IP Delimitations: A Managerial Point of View

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Abstract

In the context of knowledge-based economy, along with the growing importance of the intangible assets, and along with the changing criteria for defining the competitive advantages, the intellectual property related issues are increasingly addressed. The specific literature is replete with all sorts of approaches regarding the intellectual property, using a series of terms, more or less defined or explained. In this context, the lack of boundaries, at least relative ones, between different terms, may create confusion among the readers. This article intends to explore the subject literature, to establish the empirical correlations a demarcations existing among the main terms that are used in connection with the intellectual property term and to suggests a way of graphically represent them. This approach is particularly useful to managers and is trying to establish a support for future researches.

Keywords: *intellectual property, management, knowledge, innovation, intellectual capital, intangible assets*

JEL classification: O34, **M00**, **O31**

Introduction

Classical economists considered work, land and capital as the primary production factors. Subsequently, some analysts have suggested adding a fourth production factor – the knowledge *(Kim 2002)*.

In this context, the intellectual property became increasingly the most important asset, not only for the international corporations, but also for the small and medium enterprises *(European Patent Academy in 2008)*. In the same time, the European Commission made aware that an important part of its policy to encourage innovation is represented by a harmonized system of intellectual property rights *(Curley 2006)*. At the international level, as long as the creation and the dissemination of intellectual property are considered important factors for economic, social and cultural development, laws have been created worldwide to define and protect the intellectual property rights *(Beresford et al. 2005)*.

Furthermore, most theorists recognize that intellectual property has a positive impact on invention and creativity, which greatly benefit the economy of a country *(Ramcharan 2006)*.

Thus, the Austrian Institute for SME Research finds that:

- Intangible assets and intellectual property are of increasingly higher importance for many companies in many areas, and
- It is recorded a sharp increase in demand for intellectual property protection *(Radauer, Streicher & Ohler 2007)*.

As a result, the intellectual property becomes an increasingly important subject for theorists and a concern ever more important for those who generate it, for those who use it and for the public authorities.

On the other hand, "intellectual property is a term increasingly in use today, but still little understood". *(Idris 2003)* Even in this situation, "Intellectual Property (IP) is a key consideration in day-to-day business decisions". *(WIPO Publication No. 488 (E))*

In this context, although there is a vast literature on intellectual property, almost every paper starts from the assumption that the readers already know the definitions and the scope of the key terms used in connection with intellectual property, and do not pay any attention to define these terms, even for the issues addressed of the respective work. As a result, the same term could be used in several aspects, different terms may be used to appoint the same thing or some aspects may not be awarded to any of these terms.

This situation is affecting the basic communication among the different parts that are interested in the field, and, as long as the communication is an agreement between the parties, it is useful insofar only if it is perceived relatively uniform by each side.

In relatively new fields of study or in areas involving multidisciplinary approaches, there is a prominent tendency to cross class conventions and this situation could lead to confusion.

Because of this finding, means to reduce confusion becomes critical, and one of the methods often used for this purpose is the mapping technique, which is based on the empirical observation that "a picture tells more than 1000 words".

Therefore, this paper is trying to points out the main definitions of intellectual property and of the more common terms related to it, pursuing the management application, trying to establish appropriate boundaries between them and formulating proposals on their definitions.

In this way, the findings could be used as a base for future research and it may be a reason to start building a body of knowledge in the field of intellectual property management.

1. The intellectual property

The first choice in seeking a definition of the intellectual property should be the World Intellectual Property Organization. The definition of the intellectual property they are providing is the following: " Intellectual property (IP) refers to creations of the mind: inventions, literary and artistic works, and symbols, names, images, and designs used in commerce." (*http://www.wipo.int/about-ip/en/)*

For anyone who is starting to study the intellectual property, this definition is at least unsatisfactory. Such a definition should explain as comprehensively as it could what it is going to define and not only to state that it "refers" to a non-exhaustive list of items.

