

# A Conceptual Study on Role of Intellectual Property Rights in Management and Technological Innovations

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## ABSTRACT

Intellectual property (IP) rights are valuable assets for your business - possibly among the most important it possesses. In the twenty first century, the realm of intellectual property rights emerges as a relatively new and rapidly developing area of practice (Heath & Sanders, 2009). The global framework of intellectual property rights is quite controversial although, it is still immensely helpful in deciding the course of innovation and design processes. Managing innovation better than its competitors is one of the main objectives of a business that wishes to survive and thrive in today's economy. IP management can help researchers determine which areas of industrial research are promising and areas where existing patent would block any meaningful innovation. The purpose of this study is to know the role of intellectual property rights in management and technological innovations. Intellectual property rights mechanisms are being rapidly deployed and consistently monitored to ensure the integrity and security of the intellectual properties.

## 1. Intellectual Property Right

IPR as a collective term includes the following independent IP rights, which can be collectively used for protecting different aspects of an inventive work for multiple protections:

- Patents
- Copyrights
- Trademarks
- Registered (industrial) design
- Protection of IC layout design
- Geographical indications and
- Protection of undisclosed information

Broadly speaking, the term 'IP' refers to unique, value-adding creations of the human intellect that result from human ingenuity, creativity and inventiveness. An IP right is thus a legal right, which is based on the relevant national law encompassing that particular type of intellectual property right. Such a legal right comes into existence only when the requirements of the relevant IP law are met and, if required; it is granted or registered after following the prescribed procedure under that law. In practically all countries the world over, a national legal system of intellectual property rights have evolved; this has been created over varying periods of time during the last 150 years or so. It has enabled the grant of property-like rights over such new knowledge and creative expression of mankind, which has made it possible to harness the commercial value of the outputs of human inventiveness and creativity. This is usually done by its orderly use, exchange or sharing it amongst various types of business partners in a complex network of strategic relationships that generally work harmoniously during the new product development process for creating and marketing new and improved goods and services in domestic and export markets.

Effective IP systems can facilitate access to finance and the development of markets for technology, both of which

help innovative entrepreneurship. Such systems also provide incentives to invest in R&D and innovation, and can encourage technology co-operation with firms, universities and PRIs. IP systems need to fully take into account the new roles played in the economy by patents and other types of IP, and in particular how they relate to innovation (e.g. the increasing use of patents in opportunistic litigation). IP systems also need to adapt and modify IPR in order to better match it with the characteristics of today's innovative world.

## 2. Management and Technological Innovation

Generally put, an 'innovation' is developing a new idea **and** putting it into practice. As this focused on the competitive strategy of a private enterprise in a market-driven business environment, the term 'innovation' is used here to refer to the process of bringing valuable new products (goods and services) to market i.e., from the idea/concept formulation stage to the successful launching of a new or improved product in the marketplace, or the result of that process, so as to meet the explicit or implied needs of current or potential customers. In other words, through innovation an enterprise seeks to deliver unique new value to its customers. In this context, 'marketing' is the understanding of that unique new value and communicating it to the current and potential customers of a business so that the product sells itself.

Technological innovation may be classified in several ways: product vs. process, radical (basic or fundamental) vs. incremental (improvement), and disruptive vs. sustaining (sequential and/or complementary). Other important types of (non-technological) innovations that do not result

from scientific and/or technological R&D, but are often crucial for profitably marketing the products and services resulting from the investment made in R&D are: marketing innovation, institutional innovation, and complementary innovation.

However, the focus is on technological innovations. Nowadays, it is generally accepted that in a knowledge-driven, competitive business environment, technological innovation (hereafter, for the sake of simplicity, simply called 'innovation') is a principal determinant of successful firm performance. But differences of opinion persist amongst economists and policymakers about the exact role of intellectual property (IP) in relation to innovation. On the one hand, in theory, the IP system is considered to be absolutely necessary "to encourage creative intellectual endeavor in the public interest," and on the other, some observers believe that, in practice, the IP system hinders competition to the extent that it is often seen to be playing a negative role in innovation. Hence the need for a systematic and periodic study and review of the actual use by businesses of the tools of the IP system so that economists are able to provide empirical, evidence-based guidance to policymakers to adapt the IP system so that it continues to serve the conflicting private and public interest in spurring further innovation and its wide diffusion in the shortest possible time. However it does not deal with these otherwise important aspects.

Managing innovation better than its competitors is one of the main objectives of a business that wishes to survive and thrive in today's economy. By relying on practical examples, it highlights the important contributions made by the effective use of the different tools in the IP system to the process of taking innovative technologies to market, through launching of superior products and/or services. For explaining the role of the tools of the IP system, it goes beyond merely looking at technological innovation as either radical or incremental technological breakthroughs. Instead, it looks upon technological innovation as an interactive process made up of a number of distinct stages. It begins with the formulation of a novel idea/concept and, through a series of stages, ends in the successful launching and marketing of a new or improved product in the marketplace. In other words, it looks at practical IP issues of relevance to different stages in the whole new product development process in which technological innovations may be introduced at different stages of the value chain from the producer to the end user. For the sake of simplicity, it focuses on the idea stage and the research and development stage.

