



**THE STUDY OF INTELLECTUAL PROPERTY & ECONOMIC DEVELOPMENT IN INDIA**

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**ABSTRACT**

The development of Intellectual property rights over time has invariably brought an upsurge in the outlook of nations toward the aspect of societal and cultural growth, this being said with the preliminary assumption that economic growth has been the most affected realm and that it requires a separate spectrum of analysis. The antiques between the IP administration and the national economy can be effortlessly deciphered by the reality India's freedom had itself brought a time where the authorization of the national IP laws was considered to remain on the touchstone of the market economy. The point of the present article is to examine the effect of a solid IP administration on the financial advancement of a country and furthermore a light is raised into Indian economy, and the production of a proficient imaginative framework is talked about. Protected innovation (IP) is the term that depicts the thoughts, developments, advances, fine arts, music and writing, that are impalpable when initially made yet wind up noticeably important in unmistakable frame as items. Scholarly properties are the manifestations of the psyche: creations, abstract and imaginative works, and the images, names, and plans utilized as a part of trade. IP framework is being incorporated into the information economy and posturing fascinating difficulties to the business, government arrangement producers, researchers, and analysts in both created and creating nations. Late years have seen expanded consideration paid to the fortifying of protected innovation rights because of globalization. The reason for the foundation of a legitimate structure on IPRs is it is a flag to society that innovative and creative thoughts will be compensated. A solid connection of the IPR with the drug store and biotech segments has been talked about. The profits from every single human attempt can at last be converted into money related additions. Organizations, colleges, and enterprises need to ensure their IPR globally. The reality a solid IPR really incites IPR encroachments in many creating countries likewise is clearly an issue that should be examined while understanding the need of the previous. With the developing acknowledgment of IPR, the significance of overall gatherings on IPR has been figured it out. The exchange off between out of line rivalry laws and IP likewise expect significance of high size and subsequently should be especially accentuated. Without a doubt, the Intellectual property (IP) frameworks must be created to have the capacity to acquire financial prosperity. To have the capacity to achieve this objective, nations have consented to various arrangements and settlements.



**KEYWORDS:** Intellectual property rights, economic growth, IPR regime, TRIPs, patents, copy writes, Economic development

## **INTRODUCTION**

Intellectual property rights as an aggregate term merges the going with independent IP rights which can be everything viewed as utilized for ensuring unmistakable parts of an inventive work for different security; Patents, Copyrights, Trademarks Registered course of action, Protection of IC sort out format, Geographical signs, and Protection of undisclosed data outline, Protection of IC setup plot, Geographical signs, and Protection of undisclosed data. IPR is, figuratively speaking, neighbourhood rights adjacent to copyright, which is worldwide in nature as in it is rapidly accessible in every single one of the general population from the Berne Convention. These rights are yielded by the State and are compelling arrangement of activity rights actuating that nobody can utilize these rights without the assent of the correct holder. Understand that these rights must be re-set up every now and then to keep them in drive with the exception of if there should be an occurrence of copyright and trademarks. Guaranteed advancement is an 'effect contraption's for cash related movement and riches creation that has not yet being utilized to culminate impact in all nations, especially really taking shape scene. Inside each association, building IPR security frameworks through laws, fundamentally, consider two reasons. One is to impel premiums in learning creation and progress by setting up select rights to utilize and offer starting late made advances, things, and associations; for information is a sort of non-earn back the original investment with stock, which is certainly not hard to be obtained by general society. Without attestation from the laws, the imitators can unmistakably reproduce the moved advancement without paying any cost for the examination work. They would be less on edge to add to the examination and movement process in the under affirmation condition. All makers may need to share the free moved learning made by others instead of contributing a considerable measure of cash, human capital, and time on high-chance and costly research work. With insurance from the IPR framework, the pioneers and makers could construct extra preferred standpoint through compelling arrangement of activity security; they would be additionally arranged to spend physical capital and HR on progression rehearses with the need of extending all the all the all the more controlling establishment advantage. For a long time, cash related experts have endeavored to give a light in the matter of why several economies develop rapid, while others don't; around the day's end, why two or three nations are rich and others poor. A direct fractional balance investigation uncovers that while the North dependably profits by more grounded IPR insurance in the Developing nations, the Developing nations themselves are found to profit just when the R and D is exceptionally beneficial, to such an extent that, the R& D actuated by