The same organization, in the brochure explaining the concept of intellectual property, intends to present us another definition, as follows: "... the legal rights which result from intellectual activity in the industrial, scientific, literary and artistic fields". *(World Intellectual Property Organization in 2004)*

Within this definition is introduced a new term: intellectual activity. It is impossible to know whether or not it is considered equivalent to the term "creations of the mind", from the previous definition. However, there is a term that induces much more confusion: "legal rights". Any reader would have expected that a definition containing this term would refer to the intellectual property rights and not to the intellectual property.

Furthermore, one of the more elaborate definitions of intellectual property is as follows:

"Intellectual property (IP) can be thought of as any product of the human intellect that is deemed unique and potentially valuable in the marketplace, including an idea, invention, literary creation, unique name, business method, industrial process, chemical formula, and computer program." *(Annette et al. 2005)*

The same approach we can also find in the following definitions:

"The term 'IP' refers to unique, value-adding creations of the human intellect that result from human ingenuity, creativity and inventiveness." *(Kalanje 2005)*

Moreover, "intellectual property is unique, as it is the fruit of personal creation and inventiveness." *(International Chamber of Commerce 2005)*

European Space Agency introduced a new element, the moral value:

"Intellectual Property (IP) refers to the protection of creations of the mind, which have both a moral and a commercial value." *(European Space Agency)*

The biggest problem of the intellectual property is that "it can not be defined or identified by its own physical parameters." *(Northcutt 2004)*

Therefore, in order to be considered intellectual property, all the specified items need to be expressed.

In conclusion, Northcutt believes that intellectual property is a tangible expression of an idea that shares many characteristics associated with the real estate or with the personal property.

Based on these approaches, the following definition could be shaped:

"Intellectual property is the expression of any creation of the human intellect, considered unique and which is susceptible to have a moral or a commercial value."

2. Intellectual Property related terms: delimitations

2.1. Knowledge

One of the most used concepts in connection with the intellectual property, is the knowledge. Although there were a number of previous approaches on knowledge, the attention to this concept in the economic environment was drawn from the works of P. Drucker, who considered the knowledge as the main economic resource for present and future. *(Drucker 1988; 1993)*

Although there is no universally accepted definition or approach regarding the knowledge, the overwhelming majority of authors consider that it is of great importance in economic activity. It brings, in this way, to an almost unanimous recognition of the fact that to the traditional factors of production, the knowledge can be added as the fourth one. *(Kim 2002)*

Furthermore, recent approaches consider the knowledge as a determinant factor in the current economy, moving from the knowledge-based economy to the knowledge driving economy. *(European Commission - Directorate-General for Enterprise 2004)*

One of the relatively pragmatic definitions of the knowledge considers that it represents the technology, the inventions and the know-how that contribute to the delivery of the new products on the market. *(Choi, Budny & Wank 2004)* Although this is an incomplete definition and it's terms are not clearly delimited (if we consider only the fact that the technology could include both, the inventions and the know-how), anyone could immediately see that all of these terms are related to the intellectual property.

A broader approach regarding the knowledge considers that it is composed of: know-what, know-why, know-how and know-who. *(Kim 2002)*

Kim believes that the part belonging to the explicit knowledge is represented by the know-what and the know-why, while the part belonging to the implicit knowledge is represented by the know-how and the know-who.

Another element introduced by uit Beijerse is related to attitude. *(uit Beijerse 2000)* He believes that the approaches regarding the knowledge should include not only the information (know-what and know-why), and the ability to transform data (related or not), into the information (know-how and know-who), but also an appropriate attitude to encourage people to think, interpret and act. Someone could notice here an approach that includes not only the individuals but also the organizations.

Bukowitz, Chaminade, Jensen, Roberts and Willams consider that there are three types of knowledge in an organization: human capital, structural capital and relational capital. *(Bukowitz et al. 2003)*

The novelty of this approach, in comparison with the outlined approaches, is given by the relational capital, represented by the link with the customers, with the business partners and with the suppliers.

