
Module 11: Discussion and Summary

Throughout your study of the various modules, you have learnt about various types of intellectual property and their different types of protection. The modules have stressed the benefits of the various forms of protection in terms of the holder's rights. An underlying theme in all of these explanations was that creators of intellectual property can generate financial rewards by the exercise of their rights. Simply owning intellectual property rights does not generate money. To produce income the owners of the rights must exploit them financially through various types of commercial agreements including licensing arrangements and/or assignments of rights. In a sense, all of these commercial agreements are an attempt to turn intellectual property into **intellectual capital**.

The next few audio segments are longer than usual, you should use them to help you recall the concepts covered in the earlier modules, as well as listening to examples of the creation of wealth from intellectual property rights.

Audio Segment 1: *Now, I've heard a lot about intellectual property, but there is also the expression intellectual capital. What's the difference?*

Intellectual property is based on laws that provide for the protection of certain creations of the mind such as inventions, films, books, music and so on. Intellectual capital includes intellectual property, but also other things that a company can use to gain a foothold in the market, for example, customer lists, training methods, quality control methods or quality testing procedures. All of this is intellectual capital, but we should not forget that a company's greatest intellectual capital is its labor force.

Intellectual property may not always be intellectual capital in a strictly monetary sense, because a patent, for an invention that has not been placed on the market and used to generate income for the company, is not worth the paper that it is printed on. The patent for an invention has to be used in a commercial environment; it will give the company a competitive advantage because, by using it, and thereby preventing others from placing a similar product on the market, the company can generate increased profits. The same applies to registered trademarks. A trademark that is not known to the public is not worth much, but a trademark like Coca-Cola, say, is worth billions. And yet some people say the Coca-Cola trademark has no price as it has never been offered for sale. So we have to make a difference between cost, price and value.

How do you distinguish?

The value of a trademark is actually based on how much somebody would be ready to pay to acquire it. For example, if somebody is ready to pay a million dollars for a trademark, that might be the value but it is not the price, because the owner might not want to sell. So, there is no set price if there is no transaction; the price would be determined by the transaction itself. And intellectual property then becomes a known value if it is offered on the market and there is somebody ready to buy it.

Take the example of an invention. For example, the famous Velcro textile fastening material was invented by a Swiss inventor who unfortunately didn't make much money out of his invention, which today is used everywhere, because he was unable to get it on the market during the lifetime of the Velcro patent. Indeed his only income was from a contract with NASA, which used part of his invention for the fastening of spacesuits for its astronauts. In the meantime, however, the invention has generated a great deal of income for the follow-up user who has used it since it became

public property; companies that use Velcro today do not have to pay any royalties or license fees to the inventor. This is just one example. Other inventions have generated considerable income for their owners; I could also give you the example of the Dolby system of noise reduction for high-fidelity stereophonic equipment, which was invented and then efficiently marketed by means of licensing agreements throughout the industrial sector and other arrangements that demonstrated the advantages of the Dolby system for the licenses when the technology was passed on to the eventual user, namely the consumer in search of superior quality music.

So briefly, as I do know a bit about the system, the licensing arrangement was that every manufacturer who incorporated the technology paid a fee to Dolby?

That's it. Every manufacturer would pay a fee to use the Dolby system on certain conditions; for instance he was obliged to make it clear to the consumer that the Dolby system was being used, which in turn was indirect publicity for him, and that nobody could use the Dolby system without entering into a license agreement with the owner.

Do you have another example of how intellectual property can be made commercially successful?

We all know how strong pharmaceutical companies are in the intellectual property field. All the pharmaceutical companies, when they invest in the development of new treatments, medicines, and drugs, expect to be the only providers on the market for a time so that they can make more profit than they would if there were more than one company offering the same product.

You will notice that some new medical drugs appear on the market at quite a high price and that, towards the end of the lifespan of the patent, the price goes down for users as generic forms also appear on the market. The generic forms are in fact the same medication and use the same formula, but their patents have already expired and the technology is in the public domain. The pharmaceutical companies try to maintain their advantage by intensive marketing of the trademarks relating to the specific medications. No one but the Bayer company can produce Bayer aspirin today because the trademark is owned by the company. However, there are many companies that produce a medical drug with the same ingredients as aspirin which has the same effect, but they use a different name. So the consumer may be drawn by the traditional name and well known qualities of the Bayer trademark, but when he is persuaded that he can buy an alternative product for the same price or cheaper, then that is probably what he will do.

