

***R&D and INTELLECTUAL PROPERTY RIGHTS
in INFORMATION and COMMUNICATION
TECHNOLOGY INDUSTRY of INDIA***

If a man can write a better book, preach a better sermon, or make a better mousetrap than his neighbor, though he builds his house in the woods, the world will make a beaten path to his door'.¹

The Indian IT Industry

The Indian IT industry has been consistently growing in strength and size climbing up the value chain in terms of products, services and competitiveness. NASSCOM's *Strategic Review 2004 on IT Industry in India* estimated that the software and services export segment would show a robust growth, which could amount to a further 28% growth over 2003-2004. Given its potential as a primary source of industrial and economic growth and development, the future of the IT Industry holds promise for the entire country. A logical question that arises is where do we see the Indian IT industry five years from today?

The NASSCOM-McKinsey Study, 2002 projects that the Indian IT industry is slated to reach its long term target aspiration of USD 77 billion by 2008, by when the industry would employ over 4 million people and account for 7% of India's GDP and 30% of India's foreign exchange inflows. Per the study, IT services exports will touch USD 28-30 billion by the year 2008, the ITES segment will account for USD 21-24 billion, the domestic software market will generate USD 13-15 billion, while the products and technology services industry will contribute around USD 8-10 billion. A growth of 28% over 2002 - 2003 placed the IT industry among the highest performers in the Indian market. In the said period the sector accounted for total exports of USD 9.55 billion.

Other than the domestic players, many global service providers have considered India as a location for establishing captive centers for product development and R&D activities. The

¹ Ralph Waldo Emerson



market for outsourced R&D activities in India was estimated to be between USD 800 million to 1 billion in 2002-2003 and is expected to reach USD 11 billion by 2008.

Among reasons for Indian being one of the preferred destinations for outsourcing software and IT services is that it ranks favorably in comparison to other locations in respect of critical parameters, including level of government support, quality of the labor pool, English language skills, cost advantages, project management skills and overall quality control. An additional factor deemed critical to India's status as a destination of choice for outsourcing and off-shoring activities, is the existence of a comprehensive legal framework to regulate activity relating to the IT industry. The said framework includes *inter alia* protection of intellectual property rights in software under the provisions of the Information Technology Act, 2000 relating to data security and data integrity and the Copyright Act, 1957.

However, it may be noted that the Indian Economy, particularly the Information Technology segment, seems ensnared in the lower end of the global value chain. Regardless of what you call the global economy, the 'information economy', the 'digital economy', the 'new economy' or the 'knowledge economy', participation in the same demands more innovation, and greater value. It is this recognition that is essential to the progression from the lower to the higher ends of the economy.

IP as a Business Asset

It is worth noting that intellectual capital has become critical to the industry and its growth. Successful multinational companies give tremendous value to their intellectual property. The value of intangible capital of General Electric is estimated at USD 324 Billion. In the Information Technology Sector, IBM and Verizon are estimated to have intangible capital of USD 134 Billion and USD 105 Billion respectively. This demonstrates the immense value and critical nature of intangible assets for effective participation in the evolving 'knowledge economy'.²

² Lev, B. 2004. Sharpening the intangibles edge. *Harvard Business Review* (June): 109-116.



Intellectual Property is also fast becoming the biggest incentive for Mergers & Acquisitions. The ideal example of this process is the largest merger in history – that of a purely Internet based company, AOL, with an old media and cable business giant, Time Warner. As expected, though the value of the Internet firm in the stock market fell, the combined entity has exhibited tremendous synergies – the creation of an elephant that can dance.

According to the World Economic Forum 2003 a country seeking to promote Networked Readiness must create an environment that fosters innovation and to this end, policies can be directed towards encouraging research and development. Intellectual Property protection is playing an increasingly important role in incentivising investment in research and development. Once an enterprise is guaranteed intellectual property protection on a fixed criterion, then the risk that its investment may be pilfered is significantly reduced. Empirical evidence around the world shows positive correlation between a strong IP regime culminating in stronger inflows of Foreign Direct Investment. Absence of the same may lead to lack of stabilization of the software industry and a fall in investments in IT bay businesses and other R & D centric industries.

Protection of IP in India

The above demonstrates the relevance of the ‘IP’ centric approach to business enterprises. It is equally of relevance to the policy makers, the government, and as well as to an individual. The need is to create an environment at a national level that facilitates the process of creative thinking and the policy makers and the government should therefore provide all necessary encouragement.

