

CURRENT STATE OF INVESTIGATIONS REGARDING THE QUALITY AND RISK MANAGEMENT OF SPECIFIC INTELLECTUAL PROPERTY RISKS

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Abstract: *The paper delineates a research regarding the current state of quality and specific IP risk management at a national and international level. The research starts with a study that demarcates the main specific IP risk categories followed by an analysis of the national and international intellectual property legislation.*

Statistical data regarding the current national and international state of IP was centralized by using OSIM and WIPO databases followed by an interpretation of charts that contain data regarding applications for trademarks, patent acts, industrial drawings, utility models etc.

Keywords: *quality, risk, intellectual property, management, legislation, evolution.*

1. INTRODUCTION

From a general perspective, **quality** fulfills all the characteristics that a product must have based on the client's initial requests.

J.M. Juran has defined a qualitative product as “appropriate for usage” and the quality as “a moving target”.

Quality management – objective of **ISO 9001:2015** standards – is based on numerous advantages that define the whole quality management system (QMS), namely: expedience growth by improving processes; significant cost reduction; competitiveness growth; quality, services, costs and technology improvements; improved efficiency due to optimized processes; acceptance on contractor lists (organizations request that their partners should be ISO 9001:2015 certified); improving client and employee satisfaction; reducing the number of internal audits and reducing the number of non-compliances and also motivating employees.

Risk management is a main component of every organization's strategic management, ensuring an efficient administration of potential possibilities and of the impact generated by different risk categories. [6, 7].

In order to understand the notion of “risk”, the “**incertitude**” term must be initially analyzed, a term that expresses the **future's uncertainty**. [2]

Uncertainty can become a possible **risk source**, when there is an incomplete awareness or when there are incompatible sources. Most economical agents consider necessary the measurement risk methods realized with the help of the **probability theory**. We want to mention the fact that probability and risk are two different concepts. Probability [6, 7], represents the measure in which the production of an event in well-

established conditions is possible. As such, for each event there exists an apparition probability.

According to some previous studies [6, 7], in **intellectual property, important category risks** can be **identified**:

1. Conception/creation risks;
2. Production risks;
3. Marketing risks;
4. Administration risks;
5. Social risks.

Respecting the standards and quality and risk management principles can lead to performances and excellency while ignoring the specific intellectual property risks means assuming a risk that can lead to significant losses and even the company's bankruptcy.

2. THE DELIMITATION OF RISK CATEGORIES

Risk is associated with the apparition probability of unwanted events. „The more unwanted the consequences are, the more risky the decision is.” [6, 7]

Two main risk categories are defined:

„**Pure risks**: are the consequence of some accidental events that can't be foreseen. They are defined as the probability of capital loss without the possibility of its retrieval.” [6, 7].

„**Speculative risks** are connected with the decisions that are taken by a company and encompass events with a high probability of apparition, largely depending on profit and the medium in which they act.” [6, 7]

In comparison with the previous risks, and seen from an accidental point of view, „**the intellectual property risk can't be a pure risk** as a capital loss probability without the possibility of its retrieval because it doesn't appear as a consequence of some accidental events but as a result of certain events: breach of rights.” [5]

From a mathematical point of view, the probability that the breach of intellectual property risk becomes real is of 50%. It actually represents the decision of the harmed part to start or not a right retrieval process: [6, 7]

$$P_{\text{risk}}(\text{the risk that the intellectual property breach becomes real})= 0,5 \quad (1)$$

From another, more realistic point of view, the factors that can influence the actions against right breaches can be divided as follows (Fig. 1) [6, 7]:

a) internal company factors:

1. The existence of a performant quality management.
2. The existence of a performant intellectual property management:
 - knowing the protection legislation;
 - knowing the active preventive forms;
 - knowing the legislation regarding the action against counterfeit, piracy activities and disloyal competition.
3. Understanding the concept of marketing risk.
4. Forming a correct employee attitude regarding colleague's rights and the company's rights.
5. Forming a correct company attitude towards employee's rights.

b) external company factors:

1. A weak or inefficient customs control with regard to intellectual property rights in the customs activity both at import and export. [18, 20]

2. Contradictory legislation regarding the intellectual property rights. [19]
3. On purpose breach of intellectual property rights by physical or juridical external entities in or outside the country, on the relevant market.
4. An incorrect settlement by official instances of intellectual property right processes.



