

Need to Encourage Intellectual Property Research in Higher Education

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Abstract: This paper explores and proffers the need for increased investments in research and development that should consequently lead to an increase in intellectual property rights. In an era when intellectual property is becoming an important aspect of a nation's economy, we highlight the fact that India's investments in intellectual property rights lags behind other countries including those which a few years ago were on par with India. It is argued that this problem has more to do with India's lack of investments in higher education and research and development. We compare the investments by China with that of India and argue that unless such investments are increased, India risks lagging behind in an increasingly knowledge economy that is globalised.

Introduction:

Intellectual property rights have been around for more than 140 years but their importance in India has grown a lot since the beginning of this century. If recent events and statements emanating from the rich countries is an indicator, their importance is set to grow further. The US President has specifically underscored the importance of protecting intellectual property in their trade policy. Hence, it is likely that in the very near future India and China will face increased pressure from other countries. Broadly, intellectual property rights (IPR) comprises of patents, trademarks, copyrights, designs, geographic indicators, new plant varieties, semi integrated circuits and biological diversity. As a generalisation, they are usually based on innovations or inventions or products related to the application of mind. There have been various international conventions and treaties that protect intellectual property starting with the "Berne Convention" in 1886. India has been a member of the various treaties that promise protection for intellectual property from a long time. It is a member of the most important such treaty, the World Intellectual Property Organisation (WIPO established in 1967, presently 191 members) which is part of the United Nations. WIPO is nodal agency that lays down procedures

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and coordinates intellectual property protection among members. WIPO has classified nearly 10,000 goods and services into 45 different categories called “NICE classification” so that there is uniformity of procedures for those seeking IPR registration. One advantage of being part of the international treaties is that it gives ‘reciprocity’ by which those filing for intellectual property in India. Due to various international treaties those filing for IPR in India can also do so in all the member countries of WIPO concurrently.

There is no doubt that awareness about intellectual property rights has come a long way since the 1990s when companies in USA tried to patent “Neem” and “Basamati”. India has a long history of accepting IPR: India passed a copyright Act for the first time in 1957 and a Patents Act in 1970. These were amended at various points between 2000 and 2012, mostly to meet the requirements of the WIPO and other international treaties over the past few years. A intellectual property policy was released in 2016. Among intellectual property rights, patents are probably that aspect on which there is more awareness than other aspects. However, they are granted for new, innovative inventions which are usually relevant in the making of new products. A more relevant aspect of IPR that small businesses will find more useful are those related to Trademarks, Copyright and Designs. Copyright protects in its scope any original writings including literary works, dramatic works, musical works, artistic works, cinematograph films and sound recording. Essentially copyright registration protects the manifestation of any idea in the various tangible outcomes. Trademark registration protects any marks which have a distinctive character including those which have the name of the business or family, etc. Similarly, Designs which are novel and not known or have been displayed to the public in the past including shapes, patterns, ornaments, composition of lines, colours or combination of those which are unique in 2D or 3D format can be protected. However, design registration does not protect any technical features; it protects only those which are appealing to the naked eye and those which are not a trademark or those which have already been copyrighted.

IPR in India: story so far

Though the importance of IPR has grown in the past two decades, they are nowhere as important as they are in the more advanced countries such as USA, Japan or South Korea. A US report pointed out that in 2016, Intellectual Property intensive industries employed about 4.5

crores people or about 30% of all employed in USA and contributed about 45% of the total value addition in the US economy. More importantly, the average worker in an intellectual property industry earns 46% more than other workers. The total exports by IP intensive industries in USA was nearly US\$1 trillion in 2015. American companies earn more nearly Rs.8 lakh crores annually (about US\$120 billion) by way of licensing intellectual property to companies in other countries. Thus, investing in intellectual property rights not only helps the businesses but also those who work in those industries and the country in the form of increased economic activity and the collection of taxes.

IP is increasingly becoming important in countries like India and China. The size of the Indian market means that increasingly foreign companies are looking at India. Government data points out that till 31 March 2017, 33788 international applications have been filed for copyrights in India using the WIPO process. A commonly misunderstood aspect of IPR is that it is only useful for the larger companies and not for the smaller companies. At the outset it is important to note that patent, copyright, trademark or design registrations are not only for companies. Even individual and small business can use the internet or submit a hardcopy to register their trademarks, copyrights, patents or designs. IPR can be of great help to the smaller companies if they are able to plan their strategy and think with a long-term perspective. Businesses and innovative individuals often think that investing in IPR is a wasteful expenditure. If they want to benefit this mindset has to change and they should approach IPR as a long-term investment in the future. It is because they lack this mindset that often small business and even innovative individuals find that their designs or ideas to be copied/plagiarised. There is no doubt that the larger companies frequently use IPR to protect and expand their business due to their ability to marshal resources. IPR is especially important for artisans and other small business owners like jewellers, painters and others to register their intellectual property. Registration will allow them to block others from misusing or copying their work. In case of very innovative ideas or works, it may even be possible to force those interested in using the work by paying a license fees for the use of their products and ideas. They are especially important since India has innumerable small business, some of them unregistered and working in the villages or semi-urban areas but have been in business for decades and are well known in the region or even across a particular state. Hence, these small

businesses and individuals need to cautious and see to it that they do not face the risk that at some point in future, someone else may find it profitable to register the intellectual property in their own name. In the worst case scenario, such stealing of intellectual property may even lead to the original owner having to either paying a license fees or being dragged into costly litigation.

