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STUDY ABOUT THE ACKNOWLEDGEMENT IN ACCOUNTING FOR THE SOFTWARE PRODUCTS – ON THEIR PRODUCTION AND SALE FLUX

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The modern economy can't be conceived without the IT industry contribution, the engine of lasting economic development. In order to help the increase of software industry the countries create national strategies of information implementation, which will assure in time: the increase of the production, added value, productivity and international economic exchanges. In this area, Romania elaborates its own implementation strategy, according to the EU policy. On the company level, the informatics implementation raises problems regarding: the acknowledgement of software products in accounting as intangible assets; the registering of their reversible and irreversible devaluation, but also fiscal aspects about the modality of classification for the software supply – as goods delivery or as services performance, in the country and abroad.

Keywords: informatics system, software product, acknowledgement, devaluation, adjustment, software cost, research stage, development stage, software supply, amortization.

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1. Introduction

Information is the engine which makes the management work, so the informational system is an essential element in the companies organization. (Cristea, 2003)

The economic subsystem, as a part of informational system, represents the organized assembly of complex economic information, obtained by processing data from different sources, necessary to organize and manage the economic activity. (Georgescu, 1999) Its principal part is represented by accounting.
Because of the huge member of information in accounting, it is required their selection and synthesizing, in order to be presented in time, with a relevant, clear and real character, helping the manager to take the best decisions in the activity administration and sources allocation.

This thing is possible by using the informatics systems, which collect, transmit, process and stock automatically the information, generating effects like: (Cretoiu & Bucur, 2004)

- the decrease of operation time;
- the elimination of unproductive manual operation;
- a performant level of processing;
- the elimination of borders regarding the territorial distances inside the system;
- the decrease of administration data costs;
- a better data valuation.

In these conditions, it's obvious the extension of software market, but also the problems regarding their registering in the company accounting: acknowledgement, costs, amortization, value adjustments, fiscal implications.

We must also mention the fact that – the knowledge of the structure and profitability of the software products – represents an important clue in analyzing the financial and economic results of the company.

2. The European Policy in the Software area

In the context of global market and the intense international competition, EU has initiated a new industrial policy, which completes the individual policies on the level of members states, in order to sustain a powerful and dynamic industrial base. Being focused on competitiveness and setting up an economy based on knowledge, the impact of consulting and software products area its recognized as one of the productivity growth.

The new industrial EU policy stimulates also the software area standardization, as an instrument for the competitiveness of European companies bettering and for the creation of an uniform environment, that benefit all the European suppliers, sellers and consumers (in 2004 we had an added value of IT industry of 400 billions Euro, 80% represented by software services, the number of companies included in the IT area was 520.000, with 5,3 millions of employees).

According to a study realized by KPMG International and Economist Intelligence Unit, the European IT suppliers companies are less competitive than their international rivals.

The main deficiency is the much higher price of the products and services they offer. The positive part is the specialists expertise, but also the quality of relations with the business partners.

The IT solutions suppliers from Europe are permanently in competition with the Asians, but, despite the fact that the European IT products and services are considered as very good (especially the software for mobile phones and applications for business administration), the customers don't appreciate that these ones deserve their much higher price.

On international level it is estimated that the prices for the IT products and services will maintain a descendant evolution in the next years.

The European and international legislation stipulates the utilization conditions for the software products.

The document that contains the final user rights and the utilization conditions for the software products is the **Software License**.

It represents the contract between the author right owner and the legal software user. The author right of the software products is stipulated by the law.

When we buy software we don't become the author right owner, but we buy the software utilization right, with certain restrictions imposed by the author rights owner (the person who publishes the software).

The software is accompanied by a documentation that describes exactly these rules, being essential that the user understand and accept them.

In general, the rules stipulate that the software can be on only one computer downloaded and only one security copy can be made.

If the software is copied, distributed and installed in a way forbidden by the license, the author right law is violated. In this case, except the legal consequences, we have aspects like: viruses risk, lack of documentation, guarantee and service.

