



EVALUESERVE
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Patenting Landscape in China and India

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May 12, 2008





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Presentation Plan

- **History of Patenting in China and India**
- **Status of Patent Application Filing**
- **Major Challenges**
- **Future Outlook**
- **Cases**



China – International Treaties and Organizations

Over the years, China has become a part of major international IP Organizations and Treaties

- 1980 World Intellectual Property Organization
- 1985 Paris Convention for the Protection of Industrial Property
- 1992 Berne Convention
- 1993 Geneva Convention (Unauthorised Duplication of Phonograms)
- 1994 Patent Co-operation Treaty (PCT)
- 1995 Budapest Treaty – the International Recognition of the Deposit of Microorganisms for the Purpose of Patent Procedure
- 1997 Strasbourg Agreement Concerning the International Patent Classification
- 1996 Locarno Agreement Establishing an International Classification of Industrial Designs
- 2001 The Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement of the WTO



Institutional Framework of China's Patent System

Patent Enforcement System

National Office of SIPO

Local Branches of SIPO

Supreme Court

Higher Court

Intermediate Court

District Court

SIPO: State Intellectual Property Office of People's Republic of China

Responsibilities of SIPO

- Policy-making and implementation
- Patent examination, granting and registration
- Semiconductor layout designs registration
- Foreign-related IP issue coordination
- Handle patent-related disputes
 - Patent ownership
 - Infringement
 - Counterfeiting
 - Compulsory licensing

Responsibility of the Courts

- Judicial enforcement of IPR
- Supreme Court
 - Judicial interpretations of China's Patent Law and its Implementation Regulations



India has Well-Established Patent Laws

India has had the patent law since it was a British colony. Independent India's first Patent Act came into effect in 1972.

Currently, India awards utility patents for innovation. There are no utility models and design patents. Designs are protected as Industrial Designs.

- 1856 The Act VI of 1856 on protection of inventions based on the British patent law of 1852. certain exclusive privileges granted to inventors of new manufacturers for a period of 14 years.
- 1859 The Act modified as Act XV; patent monopolies called exclusive privileges (making, selling and using inventions in India and authorising others to do so for 14 years from date of filing specification).
- 1872 The Patents & Designs Protection Act.
- 1883 The Protection of Inventions Act.
- 1888 Consolidated as the Inventions & Designs Act.
- 1911 The Indian Patents & Designs Act.
- 1972 The Patents Act (Act 39 of 1970)
 - First Patent Act of Independent India
 - Amended in 1999, 2002, and 2005

India's patent law, after the amendments, has been brought in conformance with TRIPS



India – International Treaties and Organizations

Over the years, India has become a part of major international IP Organizations and Treaties

- 1928 Berne Convention (Literary and Artistic Works)
- 1975 WIPO Convention.
- 1975 Geneva Convention (Unauthorised Duplication of Phonograms)
- 1995 The Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement of the WTO
- 1988 Paris Convention (Industrial Property)
- 1998 Patent Cooperation Treaty
- 2001 Budapest Treaty (Deposit of Micro-organisms)





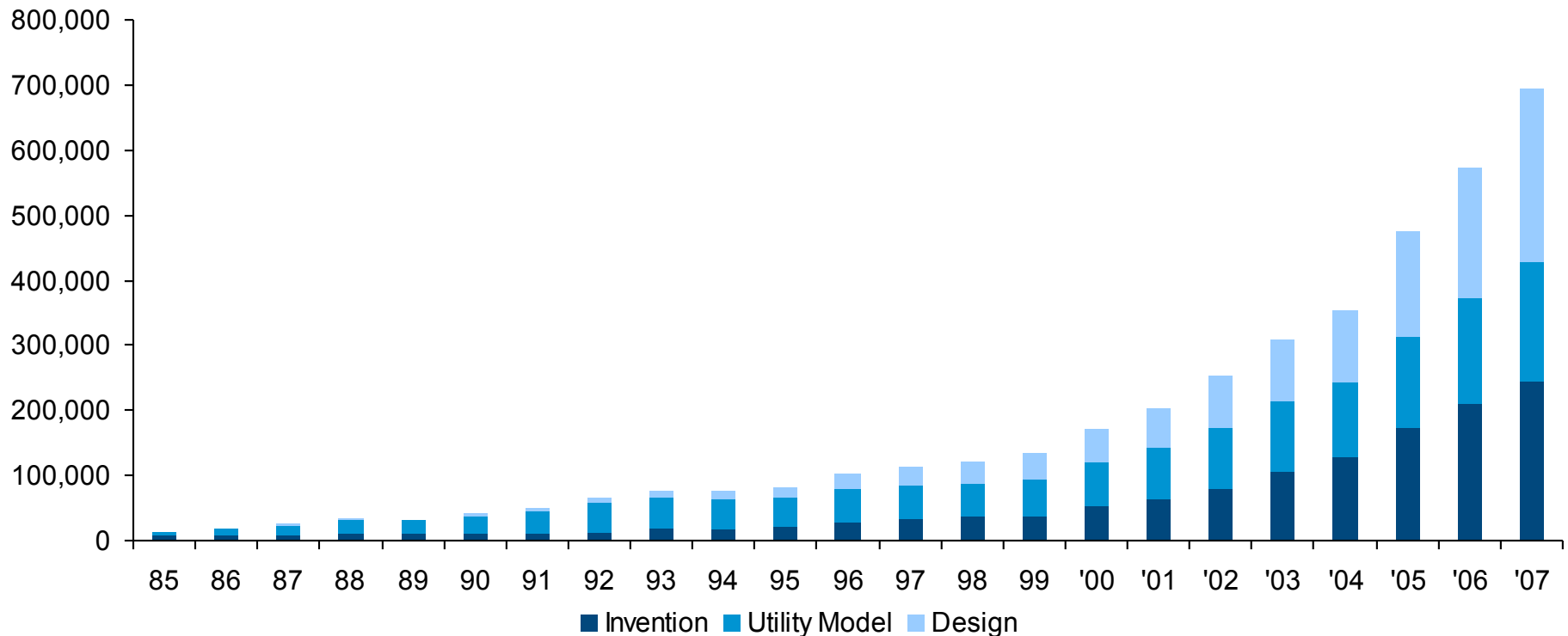
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Phenomenal Growth in the Patent Filing Activity in China