more grounded IPR security in the Developing nations brings about noteworthy cost decreases when the Developing nations contain a huge offer of the general market for the products. The primary concerns have been whether expanded IPR insurance in the Developing nations would build the rate of development, the rate of innovation exchange from the North to the Developing nations, and, welfare levels in the two areas. It is for the most part concurred that innovation and information have assumed an imperative part in monetary development with regards to investigating these issues in a multi-locale setting, the most applicable examinations are those that look at a world made out of two sorts of nations: a created, enhancing 'North' and the creating nations. For nations to advance development, his hypothesis expresses, that their monetary approaches ought to energize interest in new innovative work and finance programs that create human capital. Remote direct venture happens when a Trade Negotiations Committee has an adequate cost or mechanical favourable position over firms in the host nation to counterbalance the higher expenses of working globally. Applications for licenses are likewise expanding in creating nations. In the 1990s, an expanding number of arrangement producers in the rising financial forces perceived the critical pretended by the Intellectual property framework in the institutional foundation for empowering private interest in R&D, particularly in the mechanical and logical fields. The famous financial expert Paul Romer recommends that the amassing of information is the main impetus behind monetary development.

#### **OBJECTIVES OF THE STUDY**

Good and valuable tool for the economic as well as technological development for a country particularly for developing countries where small and medium sized enterprises play an important role in the economy provides alternative system for the promotion and protection of IP provides economical and faster system for protecting small innovations. The objective of this study is also to analyses as to whether the Utility model System is required for India in order to enhance furthers the economic and technological progress. The study would also analyses as to whether; Utility Model System would be more suitable to small innovators and Indian SMMEs to encourage their intellectual property creation and protection activities to meet global competitive challenges as compared to current Patent and Design law.

#### **RESEARCH METHODOLOGY**

The present study is a very important aspect of any research project. It includes the various sources of collecting information like the primary sources where fresh first-hand information is collected through personal interviews of experts and the secondary sources where information is readily

available such as books, journals, etc. It also includes information processing and information analysis which are explained along with the sources of collecting information.

### **INTELLECTUAL PROPERTY AND ECONOMIC DEVELOPMENT**

Rita Hayes has observed that developed and developing nations alike are modernizing their intellectual property systems, providing more support to research and development institutions, and creating more incentives for the private sector to encourage the development of intellectual property assets. John Hillery has stated that intellectual property protection drags down developing economies by resulting in a loss of jobs, driving up prices on goods due to a monopoly created by Intellectual property, reducing access to technology needed for development, requiring developing countries to administer and enforce Intellectual property rights and compelling companies to pay licenses or royalties on the products that they produce. Intellectual property would encourage intellectual property the growing global technology networks by release powerful internal resources. Intellectual property protection is the tool which releases that resource. A strong intellectual property regime reassures potential investors that their capital and their technologies will not fall prey to piracy and counterfeiting. Intellectual property is considered a barrier to access to life-saving medicine and critical technologies. Patent claims are published, allowing rival firms to use the information in them to develop further inventions. Simon Anholt has noticed that intellectual capital plays vital role in the modern economy by adding value to the product. Human creativity is a vast national resource for any country. In most developing economies there are significant amounts of labour employed in copying unauthorized goods.

### **INDIA'S INTELLECTUAL PROPERTY RIGHTS REGIME & TRIPS AGREEMENT**

Different amendments to the various existing Acts- Patent Amendment Act (2005), Copy right Amendment Act (2010), are made to strengthen domestic legal framework to fulfill the harmonization with the WTO's TRIPS agreement. The Trade Related Intellectual Property regime has emerged as the basic framework for ensuring intellectual property rights across the world. Patents: Patent Amendments: Patent amendment Act 1999, 2002 and 2005. The intellectual property right regime of the country has been modified by a number of legislation since 1995. Copyrights: The Copyrights Act 1957 has been amended in 1983, 1984, 1992, 1994, 1999 and 2010. Similarly, a number of fresh legislations are made to upgrade the country's intellectual property regime. Every member of WTO should include TRIPs provisions in their domestic intellectual property legislations. Intellectual property regime is anchored by legislations in the corresponding fields. The following are the main legislations made to accommodate the TRIPs envisaged IPRs rights. With the establishment

of WTO and the international enforcement of its various provisions; India also has made corresponding changes in the intellectual property regime.