The extension of software products utilization generated implicitly the piracy diversification in the informatics area:

- the informatics fraud – by data deterioration or wiping, in order to obtain a personal advantage;
- the informatics fake – by data faking, in order to elude the taxes payment;
- the informatics sabotage – by data deterioration or wiping, in order to hinder the informatics system good working;
- the informatics spying – by obtaining data and information which are production secrets, in order to use theme for illegal advantages;
- the unauthorized access inside an informatics system – by violating the security system;
- the unauthorized information interception;
- the unauthorized software reproduction (copy).

The damage in the informatics piracy area increases substantially every year (in 2007, in Romania, it reached 5 millions Euro).

The classic model for a software development contains the following stages: requirements, specification, analysis, design, implementation, maintenance. (Georgescu, 1999)

In the first stage, there are established the requirements for the software system elements: application accessible in a simple way – with the possible modalities of achievement.

The specifications test is statistical made – by inspections and technical analyses.

In the second stage, the analyst informs himself about the system utilization area, the necessary functions and performances in accordance with the customer.

The design stage focuses on the way of application achievement, data structures, system architecture, procedural details.

If the design is detailed and good realized, the next stage can be easily made.

The implementation assures the passing from the project to a specific form, suitable to the computer.

The test stage analyses both the soft logic and its good working, according to the specifications. The obtained results by soft race are compared with the test data, having the scheduled results based on the specifications.

The maintenance consists of caring on the application in time, after its sale to the customer, because, during the soft working, it could appear modifications, by changing the application environment, or because of new performance and working requirements, desired by the customer.

3. The software strategy in Romania

In the last 20 years, in order to answer to the EU requirements, Romania adopted the National Strategy of Informatics and accelerated implementation of informational society – having the following purposes:

❖ until 2000:

- the national informational network achievement – as an informatics implementations support of central and local public administration (until the municipality level);
- the creation of a favorable context for the large utilization of informational technologies and communications in industry, marketing, transportation, agriculture, defense and national security, tourism, health, environment protection, education, research, culture;
- harmonization with the EU settlements;

❖ until 2005:

- the extension of the informational network until the communes level;
- the attainment of an informatics implementation level, able to help Romania to enter in the European Informational Society;
- the increase of software sales, especially on the internal market, by teaching the managers that the IT solutions represent business.

In 2005, The Romanian Industrial Policy was approved, focused on competitiveness by strengthening and stimulating the following factors: human capital, innovation, contractors, environment conditions observance – as elements of lasting development.

The IT market is one of the most dynamic sectors of the Romanian economy. Since 1994, the IT market has demonstrated growth rates of 40-60% a year. The biggest sector in terms of revenue is system and network integration, which accounts for 28,3% of the total market revenues.

After the year 2000, the IT industry had a yearly growth of 25-30%, specific for an emergent economy.

Before the financial crisis, the number of IT Romanian companies trebled, reaching in 2008, 15000, and the employees – only in the software area, 55000. In this period, the turnover from the local sales was bigger than the exports.

After 2008, starting with the financial crisis, the exports of Romanian software products increased in average with 37% a year, Romania becoming an emergent market, more and more attractive for the software contractors.

During 2008-2011, the exports increased with 40%, reflecting the big interest of Romanian companies, especially from the software development area (offshore practice, researching, research and development centers).

The year 2010 was a good year for the Romanian software and services exporters. The turnover in the IT area increased with 8% than 2009, and with 2% in 2011 than 2010, reaching 9,4 billions Euro.

Romania represents an attractive market for the development side, but the internal consumption is quite reduced (the incomes of internal market of software products increased only with 6% for the same period), but the number of applications developed in Romania is in a continue increase (5 times bigger in 2012, than 2010). According to an ICT study, the market trend is to specialization and direct approach to the final customer.

Currently, Romania is one of the fastest-growing IT markets in Central and Eastern Europe, making a significant progress in all of the ICT subsectors. Our country is the leader in Europe, and sixth in the world, in terms of the number of certified specialists, having a huge potential market (the second largest software producer in Eastern Europe).

The market of business applications – Enterprise Application Software – is one of the most dynamic components – with an increase that aims to exceed the market average.

The fastest growing segment of the IT market is offshore programming (the industry of software development outsourcing crossed the mark of 3 millions $ of total revenues in 2005, and reached 4,8 millions $ in 2006). Currently, Romania controls 5% of the offshore software development market and is a third leading country among software exporters.