So the example you have given us concerns two forms of protection, namely the patent, which has now expired, and the trademark, which continues?

That's right. The trademark, unlike the patent, can be kept forever, for in perpetuity. And this is very important to companies that produce staple products. Trademarks are usually associated with staple products, being less important when associated with specialized products. By specialized products, I mean purpose-built manufacturing equipment, for example, or mining or drilling machinery. In that case the industrial consumer would not be using the trademark to lead him to a known product, he would be buying the technology, and then only every 10 or 15 years. He would therefore be looking at technology, as he wants the best quality and the best equipment for his money, and the trademark, if it belongs to a source known to produce the type of equipment he is after, would give him a sure reference to the reputation of the producing company. In a mass consumption market, a trademark will have a powerful effect: people buy with their eyes and hands; only later do they check what's inside the box.

So the key step of commercialization requires consideration if the economic benefits of the protection of intellectual property rights are to be obtained.

Some people think that the benefits of intellectual property protection relate only to industrialized countries, so please listen to the next audio, which specifically addresses the economic benefits to countries in development, from intellectual property protection and effective commercialization.

Audio Segment 2: *Can you tell us a bit about the economic benefits of intellectual property for developing countries?*

Certainly. Developing countries can benefit from the intellectual property system in the same way as industrialized countries. The disadvantage for developing countries today is that many of their companies do not yet fully appreciate how to use the intellectual property system to their own advantage. But as awareness increases, certain products start to appear on the market; I cannot give exact examples, but generally speaking Indian multinational companies trade and sell branded products, which are a reference for their clients, so the clients go and are able to find the products that they are looking for, because they know the origin of the products and use that as an indicator of quality.

In technology too, if a research center in a developing country develops a technology that might be useful to another country, and does not secure patent for its inventions or industrial design, it will lose its advantage. It will lose the possibility of selling the technology and thereby earning additional income for its intellectual product. Another example springs to my mind; it concerns pineapples. In Europe, you will find pineapples on the market that come from various countries. Sometimes the shop will state that it's a pineapple from Ghana, from Central America or from Ivory Coast, but as far as I know only Ivory Coast has so far actually introduced a label "Pineapples from Ivory Coast," and certain shops have observed that customers are looking for those pineapples in particular. This is not a trademark as such; it's more of a certification mark, but it is registered as a trademark, and exporters from Ivory Coast can use the label to distinguish their products from the pineapples of other foreign producers. And I believe that developing countries would benefit from making more use of the various appellations of origin, geographical indications or trademarks that are available as a means of selling their goods as local produce, not as standard goods from no identifiable regional source.

There are various mechanisms for receiving payments from other people using one's intellectual property and the next audio segment discusses some of these.

Audio Segment 3: *The terms licensing and royalties often come up in connection with the exploitation or marketing of intellectual property. What's the difference between licensing and royalties?*

Licensing is a process whereby something is allowed. It's the giving of permission. It comes from the Latin noun *licentia*, meaning permission. The owner of the intellectual property right or IPR is the only person who can permit the use of that IPR by somebody else. If somebody wants to use my technology, he has to enter a license agreement, a form of contractual arrangement, with me, and that agreement will specify the conditions on which he will use my intellectual property rights, namely how, where and when. This amounts to permission by law, and it is the legal way of exploiting intellectual property rights. If somebody uses my intellectual property, say my technology, my invention or my trademark, without permission – that is illegal, it's infringement or an act of piracy, and it only becomes legal if and when he enters into a license agreement with me.

The Royalties on the other hand are the remuneration payable under license agreements, usually calculated as a percentage of the number of units or the quantity to be produced under the license. For example, if you license the production of tires to somebody, you have two ways of setting the price in the license agreement. Either you opt for a lump sum, in which case you decide that your technology and the know-how that goes with it is worth a million dollars, and the agreement specifies how the licensee is to pay the million dollars, or you provide for royalties, which are regular payments of remuneration based either on production quantities or on other factors.

Royalties are used by licensors when they want control over the licensee's output and also to some extent on its quality, because the volume of royalties is an indicator of how much the licensee is manufacturing and ultimately a means of checking on the licensee's manufacturing capacity. For the licensee, the advantage of agreeing on royalties is that the amount payable for the technology is spread over years and the benefit he derives from the license depends on his output. It is useless if a licensee has to pay a huge amount as a technology fee, which we call a lump sum royalty, and then does not use the technology to secure a return on the investment made.

There have been numerous attempts to help creators of intellectual property to turn their rights into commercially successful products. The next audio segment describes one of these, the creation of Innovation Centers.

