

Intellectual Property Rights and Economic Development



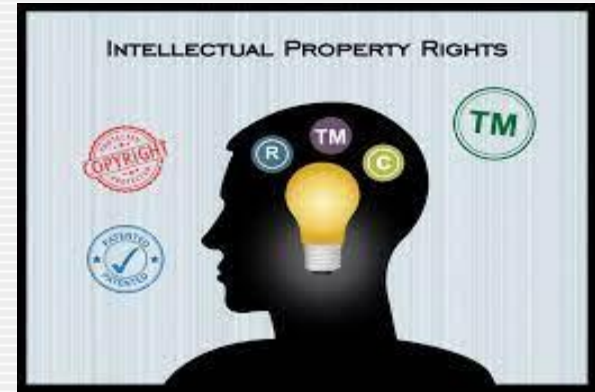
Brief Outline



- Introduction
- Technology Transfer
- IPRs and Trade
- IPRs and Development (Video illustration on Patent and Economic Growth in US)
- Conclusion

Introduction

- The economic, social and cultural development through intellectual property rights is contestable issue globally
- The debate on the developmental facets related to IPR has been challenged by many economists, NGOs, civil society and others, particularly in developing economies



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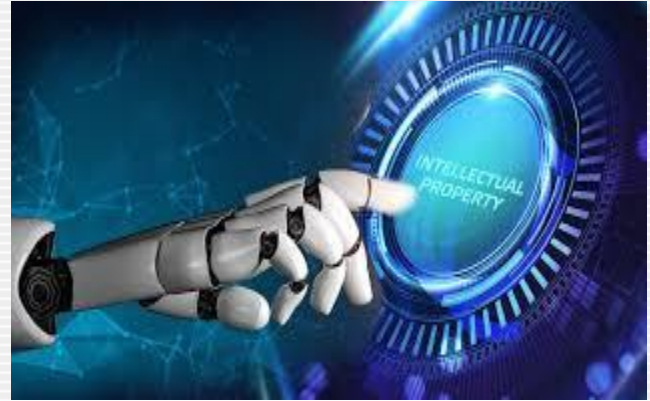


- However, some argue that for developing countries, the protection of indigenous technology can be assured through conferring IPRs and is the major determinant of economic growth and poverty reduction
- Moreover, this will also determine the capacity and extent to which these countries can absorb and use foreign technology

Introduction...



- The vital question arises that, whether extending the intellectual property regime assists developing countries or not in securing the access to modern technologies provided by the developed counterpart
- And also the channel through which, **the protection of IPR will promote growth and development** in these countries, and aid in achieving the social and economic targets
- However, the effects of IPRs on the process of economic growth and development is complex



IP Protection Debate

- Some say that stronger IP protection regime would encourage innovation and benefit developing countries by contributing to more rapid economic growth through the transfer of technology from developed to developing countries
- Other argues that stronger IPR protection would neither accelerate economic growth nor facilitate rapid transfer of technology
- Because, it merely, results in the transfer of economic profits to MNCs that are mostly located in the world's most advanced economies like the US and the EU



IPR: Why is it Necessary?

- Future of any economy largely depends on the stock of knowledge and technical advancement
- Global markets demand successful marketing and variety of sophisticated products, IPR fulfills this requirement
- For industrial and manufacturing growth, new technology is required
- Intellectual property promotes the export of the country and others have to procure the IP based products from that country
- It thus, facilitate competitiveness in industrial and commercial activity that leads to growth and development