- In 2007 – The Chinese Patent Office (State Intellectual Property Office or SIPO) received a total of 694,153 patent applications, with a growth rate of 21% over the previous year.
- During 1985 – 2008: More than four million patent applications were filed

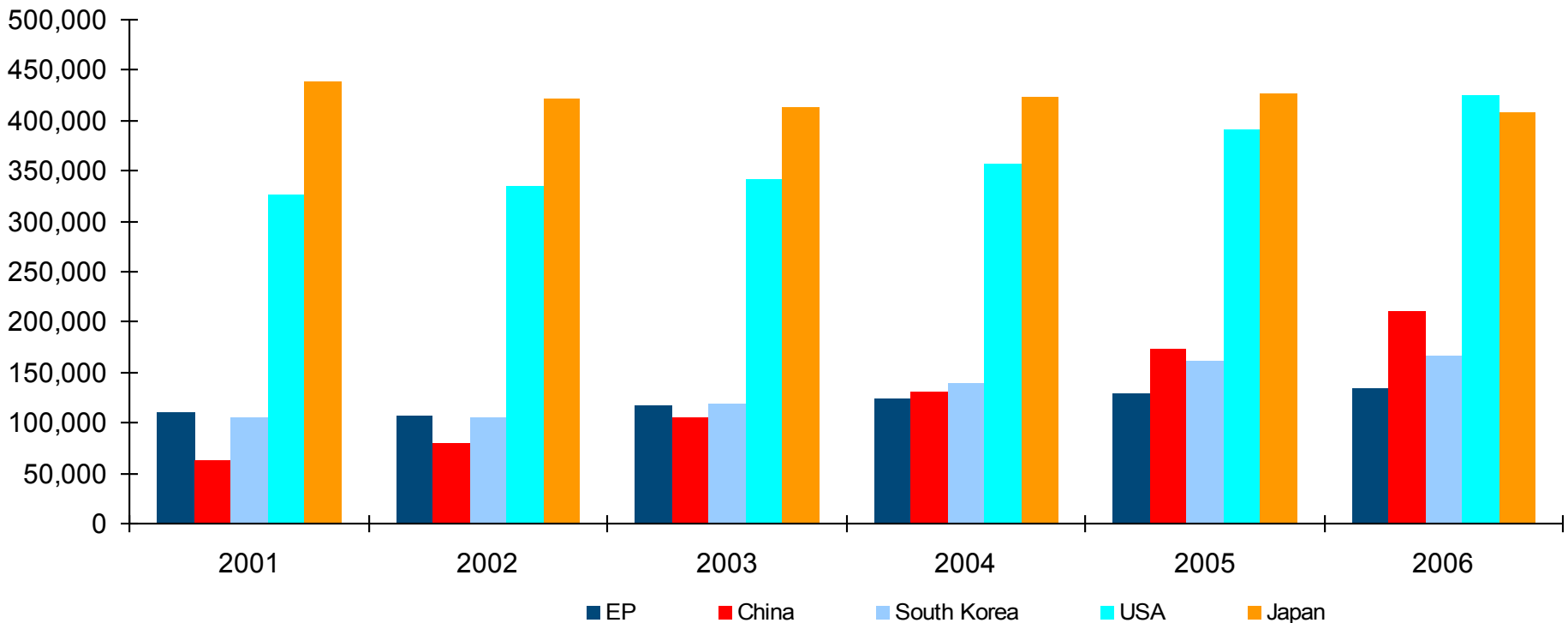


All Chinese patents and published applications are available online through the SIPO website



China: Third Largest Patent Filing Jurisdiction

- In 2004, China surpassed the European Patent Office to become the fourth largest invention patent application filing jurisdiction in the world
- In 2005, China surpassed South Korea to become the third largest invention patent application filing country (after Japan and the US as the first and second respectively)
- If the current growth rates remain the same, China will surpass the US in 2012 with respect to the invention patent application filings



Source: *Evalueserve Research; SIPO website*



Top Patent Filers in China (w.r.t. Invention Patent Apps)

Top Domestic Filers of Invention Patent Apps (2006)

- Huawei Technologies
- ZTE Corporation
- Hon Hai Precision Industry Company
- Hong Fu Jin Precision Industry (Shenzhen) Company
- Zhejiang University

Top International Filers of Invention Patent Apps (2006)

- Samsung Electronics
- Matsushita
- Philips
- Sony
- LG (Lucky Goldstar of South Korea)

