have already adopted by way of express legislation.

4.6.2 Alignment Assessment and Business Implications.

A lack of a single trade secrets law is a significant gap in the IPR provisions in India and has a direct business impact on high-technology sectors, where trade secrets can easily be the most commercially sensitive and strategically valuable manifestation of IP. The lack of a clear statutory trade secret protection is a due diligence issue that can affect the extent and form of technology transactions to Indian partners or even Research and Development partnerships with Indian organizations when multinational corporations consider technology transfer to Indian partners or Research and Development cooperation with Indian organizations.

The Department for Promotion of Industry and Internal Trade (DPIIT) has recognized that trade secrets require specific legislation and there has been a draft framework in circulation to undergo stakeholder consultations. The adoption of such law, based on the examples of EU Trade Secrets Directive (2016/943) and the US Defend Trade Secrets Act 2016, would be a great leap towards wholesome TRIPS alignment and would help India gain an advantage in terms of knowledge-based investment.

5. Discussion

5.1 A Conceptual Framework - IPR as a Five-Layer Strategic Business Enabler

Based on the doctrinal analysis and discussion, this section offers a novel conceptual framework - this Five-Layer IPR Strategic Enablement Model, summarises the findings of the study in a systematic form of how the IPR regime in India works as a strategic business enabler. The structure is based on the above analysis of doctrines and comparative

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analysis through the works of Arrow (1962) and Maskus (2000) and normative architecture of TRIPS and the study of the IP situation in India as reflected in official reports by the Office of the Controller General of Patents, Designs & Trade Marks (CGPDTM) and studies conducted at sectoral level.

The framework visualises the connection between international IP commitments and Indian business results as a five-layer chain, whereby the results of each layer are converted by the layer after systematically impact real and business and economic worth. The five layers are:

Layer 1: Normative Foundation

The bottom layer is the international legal instruments which establish the minimum standards, to which the IPR regime in India must be able to adhere: the TRIPS Agreement (WTO, 1994), the Paris Convention on protection of Industrial Property, the WIPO administered treaties such as the Madrid Protocol and the PCT, and the EU IP directives as a benchmark on comparative standards of frontier IP regulation. It is this layer which sets the non-negotiable base of IP protection and offers outside accountability system - WTO dispute settlement - which punishes domestic legislative decisions. To Indian businesses, this layer is important, first, because it is the source of the mutual protections received in foreign markets: the compliance of trading partners of India with the TRIPS commitment is a quid pro quo to the compliance commitments of India.

Layer 2: Legislative Architecture

The second layer converts the international obligations into the domestic law. It covers the Patents Act 1970 (amended), the Trademarks Act 1999, the Copyright Act 1957 (amended 2012), the GI Act 1999, the Designs Act 2000, and more importantly the fact that there is no specific legislation on trade secrets. This level is at which the unique developmental decisions of India are implemented: Section 3(d) of the Patents Act, obligatory licensing provisions, accession to the Madrid Protocol, and the GI system. The alignment review of Section 4 confirms that this layer is generally TRIPS-compliant, and the most significant exception is the trade secrets gap. The law-making system is the main factor that defines the rights and obligations, duties and responsibilities of businesses.

Layer 3: Institutional Infrastructure

The third level is the bodies that grant, adjudicate and enforce IP rights: the Controller General of Patents, Designs and Trademarks (CGPDTM); Department of Promotion of Industry and Internal Trade (DPIIT); the specialised IP benches in the High Courts of Delhi, Bombay and Madras; and the enforcement of IP by the customs authorities. This tier is the point of critical transmission between legal right and real-world commercial security. The understanding of Arrow (1962) that the social value of any knowledge creation is dependent on the possibility to reap the rewards of it, finds its application here, the rights which are legal in the books, but cannot be actually exercised in practice, do not provide the incentive effects, which would rationalize the social costs of IP monopolies. The Indian institutional layer is being getting better - the creation of IP-specialised court benches and digital modernisation programme at CGPDTM are both very positive gestures - but it is the weakest link in the IPR value chain.

Layer 4: Business Value Creation.