Therefore, in relation to the intellectual property, the knowledge can reside in at least two situations: *(Gowers 2006)*

- Whether as a source (in accordance with the approach regarding the fourth production factor);
- Either as a result.

In the first case, it may take any form: may be tacit or expressed, may be structured or unstructured, can reside on the attitude or on the relational capital, and may be even elements of the intellectual property which are used in different ways to achieve some new results.

In the second case, the knowledge which is intellectual property, should meet the specific conditions that are applicable to the intellectual property: expressed, result of human intellect, unique and having a commercial or moral value. In principle, these conditions are not met by the following categories of knowledge:

- Relational capital;
- Human capital;
- Attitude.

Thus, although they may serve to obtain new knowledge and eventually new items of intellectual property, they do not meet all the criteria for intellectual property.

As a result, the types of knowledge that may be or may become intellectual property, are related to:

- Know-what;
- Know-why;
- Know-how;
- Know-who.

This does not mean that all these types of knowledge are intellectual property. Lack of their tangible expression, their multitude or their lack of value, makes it impossible or unnecessary to consider them as intellectual property.

Given, however, that the literature explores the theory of knowledge in so many ways, that "while unquestionably valuable, knowledge is highly dispersed, hard to identify and resistant to easy categorization." *(Siemens 2007)*, the present analysis has focused on the approaches from the economic point of view, and among them, were taken into account only the representative ones.

Therefore, a non exhaustive graphical presentation of the delimitation and possible links between intellectual property and knowledge, is presented in figure 1.

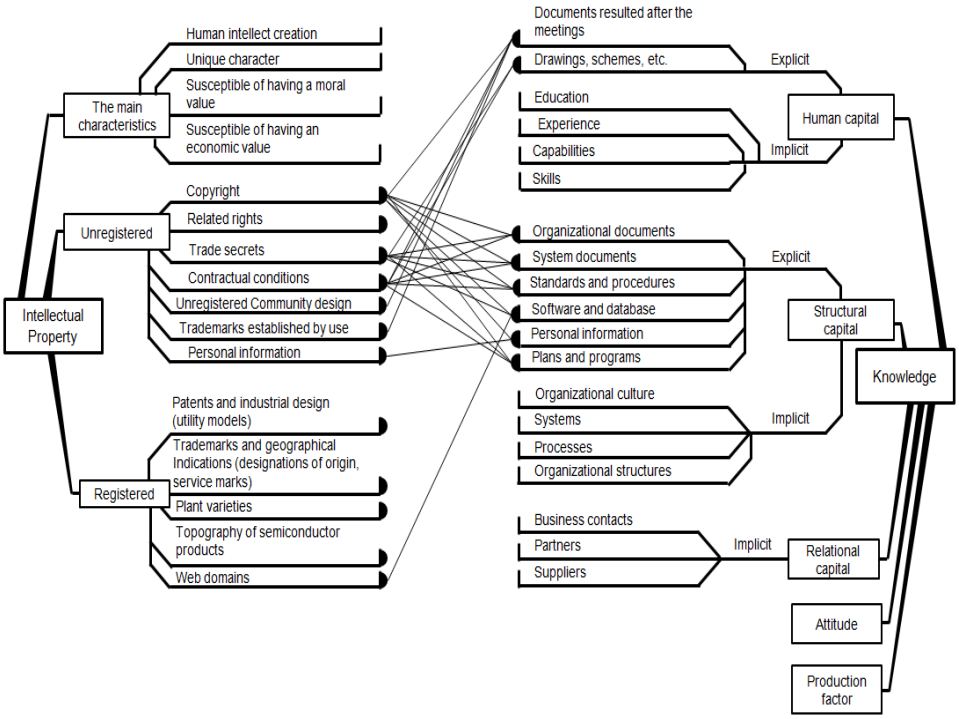

Figure 1 Delimitations and possible links between the intellectual property and knowledge

2.2. Intellectual capital

Most theoretical approaches analyze the intellectual capital in a knowledge similar manner.