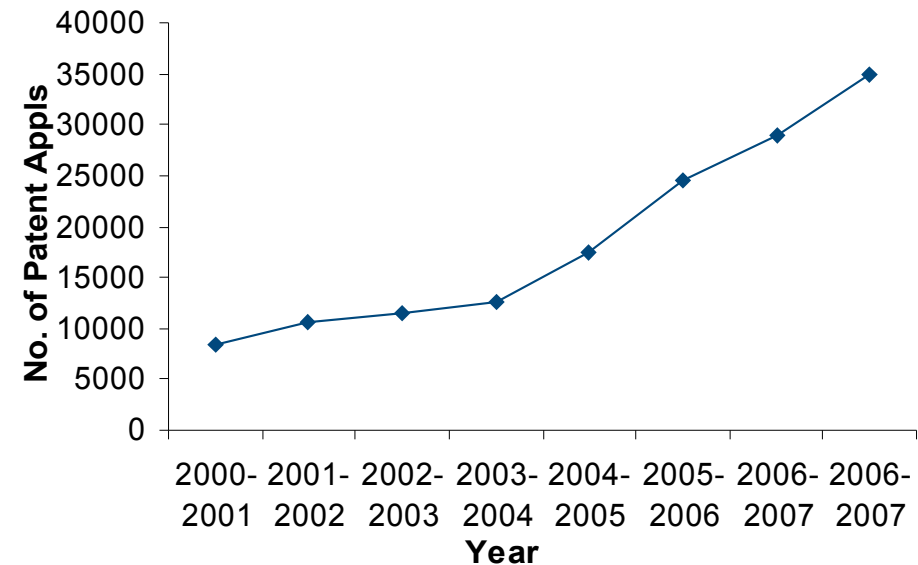
- IBM – the only US-based company among the ‘Top 10’ foreign invention patent filers in China
- Philips and Siemens were the only two companies from Europe
- Mostly Japanese and South Korean companies make up the list of top 10 foreign filers in China

Source: Evalueserve Research; SIPO Website



Patent Filing Trends in India (w.r.t. Invention Patent Apps)

- Three fold increase in the number of patent applications filed at the Indian Patent Office (IPO) during the last six years
 - 21% annual increase in 2007-08
- PCT is the favorite filing route
 - ~60% applications filed with the IPO were national phase filings under PCT
- Majority of filers are foreign residents
 - ~80% patent applications belong to foreign residents



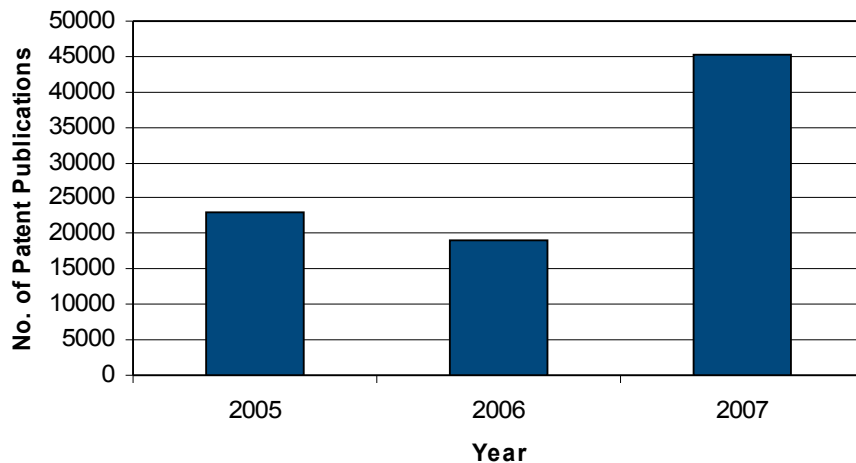
Source: Annual Reports of the IPO

- The number of patent applications being filed per year is a major differentiator between India and China.
- China is way ahead – approximately ten years ahead - of India in terms of the number of patent application filings.
- China may have sparked the growth in domestic patenting activity by creating Utility Model Patents that are valid for ten years, fairly inexpensive with respect to filing fee, and do not require any “substantive” examination before being granted



Top Filers at the IPO

- Evalueserve has analyzed 87,245 patent applications published by the IPO from 2005-2007 to identify the top filers.
- Only 22 of the top 200 filers are pure-bred Indian entities.
 - Includes nine pharmaceutical companies and six research institutes



Source: Evalueserve Research

Top Ten Filers at the IPO

| Rank | Assignee | Count (2005-2007) |
|------|---------------------|-------------------|
| 1 | CSIR | 1523 |
| 2 | Qualcomm | 1431 |
| 3 | Bayer | 1311 |
| 4 | Philips Electronics | 1272 |
| 5 | Hindustan Unilever | 1088 |
| 6 | Honda | 960 |
| 7 | Microsoft | 908 |
| 8 | Samsung | 901 |
| 9 | Pfizer | 895 |
| 10 | BASF | 865 |



Top 10 Domestic Filers

Among these 10 companies, 5 are pharmaceutical companies and 2 research institutes.

| Rank | Companies | IPO Apps | US Apps | PCT Apps | EPO Apps | Revenues (2005-07) (in USD million) | Revenue/ No. of Patent Publications at the IPO (Ratio) | Revenue/ No. of Patent Publications at the IPO, US, EP and PCT |
|------|------------------------------------|----------|---------|----------|----------|-------------------------------------|--|--|
| 1 | CSIR | 1,523 | 356 | 381 | 240 | NA | NA | NA |
| 37 | Ranbaxy Laboratories | 320 | 108 | 458 | 194 | 2,859 | 8.9 | 2.6 |
| 38 | Dr Reddy's Laboratories | 315 | 27 | 113 | 39 | 2,622 | 8.3 | 5.3 |
| 47 | Indian Institute of Technology | 237 | 19 | 25 | 6 | NA | NA | NA |
| 59 | Bharat Heavy Electricals | 189 | 3 | 6 | 0 | 10,556 | 56 | 53 |
| 67 | Orchid Chemicals & Pharmaceuticals | 149 | 17 | 47 | 11 | 634 | 4.3 | 2.8 |
| 69 | Cadila Healthcare | 148 | 17 | 67 | 23 | 1,002 | 6.8 | 3.9 |
| 70 | Cipla | 138 | 27 | 67 | 39 | 2,296 | 16.6 | 8.5 |
| 71 | Steel Authority of India | 136 | 0 | 0 | 0 | 23,906 | 176 | 176 |
| 72 | Larsen & Toubro | 123 | 2 | 2 | 0 | 11,932 | 97 | 94 |