FIG. 1. The text “FIG. 1.”, Factors that can influence the actions against intellectual property rights breach. [12]

3. NATIONAL AND INTERNATIONAL LEGISLATION REGARDING THE QUALITY AND INTELLECTUAL PROPERTY RISKS MANAGEMENT

3.1 National legislation regarding the quality and intellectual property risks management

Generally speaking, the normative acts that mention risks are usually defining the methodologies for establishing purposes, objectives, responsibilities as well as elements and steps that have to be followed in order to elaborate analysis and risk coverage plans.

The risk analysis must allow the knowledge of all production / manifestation mechanisms and conditions, their possible effects and how they are realized on risk types based on data and statistic evidences as well as other available documents – studies, prognosis etc. The elements that are taking into consideration are [6, 7]:

- natural risks;
- technological risks;

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- biological risks;
- fire risks;
- social risks;
- other types of risks.

We must remark that even here, the technological and social risks are considered as having a capital importance.

We will continue by enumerating **the main laws regarding intellectual property in Romania**, namely:

1. Law number 8/1996, Author's right law, Updated in 2014.
2. ACTA in Romanian.
3. 2010 regulation for applying Law number 84/1998 regarding trademarks and geographic indications.
4. Law number 84/1998, Republished in 2010, regarding trademarks and geographic indications.
5. Law number 66/2010 for modifying and the completion of Law number 84/1998 regarding trademarks and geographic indications.
6. OSIM Decision number 10/2010 regarding the transmission of documents emitted by National Register Service.
7. Law number 109/2005 (Republished in 2009), regarding the institution of the allowance for the activity of freelance artists from Romania.
8. Decision number 69/2009 regarding the constitution of a Commission for negotiating the Methodology regarding the remunerations representing patrimonial author rights for the production of musical creations on audiovisual recordings.
9. Law number 451/2004, regarding temporal trademarks.
10. OSIM 3/2008 Decree, for the approval of Instructions regarding the Envelope with idea service.
11. Law number 8/1996, regarding author rights and connected rights.
12. Decision number 547/2008 for the approval of the Regulation for the appliance of Law number 64/1991 regarding inventions brevets. Published in the Official Monitor, Part I number 456 from 18/06/2008.
13. Decision number 112/2008 for the approval of Instructions regarding the submission of invention patents through electronic means.

Regarding the specialty Romanian legislation [4], for example, the notion of counterfeit has sustained content changes in the last 10 years. However, dictionaries even the specialty one, explain the notion in vague terms. There is not a clear delimitation between the concepts of piracy, counterfeit and false. Furthermore, the majority of sources are connecting the three notions only with the "trademark" intangible. The consequence is represented by a limitation of the action of tracking this infraction. [6, 7]

3.2 International legislation regarding the quality and intellectual property risks management

The main agreements and multilateral treaties that Romania is part of in the area of invention patents, model drawings, utility models, factory or commerce trademarks, service trademarks, commercial name, origin names as well as the suppression of disloyal competition are listed down below:

A) PARIS CONVENTION for the protection of industrial property from 20 March 1883 revised at Brussels on 14 December 1900, at Washington on 2 June 1911, at Hague on 6 November 1925, at London on 2 June 1934, and at Stockholm on 14 July 1967 and modified on 2 October 1979.

B) STRASBOURG ARRANGEMENT REGARDING THE international CLASSIFICATION of PATENTS from 24 March 1971.

C) Worldwide Intellectual Property Organization Constitution convention, 1967.

D) DECREE number 81 from 2 March 1979 for the ratification of the Cooperation Treaty in the patent domain adopted at the Diplomatic Conference from Washington from 19 June 1970, issued by R.S.R State Council and published in the Official Bulletin number 22 from 8 March 1979.