### **BENEFITING FROM INTELLECTUAL PROPERTY RIGHTS**

The adoption of stronger IPRS in developing countries is often defended by claims that this reform will attract significant new inward flows of technology, a blossoming of local innovation and cultural industries, and a faster closing of the technology gap between themselves and developed countries. It must be recognized, however, that improved IPRS by themselves are highly unlikely to produce such benefits. Consider the differences between countries in sub-Saharan Africa, with long-standing and relatively strong laws on the books (albeit a limited ability to enforce them), and countries in East Asia, many of which have reformed their regimes only quite recently. The prior group attracts little FDI and receives few patents at home or abroad. The latter group attracts the bulk of FDI in the developing world and is experiencing rising use of intellectual property protection (Maskus, 1998a, b). Expectations that stronger IPRS alone will bring technical change and growth are likely to be frustrated. The evidence presented above suggested that IPRS could generate more international economic activity and greater indigenous innovation, but such effects would be conditional on circumstances. Circumstances vary widely across countries and the positive impacts of IPRS should be stronger in countries with appropriate complementary endowments and policies. Countries face the challenge of ensuring that their new policy regimes become pro-active mechanisms for promoting beneficial technical change, innovation, and consumer gains.

### **SUCCESS IN DEVELOPING COUNTRIES**

IP positive environment created a thriving industry and much-needed new jobs in India, and has helped attract significant foreign direct investment as well. The same is true in countries such as Brazil, China, Korea, and Singapore, which have adopted proactive intellectual property policies to stimulate local industries from biotechnology to telecommunications to electronics. Intellectual property rights have, despite their many development stages and difficulties, a great impact on businesses and their competitiveness, success, development, and also employment.

### **INDIAN PATENT LAW**

Implications of the new patent law for industrial development and public health are still unclear. The threat of depriving Indians of new research products seems hollow. If they do not register their patents in India, the domestic industry has the proven capability to “reverse-engineer” the same and provides them at much lower prices. If they register the patent and do not work it, India's patent law has adequate mechanism to deal with such situations and ensure that the product is available to the needy. Ajit Dangi, Director General, Organization of Pharmaceutical Producers of India, Given India's

abundance of scientific and technical manpower, Section 3(d) of the Patent Act will not only act as a barrier for innovation to our scientists, but will also have a negative impact on public health.

#### **LOCAL TECHNOLOGICAL CAPABILITY BUILDING**

The strengthening and harmonization of IPR regimes worldwide have considerable implications on the process of acquisition of local technological capability by developing countries. The provision of product patents on chemical and pharmaceutical products, for instance, would adversely affect the process of innovative activity of the developing country enterprises in the manufacture of chemicals covered by patents. The development of new chemical compounds is generally beyond the capability of most developing country enterprises in view of the huge resources involved. Therefore, they focus their attention on process innovations for known chemicals and bulk drugs. This imitative duplication or reverse engineering activity is an important source of learning in developing countries. Indeed, most industrialized countries of today as also newly industrialized countries encourage local learning through soft patent laws in the absence of product patents in chemicals, in the early stages of their development, as highlighted earlier. It means that the poorer countries of today will not be able to benefit from an important source of total factor productivity growth (viz. absorption of spillovers of foreign inventions), which was available to countries that have developed already. In that respect the TRIPS Agreement is highly inequitable. The probability of a stronger IPR regime encouraging innovative activity in developing countries is very small. In fact, in poorer countries, the adoption of utility models or petty patents and design patents has a greater potential in encouraging local technological activity rather than implementation of the provisions of TRIPS.

#### **INDUSTRIALIZATION, TECHNOLOGY TRANSFERS, AND TRADE**

Recent trends suggest a reversal of trend in the growing importance of arm's length licensing as a mode of technology transfer, as multinational enterprises (MNEs) prefer to internalize technology transactions (see Kumar 1998). The strengthening of IPR's regime may further limit the access of technology by developing country enterprises. Kim (1997) provides a number of examples of Korean corporations being denied technology licenses by patent holders in the Western world forcing them to reverse engineer the products. A number of local enterprises in developing countries will come under pressure to close down or form alliances with larger firms, resulting in a concentration of the industry [World Bank 2002:137]. The dependence on imports may go up. Mascus and Penubarti (1997) for instance, find that TRIPS could affect import volumes significantly; for example, in Mexico, the anticipated rise in manufactured imports could be of the magnitude of \$6.3 billion, amounting to 9.4% of its real manufactured imports in 1995 (as cited in World Bank 2002:132).