Source: Evalueserve Research



Top Domestic Pharmaceutical Companies

- The ratio of revenue to the number of patent publications at the IPO seems reasonable.
- Whereas Dr. Reddy's Laboratories files a large proportion of its patent applications at the IPO, Ranbaxy Labs files the majority of its applications in jurisdictions outside India.
- Cipla significantly lags behind its peers in inventive activity, despite the fact that it is the third-largest pharmaceutical company in terms of revenue.

| Rank | Indian Pharma Companies | IPO Published Patent Apps | US Published Patent Apps | PCT Published Apps | EPO Published Apps | Revenues (2005-07) in USD million | Revenue/ No. of Patent Publications at the IPO (Ratio) | Revenue/ No. of Patent Publications at the IPO, US, EP and PCT |
|------|------------------------------------|---------------------------|--------------------------|--------------------|--------------------|-----------------------------------|--|--|
| 34 | Ranbaxy Laboratories | 320 | 108 | 458 | 194 | 2,859 | 8.9 | 2.6 |
| 36 | Dr Reddy's Laboratories | 315 | 27 | 113 | 39 | 2,622 | 8.3 | 5.3 |
| 68 | Orchid Chemicals & Pharmaceuticals | 149 | 17 | 47 | 11 | 634 | 4.3 | 2.8 |
| 70 | Cadilla Healthcare | 148 | 17 | 67 | 23 | 1,002 | 6.8 | 3.9 |
| 73 | Cipla | 138 | 27 | 67 | 39 | 2,296 | 16.6 | 8.5 |
| 76 | Sun Pharmaceutical Industries | 121 | 18 | 81 | 12 | 1,378 | 11.4 | 5.9 |

Source: Evalueserve Research



Top Indian IT Companies

- As compared to pharmaceutical organizations in the country, there is 115 times less patenting activity in Indian IT companies.
- In contrast, Microsoft Corporation has 908, IBM 404 and Oracle 108 published patent applications at the IPO.
- Reasons for low activity:
 - Insufficient patentable innovation in Indian IT industry
 - Lack of IP awareness
 - Most of the innovations at these firms not being patentable subject matter according to the Indian Patent Law

| Indian IT Companies | Revenues (2005–07) in USD million | IPO Published Patent Apps | US Published Patent Apps | PCT Published Apps | EPO Published Apps | Revenue/ No. of Patent Publications at the IPO | Revenue/ No. of Patent Publications at the IPO, US, EP and PCT |
|---------------------------------|-----------------------------------|---------------------------|--------------------------|--------------------|--------------------|--|--|
| Tata Consultancy Services (TCS) | 9647 | 35 | 8 | 2 | 5 | 276 | 193 |
| Wipro Technologies | 7975 | 0 | 0 | 0 | 0 | NA | NA |
| Infosys Technologies | 7664 | 29 | 22 | 3 | 0 | 264 | 142 |
| Satyam Computer Services | 3836 | 2 | 10 | 0 | 0 | 1918 | 320 |
| Cognizant | 2897 | 0 | 0 | 0 | 0 | NA | NA |
| HCL Technologies | 2814 | 1 | 0 | 0 | 0 | 2814 | 2814 |

Source: Evalueserve Research



China vs. India – Comparison of the Patent Systems (1 of 3)

- Patent application filing at the IPO is seven times less than that at the Chinese patent office (SIPO):
 - The SIPO received a total of 245,161 invention patent applications in 2007.
 - Current patent filing (2007) at the IPO is the same as that at the SIPO in 1997.
- Domestic applicants file actively in China:
 - 62.4% of the applications were filed by domestic applicants in China.
 - 20% of the applications were filed by domestic applicants in India.
- Possible reasons for the difference:
 - Bigger economy in China
 - Better patent infrastructure (online database, legal system) in the country
 - Better IP awareness among domestic organizations and universities
 - Active use of judiciary for patent litigations in the country
 - Provision of Utility Model Patents in China
 - Easy to get a grant
 - Cheaper to obtain and maintain

Source: Evalueserve Research; SIPO Website



China vs. India – Comparison of the Patent Systems (2 of 3)

| Criteria | China | India |
|-------------------------|--|---|
| Types of Patents | Three: Invention, Utility Model and Design | One: Invention or utility patents No utility models. Designs protected as Industrial Designs under a separate act. |
| Patent filing activity | 694,153 patent applications filed in 2007: 245,161 invention, 181,324 utility model and 267,668 design (21% increase over previous year) | 28,882 invention patents and 4,949 industrial designs filed in 2006-07 (18% increase over previous year) |
| Type of applicants | 62.4% of total filed invention apps – domestic 99.2% of utility model apps – domestic filers (2006) | Close to 80% applications filed in 2005-06 were by foreign applicants |
| Opposition | Currently, no post-grant or pre-grant oppositions are allowed | Currently, both post-grant and pre-grant opposition present |
| Invalidation of patents | Entirely an administrative procedure. Judiciary cannot invalidate patents. | A legal procedure. |

Source: Evalueserve Research



China vs. India – Comparison of the Patent Systems (3 of 3)

| Criteria | China | India |
|---|--|---|
| Patent litigations | 2006 – 3,196 cases received and 3,227 cases settled | Very few patent infringement lawsuits so far |
| Patents available online | Yes | No |
| PCT Applications (International Phase) | 38% annual <u>increase</u> in 2007 (5,456 Apps in 2007) | 17% annual <u>decrease</u> in 2007 (686 Apps in 2007) |
| Average time for a patent to remain pending | 22.8 months (invention), 8.5 months (utility model), 5.8 months (design) | 3 to 5 years |
| No. of patent examiners (2006) | More than 2,000 | Approximately 140 |
| No. of patents per examiner | 284 | 206 |

Source: Evalueserve Research



Patent Licensing in China

Article 12 of Chinese Patent Law provides the provisions of patent licensing; this is similar to other countries and jurisdictions

