
Innovative intervention in the IP debate

Rise of the knowledge economy

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Tel Aviv, February 2006

Outline

- Indian economy today
- Rise of the ICT sector
- Pharmaceutical sector in India
- Problems and prospects affecting health care
- Patent debate in India
- Lessons for IP from ICT development
- Changing perception of IP

Changing Perceptions

- Rise of knowledge of economy and role of Intellectual Property (IP)
- Significance of health care infrastructure
- Limited influence of patent and prices on healthcare access
- Shortcomings of healthcare services impacts popular perception over IP

Evolution of Indian Democracy

- Increased political competition
- Fragmentation of vested interests
- Economic liberalisation
- Economic competition
- Consumer welfare
- 1970s – hardly any domestic interests opposed the elimination of product patent
- 2005 – growing domestic interests in support of product patents
- Patients have become much more significant, than drug manufacturers
- Demand for improving basic health care service, limited role of patent

Indian economy looms large

- Slow reforms in the 1980s
- Reforms gathered pace since 1991
 - Tariff reductions
 - Regulatory reforms
 - Exchange rate decontrolled
 - Inflation under control
- Growth rate averaging 6% for over a decade
- Growth of Information & Communication Technology (ICT) sector
- India poised to become the 2nd or 3rd largest economy by 2025

Shifting sand of economics

Country	Share of World GDP in 2005	Share of World GDP in 2035
US	21%	15%
China	11%	27%
India	6%	15%

Source: "Tri-Polar World" by Arvind Virmani, Working Paper, ICRIER, New Delhi, 2005

IP in the Information age

- Indian IT industry globally competitive, exporting 80% of its output
- Indian film industry is the largest in the world producing 800 films in over half a dozen major languages
- Indian music industry, based on film based music, has gone global with the success of diasporas
- India is the second largest publisher of books and magazine in the world, after the US

IP in Indian Interest

- Software industry has been active in halving piracy rates from 1990s, to 40-45% today
- Music industry had been one of the first to become aware of the loss due to piracy
- Film and TV content producers are trying to tackle piracy
- Battle against book piracy has been growing
- Dual strategy of locally sensitive competitive pricing, along with law enforcement

Indian View of Drug Patent

Before 1970 (Product Drug Patent in Place)

- High price of drugs
- Dependence on foreign companies
- Exploitation by foreigners

Post 1970 (Product Drug Patent Abolished)

- Growth of domestic industries
- Indigenous technologies
- Low price
- Export opportunities

Patent Debate 1995-2005 (Product Drug Patent Re-Introduced)

- Price of drugs
- Access to medicine
- Impact on domestic industries and export opportunities

Medicine Market Share in India

Year	MNCs (%)	Indian cos. (%)
1952	38	62
1970	68	32
1978	60	40
1980	50	50
1991	50	60
1998	32	68
2004	23	77

Amazing Admission

"The truth is that health in India is in a permanent and perpetual crisis. The disease profile is as follows : 80 million cardiac patients, 80 million afflicted with mental illness, 60 million diabetics, 50 million asthmatics, 50 million hepatitis B cases, and one in three Indians is a latent carrier of TB. The World Bank has said that India will have 35 million HIV cases by 2015, or approximately half of all the AIDS cases in the world." (Chairman of Cipla)

Inventing a new paradigm

- *“Given these facts, the patent regime in this country should be devised so that the utmost priority is granted to securing the people's rights of access to affordable and quality healthcare, without monopoly”.*

Dr. Yusuf K Hamied, Chairman and MD of Cipla Limited and a leading scientist in his paper 'Trading in Death'

Does the 1970 IP law provide an answer? Or has that law contributed to this problem?

