

Chapter 13

Intellectual Property Rights in Semi-Conductor Industries: An Indian Perspective

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ABSTRACT

Fundamentals of intellectual property rights are provided. In addition, the trends of patenting and patented technologies in India in different areas of semi-conductor technologies are analyzed. The authors discuss many aspects of the patents and patentability. They present patent practices in India covering required forms needed to be filled in order to file a patent. Finally, the importance of patenting and its growth is shown with few year wise statistics.

INTRODUCTION

Everyone has right to the protection of moral and material interests resulting from any scientific, literary, or artistic production of which he is author. - Article 27 of Universal Human Rights (Morsink Johannes, 1999)

Origin of modern Intellectual Property Rights (IPR) can be traced back to Statue of Monopoly (1623) and Statue of Anne (1710) for patent and copyright law respectively (Brad, 1999). Thereafter, IPR remained present in one form or other until 19th century where its reach spread to the whole

world. As said by article 27 of universal human rights, the sole intention was to provide protection to inventor, from others to copy the invention. To the general public, the perception towards IPR had varied from time to time. Initially the justification for the granting of IPR law was to give as little protection as possible in order to encourage innovation. Hence, they were granted only when there was a necessity to encourage innovation, limited in time and scope. Historically, in its initial form, IPR was granted for one to three years. Today, particularly in U.S. the intention behind the grant of IPR is “absolute protection” (Herman, 1911; Library of Congress, 2009). Now justifi-

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cation behind absolute protection is the thought that, creators will not get sufficient incentive of their inventions, unless they are legally owner of their invention. Today every country gives IPR roughly for 20 years. Intellectual property in today's context can be viewed as another type of real property, following all the laws of it. The term IPR has lot of domains concatenated under it; all of them provide protection from copying or reproduction (Herman, 1911). Contrary to today's understanding patents does not specifically begin with invention rather it originated with royal grants by Queen Elizabeth I (1558-1603) for providing monopoly privileges (Mossoff, 2001). Slowly and steadily IPR took legal shape with associated laws and practices defined. Technically usage of the term IP (intellectual property) can be traced back to 1867 where north German confederation's constitution granted legislative power over the protection of intellectual property (Schutz des geistigen Eigentums) to confederation (Hastings Law Journal, 2001). After the merger of Paris convention (1883) and Berne Convention (1893), the term intellectual property was adopted in their new combined title "*The united International Bureau for protection of Intellectual property.*" Further, the organization was relocated to Geneva in 1960 and was succeeded by the establishment of the World Intellectual Property Organization (WIPO) in 1967 by treaty as an agency of United Nations (WIPO, 1967). Another form of intellectual property "copyright" can also be traced back to 16th century.

Now as the time progressed the whole context of IPR has evolved; it is not only relate to protection rather it has substantial amount of share in economic growth. In a joint research by WIPO and United Nations University for investigation of IP Systems impact on six Asian countries found "a positive correlation between economic growth and strengthening the IP system." In the similar path Anti-Counterfeiting Trade Agreement (ACTA) states that "effective enforcement of intellectual property rights is critical to sustaining economic

growth across all the industries and globally (Walsh, 2012). Hence, IP and economics go hand in hand. Going by IP products becomes excludable, non-rival intellectual products which was not possible when not going by it. It was estimated that two thirds of large business in U.S. are directly related to IP assets. Similarly, if we analyze IP-intensive industries, they roughly generate 72% more value added (price minus material cost) per employee as compared to non-IP intensive industries (Robert, et al., 2007).

Few basic fundamental IP laws are common among different countries but in general different countries have different opinions and laws that IP in their territory. Hence grant and enforcement of IP's are governed by national laws and also by international treaties applicable where those treaties have their effect in national laws.

As any new thought is appreciated as well as criticized, criticism of intellectual property is as much older as its inception. One of the major arguments related to criticism of IPR is "if one makes a copy of work, the enjoyment of the copy does not prevent enjoyment of the original." Those in free culture movement point that IP monopoly prevent progress and argue that general public interests are harmed by IP monopolies in form of copyright extensions, software patents and business method patent. Similarly, there is criticism on the tendency of IP to expand both in duration and scope (Daniel, 2008; Joseph, 2006).

Intellectual property as of now has different domains under it, which are classified on the basis of their subject coverage as shown in Figure 1. Few of the important ones are discussed in this section.

Copyright

It is a legal concept giving exclusive rights to creator of an original work usually for limited time. In general, it means "right to copy," giving the holder of copyright rights to determine who may adopt the work in same or different forms, who may perform it, who may get financially

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