- Patentee should file a recordation application with the patent administrative department of the State Council within three months of the contract date
- Various documents (application form, copy of the license contract, patent certificate or issuance notice, identity documents etc.) should be filed in Chinese language
- If the documents are not in Chinese, a version should be attached
- Failure to file the Chinese version will result in cancellation of the license contract
- Patent license database is maintained by the SIPO and the following content is available to the public: reference number of the contract, licensor, licensee, main classification number, patent number, patent application date, publication date of grant, nature of the contract, recordation date, the time-limit of contract performance etc.,

- Ericsson has provided patent licenses to Huawei in exchange of ongoing royalty payments as well as some reciprocal licenses.
- A number of Small and Medium Enterprises (SMEs) have gotten into patent licensing agreements to manufacture their products in China





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Challenges for Chinese Patent Protection System

Huge Workload

- ▢ Increasing number of patent applications implies a huge workload for the already stretched staff
- ▢ China will need to double the number of examiners in order to effectively handle the projected workload
- ▢ There will be a fair amount of lead time in training the new hires

Tackling Negative Perceptions

- ▢ The perception of China being a safe haven for IP thieves does not serve it well
- ▢ China has to take concrete steps in tackling these perceptions

Utility Model Patents

- ▢ China has to figure out a way to avoid “junk” utility model patents
- ▢ Lack of substantive examination results in huge volume of utility model patents
- ▢ On the other hand, Utility Model Patents and Applications seems to be spurring a lot of activity among domestic companies who are now more aware of patents and their advantages



Chinese Patent Protection System and the Challenges for Multinational Companies

Utility Model Patents – The ten year problem or the ten year solution

- More than 180,000 utility model applications filed in 2007 – most filed by domestic companies
- No substantive examination, easy to get a grant and cheaper to maintain
- Multinational companies need to include utility models in their China IP strategy

Utility Model Patents – The ten year problem or the ten year solution

File more patent applications



Use help of Chinese patent researchers



Keep a watch on the competition



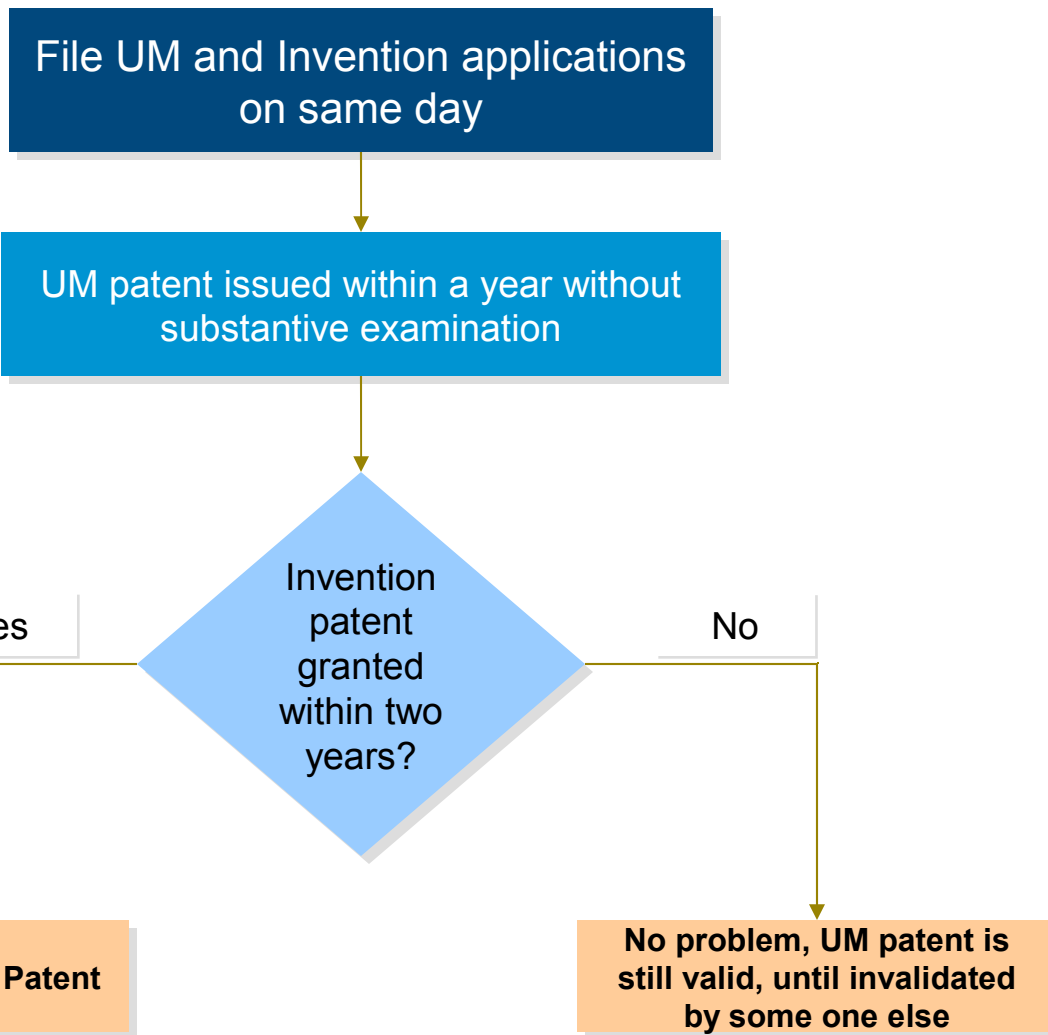
Invalidate
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The language and contextual problem

- Majority of patent applications are available only in Chinese language
- Searching the patent database in English is not effective
- Need to take help of Chinese patent professionals
- Machine translations are not good because of no semantics or contextual information