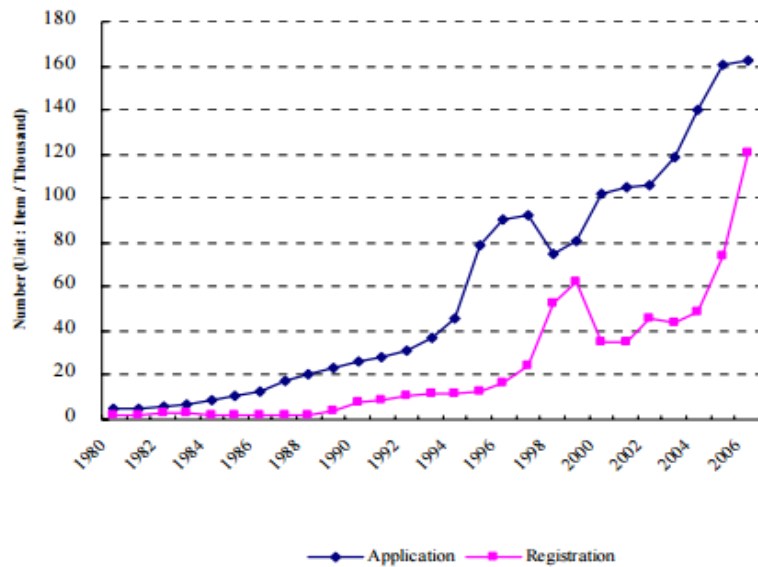
IPRs Protection: Example



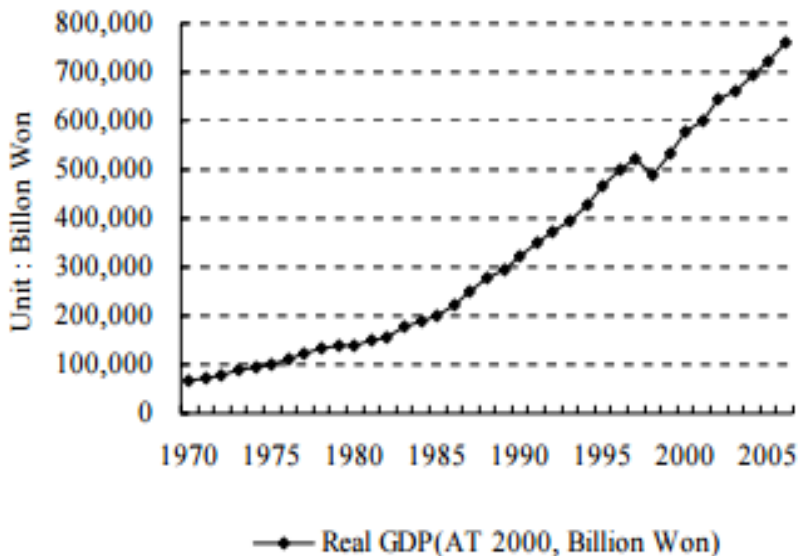
- Korean companies developed indigenous technology with the help of intellectual property system, several of which have become global market leaders.
- There has been found a strong correlation between number of patent applications in Korea and registration and real GDP during 1970-2005

Patents and Real GDP

No. of Patent Application and Registration in Korea



Real GDP (at 2000 prices)



Source: http://www.wipo.int/export/sites/www/about-ip/en/studies/pdf/wipo_unu_07_korea.pdf

Challenges for Developing Countries



- Greater emphasis on capacity building by mere imitation of technology through imports
- Operate with imperfect knowledge and asymmetric information of technological alternatives
- How the developing and the least developed economies are going to catch up with the developed economies, is unknown
- IPRs are the imposition by the developed countries to the developing countries?

Challenges for Developing Countries...



- Developed Countries- Exports High-tech sophisticated products
- Developing Countries- Factor Intensive and Primary Products Exports (Natural Resources)
- Developing Countries- Technology followers of the North



Innovation: Crucial For Economic Growth

- Development as regarded by **Schumpeter** as the historical process of structural changes which is driven mostly by the innovation
- **Schumpeter called innovation as the 'creative destruction'**
- And is crucial for the development
- It is equally crucial for competitiveness and economic dynamism



Channels of Development



- Through **IPRs owners** of the right holders seek to exploit their legal rights by turning them into commercial ventures
- The possibility of attaining such advantages, in turn incentivizes innovation and creativity
- However, after a certain period of time, these rights expire and then unprotected inventions and innovative works can be freely used by anyone
- The developing countries can gain potentially through these inventions

IPRs and Technology Transfer



- Transfer of technology is seen as a part of the bargaining with the developed countries by the developing countries in return of protection of IPRs in their country
- **TRIPS Agreement** provides a number of provisions on this
- For instance: rationales of safeguarding the IP is to encourage innovation and transfer of technology, which involves developed countries to offer inducements for their corporations and organizations to transfer technology to LDCs