The fourth layer identifies the mechanisms by which an actual IPR regime creates direct business value. There are five identified value-creation channels: (i) Innovation incentive -the exclusive rights provided by patents and copyright allow companies, especially in the pharmaceutical, technology, and creative sectors, to receive payoffs on investment in the R&D process, which explains their continued spending on innovation; (ii) FDI attraction - a well-operating IP system reduces the appropriability risk faced by foreign investors and technology licensors and makes India more appealing as a destination in their search to invest in knowledge-intensive projects (iii) Brand Equity, trademark and GI protection provides companies an opportunity to build, protect and monetise brand and geographical identity, both domestically as well as across borders (iv) Technology transfer, the fact that a well-orchestrated IP regime facilitates licensing arrangements, joint ventures, and technological

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collaborations thus leading to accelerated diffusion of advanced technologies into the Indian economy and (v) Export competitiveness - it is critical to note that IP rights underpin India's competitiveness in export sectors including IT services (copyrights), where India has been a strong exporter, pharmaceuticals (patents) and branded goods (trademarks).

Layer 5: Strategic Outcomes

The apex level is the macro-level economic results that a sound, active, and internationally co-ordinated IPR regime facilitates nationally. Three strategic outcomes have been determined here - the first being the development of India as a global hub of innovation. This as an objective that is already stated in the National IPR Policy 2016 and is the central point of the Viksit Bharat 2047 vision; the second being the focus on the concentration of a knowledge economy, whereby IP-intensive sectors will also take an increasing proportion of the GDP and export income; and the third being the improvement of the global IP ranking of India, as shown by its current sixth place in global patent registration as per WIPO (2024).

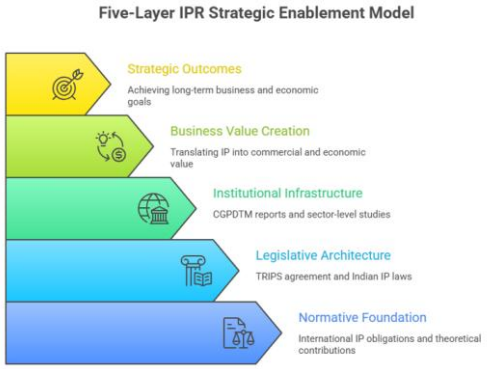

Figure 1. The Conceptual Model that illustrates the transformation of international IP obligations into multi - level value creation with macroeconomic outcomes

Source: Author's conceptualisation

The structure further determines two cross-cutting dimensions that predetermine the efficiency of the whole five-layer chain. The first, the quality of enforcement dimension: despite formal sufficiency of the normative, legislative, and institutional layers, the inconsistency and poor-quality enforcement will deteriorate the commercial value of the IP rights along the chain. The second one is the awareness and access dimension: the value of the IPR regime depends on the businesses (especially SMEs) having awareness of their rights, affordability of registration and enforcement processes, and strategic use of IP. The reasons why these cross-cutting dimensions provide that legislative reform can never be effective and that institutional capacity-building and IP awareness programmes are necessary complements to legal harmonisation.

The Five-Layer IPR Strategic Enablement Model is an analytical framework that empowers policymakers, legal practitioners, business strategists with insights into the diagnosis of the locations of value creation or dissipation within the IPR ecosystem of India and the prioritisation of interventions. When applied to the existing situation in India, the framework implies that the legislative gap in regards to trade secrets (Layer 2), the quality of the institutional enforcement (Layer 3), and the lack of awareness among the SME (cross cutting Awareness dimension) are the most urgent thresholds that need to be leveraged to enhance the IPR regimen and its impact on the business ecosystem in India.

IPR as Strategic Business Enabler in India

The analysis has revealed a nuanced picture of India's IPR alignment broadly compliant with TRIPS minimum requirements through most IP categories, however currently having some gaps in enforcement, a further strategic deployment of

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TRIPS, especially in the pharmaceutical segment, and targeting the gaps in legislation, largely in the area of trade secrets would impede the extent to which businesses have full protection.

From a business perspective, the implications of this landscape are sector specific. In the case of pharmaceutical firms, the patent regime compliant with TRIPS has been a bifurcating factor wherein the domestic generic drug firms now operate under a more multifaceted freedom-to-operate environment whilst proprietary drug firms focussed on innovation and new drugs, both domestic and multinationals, face much stricter patentability standards that promote the research and innovation ecosystem. The overall impact has been that in the last few years we have witnessed Indian pharma companies themselves focussed on their own patent portfolio.