The growth of software outsourcing is caused by factors like:

- the supporting role of the Romanian Government, which has launched a program promoting construction of IT – oriented technology parks, with an established infrastructure and favorable taxes and customs regime;
- the presence of global technology corporations, which have intensified their software development activities in Romania.

The main competitive advantage in software development in Romania, is the highly qualified human resources (currently, 25000 software experts work in IT area, and almost 1/5 of them are involved in software export activities) – as a result of the human capital investment which has been concentrated in IT industry.

Romania is considered one of the best destinations for IT outsourcing, where the turnover reached 380 millions Euro in 2012, for this segment being estimated a continue growth in the next years. The IT services (applications development by requirement, test and support) represents 60,2% from this area incomes, the BPO services (business process outsourcing) represents 26,8%, and the research-development segment represents the difference of 13%, according to an IDC Study (the turnover of IT outsourcing doesn't include the licenses exports).

Romania is attractive for the IT outsourcing especially due to its very well prepared employees, the small costs and also the government facilities (the fact that the IT employees don't pay taxes and the existence of industrial parks).

The capital dominates the software area with 50% from the incomes and 50% from the employees, among the 290 companies with incomes bigger than one million Euro, 190 are in Bucharest. They include: Romanian companies – integrators and solutions suppliers – and also support and research-development centers of big international companies.

4. The Acknowledgement in Accounting for the Software Products

The software products are recognized in accounting as intangible assets, according to IAS 38.

The acknowledgement conditions for an intangible asset, acquired or internal generated, are the following:

- the asset is controlled by the entity as a result of a previous event;
- the entity waits that the asset generates futures economic benefits;
- the asset cost can be reliable measured;
- the asset can be separated of the goodwill.

The acknowledgement conditions must be accomplished in the initial moment. The most difficult to accomplish is to measure reliable the cost.

If even this one is accomplished, the software products, as intangible assets, are valuated at their cost (acquisition cost for the acquired products, or production cost for these one internal generated).

The acquisition cost includes the acquisition price from the supplier invoice and other expenses directly connected with the asset preparation for utilization, like:

- salary costs for the employees who put the asset in the work condition, other professional fees;
- costs for good working test of the asset.

This category of expenses doesn't include:

- expenses for promotional services and advertising;
- expenses of employees training and other general expenses, generated by changing the activity place or customers.

The costs acknowledgement in the intangible asset value stops when the asset is able to work (this value doesn't include: the initial loss in the asset exploitation, or the expenses generated by the delay of start working).

If the expenses don't accomplish the acknowledgement conditions, they are registered as expenses in the moment of their appearance.

In the case of assets change, the cost of the software product is valuated at the market value, except the cases when the change hasn't commercial substance or the market value for one of them can't

be reliable valuated. If the acquired product isn't valuated at the market value, its cost will be valuated at the registered value of the yield asset. (IAS 38)

The entity establishes if the transaction has commercial substance in the measure which it waits that, in the future, its cash-flow changes as a result of this transaction:

- the cash-flow configuration for the received product is different of the cash-flow configuration for the yield asset;
- the specific value for the operations affected by the transaction modifies after the change;
- the value difference is more important than the market value of the changed asset.

If the transaction has a commercial substance, this value will be reflected in the cash-flow after the taxation.

If the entity can reliable establish the market value for one of the products in the change, then, this value can be used also for the valuation of the other one.

In the case of software products internal generated (by self production), there are difficulties to recognize them as intangible assets, regarding the following aspects:

- the identification of the moment when the asset appears, being able to generate future economic benefits;
- the reliable determination of the asset cost, because, in certain situations, the production cost of the intangible asset can't be separated by the cost of daily exploitation, or goodwill maintenance.

Thus, for the initial acknowledgement and valuation of the software product internal generated, the entity must divide the production process in two stages: the research stage and the development stage.

If the two stages can't be separated, the entity must include the project expenses only in the research stage.

a. The research stage

In this stage, the software product can't be recognized as asset, and the research expenses from this stage will be recognized as costs in the moment of their appearance.

It's the stage when the entity can't prove that the intangible asset exists and this one will generate future economic benefits.