E) LAW number 75 from 3 May 1999 for the adhesion of Romania to the Budapest Treaty regarding the international acknowledgement of microorganism deposit in the patent procedure, signed at 28 April 1977 and modified on 26 September 1980, published in M.Of. number 210 from 13 May 1999.

F) CONVENTION from 5 October 1973 regarding the emission of European patents, M.Of. number 844 from 22 November 2002.

G) REVISION ACT from 29 November 2000 for the Convention regarding the emission of European patents (European Patent Convention) from 5 October 1973, revised on 17 December 1991*), M.Of. number 844 from 22 November 2002.

H) EUROPEAN AGREEMENT from 1 February 1993 establishing an association between Romania, European Communities and their state members, M.Of. number 73 from 12 April 1993.

I) AGREEMENT from 10 December 1992 between Europe Association Free Exchange states and Romania, M.Of. number 75 from 16 April 1993.

J) AGREEMENT from 12 April 1997 regarding the adhesion of Romania to the Central European Free Commerce Agreement, M.Of. number 108 from 30 May 1997.

K) MARRAKECH AGREEMENT from 15 April 1994 regarding the creation of the Worldwide Commerce Organization, M.Of. number 360 from 27 December 1994.

L) MADRID ARRANGEMENT regarding the international trademark registration from 14 April 1891, revised at Bruxelles on 14 December 1900, at Washington on 2 June 1911, at Hague on 6 November 1925, at London on 2 June 1934, at Nice on 15 June 1957 and at Stockholm on 14 July 1967, B. Of. Number 1 from 6 January 1969.

M) LAW number 5 from 8 January 1998 for the ratification of the Protocol regarding the Madrid Arrangement regarding the international trademark registration, adopted at Madrid on 27 June, M.Of. number 11 from 15 January 1998.

N) NICE ARRANGEMENT regarding the international classification of products and services for trademark registration from 15 June 1957, revised at Stockholm on 14 July 1967 and at Geneva on 13 May 1977 and modified on 2 October 1979.

O) WIEN ARRANGEMENT that established the international classification of trademark figurative elements, realized at Wien on 12 June 1973 and modified on 1 October 1985.

P) LAW number 44 from 28 April 1992, for the adhesion of Romania to the Hague Arrangement regarding the international industrial drawings and models deposit, from din 6.11.1925, with ulterior changes and completions, M.Of. number 95 from 15 may 1992.

Q) LOCARNO ARRANGEMENT regarding the international classification of industrial drawings and models, signed on 8 October 1968 and revised on 28 September 1979.

R) Treaty regarding the intellectual property of integrated circuits, signed at Washington D.C. on 26 May 1989.

S) Economical European Communities Council Directive number 87/54/CEE from 16 December 1986, regarding the juridical protection of semiconducting products topography.

4. THE INFLUENCE OF GLOBALIZATION OF INTELLECTUAL PROPERTY

4.1 Intellectual property at a global level

Taking into consideration the economic development encountered by many states in the 1990's we have identified political changes that were generated by creating knowledge and using new management practices and also technological changes caused by new technologies. The enforcement of connections between commercial law and intellectual property policies is included amongst the consequences of the new global commerce model from the beginning of the 1990's when many countries have started to use commercial measures in order to reduce the piracy from the worldwide intellectual property domain. [3]

This aspect has led to the inclusion of the TRIPS Agreement in multilateral commercial negotiations within Uruguay Round. This agreement established which are the main global standards regarding intellectual property [9, 10, 11], that were to be imposed both in developed countries as well as developing countries. They also included measures for ensuring the abidance of customs laws and rights. The development of new technologies has led to the adoption and critique of dominant intellectual property regimes. "This fact has represented a complex technological revolution that infiltrated many domains such as technology information and communication, biomedical research and new medicine development, digital technology, high performance materials, artificial intelligence and virtual marketing in the cybernetic space. The adaptation of IP protection to biotechnology and especially the protection of Intellectual Property in the cybernetic space has led to many challenges." [8, 15, 16]