### **PRICES OF MEDICINES AND LOSS OF CONSUMER WELFARE**

Several studies have reviewed the result on the costs of medicines following the release of product patents and also have simulated welfare deficits for consumers in growing countries. It really is widely thought that medication prices will rise after advantages of product patents, as took place in China, which presented them in 1993 [May 2000:99; also see Lanjouw 1998, Scherer and Watal 2001, and Panagariya 1999]. Noguees (1993), discovers welfare deficits to six growing countries (Argentina, Brazil, India, Mexico, Korea, and Taiwan), from the intro of product patents, to be between US\$3.5 billion to \$10.8 billion, depending after the assumptions. Increases in size to the patent owners from this launch would range between \$2.9 billion and \$14.4 billion. The welfare reduction to India could be between \$1.4 billion to \$4.2 billion in a season. Watal (2000) simulates the likely upsurge in pharmaceutical prices and reduction in welfare in India with the advantages of product patents in 22 existing pharmaceutical products, and confirms that the weighted mean medicine price in India could increase from 26% (for a linear demand function) to 242% (with a regular elasticity-type demand function). A youthful analysis by Subramanian (1994), got found the utmost price increase of 67% for India following a intro of product patents. Fink (2000) discovers the number of price increase to be between 182 to 225%. This shows that the release of product patents would have an effect on prices of drugs significantly, and unless new drugs are better, you will see a decrease in medical levels of the populace (May 2000). The recent circumstance of huge dissimilarities between prices of HIV Helps drugs sold by patent holders in South Africa and their common substitutes just provides further data to the probable of price boosts following the benefits of product patents. It might be argued that almost all drugs are out of patent security, and hence will never be affected. The Products drugs controversy demonstrates effective treatment for most of the scourges of your day, such as, tumor, cardiac failures, and renal problems, amongst others, may be affected.

### **INCOME EXCHANGES FROM PRODUCING COUNTRIES**

Furthermore, the extension of IPRs to plant varieties could further increase the outflow of royalties for the breeder lines of the seed companies even though the basic raw material for the development of these varieties, namely, genetic diversity, which is largely found in developing countries and is supposedly the work of generations of farmers in these countries, is generally available to them free. Given the near complete domination of developed countries on technology generation as evident from the 95% ownership of US patents, the strengthening and harmonization of IPR's regime will lead to a substantial increase in the flow of royalties and license fees from developing countries to developed countries. Among the developing countries, China could see an outflow of patent rents to

the order of \$5. McCalman (1999) quantifies the impact of patent harmonization and finds that it has the capacity to generate large transfers of income between countries, with US being the major beneficiary. 1) Updates the computations of McCalman and suggests that the net patent rents derived by the US (in 2000 US\$) could add up to over \$19 billion, Germany \$ 6.1 billion, India \$ 903 million, Israel \$ 3.8 billion 7 billion, and Japan \$ 5.7 billion.

#### **INTELLECTUAL PROPERTY AND INVESTMENT**

A consistent and steeply rising increment in FDI, in India, has been apparent (with the exception of a dip in 1999, because of the antagonistic effect of the East Asian emergency) as far back as patent and trademark change was presented in the mid-1990s. The comparable increment in Brazil is more emotional, with a tremendous development in FDI following the presentation of another mechanical property law in 1996, which gave patent security to 20 years, and in addition pipeline insurance for drugs not yet in the market. Numerous scientists have recommended an immediate connection between upgraded IP assurance and an expansion in internal FDI in specific nations. Some are steady of the positive connection between protected innovation and developments and creations and others have diverse perspectives. Financial analysts have not sufficiently managed issues specifically identified with financial aspects and licensed innovation. Moreover, security of licensed innovation can possibly contribute emphatically to a nation's endeavours to draw in FDI, increment outside exchange, and give the important conditions to exchange of innovation. On account of Japan, for instance, the rate of innovative improvement since 1945 can altogether, however not so much, be related with protected innovation and, specifically, the patent framework, which was generally utilized as a part of the 'making up for lost time' process. The connection between global monetary movement and IP for creating nations in the post-TRIPS time was as of late analyzed by W. Lesser, of the Cornell University, in an article appointed by World Intellectual Property Organization (WIPO). He analyzed, specifically, the connection between more grounded IP security and two global variables: FDI and imports. Lesser reports his discoveries in the accompanying way, "the connection between the IP score and both FDI and imports is both positive and huge" and finishes up by saying that taken with regards to past investigations, (the outcome) is convincing confirmation that more grounded protected innovation rights (IPR) do in fact give some residential advantages to creating countries." There are numerous other positive viewpoints to the subject of licensed innovation and its advantages in the financial condition, particularly on the off chance that one takes a gander at the protected innovation other than the licenses. IP administrators consider the market estimation of their trademarks as a major aspect of their scholarly and elusive capital. In creating nations, this monetary division has developed impressively as proposed in Table - 2.9, concerning the book