### 3. Role of IP in Management and Technological Innovation

Innovations and technological developments have been recognized for their central importance for economic success and growth at least since the 1930s. Intellectual property (IP) and intellectual property rights (IPRs), such as patents, trade secret rights, and copyrights, have during more recent decades caught increasing attention, and, mainly due to various developments

at macro level, IP has become an important source of competitive advantage at micro level in many industries. This has led to an increased importance of strategic IP management, and the related research field has been growing since the late 1990s.

Innovations are concerned with the commercialization of new ideas; in contrast, an 'invention' may not be directly associated with commercialization. As such, innovation may be seen as a process of interaction and feedback during the various stages of the new product development process. An invention is considered as the generation of a new idea or knowledge, which aims to solve a specific technical problem. Inventions could relate to products or processes and are characteristically protected by trade secrets, utility models/petty patents or patents. Utility models/petty patents or patents are granted/registered under the relevant national/regional law by the relevant national or regional patent office. As not all inventions are commercialized, so it is clear that not all inventions result in innovations. A lot of new ideas are created or born but, quoting Brandt (2002), "Most die a lonely death, never seeing the light of commercial success."

The acquisition and management of IPR are critical in helping firms transform their innovation potential and creativity into market value and competitiveness. Protecting an invention is only one of the many roles that IPR may play in innovative firms. Other functions that companies fulfill with IPR (OECD, 2011; Cohen, Nelson and Walsh, 2000) are:

- positioning in global markets, by opening up new commercial pathways or by segmenting existing markets
- signaling current and prospective value to investors, competitors and partners
- accessing knowledge markets and networks
- defending themselves from patent infringement suits
- blocking rivals from patenting related inventions
- using patents in negotiations over technology rights.

As there are many players involved in facilitating the market success of an innovation, the effective use of the tools of IP will play an important role in reducing risk for the players involved, who may then be able to reap acceptable returns for their participation in the process. IP plays an important role in facilitating the process of taking innovative technology to the market place. At the same time, IP plays a major role in enhancing competitiveness of technology-based enterprises, whether such enterprises are commercializing new or improved products or providing service on the basis of a new or improved technology.

For most technology-based enterprises, a successful invention results in a more efficient way of doing things or in a new commercially viable product. The improved profitability of the enterprise is the outcome of added value that underpins a bigger stream of revenue or higher productivity.

With effective implementation, IP management can help researchers determine which areas of industrial research are promising and areas where existing patent would block any meaningful innovation. By including product managers and business units in the process, management can identify opportunities in their patent portfolio and compare it to trends in the market. In particular, decisions can be made on whether prosecuting certain areas is viable, or whether there

is greater opportunity in licensing a technology or abandoning the patent entirely. Business units are frequently unaware of the cost of maintaining a patent portfolio, and the inclusion of their input on its maintenance can help identify opportunities for cost savings and optimization.

#### 4. Why is it important to protect intellectual property rights?

IP rights are important because they can:

- set your business apart from competitors
- be sold or licensed, providing an important revenue stream
- offer customers something new and different
- form an essential part of your marketing or branding
- be used as security for loans

Some IP rights are automatically safeguarded by IP law, but there are also other types of legal protection you can apply for. To exploit IP fully, it makes strong business sense to do all to secure it. You can then:

- protect it against infringement by others and ultimately defend in the courts your sole right to use, make, sell or import it
- stop others using, making, selling or importing it without your permission
- earn royalties by licensing it
- exploit it through strategic alliances

- make money by selling it

#### 5. Conclusion

Intellectual property rights can be used effectively to facilitate successful innovation. Innovative technologies stand a better chance of successfully reaching the marketplace if IP is used strategically. IP systems also need to adapt and modify IPR in order to better match it with the characteristics of today's innovative world. Increasing scope of making better designs, adopting newer business methods and invention of modern technologies increased the bulk of intellectual properties immensely. Threat of piracy, plagiarism and theft of intellectual material in different forms also increased. Therefore, the international community is trying to find out and synchronize effective ways of protecting intellectual property rights worldwide. Particularly in the fields of programming, engineering, electronic media, business and industrial management, etc.; intellectual property rights mechanism provides reliable ways to ensure integrity of technical information about various innovations and achievements. In this way, monetary loss due to the crimes like piracy can be prevented. Also, enforcement of these rights would further develop an urge to research and innovate among the powerful corporations and government organizations. Thus, the innovation and design process would be sophisticated and a competitive market would ensure more technical, managerial and other intellectual discoveries. The role of intellectual property rights thus appears to be rather beneficial to the sphere of human endeavor.

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