In the biotechnology domain, the new research instruments that have appeared in the genetic engineering have created a profound impact on agricultural and biotechnology research programs. In agriculture the relevance of intellectual property was limited because the research and development belonged to public institutions. However, biotechnology is predominantly directed towards the private sector and is based more and more on intellectual property. "By using some biological or genetic research materials from a world full of development, rich in genes, a new complexity level was supplementary introduced." [1]

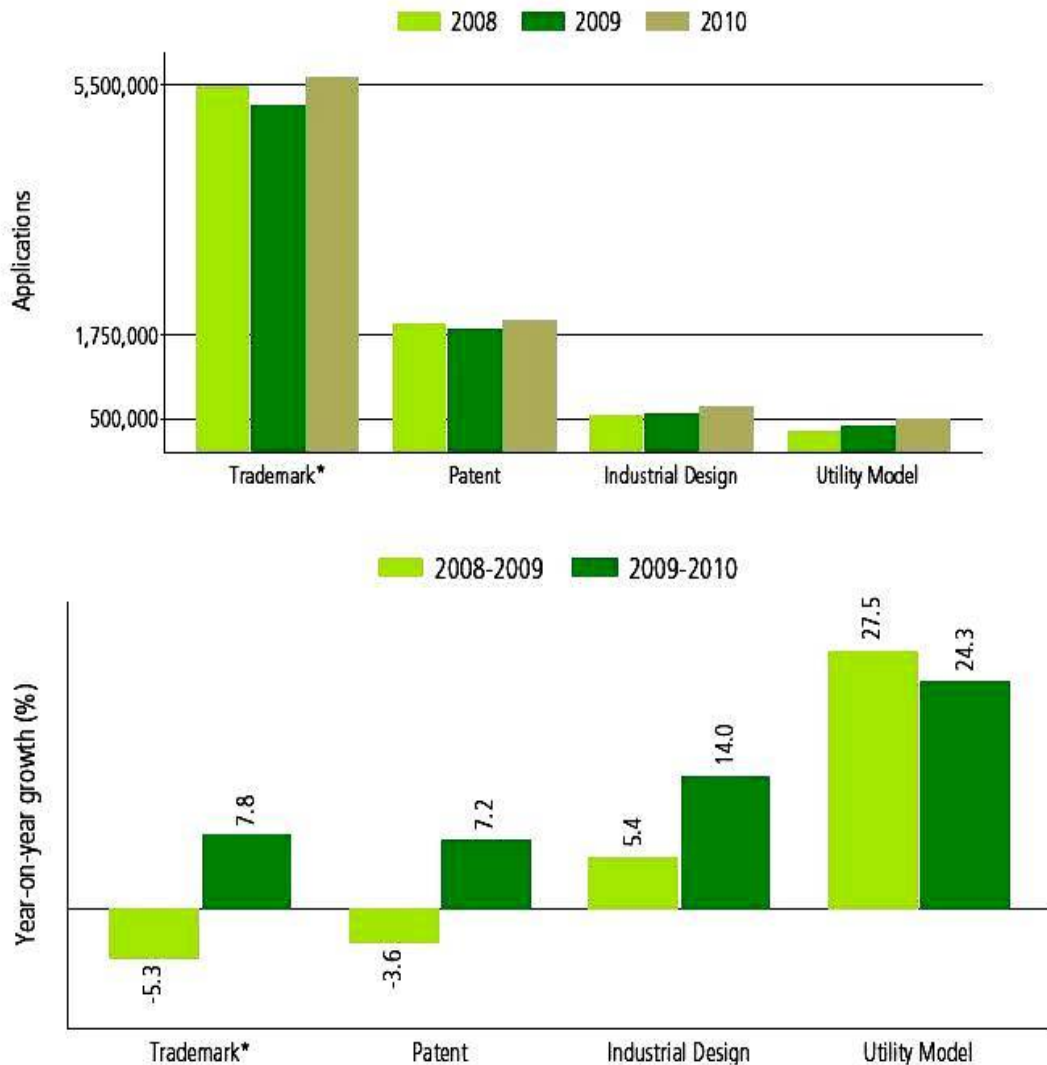
By combining the application of computerized technology with telecommunications, another set of problems for the regimes of intellectual property is created. The purpose and extension of liabilities between the suppliers of information on the Internet and the owners of rights must be better clarified. [8]

