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THE VALUE AND ECONOMIC EFFECTS OF UNAPPLIED INVENTIONS

Theoretical article, viewpoint and replies to previously published articles

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Abstract

The accounting regulations, the guidelines for their application and other articles authored by accounting specialists all argue that inventions created internally are not recognized as intangible assets. Only assets acquired separately can be reliably measured, based on the document justifying the purchase transaction. Other specialised papers show that it is difficult to establish the existence of this intangible asset and its credible cost. That is, it can give or calculate a value of the invention only if it can show the acceptable cost of achieving it. But all these works argue that the protection of inventions is profitable if it is the basis of a new business, if it promotes or protects the current activity. However, these papers elude - because it is uncomfortable - the situation where an invention created internally has a value only because it forecloses the market. It is curious that an invention has accounting value only when traded.

1. Introduction

Dedicated accounting papers recently published (Julean, 2011), based on the Romanian regulations in line with the Directives of the European Union (Julean, 2011), reference certain principles which have to be taken into consideration when inventions are acknowledged and assessed, one such principle stating: ”internally developed patents are not recognised as intangible assets” (Julean, 2011)

We believe that such a position, already a common practice, is based on the following principles:

1. According to (Corpul Expertilor Contabili si Contabilor Autorizati din Romania), an intangible asset is first entered as either a procurement cost or as production cost as defined by the regulations. The procurement cost includes the purchase price, import duties and other taxes, transport, handling costs and other expenditures that can be directly related to the respective procurement.

2. The internal commercial fund ”is not recognised as asset because it is not an identifiable resource (i.e. it is not divided from nor does it derive from contractual rights, legal or otherwise) which is controlled by the entity and which could be credibly assessed under costs” (Corpul Expertilor Contabili si Contabilor Autorizati din Romania); Whereas the ”commercial fund can be recognised in individual financial situations only in case of the transfer (full or partial) of one business either following a purchase or following a merger” (Corpul Expertilor Contabili si Contabilor Autorizati din Romania);

3. No intangible asset derived from research activities (or from the research phase of an internal project) is recognised. The expenditures incurred by the research activity (or those incurred during the research stage of an internal project) are recognised as expenses only when generated because in the research stage of an internal project, an entity cannot demonstrate that an intangible asset really exists and that it will generate future economic benefits (Corpul Expertilor Contabili si Contabilor Autorizati din Romania). This means that, in case there is no purchase (of a patented invention, as is the case here) the respective asset is not recognised for accounting purposes.

However, the same source (Corpul Expertilor Contabili si Contabilor Autorizati din Romania) shows that, irrespective of the given regulations, ”IAS 38 ”Intangible Assets” renders it possible to apply *the professional argument*, the entity being sole capable to assess the meeting of the requirements , or, on the contrary, ”to enter the resource in question in the profit and loss account”.

We wish to highlight here the reference made to the *professional argument*. Whose *professional argument*? Is it the accountant’s, only? The engineer’s, perhaps? The intellectual property expert advisor’s?

2. A close look to the special legal provisions

Art. 5 of Law 64/1991 (Monitorul Oficial, 1991) distinguishes three different situations, all with bearing on the internal invention:

Situation 1 – the invention made by an employee during the execution of an individual work contract which explicitly provides for innovating assignments corresponding to the employee’s functions; the inventor benefits from an additional remuneration established as per the contract; in such a case, if, within 60 days from the date the employee notifies the organisation in writing about the completion of the invention description, the application for a patent registration is not filed in with the State Office for Patents and Trade Marks and if not otherwise agreed in the work

contract the right to the patent belongs to the employee. If so, the invention cannot be used by the employer and it is only obvious that the invention cannot be recognised as such.

An argument is possible here in relation to the way the work done by the respective employee in the period when he concentrated his efforts on finding a technical solution turned into an invention which the employer needs, but which the employer does not want to pay for (a transfer contract is onerous). The practice demonstrates that, usually, the employing entity speculates on the topic trying to compel the employee to either transfer the invention to the name of the entity against a small consideration or to accept other persons, usually from management level, as co-inventors. Both situations are illegal.

However, if an agreement is reached in the form of a transfer or licence contract (clearly distinct from the work contract) in strict connection with the invention pending patenting, the respective invention passes from the property of the „inventing" entity which is also employee, into the property of the "employing" entity. From the accounting point of view, although the respective invention is made in the company which the inventor works for and even if the invention is the result of research activity it should be recognised as an acquisition and construed as intangible asset.

Situation No.2 - the invention developed by an employee either during the exercise of his/her duties or as part of the scope of activity of the entity by using the technical equipment or the specific means of the company or of the existing know-how, or by the material support extended by the company; if not otherwise provided for in the contract, the invention belongs to the inventor. In this case, the entity has a pre-emption right when a contract is signed for the invention made by its employee, right which has to be exercised within 3 months from the date of the tender made by the employee; in the absence of an agreement on the price of the contract the price has to be established on the grounds of a Court decision. Again, from the accounting point of view, although the invention is developed in the same company which the inventor works for, if the employer purchases the invention it has to be recognised as acquisition and construed as intangible asset. If, in spite of the pre-emption right, the company does not sign a contract with the inventor, the invention does not belong to the company and cannot be construed as intangible asset.