Thus, one of those definitions is stating as follows:

"Intellectual capital is the combination of the human, organizational and relational resources of an organization." *(Canibano et al. 2002)*

Another relatively similar approach, considers the intellectual capital as being composed of human capital, structural capital and market capital. *(Center of Recherche Public Henri Tudor 2003)*

The difference, from the knowledge, however, is that besides explicit and implicit knowledge, the intellectual capital may include elements of intellectual property not belonging to the knowledge category.

In the same time, "Intellectual Capital is more than simply the sum of the human, structural and relational resources of the firm, it is about how to let the knowledge of the firm work for it and have it created value." *(Roberts 1999)*

In conclusion, most of the intellectual capital approaches consider that the knowledge and the intellectual property are parts of it and, moreover, the synergy of combining these elements contributes to strong growth in the value of an organization.

Therefore, representing the intellectual capital based on the definitions of intellectual property and knowledge, one can see the main boundaries between it and the intellectual property:

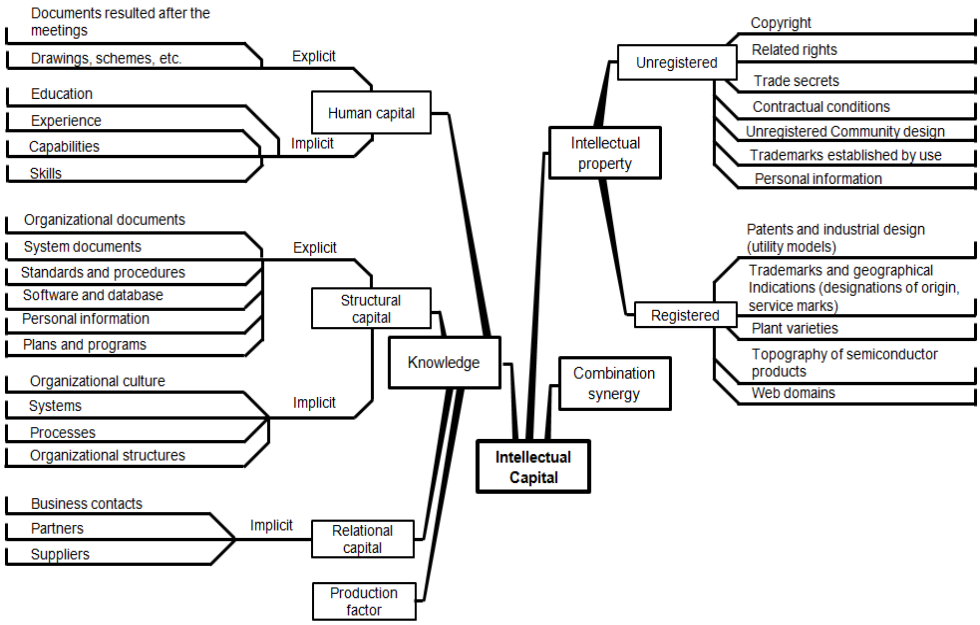

Figure 2: Delimitations and possible links between the intellectual capital and the intellectual property

2.3. Innovation

The study of innovation is relatively new and it is rapidly developing as a new direction in the social sciences.

Mainly inspired by the works of Joseph Schumpeter and other research traditions, external to the main economic currents, it has emerged as an interdisciplinary field studying the relationships between the economic, technological, organizational and institutional changes. *(Castellacci et al. 2005)*

There are many definitions regarding the innovation, each of them seeking a greater detail in revealing its nature. "Some define it in terms of a change process that improves or develops a new product or service" *(Institution of Professional Engineers New Zealand 2002)*

Thus, innovation is regarded as "the process by which knowledge advances." *(Geroski 2004)* In the same way, another definition presents innovation as: "Innovation refers to the economic application of new idea and technological innovation is described as a process which transforms idea to the commerce." *(Subrahmanya 2005)*