These facts represent just a few examples of the way in which "the IP system is integrated in an economy based on knowledge and in which it offers interesting challenges for the industry, government strategies, specialists and researchers both from developed and developing countries." [8]

The influence of intellectual property is reflected by the growing value that is added to the PIB by industries based on intensive knowledge (for example, this has grown in the USA from 21% to 27% from PIB from 1982 until 1995). In the 1990's, the rapid expansion of the global commerce system has appeared as a consequence of the establishment of the Worldwide Trading Organization (WTO) and has attracted the request of IP protection especially for high technologies and in other industry sectors based on intensive knowledge. The interest of companies in patenting their inventions has significantly grown. The invention patents and the imparted patents have known growths even in developing countries where the rate of submitted requests was usually very low. (Fig. 2) [8, 13, 17]

Figure number 2 centralizes data regarding the application for trademarks, patents, industrial drawings, utility models from the 2008-2010 period at a worldwide level.

A.1. TRENDS IN APPLICATIONS



WIPO Statistics Database, May 2012

FIG. 2. The text “FIG. 2.”, Graphic Data regarding the application for trademarks, patents, industrial drawings, utility models from the 2008-2010 period at a worldwide level. Source: WIPO Statistics Database, Mai 2012.

4.2 Intellectual property in Romania

According to OSIM, the request for protection titles for IP actives from Romania for the period 2010-2014, is as follows (Table 1, Fig. 3):

Table 1. Application for protection titles in Romania.
Source: OSIM Database 2014.

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APPLICATIONS FOR PROTECTION TITLES - TOTAL , IN ROMANIA

	2010	2011	2012	2013	2014
1. <i>Patent applications</i>	1418	1463	1077	1046	1036
2. <i>Variety patent applications¹</i>	54	15	-	-	-
3. <i>Applications for TSP registration²</i>	6	4	0	0	0
4. <i>Supplementary protection certificate applications</i>	21	15	30	46	51
5. <i>Utility model applications</i>	73	64	75	67	56
6. <i>Applications for trademark registration</i>	12033	11600	10789	11937	10763
7. <i>Applications for trademark renewal</i>	7597	8135	8042	8756	9381
8. <i>Applications for geographical indications registration</i>	0	2	2	0	0
9. <i>Applications for design registration</i>	500	357	356	425	381
TOTAL	21702	21655	20371	22277	21668