Situation No.3 – if the invention results following the execution of a research contract and if not otherwise provided for, the right to the patent belongs to the entity which ordered the research activity, the inventor having the right to an additional payment established through an Addendum to the contract. Here again, if the company fails to file in the application for a patent with Romanian Patent Office within 60 days from the date the inventor notifies the completion of the patent description to the employer and in the absence of an agreement between the parties, the right to the patent belongs to the employee. It is understood that the research activity however creative it may be, cannot determine an inventive activity. In this situation, it is obvious that a duly negotiated and agreed invention transfer contract must exist between the inventor and the research company he/she works for accompanied by another contract signed between the inventor's employer and the research entity, on one hand; on the other hand, a direct transaction/transfer operation between the inventor employed by the research company and the company requesting the research is perfectly legal and should therefore be not excluded and such an operation can be

brought into effect through an addendum to the basic contract different from the inventor's work contract.

One should bear in mind that a patented invention is construed in the specialised literature as a distinctly assessable intangible asset. We just demonstrated one of the reasons.

This is how the assertion detailed under (Julean, 2011) is no longer technically supported as a result of the "professional argument" referenced in the specialised accounting literature (Corpul Expertilor Contabili si Contabilor Autorizati din Romania).

The problem becomes even more interesting when we refer to any original intellectual creative work in the literary, artistic or scientific fields, irrespective of the creative expression method used, and independent of the work value and purpose, each of which constituting an object of copyright under Art.7 of Law 8/1996 (Monitorul Oficial, 1996).

The interest arises from the implications of a responsible interpretation of Articles 44 and 47 of Law 8/1996. In this case the legislator clearly distinguishes between the property right over an asset and the right to make use of the respective asset.

Art.44 (Monitorul Oficial, 1996) states that "if not otherwise provided for in the contract, for work done according to the job description as detailed in the individual work contract, the patrimonial rights belong to the author of the work" and not to the employer of the author.

This means that if the individual work contract does not provide otherwise, although he/she is employed, the author is owner of the intangible asset. The employer is entitled by law to only use the asset for a limited period of time (three years from delivery) which, in our case, is a technical project. As such, it is the author – employee and not the employer who is in the position to authorise the use of the results of the work by third parties but subject to employer's approval and with due compensation for its contribution to the costs of the work. The use the employer makes of the work within the scope of activity does not require any form of authorisation from the author-employee.

Furthermore, upon expiry (three years) of the legal contract provided for terms, and in the absence of a clause to the contrary, the employer and not the employee is entitled to ask the employee to pay a reasonable percentage of the income earned from the use of his work to compensate for the costs incurred by the employer with the development of the invention by the employee as part of his job assignments.

The author of an invention developed under an individual work contract, i.e. the employee, preserves his/her exclusive right to use the said invention as part of the assembly of his/her creative activity.

The practice shows that this legal provision is rarely acknowledged and, accordingly, is rarely observed in the contents of individual work contracts signed between employers and creative employees and the consequences can be seen in the more and more frequent law suits opened by former employees for the recovery of prejudices caused by violations of their copyrights.

A particular case in this respect concerns the patrimonial rights over computer programs developed by one or several employees as part of their job descriptions or according to employer's instructions referred to under Art.74 (Monitorul Oficial, 1996) In this case, and only here, if not otherwise provided for in a contract, the patrimonial rights belong to the employer.

What is the reason behind the adjoining of the patented invention, object of a special law, and the technical work which, in turn, is governed by another special law?

Through the claims contained therein and only over the period covered by the taxes paid to preserve the validity of the said patent the patent protects a possible infinity of technical solutions. In exchange, the copyright concerns only the physical object.

In other words, from the technical point of view the technical work on the board of a design engineer is, at first, protected through the copyright. Next the author prepares it for patenting and the patent specialised organisation (Romanian Patent Office in Romania) awards the patent and enforces it as long as the taxes are duly paid and each and every actual application of the invention is protected under the copyright and related rights Law No.8 of 1996 (Monitorul Oficial, 1996) and under Law No.64 of 1991 with respect to patents (Monitorul Oficial, 1991).

Loss of the rights granted under Law No.64 of 1991 following failure to pay the taxes or after a period of 20 years cannot annul the protection of the technical solutions for which there are technical projects protected as technical work under Law No.8 of 1996 for an extra period of 70 years after the death of the author of the respective work.

The impact on the books of the company deriving from this legally imposed reality is of utmost importance.

Wishing to secure the accuracy of the books, the specialists in the field are concerned only with the assessment based on the purchase cost principle avoiding the assessment based on the production cost principle also provided for in the accounting regulations (Morosan, 2010).

It is known that the fair value as well as the book value of an asset is substituted to the purchase cost. The just value represents the amount for which the good/asset can be exchanged between parties who engage knowingly and in good faith in a transaction the price of which is established objectively.

Therefore, the transfer of a patented invention (there are cases of inventions that cannot be patented) from the employee to the employer for an unfair price should be amended by the employer's accountant who, in our opinion, should advise the management on the risk of a possible case for the reassessment of the correct value which a dissatisfied author can take to court at any time.