"Other definitions frame innovation as an attitude…" *(Institution of Professional Engineers New Zealand 2002)*

„Yet others characterize innovation as the creation of wealth through the development of profitable intellectual property." *(Institution of Professional Engineers New Zealand 2002)*

Thus, innovation is regarded as „something new proven to be useful" which "clearly makes innovation the basis for progress or evolution in all areas of human endeavor" *(Granstrand 2003)*

Also, „innovation is the term used to describe how organizations create value by developing new knowledge or by using existing knowledge in new ways." *(Jamrog, Vickers & Bear 2006)*

One of the most pragmatic definitions of innovation is the following:

„An 'innovation' is developing a new idea and putting it into practice." *(Kalanje 2005)*

„The most critical point about innovation is that only people can do it." *(Institution of Professional Engineers New Zealand 2002)*

As a result, the attempt of cover in a single definition all the approaches relating to innovation, could result in an incomplete or contradictory phrase.

But comparing these aspects of the innovation with the definition of the intellectual property is easy to notice that the innovation is also a creative expression of the human intellect.

Regarding the uniqueness (which is another condition of the intellectual property), however, it is not a prerequisite for innovation. Thus, an idea aiming to improve a process or a product could occur and be applied in a particular organization at a certain time, and, independently, the same idea could be applied in another organization at the same time or at different time. Both of them will represent innovation, even if they could not be protected as intellectual property.

Also, the susceptibility of moral or commercial value is not a condition someone could meet for any innovation. For example, there may be innovations that are related to current, personal actions (ex. the order of the actions that imply the shortest time to prepare the breakfast), which have no moral or commercial value, but have some perceived personal utility.

Finally, intellectual property elements are not all innovations and neither all the innovations are based on the intellectual property elements. There are innovations which are unique, as there are innovations that have commercial or moral value. In the same time, there are innovations that are based on a number of intellectual property elements and innovations that are obtained without such resources.

Based on these considerations, a non-exclusive graphic presentation of the innovation in its relationship with the intellectual property can be structured in figure 3.

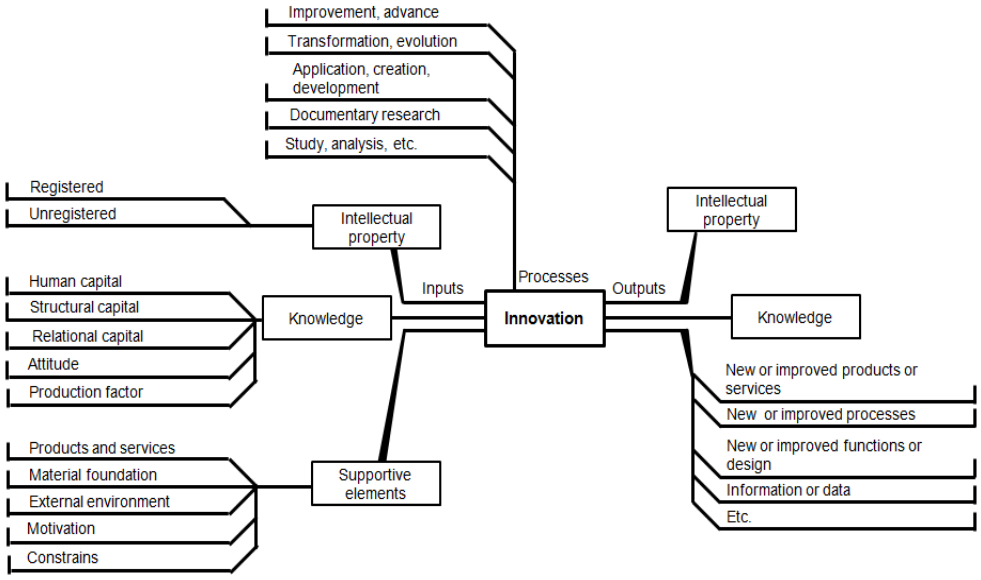

Figure 3: Delimitations and possible links between the innovation and the intellectual property

2.4. Intangible assets

Basically there are two approaches regarding the intangible assets:

- Economic approach;
- Accounting approach.