Table: Overview of major IPR filings in India

	Filed/Applications Received			Examined			Granted/Registered		
	2010-11	2015-16	2016-17	2010-11	2015-16	2016-17	2010-11	2015-16	2016-17
Patents	39400	46904	45444	11208	16851	28967	7509	6326	9847
Trademarks	179317	283060	278170	205065	267861	532230	115472	65045	250070
Copyrights	NA	14812	16617	NA	9325	16584	NA	4505	3596
Designs	7589	11108	10213	6277	9426	11940	9206	7904	8276
GI	27	17	32	NA	NA	NA	29	26	34

Annual Report, 2017-18, Department of Industrial Policy and Promotion, p.108-115

Long, Difficult Road Ahead

One reason why IPR has been slow in gaining a foothold is that for a very long time we have been accustomed to thinking that everything will be provided free of cost by the government. Hence, there are low levels of awareness. This is further aggravated by the Central government which has done very little to promote their increased adoption except to an extent in the case of patents. Government's lack of vision and efforts to increase awareness has not helped matters. This lack of vision and plan to expand awareness is hindering further progress despite the existence of various concessions including subsidy in fees payable for start-up and small companies. A good way to encourage such IPR is for the state governments to encourage their micro, small and medium businesses (MSMEs) to file for such intellectual property by offering subsidy. At present government bodies spend a lot of money chasing richer industrialists for investments but often ignore such long-term beneficial measures.

An issue that has constrains a larger number of people is that filing for patents has to be through the regional offices located in the four metro cities of New Delhi, Mumbai,

Chennai and Kolkata. There is an urgent need to expand the network of offices and establish registration offices in all the capital cities and even larger cities across the country. This will invariably help in the filing of IPR. Another issue that plagues the filing of IPR is that there are very few accredited facilitators who can help file them on behalf of those wanting to do so. The government appoints facilitators for expediting the process. Unfortunately, there are too few of them in a vast country like India: at the end of December 2017 there were 423 facilitators in patents and designs and 596 in the case of trademarks. This is a case of too few considering that there are about 6 crores business enterprises in India. A good way by which the Central government expand awareness is by taking the help of state level and especially district level reach of the industries department in a state. These district level or state level bodies like industries departments, industrial investment and infrastructure development (IICs) can start another section that helps complete various compliance and registration filing requirements. That would help a number of small businesses. Industrial investment and infrastructure development need not always mean encouraging large industries only.

Higher Education and R&D Investment

One of the problem is that, unlike China we are not investing in Research and Development. The gross expenditure on R&D has increased from Rs.24,117.24 crores in 2004-05 to Rs. 85,326.10 crores in 2014-15. It is estimated to be Rs. 94,516.45 crores in 2015-16 and Rs. 1,04,864.03 crores in 2016-17². We need not mislead ourselves into complacency by thinking that this is a big jump because that decade was also the period when the Indian economy also grew substantially. However these statistics mask the true lack of investment. According to UNESO Statistics, China's investment in R&D as a percentage of GDP increased from 0.56% to 2.07% from 1996 – 2016; in contrast India's spending has stagnated at 0.63% of GDP³ over the past few years. An area for concern should be that our Gross Expenditure on R&D (GERD) is mainly driven by the Government sector - mostly of the Central Government which contributes about 45.1%, while State Governments contribute 7.4%, Higher Education 3.9% and Public Sector Industries 5.5% with Private Sector Industries contributing 38.1% during 2014-15. Among the G-20 countries, India is the only country where R&D spending by the government

²<http://www.nstmis-dst.org/Statistics-Glance-2017-18.pdf>

³<https://data.worldbank.org/indicator/GB.XPD.RSDV.GD.ZS>

exceeds more than 50% while businesses and university system spends the least. In all the other major countries it is businesses that spend most of the money: in USA 72%; Germany 68%; China 77%; South Korea 78%; UK 66%; Russian Federation 59% while in India it is 44%. This is in contrast to most of the other countries where government spending on R&D usually varies from 7-15% while that of the businesses is 50% or more and very high in a few countries like Japan (78%), South Korea (78%), China (77%), USA (72%), UK (66%). Similarly, investments by Higher educational institutions is about 4% in India which is by far one of the lowest in the world especially among countries like Canada (40%), Australia (30%), Italy (29%), Spain (28%), UK (26%) and even Mexico (26%).

The lack of investments in R&D is a direct consequence of the problem of availability of quality human resources, especially in the higher education system. A large part of our education system is not sufficiently productive to support the cutting edge research and development to keep pace in a rapidly changing world. This is despite the huge size. A 2016 OCED study pointed out that India produces the fourth largest number of PhD students in a year⁴ – about 24,300 in 2014 against 67,449 in US, 28,147 in Germany and 25,020 in UK⁵. Unfortunately, there is a lot to be desired in case of quality of such students.

Conclusion

In the context of the above discussion, it is important to note that India has not invested sufficient amounts in Research and Development, especially in the sphere of R&D spending in Higher education. Unless India invests more in R&D, we risk being left out in an increasingly knowledge society. There is an urgent need to recalibrate our higher education system and offer special benefits for investments in intellectual property. The earlier we begin in our endeavour the better it is.

⁴https://read.oecd-ilibrary.org/science-and-technology/oecd-science-technology-and-innovation-outlook-2016_sti_in_outlook-2016-en#page149

⁵<https://www.weforum.org/agenda/2017/02/countries-with-most-doctoral-graduates/>

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