Recent specialised works (Morosan, 2010) defend not only the purchase value of the good/asset but also the market value assessed by qualified professionals. Such experts can contribute even in situations where, due to the specialised nature of the asset and of the low frequency of transactions, the fair value must be calculated by means of particular methods.

Still in regard to this topic, other specialised papers (Ristea and Dumitru, 2012) assert that no assessment basis enjoys general validity and is fully satisfactory in reference with the very General Framework of IASB (pt.4.55). We trust that this point of view is welcome at this point because it is not „sane" to change from the „tip of the pen" and*"from just one professional perspective*", disputable (but not arguable) subjects into fundamental principles: we refer here to complex matters such as the assessment of the intangible assets of the intellectual property which, although invisible, constitutes, at times, high value assets.

The asset assessment process for balance sheet and profit and losses account incorporation purposes can be linked to the historical cost. In relation to the historical cost quoting (Heyne, 1991) the same source (Ristea and Dumitru, 2012) asserts that it represents „the consented sacrifice to enter the asset into the wealth of the entity". "If the company owners pay rent for leased premises they will account for the said rent as running costs; but they would not do the same if they owned the premises. However, they should account for the costs because they lose in fact the amount they would have

earned if they had rented the respective premises" (Heyne, 1991). Should we replace the word *premises* with the word *invention* we see how important it is to reassess the issue of patents.

3. The value of the protected and unimplemented inventions

With reference to the topic of the article, the reasons for which the inventions are not implemented or only partially implemented are different but they have importance to the heritage of the intangible assets of the company (Fantana, 2010). An invention may comprise one or more claims, i.e. over part of the product, the product as a whole or over the process.

Suppose that the invention relates to a mouse-like device for use with computers. The inventor claims two solutions: the first one is a wired mouse connected to the computer; the second is a wireless mouse. He could put on the market both solutions, but decides - as managerial strategy - to market for three years only the wired mouse, and only then to market both solutions. The inventor or the company applying for the patent has the following advantages: a) he/it gains three additional years on the market; b) he/it secures additional profit; c) the market is blocked for any competitor who would want to promote the wireless option.

It would be even more interesting to directly put on the market the wireless solution. If the inventor or the patent applicant had not claimed also the wired solution, any competitor would be able to patent the wired technical solution, obviously less modern, but cheaper, that would certainly occupy an important and disturbing market segment. The blocking of the target market is the reason why, strategically, patents of this kind protect a significant number of variants of the same technical solutions, even if only one of the solutions is eventually put on the market.

The same strategy is pursued if, instead of an invention with several claims, the variants of the technical solutions are protected, in turn.

Only one solution would be implemented.

Then, speaking from an accounting perspective, how much would the unapplied inventions be worth?

A scrupulous accountant would say that they have no value. However, the market says their value can be compared to that of the applied invention.

It is possible that the company will only buy from the inventor the most up-to-date solution. According to the examples given above, it seems that would be a costly mistake.

From this point of view, we believe that the approach of the assessment of the updated value of an invention deliberately or strategically unapplied gains greater weight and the routine should be left aside.

The company that owns such wealth must have the courage to look for special tools and use them to assess its internal value.

A debatable issue is the theoretical value of the inventions patented in technical universities, made only as a prototype, which sometimes serve only for gaining or improving academic score. How can they be valuable without being implemented? A possible answer is that those inventions can constitute an important theoretical step and an obvious experience for the engineering doctoral student.

4. Conclusions

1. We consider that the approach of complex issues should be based on the professional judgment of all the professionals interested in the subject. The patented invention is of concern to the inventor's profession (engineer, architect, doctor, pharmacist, physician, etc.) as well as to the professions of economist, accountant, taxation specialist, and law

specialist. So far, only the Taxation and Accounting specialists have made their contribution to the setting of limits for the (non-)recognition of an intangible asset, considering that such an asset can be purchased, but can also be created within the company, thereby generating added value, that definitely needs taking into consideration.

2. We consider that the phrase "the patents created internally are not recognized as intangible assets" - which has become custom - should at least be reviewed, because it bears no relation to the technical reality.

3. We consider that an invention - patented or not - is a resource of the company, being simultaneously a right and a value-generating source capable of yielding economic benefits (Bunea, 2013). The invention, together with other intangible assets, seen as a separately assessable asset, is a resource entailing clear and specific rights and obligations, which can be used by the holder of the rights to obtain at least economic benefits.

4. FEE (Federation of European Accountants) and EFRAG (European Financial Reporting Advisory Group) are interested in reviewing the conceptual framework of the IASB. "A number of important concepts are poorly defined or not defined at all" [1]. Therefore, specialists have already put forward proposals for redefining the concepts of *asset* and *economic resource*. The author of the article [1] proposes to define the asset as "a present economic resource controlled by the entity as a result of some past events." We propose the use of the word "activities" instead of "events".

5. We believe that, by making small adjustments to the intangible assets accounts, the accounting tool has the means required to have the employer abide by the law when purchasing at a fair price its service inventions.

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