Many Indian companies have placed importance on the protection of IPRs and taken initiatives to increase awareness and protection within the companies and promote IP as a policy. It is widely believed, that stronger IPRs in India will greatly benefit software companies across sectors, and will encourage greater product development in India. At present the Indian software industry employs over 500,000 software engineers, and software services in India have gained a worldwide reputation. Strong levels of protection for intellectual properties have encouraged foreign investment in India, with many companies

choosing to either set up their own facilities in India or to outsource a large part of their business to India.

There has been significant increase in the appreciation of intellectual property and the awareness level has also increased tremendously. This is evident from the increase in the number of patent applications filed in the Indian Patent office, it has risen approximately 150% in 1997-98 from 1993-94 crossing the 10,000 mark for the first time in 1997-98.³ According to the recent WIPO Report on PCT filing, India ranks among the top Asian countries in terms of PCT filing. The trademark filings have also increased from 38,109 in 1995-96 to 60,985 in 1999-2000. But in order to keep up with the international pace we need to steadily build up our IP investment and in view of the advancement in technology and innovation re-look at our existing legislations and consider new emerging issues such as Internet piracy and circumvention of technological measures.

The Copyright Act in particular, plays a significant role in ensuring respect for intellectual assets arising out of the IT industry. Since 1994 the Act provides that any person who knowingly makes use on a computer of an infringing copy of a computer program shall be punishable. Industry believes that while the legislation are of international standards, there has been lack of enforcement of these laws which makes India a nation bracketed together in the category of piracy ridden countries. In some quarters a view that is gaining ground is that weaker enforcement is becoming a barrier in promoting India as a destination for high-end technology development and more so the overseas companies may even be reluctant to release their products in India. While the substantive provisions of copyright law viewed in isolation are laudable, there emerge drawbacks in practice, implementation and enforcement of the Copyright Act, 1957. The quest for redressal of violation of copyright has many hurdles that leave the copyright owner dissatisfied and the offender encouraged.

³ Ramanna, Anitha, "Policy Implications of India's Patent Reforms: Patent Applications in the post -1995 Era, Economic & Political Weekly, May 25,2002, pp.2065.



Economic and Social benefits of a thriving Software Industry

Studies conducted across the world have shown the significant economic and social benefit to a nation with thriving software industry. The year 2003 study conducted by IDC-BSA titled *Expanding Global Economies: The Benefits of Reducing Software Piracy* emphasized that Information Technology, driven by software industry is a proven engine for economic growth and prosperity. The study representing the analysis assessing the impact IT has in 57 countries around the world and the economic benefits that accrue to countries that tighten and enforce their intellectual property laws, states:

IT growth delivers Key economic Benefits: The IT sector employs more than 9 million people, raises more than USD 700 billion a year in taxes a year, and contributes nearly a trillion dollars a year to global economic prosperity.

Software is a key driver of IT Sector growth: The software sector alone grew 6 times faster than the hardware sector between 1996 and 2002.

Lower the piracy rate, greater the IT contributions: Globally one in four copies of software is pirated. Generally, countries with lowest piracy rates enjoy larger IT sectors accompanied by greater tax bases, more jobs and other economic benefits.

For India it is estimated by the IDC-BSA study that a 10% reduction in India's piracy rate will create 50,000 new high tech jobs and will add an additional USD 92 million in tax revenues. In addition, such reduction would ensure that the projected rate of growth of the IT industry moves from 148% to 163% by 2006.

Thus the importance of protection of IPRs for the growth and development of the IT industry cannot be understated. Creating awareness of importance of creative thinking and innovation among people and getting about a mind shift in the way people think about creativity and intellectual property is therefore crucial. Education and curriculum can be modified and emphasis may be provided on this aspect. Generation of Intellectual Property requires industry entrepreneurship coupled with an enabling legal and policy framework.



Research indicates that the Indian IT Industry, given its emphasis on export led growth and global competitiveness, is ready to proactively seize the opportunities that creation of intellectual property affords. The Indian IT Industry seems poised to break the ceiling, yet again, as it moves up the value chain, generating and creating value – tangible and intangible. A true and sustainable increase in national economic, social and cultural well-being requires a synthesis of various policies geared to increasing each country's national capacity, enhancing its knowledge resources and helping it to use intellectual property as a tool to enable these resources to be transformed into value.

Today it can be affirmatively stated that IPR plays a great role in furthering the growth of IT industry and thereby increasing investment that will further benefit the nation at large. However, in addition to the policy changes that may be required at the legislative level, an awakening of the corporate players in the market may well be in order - an awakening to the importance of intellectual property and its role in the future of any corporate entity.

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