One of the definitions regarding the intangible assets from the economic point of view, define them as "non-monetary sources of probable future economic profits, lacking physical substance, controlled (or at least influenced) by a firm as a result of previous events and transactions (self-production, purchase or any other type of acquisition) and may or may not be sold separately from other corporate assets." *(Canibano et al. 2002)*

In the accounting terms, however, each country has certain criteria by which to classify different assets.

The differences arise when an asset is economically considered intangible, but in accounting terms, it can not be recorded into the accounts. *(Caddy 2000; Harvey & Lusch 1999)*

Thus, there are many costs that do not involve the purchase of various intangible assets, but which increase their value and these costs are recorded as expenses into accounts. For example, the costs implied by the registration of a trademark is often (at least at the beginning) regarded as the market value of that trademark. But if the organization has very high costs of advertising and promotion, they will be recorded as operating expenses even if they are contributing to increase this trademark value.

As a result, the economic approach regarding the intangible assets is wider and more interesting for managers than the accounting approach.

In the same time, in terms of intangible assets, there is another approach considering them as static and dynamic things or as resources and activities. *(Canibano et al. 2002)*

This approach considers that intangible assets are divided in intangible resources (static notion) and intangible assets (dynamic notion).

Intangible resources consist of: (a1) assets and (a2) skills and qualifications, while intangible activities consist of: (b1) development or acquisition of new assets, (b2) raising the value of the already existing intangible resources and (b3) evaluating and monitoring intangible assets.

Regarding the relationship with the intellectual property, the intangible assets, in terms of management, also contain elements that are not intellectual property.

Thus, not all the intangible assets have a form of expression. For example, knowledge and personnel specialization represent important values for any organization but they are in a latent form, not being expressed and could not meet the definition criteria for the intellectual property.

Some of intangible assets, however, meet these conditions. Thus, in the static and dynamic approach, the (a1) assets are almost entirely intellectual property. All the other categories will result in different elements of intellectual property but will not be entirely intellectual propriety.

Also, not all the intangible assets are likely to have a moral or a commercial value.

In conclusion, a graphical image of delimitations between the intellectual property and the intangible assets may be presented as follows:

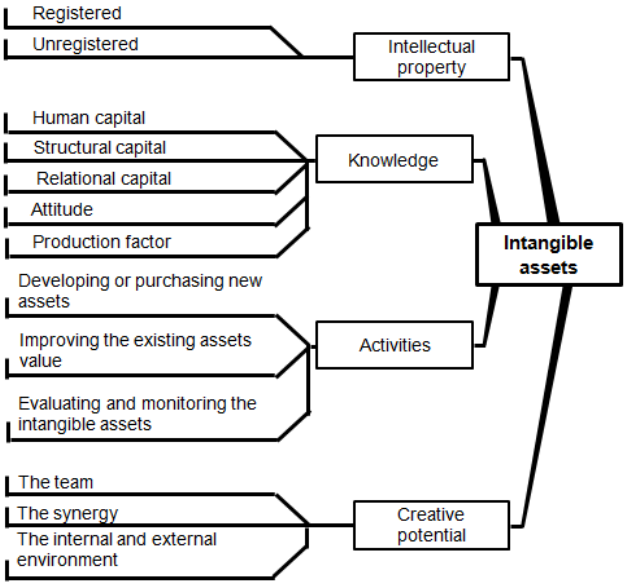

Figure 4: Delimitations and possible links between the intangible assets and the intellectual property

2.5. Intellectual property rights

One of the general definitions regarding the intellectual property rights considers that it "provides a framework for protecting the intellectual property of the firm". *(Radauer et al. 2007)*

European Commission considers intellectual property rights as "defined rights to the exclusive exploitation of intellectual property". *(European Commission - Directorate-General for Enterprise 2004)*

