



5. Intellectual Property Management

Teacher edition

5. Intellectual Property Management

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Introduction

Intellectual property (IP) management is about protecting and managing valuable ideas and innovations. A company's IP can offer customers something new and different which helps to distinguish the business from its competitors. The company can also sell or license these rights, generating an important revenue stream.

Intellectual property rights are valuable assets for your business and so you should protect them against infringement, otherwise their worth will be diluted.

You may be surprised at how many aspects of your business you can protect. For example, its name and logo, designs, inventions, works of creative or intellectual effort or trade marks that distinguish your business are all types of IP. Some IP rights are automatically safeguarded by intellectual property law, but there are also other types of legal protection you must apply for.

This unit begins by discussing the importance of intellectual property, and examines how to determine which intellectual property to legally protect. The unit then introduces **four key forms of intellectual property: patents, trademarks, copyright, and trade secrets**. It provides a brief discussion on confidentiality agreements and trade secrets.

Learning objectives

When you have successfully completed this unit you will be able to:

- Define the term 'intellectual property' and explain its importance
- Discuss the four major forms of intellectual property, namely patents, trademarks, copyrights, and trade secrets
- Specify the rule of thumb for determining whether a particular piece of intellectual property is worth the time and expense of protecting it
- Describe the process for obtaining a patent

1. Intellectual Property

Intellectual property is a legal field that represents the property of your mind or intellect.

It is called 'intellectual' property because it is the product of human imagination, creativity, and inventiveness, such as: inventions, literary and artistic works, as well as symbols, names, images, and designs used in business.

Intellectual property is divided into two categories:

Industrial property

which includes inventions (patents), trademarks, industrial designs, and geographic indications of source.

Copyright

which includes literary and artistic works such as novels, poems and plays, films, musical works, artistic works such as drawings, paintings, photographs and sculptures, and architectural designs.

Table 1: Categories of IP

Under intellectual property law, the holder of one these abstract 'properties' has certain exclusive rights to the creative work, proprietary knowledge, or invention which is covered by it. The laws exist to encourage creativity and innovation by granting to individuals who invest their time, energy and money in creative activities exclusive rights to the fruits of their work for a period of time. It can provide the edge which sets successful companies apart, and as world markets become increasingly competitive, protecting your intellectual property becomes essential.

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Some of the reasons for securing intellectual property rights include:

- To provide **incentive** to inventors for new creations
- To provide **due recognition** to the creators and inventors
- To ensure **material reward** for creative work
- **To ensure the availability** of genuine and original products

The process of protecting intellectual property can be long and expensive, depending on the route taken. Therefore it is important to assess in advance whether it is worth your while securing these rights. There are two primary rules of thumb for determining whether to pursue intellectual property protection for a particular intellectual asset.

First, you should determine whether the intellectual property in question is directly related to the company's competitive advantage. Second, you should determine whether the intellectual property has value in the marketplace and if so you should determine exactly what that value is.

You can then apply for protection for your invention in order:

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

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An example of the intellectual property rights associated with a bottle of beer is illustrated in Figure 1.

- Recipe, method of manufacture (**Patent**)
- Shape of bottle (**Registered design**)
- Text on label, in an advertisement (**Copyright**)
- Trade name 'Red Cap' (**Trade mark**)



Figure 1: Intellectual Property Rights Associated with a Bottle of Beer

From this we can see that that the four main types of intellectual property are

- **Patents** (protect how something works)
- **Registered designs** (protect how something looks)
- **Copyright** (protects the expression of ideas)
- **Trade marks** (protect the brand)

The sections which follow explain each of these categories in more detail.

2. Understanding Patents

A patent protects how something works. They are used to protect technological inventions, such as products or processes.

A patent is a monopoly right conferred by the government which gives the patent holder the right to stop others making, using or selling an invention. It provides the patent holder with the right to exploit (i.e. to make, use, sell or import) the invention for a limited period (usually 20 years) in an exclusive manner. A patent can be bought and sold, licensed or used by the owner either in whole or in part.

There are three requirements that must be fulfilled to be granted a patent:

- The invention must be new
- It must imply an inventive step
- It must be capable of industrial application

Novelty

An invention is considered new if it does not form part of the existing state of the art. The state of the art comprises everything made available to the public in any way, anywhere in the world, before the date of filing of the patent application. This also includes material made available by the inventors of the patent application. Any written or oral disclosure to third parties except under 'Non Disclosure Agreement' will affect the novelty of the invention. When deciding on the novelty of an invention it is recommended that you search existing publications and patents. Both the European and US patent offices allow for online searches of published patents and patent applications.

Inventive step

An invention is considered to have an inventive step if it is not obvious to a person skilled in the technical area or a practitioner who knows the technical field in which the invention falls. In other words, the invention should solve a technical problem in a non-obvious way.

Industrial applicability

The invention must be capable of being made or used in some kind of industry. Purely theoretical inventions are beyond the scope of patent protection.