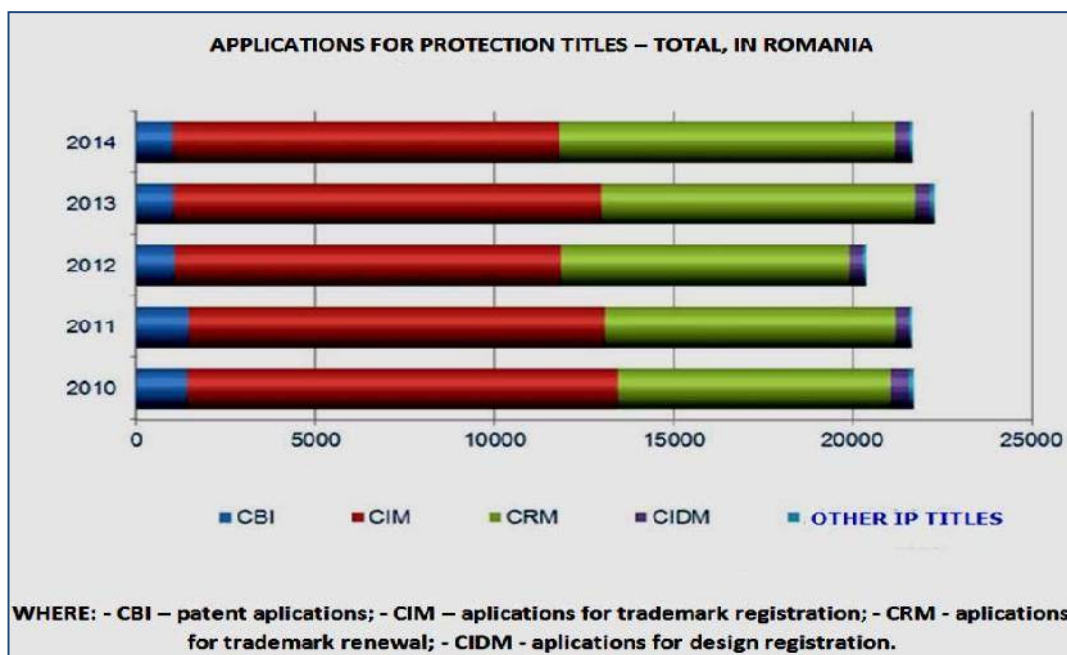


FIG. 3. The text “**FIG. 3.**”, Application for protection titles in Romania. Source: OSIM Database 2014.

According to Table 1 and Fig. 3, the request of protection titles for IP actives from Romania has known a growth in 2011 for invention patents and then a constant decrease in 2012, 2013, 2014.

The trademark patents requests are also in a constant decrease between the years 2011-2014. Regarding the renewal requests for commercial trademarks they have known a significant growth, especially between 2010-2011 and 2013-2014.

5. THE EVOLUTION OF INVESTIGATIONS REGARDING QUALITY AND SPECIFIC INTELLECTUAL PROPERTY RISK MANAGEMENT

In the context of a global competition and a free information traffic, a growth of the protection of the realized investigation results as well as new projects is mandatory.

“Invention patents are important because not only do they protect these goods, but also because they can generate profits resulted from the merchandising of the product claimed in the patent, either directly by the titular producer of the invention patent, or indirectly by accorded licenses or by the patent’s cession.” [6, 7]

“Finding that in a productive domain approximately 75% of technical information are gathered in corresponding invention patents is extremely relevant.” [6, 7]

According to the study realized for the number of recorded invention patents (Figure 2), it can be observed a significant growth of invention patents offered in the period 2009-2010. This fact proves the preoccupation for protecting inventions as well as their support by specialized organisms which has led to the acknowledgement of the importance of patenting inventions with the purpose of their capitalization as well as motivating inventors.

Based on some previous studies, „we can’t broadcast the pretention of the existence of a IP management, namely a management integrated in this domain” [6, 7], but the links between Quality Management, Risk Management and Intellectual Property Management are starting to be delineated in the years 2005, 2008, 2015. [6, 12, 14]

4. CONCLUSIONS

Based on specific IP national and international legislation, the legislation regarding counterfeit is really vast while the complete definition of the notion doesn’t appear in any legislative act; „the immediate consequence of national counterfeit in the industrial property domain is the lack of prevention actions and wrong activities at least in the consumer protection domain.” [6, 7]

The intellectual property risk notion is emphasized only in Law number 84/98 in the trademark domain where the possibility of a public’s confusion risk apparition is explained, including the risk of association with a previous trademark; there, OSIM, through its specialized service, can evaluate the risk and allow or not the registration of a trademark. Even so, there is still the possibility of some opposition especially from existing commercial names. As a consequence, the establishment of some intellectual property risk criteria is mandatory. [6, 7]

Based on the study regarding the evolution of investigations regarding the quality management in the industrial property risk strategy it can be observed a growth of international patent requests offered in the period 2009-2010. This fact proves a preoccupation towards the protection of patents as well as their support by specialized organisms which has led to the acknowledgement of the importance of patenting inventions with the purpose of capitalizing them as well as motivating inventors.

As a general conclusion, the interest for reducing specific intellectual property risks exists at a national as well as international level with the purpose of protecting industrial companies and capitalizing non-material actives.

Acknowledging the importance of investing in intellectual material – engineering, creative, at a technical and engineering level in Romania represents one of the future research priorities.

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