The alignment of copyright and patent laws in India with international standards, as it relates to technology companies, has provided an overall facilitating environment to the software and IT services sector contributing to a large portion of the GDP of India (which is of more than 7 percent) and has created an estimated 200 billion dollars of annual export revenue (NASSCOM, 2024). Security of IP rights, both in terms of the legal framework and in terms of enforcement is a key factor in the continued location of global capability centres and innovation alliances in India.

For consumer goods companies and brand owners the trademark and design systems offer commercially sufficient protection, however, it must be noted that enforcement quality and speed are competitive weaknesses when compared with similar systems elsewhere. The growing expertise of Indian courts - especially the specialised IP benches in the High Courts - in the resolution of complicated IP cases is a good institutional change that is slowly yielding more unified and commercially sensible enforcement results.

The IPR environment at the SME level is a paradox, the legal environment is considerably modernised and there is a focussed policy stance on strengthening this rigor of the system, as reflected in the National IPR Policy 2016, which is explicitly pro-IP utilisation by SME. However, the barriers of cost, complexity, awareness and enforcement accessibility continue to plague the actual IP focus amongst Indian MSMEs and SMEs, most Indian SMEs continue to be IP-passive, both in the systematic creation of IP assets and the effective enforcing of the limited IP rights they possess. This is possibly the biggest gap that needs to be addressed to bridge the gap in the translation of legal framework alignment into economic value creation.

Here, it is essential to have a comparative lens with the IP regime of the EU. The EU has put in place a lot of investment in the harmonisation of laws, one, through directives on trademarks, copyrights, designs, and trade secrets, second and more importantly, in building institutional infrastructure: the European Union Intellectual Property Office (EUIPO), the Unified Patent Court, and the European Observatory on Infringements of Intellectual Property Rights all contribute to a system that would put IP rights accessible and enforceable for businesses of all sizes. India needs to build similar institutional infrastructure that is proportional to the size and complexity of its economy, a problem that the National IPR Policy 2016 has begun to address yet to be fully resolved.

5.2 Theoretical Contribution

The study provides an interdisciplinary contribution to the intellectual property law, innovation economics and strategic management literatures by offering a multi-level conceptualisation of IPR regimes as agents of business value and not the passive legal infrastructures. Previous scholarship on intellectual property rights either examined compliance with law (e.g. compatibility with TRIPS) or economic incentives (Arrow 1962; Nordhaus 1969). Building on this literature, this study combines these two strands to arrive at a strategy-focused reading of IPR systems in developing economies.

To begin with, the study extends the traditional market-failure justification of intellectual property by showing that the effectiveness of IPR regimes does not depend only on legal protections being available, but also on the institutional and operational mechanisms through which such

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protections can be turned into appropriable business value. By focusing on the effectiveness of IPRs in China's software sector, this study addresses some of these calls for changing the focus of IPR research.

The study brings forth the Five-Layer IPR Strategic Enablement Model, a novel theoretical framework that ties global normative commitments (e.g., TRIPS) to firm-level strategic outcomes via a sequential chain of legislative architecture, institutional infrastructure, and value creation mechanisms. This multilayered approach contributes to theory by reframing IPR as not merely a static regulatory environment, but as a dynamic value transmission system that connects macro-level legal harmonisation to micro-level competitive advantage. This framework particularly emphasizes how intermediate layers especially qualitative enforcement and institutional capacity play a vital role as crucial moderators in the translation of formal legal alignment into material economic gain.

Apart from this above, it contributes to the new debate on IPR in currently industrialising and emerging market contexts, particularly in India, which reveals that it is possible to use TRIPS flexibilities strategically (e.g., Section 3(d), compulsory licensing) without non-compliance while achieving developmentally significant outcomes. International IP literature tends to assume that harmonisation necessarily has the same economic impact everywhere, while this may not be true. The study also substantiates a more differentiated interpretation of 'selective alignment' terminology, in which states should calibrate their IPR regimes to balance incentives to innovate, public welfare and industrial policy objectives.

5.3 Policy Recommendations

The following are recommendations that are promoted based on the above analysis to be considered by the legislators, regulators, and business practitioners -

The most noteworthy gap in the IPR system in India should be bridged by enacting specific trade secrets legislation that is consistent with TRIPS Article 39 and which is based on the EU Trade Secrets Directive (2016/943) as a legislative template.

Ratify the WIPO Internet Treaties (WCT and WPPT) as an indication of adhering to the standards of the digital copyright and allow India to enter the global content markets under more favorable conditions.