Utility Models (UM) Patents – Chinese Company's Strategy



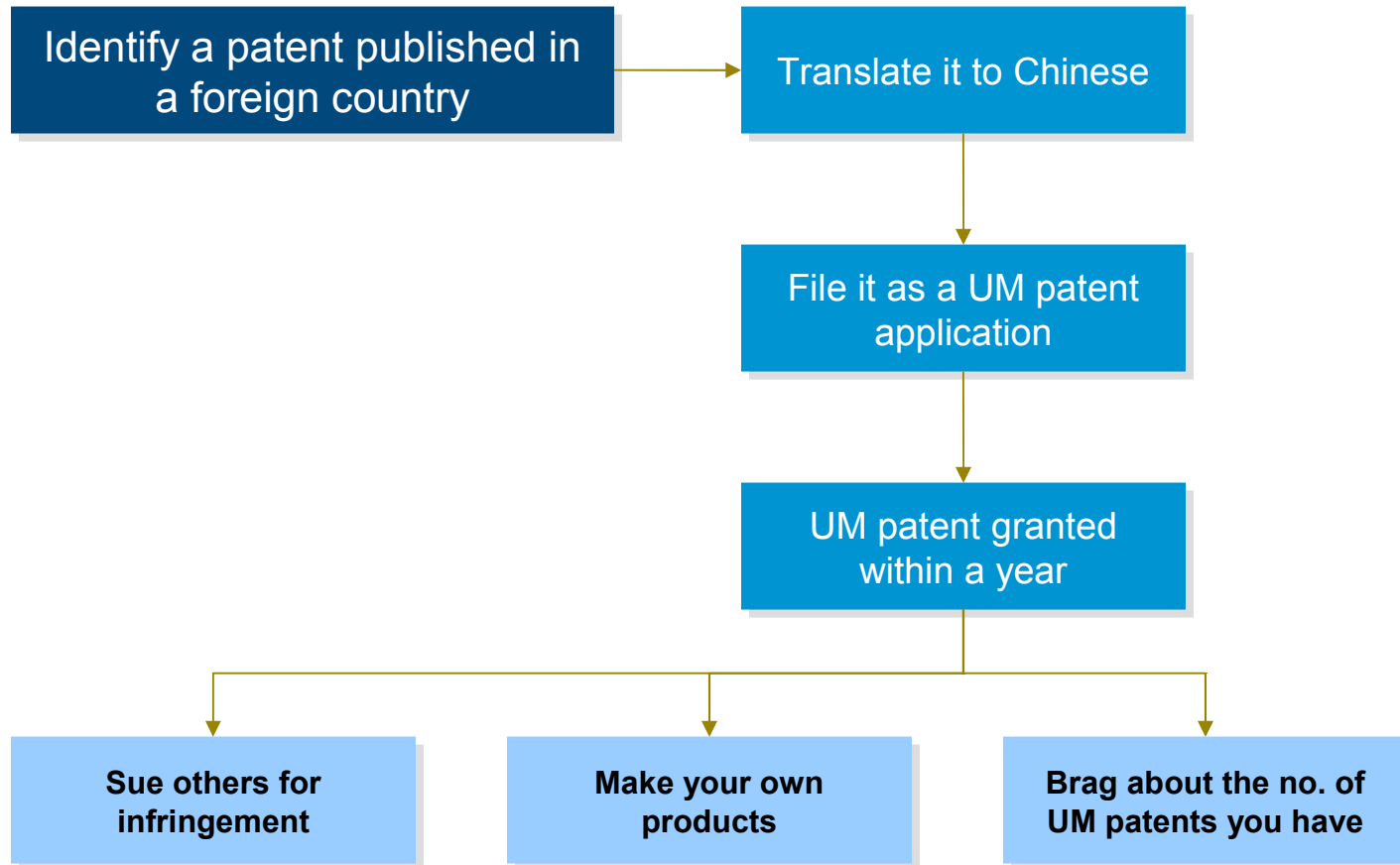
Pros:
Early start for production and marketing on the strength of the issued UM patent

Cons:
UM more vulnerable to invalidation proceeding at a later date



Utility Model (UM) Patents – Possible Patent Counterfeiting

How it is possible to take advantage of lack of substantive examination for UM Patents



Cons:

- Unethical
- UM patents more vulnerable to invalidation proceeding at a later date
- Chinese law has penalties for patent counterfeiting