3. The Patent Process

A patent is a means to an end and not an end in itself. Therefore, an inventor should develop a patent strategy that focuses on the commercial aspects and requirements of the invention and its potential application(s). A patent strategy should consider the following questions:

- How can the invention be applied?
- What markets will use these applications?
- What are the sizes of these markets?
- Where are these markets based?
- Who are the key competitors in the market?
- How is the patent to be commercialised?
- What are the competing technologies in these markets?
- Is there a working prototype or is the invention at the idea stage?
- How much resources are required to bring the technology to market?

The patent strategy will influence the timing of the patent filing and the territory in which to file the application. By identifying the potential applications for the invention in advance, you can write the patent specification in such a way as to offer maximum protection for the intended application.

The process begins when you believe you have a patentable invention. The first step is to review the current state of the art or best practice to ensure that the invention is novel. You must then identify the problem addressed by the invention and clearly define the uniqueness of the invention over current solutions. The final step is to prepare a patent application for filing in the patent office.

The table on the next page discusses each of these steps in more detail.

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1

Analyse the state of the art: You must carry out a comprehensive search to identify the current state of the art before drafting a patent application. This is required to establish whether the invention is novel. You can use various online search engines such as Google, Science Direct, European Patent Office and US Patent Office to begin the searching process. It is also important to note that the inventor's own disclosed material (such as publications, presentations, web pages etc.) should also be reviewed as part of the search.

2

Identify the problem: The next step in the process is to identify the technical problem addressed by the invention and to describe how current inventions address this problem. Using this problem-solution approach allows you to highlight the inventive step of the invention and define the benefits of the invention over the current state of the art.

3

Draft the patent: Once you have reviewed the current state of the art and identified the inventive step, the next step is to begin drafting the patent application. Drafting successful patent applications requires not only an understanding of patent law, but also knowledge of the technology being described and claimed. For this reason, we strongly advise hiring a patent agent who has the relevant scientific or engineering training. The patent agent will normally prepare the first draft and allow the inventors to review the application before preparing the final draft for filing.

4

File the patent: An initial application is usually filed in order to set a 'priority date'. This priority date is an important part of the process. Once the initial application is filed, an applicant has one year to update or add to the application before deciding whether or not to file the application in other countries. Updates and additions to the

Table 2: The patent process step by step

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In most countries, patent applications are published around eighteen months after the priority date. The applicant is then required to request that the patent office subject the application to a substantive examination. The agent for the applicant can write to the patent examiner to initiate this activity. The examination should result in an agreed set of claims, which the examiner can then process to either grant or deny the patent application.

The procedure of granting an application can be expensive and time-consuming. It should also be noted that for a patent granted by the European Patent Office it is necessary to provide translations of the accepted claims into other official languages such as French and German. If the European patent is to be validated in individual European countries, this will often require translations of the whole specification and claims. Thus, costs can be of the order of €30,000 to €50,000.

Finally, many patent jurisdictions provide an opportunity for opposition to the patent at either the pre-grant (i.e. pre-acceptance) or post-grant stage. Consequently, a European patent can be opposed within nine months of being granted. This effectively can re-open the whole question of whether the patent should have been granted and/or the scope of the granted claims.

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4. Understanding Trademarks

A trademark is the means by which a business identifies its goods or services and distinguishes them from the goods and services supplied by other businesses.

The Trade Marks Act, 1996 defines a trademark as 'any sign capable of being represented graphically which is capable of distinguishing the goods or services of one undertaking from those of other undertakings'.

It is a marketing tool, which allows consumers to identify and recognise the products and services offered by a certain trader.



Figure 2 shows an examples of several trade marks.

A trademark must be distinctive and can consist of words, personal names, letters, numerals, designs, logos, three-dimensional shapes or the packaging of goods.

Trademarks provides a monopoly right to prevent use of identical or similar marks in a given territory for a limited time (usually ten years but renewable indefinitely) for an identical or similar service.

5. Understanding Industrial Design

This industrial property right has been defined by the Council Regulation on Community Designs as:

'the appearance of the whole or a part of a product resulting from the features of, in particular, the lines, contours, colours, shape, texture and/or materials of the product itself and/or its ornamentation'.

You can deduce from this definition that the design represents the aesthetic or ornamental character of a product.

Technical features or functional characteristics do not fall under the design. Its main function is to attract consumers' attention by making the product more attractive.

An industrial design must be new, original or enjoy an individual character. To be new, the design must have not been made public before the date of the registration application. By original, we understand that the design must be its author's work and not the imitation of another's work. Its individual character will be based on the consumer's impression when they see the product. If their impression is different from their previous attitude concerning another product, the individual character will be satisfied.

Some countries consider the product's useful function as another criterion. The product must be useful; it must have a function for which it has been created.

Registered designs provide five years of protection and it is renewable up to a maximum of twenty-five years.

6. Understanding Copyright

Copyright protects many different types of works: literary works (novels, poems, stories, etc...), musical works (e.g. songs, operas, etc...), artistic works (e.g. drawings, paintings, sculptures, etc...), maps and technical drawings, photographic works (e.g. portraits, landscapes, etc...), motion pictures, computer programmes, databases, etc.