Audio Segment 4: *Can you tell us something about innovation centers?*

Innovation centers are a concept that appeared in the late 1970's and 1980's in some industrialized countries. Basically, they appeared for the first time in conjunction with university research or government-funded research laboratories in Western Europe and North America. The main function of an innovation center is to bring a new technology and new development from the researcher's desk or the laboratory to the market. It's easy to say that you have to transfer technology. It's much more difficult actually to do it, because the stage of development of an invention will greatly influence the cost of the transfer.

If you have an invention that has been proved new and is therefore patentable, and you have been granted a patent, you have taken the first step, but this does not mean that the technology will actually work. It may work well in laboratory conditions but never work in industrial applications. Sometimes the market is not ready to receive it. Sometimes other conditions or human factors interfere and you cannot transfer the technology. So in fact innovation centers are similar to the business incubation centers of a government or chamber of commerce.

The innovation center would help the inventor or researcher bring his invention or other IPR on to the market. It could offer various services like, intellectual property advice, assessment of inventions for economic viability and technical feasibility or in relation to the legal environment in which the invention has to work, and it would assist the inventor or researcher in developing a business plan with which to attract investors and manufacturers more easily, as a business plan gives a better idea of how one would like to see the invention develop and be exploited as a marketable product. Basically, it would serve as a bridge between research and development on one hand and manufacturing on the other.

So in a way, the innovation center is an attempt to turn intellectual property into intellectual capital?

That's right. That is indeed what an innovation center would do, ideally, to facilitate the transfer of the invention from the research stage to the market. There are successful innovation centers in many universities, not only in industrialized countries but also in Mexico, Brazil and in Argentina, and I've heard that they are also to be found in countries of the Far East.

Our task at WIPO is to encourage developing countries to establish innovation centers as structures that will facilitate the marketing of intellectual investments, in other words, the research results achieved at national or university-based research laboratories, or by national inventors.

Final Summary

Throughout your study of the various modules, you have learnt about various types of intellectual property and their different types of protection. The modules have stressed the benefits of the various protections in terms of the holder's rights. An underlying theme in all of these explanations was that creators of intellectual property can make financial rewards by the exercise of their rights. Just owning intellectual property rights does not generate money. To do this, the owners of the rights must exploit them financially through various types of commercial agreements including licensing arrangements and sales of rights. In a sense, all of these commercial agreements are an attempt to turn intellectual property into intellectual capital.

- You have learned about the general structure of copyright law and studied an overview of the
- works protected by copyright ,
- the rights granted to the owner of copyright;
- limitations on such rights;
- ownership and transfer of copyright; and
- enforcement of rights.

The Berne Convention stated that copyright covers “every production in the literary, scientific and artistic domain, whatever may be the mode or form of expression”. Covered under this broad term is every original work of authorship, irrespective of its literary or artistic merit. The owner of copyright in a protected work may use the work as he wishes, and may prevent others from using it without his authorization. These rights are referred to as “exclusive rights”. Copyright protects both economic rights and moral rights.

In addition to those mentioned above, the TRIPS Agreement included another genre of work to be covered under copyright. This is multimedia production and although there is no legal definition, there is a consensus that the combination of sound, text, and images in digital format, which is made accessible by a computer program is considered an original expression of authorship and is therefore covered under the umbrella of copyright.

Related rights, also referred to as neighboring rights, or more specifically “rights neighboring on copyright” protect the legal interests of certain persons or

organizations who contribute to making the works available to the public or those who add creative, technical or organizational skill.

Traditionally, related rights have been granted to three categories of beneficiaries: performers, producers, and broadcasters. The need for legal protection of these three groups was identified in the Rome Convention in 1961, which was an attempt to establish international regulations in a new field where national laws already existed. In other words, most States would normally have to draft and enact laws before adhering to the Convention. The Rome Convention, although imperfect and in need of revision, is still the only international benchmark for protection in this field. Like copyright, the Rome Convention and national laws do contain limitations on rights allowing for private use, use of short excerpts, and use of the copyrighted works for teaching or scientific research.

The duration of protection of related rights, as stated in the Rome Convention, is 20 years from the end of the year:

- the recording is made;
- the performance took place;
- the broadcast took place.

Conservatory or provisional measures refer to the remedies for infringement or violation of related rights. These include civil remedies, criminal sanctions, measures to be taken at the border and measures, remedies and sanctions against abuses in respect of technical devices.