Constituting a special National Intellectual Property Appellate Tribunal, having the expertise of IP to minimize the High Courts load, and give quicker and more standard IP dispute resolution. Develop and staff the IP Facilitation Centras in the National IPR Policy, with a particular focus on SMEs and start-ups, to make IP registration and enforcement less expensive and less complicated. Sign bilateral and multilateral IP cooperation treaties with major trading partners, especially on GI protection and trademark protection, to enhance the international aspect of Indian brand and product protection.

Fund judicial and police training in IP law and enforcement based on the IP specialization programs already in operation in the High Courts.

Continue the long-running campaign by Pursue India at the WTO to have the increased protection under the GI movement (only wines and spirits are guaranteed by TRIPS Article 23) extended to all product categories because this will go a long way in empowering the global presence of iconic Indian GI products.

5.4 Future Implications and Research Directions

Beyond the immediate policy recommendations, several forward-looking implications merit attention. First, ongoing India-EU and India-US trade negotiations may introduce TRIPS-Plus obligations such as data exclusivity, which could constrain the very compulsory-licensing flexibilities that this study identifies as central to India's pharmaceutical competitiveness, making the durability of "selective alignment" an open question. Second, generative artificial intelligence raises unresolved doctrinal issues around the copyrightability of AI-assisted works and the patentability of AI-generated inventions, extending the ambiguity already noted in the software sector to a much wider range of industries. Third, as India's semiconductor and green-technology sectors expand under missions such as Viksit Bharat 2047, design-rights protection for chip layouts and compulsory-

licensing questions in climate technology will test the Five-Layer Model in domains beyond pharmaceuticals. Finally, because this study relies solely on doctrinal and secondary sources, future research should validate the Five-Layer Model empirically, through firm-level surveys of SME IP behaviour and cross-country comparison with other TRIPS-flexibility-using economies such as Brazil and South Africa, to test whether legislative alignment reliably translates into the business value the framework predicts.

6. Future Implications

Beyond the immediate policy implications, there are further forward-looking implications aside from the above-mentioned recommendations. Firstly, TRIPS-Plus provisions such as data exclusivity may be included in the India-EU and India-US negotiations on trade, and they might limit the flexibility associated with compulsory-licensing, casting doubts about the sustainability of "selective alignment". Secondly, generative artificial intelligence leads to doctrinal uncertainties in the context of copyrighting of AI-assisted works and patentability of AI-generated inventions, thereby broadening the list of uncertainties already found in software industry. Thirdly, with the growth of the semiconductor industry and the green-tech industry in India, driven by the mission Viksit Bharat 2047, the protection of design rights for chip layouts and the compulsory licensing of climate technology will be another test to the applicability of the Five-Layer Model outside the pharmaceutical field. Lastly, since this analysis is based exclusively on doctrinal and secondary materials, future research will need to empirically validate the Five-Layer Model, by surveying firms' IP behaviour in India in the context of SMEs and comparing with other countries with similar legal regimes such as Brazil and South Africa.

7. Conclusion

This study has looked at the general IPR system in India with reference to the standard of TRIPS and the international IP standards and has looked at the implications of such standards on Indian business. One, the IPR system in India is a complex, yet still an advanced, combination of international requirement and national development policy. The legislative framework, whether it is patents, trademarks, copyrights, geographical indications or designs, is extensively TRIPS-compliant and tactfully uses the flexibilities that the Agreement allows. This is not an inability to align but a conscious use of the policy space that is offered by international law, to which there have been substantial economic payoffs in the pharmaceutical and generic creation sectors.

Second, India has the most impactful IP challenge in the form of the gap between the adequacy and effectiveness of its legislative enforcement. The key to bridging this gap lies in investment in judicial capacity, police specialisation, technology to enforce the border and alternative dispute resolution mechanisms which are explicitly created to resolve IP disputes.

In conclusion, the study advances the opinion that intellectual property is a multi-faceted strategic resource that affects not only innovation motivation but also the attractiveness for foreign direct investment, product branding and market differentiation. The study links IPR as a necessary oil to lubricate the larger strategy of economic growth in countries and could be tailored as a tool for the same. It suggests the worth of intellectual assets depends on the regulatory and institutional ecosystems of the firms in which it operates and enabling that is a country specific dictum necessary for actionable outcomes.

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