distributing segment. Copyright and related privileges of the creators, performing specialists, makers of sound recordings, supporters, and different makers have been in the spotlight for quite a while, as a result of the financial misfortunes credited to the robbery of works ensured by copyright, especially, programming, music, and film. In light of the information from the Organization for Economic Co-operation and Development (OECD), the extent of fake merchandise in all out area deals has achieved 33% for the music segment, half for the video division, and 43% for the product sector.

### **ECONOMIC DEVELOPMENT AND PATENTS**

Patents can be used to stimulate economic development in four main methods; patent information facilitates technology transfer and investment; patents encourage Rand D at universities and research centers; patents are catalysts of new technologies and businesses; and businesses accumulate and use patents in licensing, joint ventures, and other revenue-generating transactions. By offering exclusive rights for a limited period, an inventor may recover the R & D costs and investments. It also promotes investment to commercialize and market new inventions so that the general public can enjoy the fruit of the innovation. Further, the system is designed to disseminate knowledge and information to the public through publication of patent applications and granted patents. Many countries, in particular the least developed countries, have only begun to address the challenges of setting up an appropriate patent system in place, to reap the economic and social benefits. The development of these countries' resources and infrastructure and their capacity to benefit from the rapid growth of intellectual property as a valuable economic asset in the world economy, remains an urgent concern. A national strategy may need to be effectively set up on the basis of a country's unique requirements and priorities. Addressing questions on how the patent system can play an important role in fostering development and eradicating poverty will certainly contribute to a better understanding of the role of the patent system in the broader range of national development policy measures and to formulate a patent policy that meets the interests of each country.

### **ECONOMY OF INDIA AND INTELLECTUAL PROPERTY RIGHTS**

The economy of India is the 6th biggest economy on the planet by showcase trade rates and the fourth biggest by acquiring power equality. India was under the social democratic-based strategies from 1947 to 1991. The economy was described by control, protectionism, and open proprietorship, prompting unavoidable debasement and moderate development. Since 1991, proceeding with financial advancement has pushed the economy toward a market-based framework. A restoration of monetary changes and better financial arrangement in 2000s quickened India's monetary



development rate. By 2008, India had built up itself as the world's second-speediest significant developing economy. Amid the 1950s, the nations of South-East Asia were more regrettable or keeping pace with the vast majority of the African nations regarding monetary development. As of late a few economies in the district have opened up their business sectors, introducing striking contextual investigations, delineating how a guarantee to showcase foundations has emphatically added to destitution decrease, mechanical advancement, and a large group of other positive improvements. Development occurred, because of the consistent level of beneficial ventures that prompted business visionaries ascending from subsistence-level cultivating into all around aggressive organizations. Because of solid property rights and a run of law, individuals were lawfully enabled to go out on a limb and receive their benefits. With a structure that empowers achievement and spots strict constraints on influence, the locale has turned out to be amazingly adroit at overseeing assets and making riches. The accompanying is a portion of the key issues that India needs to address in each of the four columns to goad development and advancement and, in this manner, increment monetary and social welfare.