“Misguided” Priorities

- Indian drug companies are seeking export market for AIDS drugs
- Indian drug companies invested in life style drugs for the rich
- Little research in “neglected diseases”
- Twenty thousand drug manufacturers, yet very high market concentration
- Price control on generic drugs
- Focus on patent at the cost of health care

Indian drug research spending

Company (2003-04)	R&D as % of total turnover	R&D in US\$ million
Ranbaxy Laboratories	7.80	60
Dr Reddy's Laboratories	12.99	49
Sun Pharmaceuticals	10.20	23
Cadila Healthcare	7.52	19
Wockhardt	7.89	13
Nicholas Piramal India	3.90	12
Lupin	3.90	10
Torrent Pharmaceuticals	8.90	9
Orchid Chemicals & Pharmaceuticals	5.56	9
Glenmark Pharmaceuticals	9.67	8
Dabur Pharma	8.50	4
J B Chemicals & Pharmaceuticals	2.20	2
Totals	7.73	218

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Fate of Patients in India

- 1% of AIDS patients are receiving any treatment
- 70% population lacks access to modern medicines.
- 60-80% patients seek remedy from traditional medical practitioner or alternative medicines.
- Communicable diseases account for 42% of deaths and a burden of 50.3% in the country
- Amongst the infectious diseases, diarrhoeal diseases alone account for 34% of deaths while childhood diseases for 20%.
- Infant mortality at 60 per 1000 live births

Patent Law in India

- 1970 – Patent Act, removed product patent protection to pharmaceuticals
- 1995 – TRIPs agreement at WTO, and international commitment to update national laws by 2005
- 1999 – First patent amendment – EMR
- 2002 – Doha Agenda – TRIPS flexibilities, Second patent amendment – compulsory licenses
- 2005 – Third patent amendment – product patent in drugs, food, and chemicals, export under CL

Public Sector in Favour of Patents - Malaria Patents in India

Sl. No.	Year	Patent Holder
1.	2004	CSIR – Council for scientific and industrial research
2.	2004	CSIR
3.	2003	CSIR
4.	2003	ICMR
5.	2003	CSIR
6.	2001	CDRI / Nicholas Piramal
7.	2000	Ashok Ragharia
8.	2000	CSIR
9.	1999	CSIR
10.	1999	CSIR
11.	1994	CSIR
12.	1994	CSIR

In the last ten years more attention has been paid to malaria research, than in the previous fifty years.

Patent Battle

Producer interest

- R&D companies
 - significance of IP in promoting innovation
 - Innovations attract investment, creates jobs and brings technology
- Generic companies
 - impact of royalty on price and access
 - Loss of local capacities

Patient Interest

- Problems affecting health care
- Lower the significance of patents in health care
- Price of medicine between 10-15% of health care costs
- Most drugs outside the patent protection

Changing perception of IP

- Price control has been imposed on generic drugs (weak IP did not affect the prices of drugs)
- Drugs being exported, without improving access for Indian patients
- R&D expenditure has been very low
- Neglected research in diseases of poverty
- Need for health care sector reforms
- Growing interest in a section of Indian pharma to reach the market in the rich countries, and the need for IP
- **Success of Indian ICT, and the role of IP**

From producer interest to public interest

- International commitments had a marginal role
- Recognition that Indian health care sector is itself seriously ill
- Patent is a marginal issue in access to the Indian health care system.
- ICT companies have performed much better than Indian pharma companies in the global market
- Knowledge era requires protection of IP in domestic interest
- R&D based companies need IP
- **Grassroots innovators need to benefit from IP**

Lessons from the Patent Debate

- Change was inevitable - Absence of drug patents for 35 years did not make India the healthcare capital of the world – e.g. Only 1% of AIDS patients in India are getting any kind of treatment, although the generic companies are keen to export drugs
- Learning from other sectors - contrast the success of IT and entertainment sector, and the problem of healthcare sector
- The change comes from within the Indian context - domestic constituencies in support of IP

Expectation from India pharma

- Strategic partnerships & Joint ventures.
- Contract manufacturing, marketing, distribution and contract R&D
- Transition towards becoming R&D based Companies
- Introduction of top line patented products by MNC's
- Inflow of investments and technology
- Value addition to the skilled workforce
- Thrust on development of new drugs rather than copying

Thank You

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