Copyright protection is independent from the quality of the work and the author's purpose in doing such a work. In order to enjoy copyright protection, a work needs to fulfil two conditions: **form of expression** and **originality**.

Form of Expression

By form of expression, we understand materialisation, or whatever may be the mode or form of expression. It could be a piece of choreography, a book, a compact disc, a computer programme, and so on.

Originality

The originality concept has not been harmonised in Europe, except for database and software protection. In continental countries, a work is original if it is marked by the personality of its creator. This supposes that the creator has played a decisive role in determining the form of the work. By contrast, in the United Kingdom the concept of originality is more linked to a special skill or labour.

There is no registration system in most of the world for copyright and it exists automatically on creation. The duration of copyright is for the life of the creator and 70 years following death (or for 70 years from the date of publication if the author is unknown).

7. Other forms of IP

Other forms of intellectual protection include:

- Confidentiality agreements
- Trade secrets

They are discussed in more detail below.

Confidentiality Agreements

This type of agreement guarantees that the information, ideas or data revealed by one person to another will stay secret under the terms of the contract and so will not be transmitted to third parties. This contract can take place in many different situations, such as in the contractual relation between the employer and his employee; two persons sharing a common project; or a person who has an idea and looks for an enterprise to develop it. In order to draft a confidentiality agreement, you should consult a lawyer specialised in this domain.

Trade secret

The notion of 'secret' refers to something that is not generally known or easily accessible. A secret keeps somebody's idea separate from the knowledge of competitors in the market. A secret represents an interest for its holder often in the form of competitive advantage with regard to the competitors. Despite much debate, trade secrets do not receive any protection from intellectual property rights. They could, however, fall under the scope of protection of civil law and unfair competition. An industrial secret may also be kept by including appropriate rules in an employment contract or by using specific confidentiality agreements.

It is worth mentioning that intellectual property protection is a matter of sovereign national legislation. Hence, registration in one country only protects you in that country. There is no such thing yet as an international registration that gives you worldwide coverage.

However, there are certain protocols and treaties that aim to provide a common filing system that helps cut down the paperwork and costs for registration in multiple member countries.

Review

Intellectual property is divided into two categories:

- Industrial property
- Copyright

This unit examined intellectual property issues. More specifically, it explained how to protect an idea and invention. The unit identified and discussed specific topics relating to the following types of intellectual property:

- patents
- trademarks
- industrial design
- copyright

The unit also described other forms of protection such as **confidentiality agreements** and **trade secrets**.

Some of the reasons for securing intellectual property rights include:

- To provide incentive to inventors for new creations
- To provide due recognition to the creators and inventors
- To ensure material reward for creative work
- To ensure the availability of genuine and original products

There are two primary rules of thumb for determining whether to pursue intellectual property protection for a particular intellectual asset.

- Is the particular intellectual property give the company competitive advantage?
- Has the intellectual property value in the marketplace and if so how much?

For a **patent**:

(a) the invention must be new; (b) it must imply an inventive step and (c) it must be capable of industrial application.

Steps in applying for a patent:

1. Review the current state of the art
2. Identify the problem the invention solves
3. Define the uniqueness of the invention over current solutions
4. Prepare a patent application

A **trademark** is the means by which a business identifies its goods or services and distinguishes them from the goods and services supplied by other businesses.

A trademark must be distinctive and can consist of words, personal names, letters, numerals, designs, logos, three-dimensional shapes or the packaging of goods.

An **industrial design** represents the **aesthetic or ornamental character** of a product.

Copyright protection relates to **form of expression** and **originality**.

Other forms of intellectual property

- confidentiality agreements
- trade secrets

Self-Assessment Questions

1. What is intellectual property?
2. Why is intellectual property protection important for new ventures?
3. How do you determine if a particular piece of intellectual property is worth the time and expense of protecting it?
4. Describe the process for obtaining a patent.

Answers to Self-Assessment Questions

1. Intellectual property is a legal field that represents the property of the mind or intellect.
2. Intellectual property protection is important for new ventures because a company's IP can offer customers something new and different which helps to distinguish the business from its competitors. The company can also sell or license these rights, generating an important revenue stream.
3. A particular piece of intellectual property is worth the time and expense of protecting it if the intellectual property in question is directly related to the company's competitive advantage and if it has value in the marketplace.
4. The process for obtaining a patent consists of four steps. These are: (a) analyse the state of the art, (b) identify the problem, (c) draft the patent, and (d) file the patent.

Supplementary Reading

For more information on intellectual property protection please see the following:

- The Irish Patent Office (www.patentsoffice.ie)
- The UK Patent Office (www.patent.gov.uk)
- World Intellectual Property Organisation (www.wipo.int)

For more information on patent search engines please see the following:

- European Patent Search Engine (<http://ep.espacenet.com/>)
- British Patent Search Engine (<http://www.patent.gov.uk/search/index.htm>)
- US Patent Search Engine (<http://patents.uspto.gov/>)