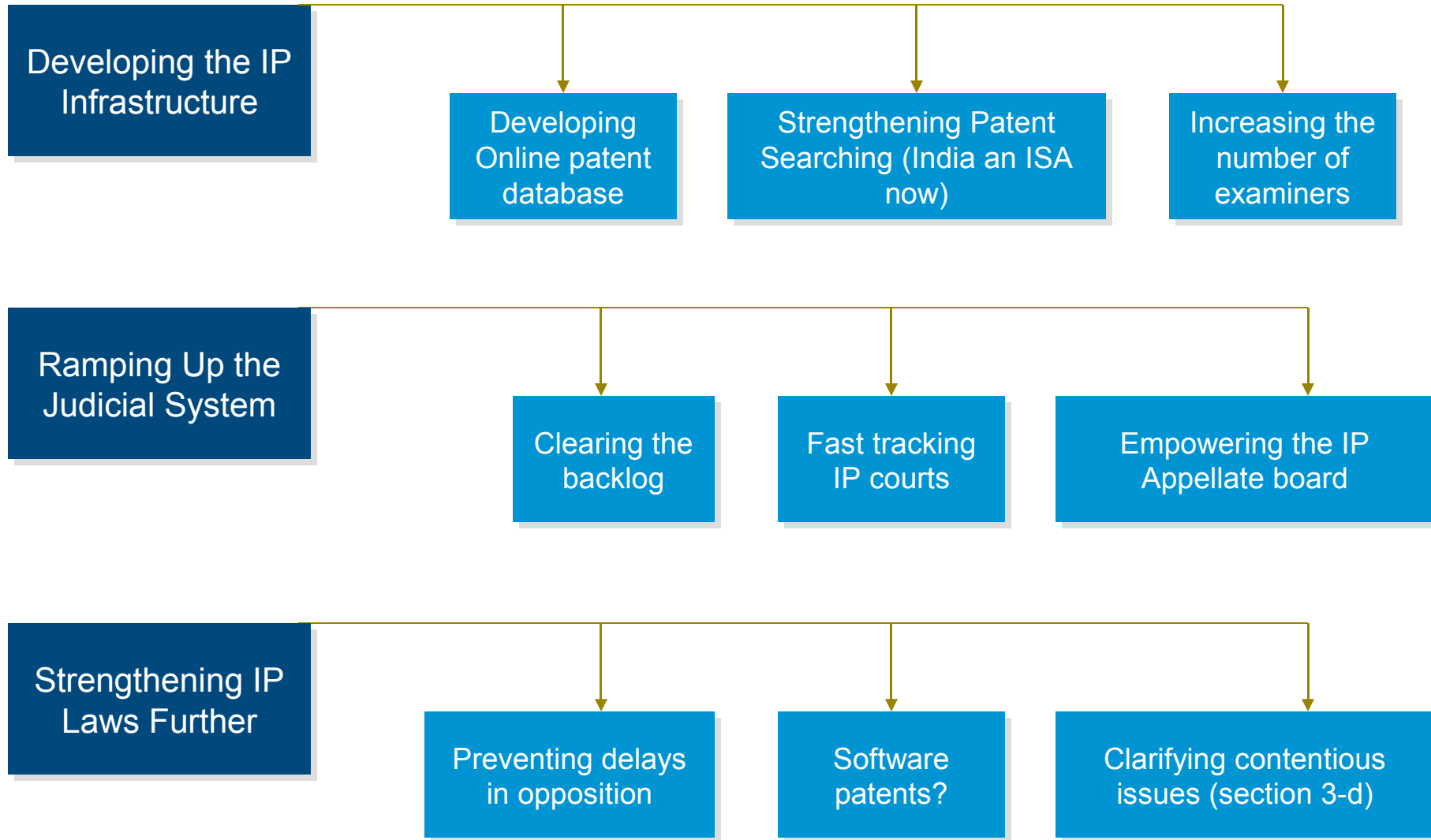
Strategy of Some Foreign Companies - Ignore China

If you ignore China, you may be essentially saying the following:

- I will let the bad Chinese companies copy and sell my products (at least in China).
- I will take them on only if they come to Europe or North America.
- I will watch them make a lot of money in the rapidly growing Chinese and other emerging markets
- If I try to sell the same product later, I may be sued for infringement (in China); I will then complain about how China lacks intellectual property protection



Challenges for the Indian Patent Protection System



Indian Patent Protection System - Challenges for Multinational Companies

Patent database is not available online

- Only title and abstracts of patent applications can be seen online
- Carrying out a search on the Indian patent database is not possible

Disjoint Patent Infrastructure

- Patent applications are filed in four offices (New Delhi, Mumbai, Kolkata and Chennai) around the country
- Tracking patent applications as well as issued patents is close to impossible; even obtaining full texts is difficult
- Lack of transparency in the patent examination process

Having an Effective India Patent Strategy

- All one can do is file more patent applications
- Identifying infringement is relatively easier because of the open business environment





Presentation Plan

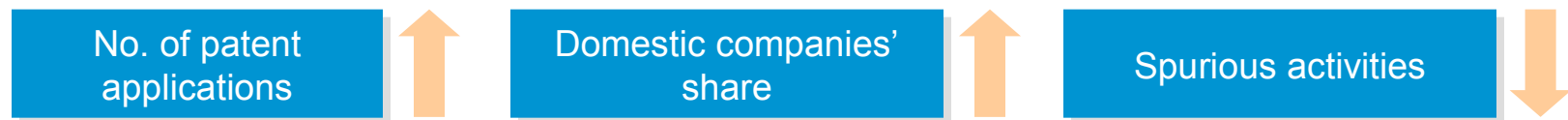
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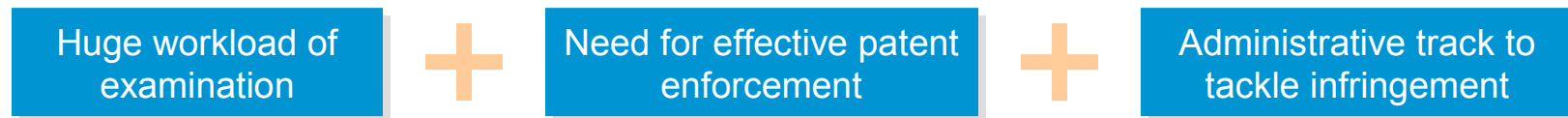
Chinese Patent Protection System will be Tested as Never Before

If you want to know your past – look into your present conditions.
If you want to know your future – look into your present actions
– Chinese proverb

□ Growth to continue



□ Effectiveness of the patent protection system will be tested like never before



□ Amount of money involved will increase

- Statutory damages will be doubled as per the 2006 proposed amendment – these will apply in absence of evidence of profit/loss
- Damages awarded in case of patent infringement are likely to set new highs

□ Patent professionals will be in large demand

- Number of law firms in China is already increasing
- The demand for better Chinese patent researchers will go up



Changes Proposed in the Chinese Patent Law

Some of the notable aspects of the changes proposed in 2006 (likely to implemented in 2008)