The research activity includes:

- accumulation of new information, valuation and selection of research applications, or other information;
- research for finding materials, products, devices, processes, systems or alternative services;
- wording, design, valuation and final selection of the possible alternatives for these elements.

b. The development stage

In this stage of the internal project, the software product will be recognized as intangible asset only if the company can prove the following aspects:

- the achievement of the technical feasibility for the product, in the manner which it could be available for utilization or sale;
- its intention to finish the product for being used or sold;
- its capacity to use or sale the product;
- the way that the product will generate future economic benefits (the entity must prove its utility inside the company, or, if it is destined for sale, the existence of a market for the product, or for products which can include it);
- the availability of technical and financial sources for accomplishing the product development, in order to use or sale it;
- the capacity to reliable estimate the product cost in its development stage.

Because the development stage follows the research stage, the companies can identify the intangible assets and prove that the assets will generate future economic benefits, respecting the enunciated conditions.

The cost of a software product internal generated, the production cost, represents the expenses supported in the moment of its acknowledgement as intangible asset.

These are all the directly attributed costs, necessary for creating, producing and preparing the software product to be able to work according to the requirements:

- the costs of materials and services used or consumed for the product achievement;
- the costs with the salaries / benefits of employees who produced it;
- the registered taxes for a legal right;
- the amortization of patents and licenses used for the product achievement.

There aren't recognized as elements of the production cost:

- the general expenses for sale and administration, except the case when these expenses can be directly connected with the process of preparation of the software product for utilization;
- the loss of initial exploitation, appeared before the moment when the product reaches the estimated performance level;
- the expenses with the employees training for the software product exploitation.

5. Features of software products devaluation

It's general accepted the fact that the intangible assets are submitted to the devaluation, having a limited use period, and the software products, more than others, because they are included in an extremely dynamic and performant area. About the modality to reflect the effects of this devaluation, the organisms of settlements in Accounting area are divided in two groups.

The Anglo-Saxon Systems and IFRS sustain the amortization for all the intangible assets categories, with the following arguments:

- it reflects the loss value on the entire period of asset life;
- it eliminates the risk of subjectivism in the devaluation registering;
- it offers the possibility to compare the information between the companies inside the same economic sector, making easy the analysis of financial reports;
- it doesn't require technical experts for establishing the devaluation degree, the amortization being calculated and registered by the accountants.

The European Systems sustain that the amortization must be applied only for certain categories of intangible assets, for the others, being necessary only the early analysis, to establish the devaluation degree.

These ones bring the following arguments:

- the arbitrary acknowledgement is avoided, for an amortization in situations when this one maybe didn't take place;
- it's a more flexible approach, which reflects better the economic reality.

IAS 38 adopts the modality of systematic amortization, considering the "amortization" term more appropriate than that one of "devaluation", because, for the intangible assets, the value decrease can be generated only by the moral wearing (the devaluation shows a value loss generated by the physical wearing, being more appropriate for the tangible assets).

The amortization is registered from the moment when the intangible asset begins to work. From this moment, because of the moral wearing, that it gradually accumulates, the asset will generate economic benefits more and more reduced, until its utilization will start to produce loss. We can say that the intangible asset crosses a cycle, named in accounting **the useful period of life.** (D)

The choice of life period for the intangible asset can be influenced by many factors:

- the modality of asset utilization by the company and the estimation of the probability that a new management could efficiently exploit it;
- the external information regarding the life cycle and amortization period for other similar assets, connected with the technical limits and present exploitation technologies of the asset.

The life period can't exceed 20 years, but, if this thing is necessary, the company will register the amortization on the best period estimated by the management. In this case, the asset must be yearly tested, in order to identify every risk of devaluation, and, in the financial reports, it must present the reasons of this measure.

If the intangible asset is controlled, based on a legal right during a limited period, the amortization will be registered only on this period, when the asset generates benefits to the company.

The amortization value is also influenced, except the useful period, by the amortization method. This one must be chosen to reflect the economic reality regarding the devaluation rhythm of the assets and the rhythm of economic benefits appearance. The initial chosen method can be changed only if a major transformation takes place in the modality of benefits creation.