Related rights also protect the largely unwritten and unrecorded cultural expression of many developing countries. Protection of related rights has become part of a much larger picture and is a necessary precondition to participate in the emerging system of international trade and investment.

The section on the patent area of intellectual property covered the fundamental information. Patents are one of the oldest forms of intellectual property protection and as with all forms of protection for intellectual property the aim of a patent system is to encourage economic development by rewarding intellectual creativity. This section explained that the aim of a patent is to encourage economic development by giving reward to intellectual creativity.

Under patent protection, both the creation and its further development are covered. A breakthrough in science like the invention of penicillin is as equally important and protected as a new lever on a machine invented to make the machine run faster. Patents protect inventions and in simple terms, an invention may be defined as a new solution to a technical problem. The solution is the 'idea' and protection under patent law does not require that the invention be

represented in a physical embodiment. However, there are rules and exceptions to those things that cannot be patented. These include: human genes, things found in nature and machines that defy the laws of nature, such as a perpetual motion machine. Other exclusions, which are common under national law, are scientific theories and mathematical methods; schemes, rules and methods for doing business; and methods of treatment for human or animals or diagnostic methods.

Once a patent application is on file, it is reviewed and examined by a technical expert to ensure that it meets the requirements of patentability. One characteristic that an invention must have is: (1) it must be new or novel: (2) it must involve an inventive step, (3) it must be capable of industrial application. In short, a patent is a deal between a national government and the inventor. The state, by giving protection for a fixed term ensures that the inventor gets rewarded. After expiration, which is typically 20 years after the expiration of the patent, the invention is available for anyone's use. Since there is no such thing as worldwide protection, an inventor must pay application fees and annual protection fees to each country where he wishes to be protected.

In the module on trademarks you learned that a trademark is a word, a logo, a number, a letter, a slogan, a sound, a color, or sometimes even a smell which identifies the source of goods and/or services with which the trademark is used.

Trademarks are one area of intellectual property and their purpose is to protect the name of the product rather than the invention or idea behind the product. Generally speaking, trademarks should be distinctive and should not be deceptive.

The use of geographical indications an important method of indicating the origin of goods and services. One of the aims of their use is to promote commerce by informing the customer of the origin of the products. Often this may imply a certain quality, which the customer may be looking for. They can be used for industrial and agricultural products. Protection of such indications is on a national basis but there are various international treaties that assist the protection in a range of countries.

You have also learned about WIPO's Treaties regarding the international registration systems for the protection of trademarks and industrial design. The role of WIPO in this process is to serve as the administrator that protects the main systems of registration.

The Madrid System was created over 100 years ago and its purpose is to monitor the international registration of trademarks. If an individual wants protection of his trademark in numerous countries, he must first register it in his country of origin. There is a dependency for five years whereby if the trademark is refused in the country of origin, but accepted in the other designated countries, it will be cancelled. International trademark protection is indefinite, however it

must be renewed every ten years. There is no limit to the amount of times a trademark is renewed.

The Hague Agreement created the system of international registration of industrial designs. Industrial design refers to the appearance of an object and it differs from a patent. The main difference is that a patent protects technical innovations and inventions while industrial design protects the appearance of an object. The owner of an industrial design is protected for a fixed period. In most countries protection lasts for either ten years or for fifteen to twenty years. There has been a new directive for countries in the European Union, which grants the owner of an industrial design twenty-five years of protection.

The Patent Cooperation Treaty provides a simplified procedure for an inventor or applicant to apply for and eventually obtain patents in a large number of countries. In addition, it promotes and facilitates the exchange of technical information contained in patent documents to industries and workers in the relevant field.

To complete your understanding of the scope of intellectual property protection in the marketplace, you have been exposed to the concept of unfair competition and the sort of acts which can be considered as unfair competition, as well as the remedies that can be used to ensure fairness in competition. The main purposes of unfair competition law have been explained, namely: the protection of competitors, the protection of consumers and the safeguarding of competition in the interest of the public at large. By analyzing the different types of acts, which represent unfair competition, you have been able to understand the complementarity between intellectual property law and unfair competition law.

Finally, you concluded this introductory course by learning about the protection of plant varieties as another aspect of intellectual property rights. This *sui generis* protection accorded to new plant varieties, when they meet certain conditions, seeks to acknowledge the achievements of breeders who make substantial investments in the fields agriculture, horticulture and forestry. The opportunity for them to obtain certain exclusive rights with respect to a new plant variety, and thus recover costs, offers an important incentive to further their activities, which result in the improvement of the quality and performance of plants of all types.