- Introduction of time limit for filing divisional applications
- Foreign applicant will not be able to use the crossover of invention patents and utility model patents during the national phase entry via PCT route
- Patentability requirements for design patents to be made stricter
- Penalties for spurious litigations to be introduced
- Novelty and inventiveness criteria to be defined better
- Foreign filing license and patent export control to be made stricter by introduction of penalties
- The upper limit of statutory damages awarded on account of patent infringement will be doubled (these limits apply when accurate evidences of exact loss incurred by the plaintiff and the profits made by the defendant aren't available)
- Parallel importing will not amount to patent infringement
- Bolar exemption to be included
- Designation of patent law firms not required: any legally formed law firm/patent agent operating in China can be entrusted with filing a patent application by a foreign company



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Schneider Electric vs. Chint Group

- Chint Group, a Chinese manufacturer of low-voltage electric apparatus, was awarded the patent right of a utility model named “A Miniature Circuit Breaker” in March 1999
- Chint Group alleged that the technology used by Schneider Electric in the manufacturing of five of its products is the same as Chint Group’s utility model
- Chint Group filed a patent litigation against Schneider Electric
- During the litigation process, the Patent Reexamination Board of SIPO refused Schneider Electric’s invalidation request against Chint Group’s patent, based on a revision of the utility model provided by the Chint Group - a crucial step that confirmed the legal foundation of the case.
- In September 2007, the Wenzhou Intermediate People's Court decided in favor of Chint Group.
- As per the judgment, Schneider Electric Electric and the Leqing Branch of Star Electric Equipment Co. Ltd., an authorized distributor of Schneider Electric, has been asked to stop selling and destroy the five product models that are based on the technology owned by Chint Group.
- In addition, the court ordered the Schneider Electric to pay compensation of CNY 330 million (~USD 43 million), which is believed to be the highest claim for damages for intellectual property infringement in China.
- Schneider Electric has appealed for the invalidation of the disputed technology to Beijing No.1 Intermediate People's Court. Schneider Electric had also appealed against the judgment to the Zhejiang High Court. The final ruling has yet to be made.



Schneider Electric vs. Chint Group – Debatable Issues

- Schneider Electric Electric claims it has been using the technology in the disputed circuit-breakers since the early 1990s, which was much earlier than Chint's patent applications in 1999.
- In addition, Schneider Electric holds the patent right of a utility model named “Electrical circuit breaker with safety shield” with similar technology in China.
- The Wenzhou Intermediate People's court did not stay the case and made the verdict when Schneider Electric had contested the validity of the disputed utility model at the Beijing No.1 Intermediate People's Court.
 - According to Article 9 of the “Several Provisions of the Supreme People’s Court on Issues Concerning Applicable Laws to the Trial of Patent Controversies” in 2001: The people’s court should stay the lawsuit regarding the utility model or design patent infringement if the defendant requests patent invalidation during the litigation.
- The requested damages are about CNY 300 million, which is beyond the jurisdiction of Wenzhou Intermediate People's Court
 - According to “Notice of the Supreme People’s Court on Issues Concerning High Courts Civil and Economic Dissension lawsuits”, the jurisdiction belongs to Zhejiang High Court when the requested damage is more than CNY 50 million (USD 0.7 million).



Schneider Electric vs. Chint Group – Lessons for Foreign Companies Operating in China

- Damages from a patent litigation do not always have an upper limit
 - The statutory limit for damages is applicable only if evidence of loss incurred by plaintiff and profit made by the defendant are not available
- Chinese prior art cannot be ignored
 - If you are operating in China, you better watch out for Chinese prior art
 - Identify the patents acquired by the local competition and proactively take steps to invalidate problematic patents, especially Utility Model patents
- Take help from Chinese patent research professionals
 - Language issues and local cultural context generally inhibit foreign companies
 - Best practice is to engage a local firm to help with performing regular patent research
- Utility Model patents should figure in the Company's China IP strategy
 - What works for a Chinese company should also work for foreign companies in China
 - The ten year problem should become a ten year solution



Bajaj Auto vs. TVS Motors – Both Indian Domestic Companies

- Bajaj Auto, a manufacturer of two wheelers, was awarded the patent right on ‘digital twin-spark ignition’ (DTSI) technology in July 2005
- Sept 2007: Bajaj Auto alleged that the ignition technology used by TVS Motors in TVS 125 ML motorcycle ‘Flame’ infringes on Bajaj’s patent
- In response,
 - TVS filed a revocation suit against Bajaj Auto in IP Appellate Board
 - TVS filed separate lawsuits in Madras and Bombay high court against defamation and preempting efforts by Bajaj Auto to stall introduction of its ‘Flame’ motorcycle
- Result: The Madras High Court on February 16, 2008, ruled in favor of Bajaj Auto, and restrained TVS Motor Company from manufacturing, marketing, selling and exporting automobiles based on the technology claimed in Bajaj’s patent.



Bajaj Auto vs. TVS Motors – Key Lessons

- Big Boost for Patent holders, implying that patent rights can be enforced in India
 - The landmark judgment has proved that Indian courts are beginning to respect Intellectual Property rights, and are serious in their enforcement of IP rights
 - Such judgments will encourage patent holders to enforce their patents aggressively, and will also witness an increase in patent filings (especially from domestic companies)
- If necessary, the patent infringement cases can be expedited in courts
 - For example, this case was decided in just six months
- Proactively track the patents filed by your competitors, and oppose them in the beginning stages
 - Any delay in opposing the patent could weaken your case later in a patent revocation/infringement suit.
 - This judgment can lead to increase in the pre-grant oppositions as well as post-grant oppositions
 - The judge of Madras High Court had reacted negatively to the observation that until 2002, when the application for patent was made, TVS did not object to Bajaj's DTSI patent and patented products, but filed a revocation petition for the first time only on August 24, 2007 before the Intellectual Property Appellate Board, challenging the patent granted to Bajaj.





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Thank You...

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