#### **FORTIFYING THE ECONOMIC AND INSTITUTIONAL REGIME**

India is still a relatively closed economy compared to other Asian economies, in which exports account for a much larger share of GDP (33% in China and 38% in the Republic of Korea, compared with only 15% in India, in 2003). India has other intrinsic advantages, such as macroeconomic stability, a large domestic market, and a large and relatively low-cost and skilled workforce. Important elements of the economic and institutional regime include macroeconomic stability, competition, good regulatory policies, and legal rules and procedures conducive to entrepreneurship and risk taking. Taking advantage of the knowledge revolution's potential hinges on effective economic incentives and institutions that promote and facilitate the redeployment of resources from less efficient to more efficient uses, this fundamental pillar of the knowledge economy provides the overall framework for directing the economy. A key feature is the extent to which the legal system supports basic rules and property rights. It also has a critical mass of well-educated workers in engineering and science and, unlike China, abundant raw materials. All this should allow the country to emerge as a major hub for manufacturing and service industries. India also needs to boost foreign direct investment (FDI), which can be a facilitator of rapid and efficient transfer and cross-border adoption of new knowledge and technology. FDI flows to India rose by 24% between 2002 and 2003, due to its strong growth and improved economic performance, continued liberalization, its market potential, and the growing competitiveness of Indian IT industries. Successful economic development is a process of continual economic upgrading in which the



business environment in a country evolves, to support and encourage increasingly sophisticated ways of competing. A good investment climate provides opportunities and incentives for firms - from micro enterprises to multinationals - to invest productively, create jobs, and expand. Strengthening intellectual property rights (IPRs) and their enforcement, India has passed a series of IPR laws in the past few years, and their enforcement will be the key to its success in the knowledge economy.

#### **CREATING AN EFFICIENT INNOVATION SYSTEM**

The innovation system in any country consists of institutions, rules, and procedures that affect how it acquires, creates, disseminates, and uses knowledge. Innovation in a developing country concerns not just the domestic development of frontier-based knowledge, it relates also to the application and use of new and existing knowledge in the local context. Innovation requires a climate favorable to entrepreneurs, one that is free from bureaucratic, regulatory, and other obstacles, and fosters interactions between the local and outside business world, with different sources of knowledge, including private firms, universities, research institutes, think tanks, consulting firms, and other sources. Tapping global knowledge is another powerful way to facilitate technological change through channels such as FDI, technology transfer, trade, and technology licensing.

#### **IMPACT OF MODERNIZATION IN INDIA**

The filing of patent applications has increased from 4824 in the year 1999 - 2000 to 28,882 applications in the year 2006 - 2007. The number of applications examined has gone up to 14,119 in 2006 - 2007 against the figure of 2824 in the year 1999 - 2000. In case of trademarks, the backlog of unexamined applications of approximately five lakh cases was brought down to zero. Renewal of Trademark certificates being done instantaneously in clear cases and new applications were examined within one week. As against only 8,010 registrations in 1999 - 2000, 13 times more TMs were registered in 2006 - 2007, that is, 1,09,361. Trademark certificates, 3.38 lakhs, were issued during the last three years, whereas, only 1.65 lakh certificates were registered in 64 years (from 1940 to 2004). Geographically Indicative products have been registered since September, 2003. These include Darjeeling Tea, Chanderi Saree, Pochampally Ikat, Sholapur Chaddar, Mysore Silk, Kullu Shawl, Bidriware, and so on. The filing of applications for Design has increased from 2874 in 1999 - 2000 to 5372 in 2006 - 2007. The number of applications examined has also gone up to 5179 in 2006 - 2007 against the figure of 2067 in 1999 - 2000. The number of Designs registered has also increased from 1382 in 1999 - 2000 to 4431 in 2006 - 2007.

#### **ECONOMIC GROWTH IN THE INDIAN PHARMACEUTICAL INDUSTRY TODAY**

India gained its foothold on the global scene with its innovatively-engineered generic drugs and active pharmaceutical ingredients (API), and it is now seeking to become a major player in

outsourced clinical research as well as contract manufacturing and research. London research company Global Insight estimates that India's share of the global generics market will have risen from 4 to 33% by 2007. Most of the players in the market were small-to-medium enterprises; 250 of the largest companies control 70% of the Indian market. In 2002, over 20,000 registered drug manufacturers in India sold \$9 billion worth of formulations and bulk drugs. In terms of the global market, India currently holds a modest 1 - 2% share, but it has been growing at approximately 10% per year. Moreover, in 2005, almost 20% of all Abbreviated New Drug Applications (ANDA) to the FDA are expected to be filed by Indian companies. Growth in other fields notwithstanding, generics is still a large part of the picture. FDA-approved manufacturing facilities in India, more than in any other country outside the U. Eighty-five percent of these formulations were sold in India while over 60% of the bulk drugs were exported, mostly to the United States and Russia. Thanks to the 1970 Patent Act, multinationals represent only 35% of the market, down from 70%, 30 years ago.