In the same time, the intellectual property rights are considered as "a bundle of rights that protect applications of ideas and information that have commercial value". *(Gowers 2006)*

Another important issue related to intellectual property rights is that it "enables owners of intellectual property (IP) to turn intangible assets into tradable assets". *(Helpdesk on Intellectual Property Rights related issues in EU-funded projects in 2006)*

In the same time, should be considered the issue regarding the registered and the unregistered intellectual property. Therefore, in this view, there are also approaches that consider the intellectual property rights only the registered intellectual property. *(Appelt & Goddar 2006)*

However there are legislative regulations that address certain intellectual property rights which are not registered (ex. copyright and related rights).

Regarding the position of intellectual property rights in comparison with the intellectual property, the latter is the subject of the former (as immovable property is the subject to its legislation).

It should be noted however that there are a number of elements belonging to the intellectual property which are not registered and not covered by legislation (or at least, not fully covered).

As a result, a graphical representation of delimitations between the intellectual property and the intellectual property rights can be achieved as follows:

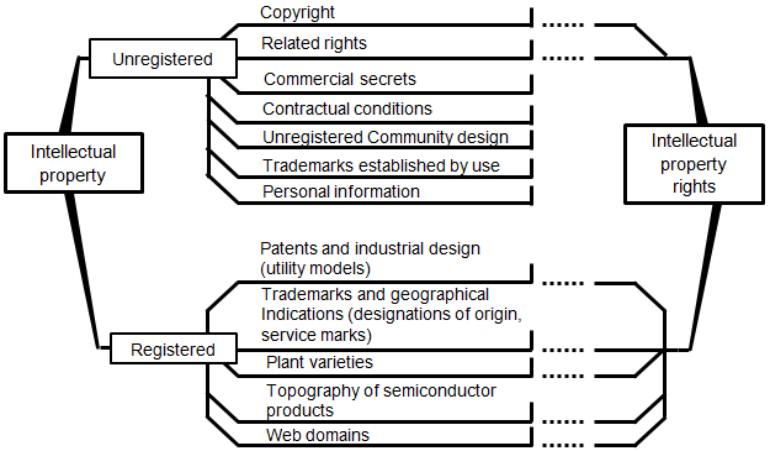

Figure 5: Delimitations and possible links between the intellectual property rights and the intellectual property

2.6. Intellectual property management

The vast majority of the approaches regarding the intellectual property management, are focusing mainly the intellectual property rather than the management.

Therefore, it is considered that the intellectual property protection represents just a single function of the intellectual property management. *(Yangao, Ju & Ping 2007)*

In addition to protection, the intellectual property management is considered to have another two functions: the development and the commercialization of the intellectual property. *(Gann Xu 2004)*

The European Commission states that the intellectual property management is "responsible for the management and protection of the rights". *(European Commission - Directorate-General for Enterprise 2004)*

Moreover, there are also approaches arguing that the intellectual property management identifies, protects, recovers, manages and audits the intellectual property. *(Institution of Professional Engineers New Zealand 2002)*

Trying to complete the picture by adding the management features, it is interesting to see that the modern management theory, specifies the following functions for business management: *(Nicolescu & Verboncu 2006)*

- Forecasting,
- Organization,
- Coordination,
- Training,
- Assessment Control.

All these functions can be also applied to the intellectual property management and the management "side" of the term could be, in this way, improved.

Conclusions

While in our days is an extensive literature on intellectual property, though the approaches vary from author to author, their scope being different in almost every case.

Even if there are common elements in the specific literature, a critical view regarding the proper use of the terms that are more or less related on intellectual property, is more than necessary.

In everyday practice, this may create problems for managers in different areas because the working terms relating to intellectual property are not consistently understood.

In this context, the delimitation of each of these terms coverage based on mapping techniques may be a useful method, proposed in an attempt to find out a common vocabulary for the field of intellectual property management.

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