Technology and Development

- Technology as a factor of production-Total Factor Productivity will increase with the application of technology
- Endogenous(Solow Model)
- Exogenous & New Growth theories
- Technology Intensity of Exports as an indicator of Technological specialization – facets of capability building



The Choice of Strategy and Development



- Import substitution vs export promotion
- Japan and the Asian Tigers, such as Hong Kong, Singapore, South Korea, and Taiwan managed to raise their per capita incomes—between 1950s to 1990s
- Moreover, Thailand, Indonesia, China, and Malaysia have maintained high rate of growth for long periods—able to reduce their development gap
- They all have shifted from import substitution to export promotion outward oriented developmental strategy

Choice of the Model



- The long-run growth in the neo-classical growth models is exogenously determined
- In Harrod- Domar Model- long-run growth is determined by the savings rate
- The Solow Model- the long-run growth is determined by the rate of technical progress
- However, these models do not explained the causes of the savings rate and rate of technological progress
- Endogenous growth models attempted to remove this drawback by using microeconomics for developing the macroeconomic growth model

IPRs and Trade



- Technology determines trade patterns (Vernon's Product Life Cycle model)
- But, the level of technology is a positive function of intellectual property
- Tech-intensity of exports and value capturing in global value chains depends much upon the technology
- Both at the firm and national level-technology is endogenous
- There is two-way relationship between technology and trade
- Trade seen as a 'highway of learning' (Grossman and Helpman, 1994); specially under Global Value Chains (GVCs)
- Further, merchandise trade itself may substantiate tech-import, via imports of sophisticated machinery and intermediates



IPRs and Trade...



- 1970 onwards witnessed the rapid increase in the commercial significance of the intellectual property rights
- This was the period when intellectual property based industries and the economies as well, witnessed a rapid shift in the composition of their manufacturing exports
- Again, value-added in the high-tech manufacturing as well as the value of exports increased considerably in most of the advanced economies since 1970
- These advanced economies exports most sophisticated products of high-technological intensity

IPRs: Ethical Dilemma



- Skills, talent and scientific expertise- whether they can fit into property rights regime-intangible nature
- Ethical & moral questions of public domain and public interest vs IPRs protection
- Pharmaceutical patents and access to medicines
- Agriculture development (GM crops vs organic food)
- Plant varieties protection and biodiversity
- Unfair patents of traditional knowledge
- Patents and farmer's rights

IPRs: Ethical Dilemma...



- Knowledge : Technology-Product Linkage or tradable
- Market Structure necessary for Innovation - Monopolies versus competition
- Right holder vested: Community versus Individual- corporate entities-Sliding balance from 'sui generis' to entrenched systems of Intellectual Property- strength or weakness of IPRs

IPRs and Development



- **Patent protection** is crucial for the economy, since it leads to invention and commercial ventures through different contractual agreements or own venture and escalate the process of development
- **Trademark** is a valuable asset which has significant economic importance for a firm, since it enables the firm to establish a market position, and reputation
- Effective protection of trademarks thus becomes crucial for the commercial activity in any given country.
- https://youtu.be/Ni3X_8SrLwM

IPRs and Development...

- **Copyright** has stimulated the development of exciting local cultures, and encouraged their diffusion worldwide. For example, the international popularity of reggae, salsa, and different forms of world music.
- **Geographical Indications** gives countries and particular regions a special status and the GI tagged product is recognized worldwide: It has huge commercial value and eventually an economy gains through GI protection



Government's Role

- **Government policy** to strengthen capability building in domestic firms to overcome failures in learning
- Institutional Infrastructure for R&D
- Policies to attract FDI that brings new technology
- Technology Deepening:
 - Upgrading quality and technology within existing activities.
 - Moving from technologically simple to complex activities



Conclusion



- IPRs are required for sustainable development
- This is necessary because it will eventually allow countries to develop their own process of technological innovation
- It enables them to absorb effectively technologies developed abroad

Further Readings



- The Role of Intellectual Property in Development and WIPO's Development Cooperation Program: <http://www.wipo.int/export/sites/www/about-ip/en/iprm/pdf/ch3.pdf>



Thank You