#### **RELATIONSHIP BETWEEN PHARMACEUTICALS AND BIOTECHNOLOGY**

Unlike in other countries, the divide between biotechnology and pharmaceuticals remains fairly defined in India. Biotechnology there still plays the role of the pharmaceutical's little sister, but many outsiders have high expectations for the future. India accounted for 2% of the \$41 billion global biotech market and in 2003 was ranked third in the Asia-Pacific region and eleventh in the world, in the number of biotech's. In 2004 - 2005, the Indian biotech industry saw its revenues grow by 37% to \$1.1 billion. The Indian biotech market is dominated by biopharmaceuticals; 75% of 2004 - 2005 revenues came from biopharmaceuticals, which saw 30% growth last year. Of the revenues from biopharmaceuticals, vaccines led the way, comprising 47% of the sales. Biologics and large-molecule drugs tend to be more expensive than small-molecule drugs, and India hopes to sweep the market in biogenetics and contract manufacturing as drugs go off patent and Indian companies upgrade their manufacturing capabilities.

#### **CONCLUSION**

Converting these resources into tangible economic assets requires an effective and efficient intellectual property system. In this article, the main parts of the new global regime, as it pertains to intellectual property, have been explored as well as the implications for economic growth. The TRIPS Agreement, under international economic law, introduced provisions that restricted technology transfers in cross-border transactions. The diffusion of technology, thought to be necessary for economic growth, has come up against the legal foundation of IPRs in a new global system that has been otherwise beneficial in providing a rules-based regime supporting globalization. Although the trade provisions are considered as predominate, TRIPS may prove to be the most significant



provision concerning economic development, derived from international economic law. Although it is too early to examine the evidence concerning convergence since the advent of TRIPS, it is fairly evident that the new regime will impose monopoly prices on technology transfers that are the engine of 'catch up' growth. Considering the TRIPS provisions and how the resultant harmonization of laws is likely to affect technology transfers follow. Knowledge and information, economically exploited as intellectual property are replacing the more traditional, material elements of production as the primary engine of economic growth. This is then assessed in terms of global growth rates in the post-World War II period. However, the increase in globalization, based on a rules-based system, may induce greater foreign investment in developing countries, although the capital still tends to flow to Asia and successful emerging markets, such as China, suggesting that other factors are at play. It is influenced by the ingenuity, creativity, and innovative ability of the nation.

## REFERENCES

1. Branstetter, L., Chatterjee, C., & Higgins, M. J. (2014). Starving (or Fattening) the Golden Goose? : Generic Entry and the Incentives for Early-Stage Pharmaceutical Innovation. NBER Working Paper 20532
2. Budish, E., Roin, B. N., & Williams, H. (2013). Do fixed patent terms distort innovation? Evidence from cancer clinical trials (No. w19430). National Bureau of Economic Research.
3. Aghion, Philippe & Howitt, P. (2009). The Economics of Growth. Massachusetts: Massachusetts Institute of Technology.
4. Aghion, P., Harris, C., Howitt, P., & Vickers, J. (2001). Competition, imitation and growth with step-by-step innovation. The Review of Economic Studies, 68(3), 467-492.
5. Arora, A., Branstetter, L., & Chatterjee, C. (2008, March). Strong medicine: Patent reform and the emergence of a research-driven pharmaceutical industry in India. In NBER Conference on Location of Biopharmaceutical Activity, Boston, MA (pp. 7-8).
6. Benavente, J. M. (2002). The Role of Research and Innovation in Promoting Productivity in Chile. Department of Economics, University of Chile. Chile.
7. Bilir, L. K. (2013). Patent laws, product lifecycle lengths, and multinational activity. American Economic Review, forthcoming.
8. Blalock, G., & Gertler, P. J. (2008). Welfare gains from foreign direct investment through technology transfer to local suppliers. Journal of International Economics, 74(2), 402-421.
9. Boldrin, M., & Levine, D. K. (2013). The case against patents. The Journal of Economic Perspectives, 27(1), 3-22.
10. Branstetter, L. G., Fisman, R., & Foley, C. F. (2006). Do stronger intellectual property rights increase international technology transfer? Empirical evidence from US firm-level panel data. The Quarterly Journal of Economics, 321-349.
11. Branstetter, L. G., Chatterjee, C., & Higgins, M. (2011). Regulation and welfare: Evidence from Paragraph IV generic entry in the pharmaceutical industry (No. w17188). National Bureau of Economic Research.