The most frequently used method is the linear method, and the amortization expense for the intangible asset is recognized in the Profit and Loss Account, except the situation when it can be directly attributed to another asset production, contributing to the value increase of this one (the classic example is the amortization of production license which is included in the value of the final product).
The software products are amortized by the linear method, and the useful life period is 3 years.

Yearly, a linear rate is applied on the entry value of the software product, calculated:

$$c_l = \frac{1}{D}100,$$

resulting equal sums, that are included in the exploitation expenses of the company (the registering is monthly made) (Patrut & Rotila, 2005).

The difficulty appears when we have inputs and outputs of intangible assets, during the year.

Then, we must calculate Prorata Tempories of amortization, according to the months or days of utilization: (Lefter, 2000)

$$\text{Prorata} = \frac{100}{D} \times \frac{L}{12},$$

where L – the number of entire months of utilization,
or:

$$\text{Prorata} = \frac{100}{D} \times \frac{Z}{360},$$

where Z – the number of entire days of utilization.

The annual amortization is calculated:

$$A = \frac{V_i \times \text{Prorata}}{100},$$

where V_i – the entry value of the software product.

Another way of calculation is, by applying the annual rate of amortization to the average value of the asset:

$$A = V_{ma} \times R_a,$$

where $V_{ma} = \frac{V_i \times T}{12}$; R_a – the annual rate of amortization and T – the number of entire months of utilization, starting with the next month after the input, until the end of the year, and the number of entire months of utilization starting with the beginning of the year, until the month of the output.

IAS 38 stipulates also the registering of reversible devaluations for the intangible assets, through the adjustments, respecting the principle of historical cost.

The adjustments are calculated at the end of the year, as a difference between the bigger registered value (the recoverable value) and the smaller inventory value (the estimated recoverable value). They are recognized as exploitation expenses. Further, when the devaluation disappears, they are registered as exploitation incomes (Pantea, 2005).

A feature of intangible assets including the software products, is the fact that, some of then can't individually generate cash-flow, and they can bring benefits to the company only by interacting with other tangible and intangible assets.

In this case, all the assets with common dependence in generating future benefits must be included inside generating cash-flow entity.

It's case of acquisition for accounting software that include modules like: Stocks Administration (separately for materials, products, wears etc.); Production; Salaries; Fixed Assets; Banking; Commercial Relations (Customers and Suppliers); General Accounting.

The Accounting Software serves the entire activity of the company, but the problem is, if it can be considered an individual asset, with individual risks of devaluation.

The soft was acquired in order to reduce the risk of human error and the salaries costs inside the Financial-Accounting Department, and to eliminate the redundant activities. The effects of its utilization are: the stocks administration in real time, the supply optimization, the efficient following of customers.
Because the benefits generated by the soft result from the bettering of the entire activity of the company, and it can't be rented in order to generate individual benefits, the soft can't be recognized as an individual asset, but included in the generating cash-flow entity, that is the company.

Another example are the software for the performant medical equipments (ecograph, RMN etc.) that can't be individually recognized, but only included in the corporal asset where they work.

6. Fiscal aspects of the software supply

The Fiscal Code makes the difference between the software supply as a goods sale, or as a services performance, considering the following aspects:

- **The software nature** – standard or personalized.

The standard software is every software produced as a good for general use, which contains registered data, is sold as such it is and, after a short training period, can be used independently by the customers, in the standard form, for the same applications and functions.

The personalized software is every soft created or adapted to the specific customers needs, according to their requirements.

- **The transmission modality –** on electronic way (by internet or other electronic network), or on data supports.
- **The nature of its license** – ordinary (the soft can be installed on a limited number of work stations), or license as a part of a license contract (the soft can be installed on different work stations).

It's considered goods sale, the standard software supply, on data supports, with ordinary license, that forbids its copy and distribution, and allows the installation on a limited number of work stations, equal with the number of data supports.

It's considered services performance, the software supply in the following situations:

- the personalized software supply;
- the standard software supply, by internet or every other electronic network which requires a minimal human intervention;
- the supply of licenses included in a license contract, that allows to the customer the soft installation on different work stations.

The software supply requires the setting up of specific contracts between the supplier and the customer:

- the sale – acquisition contract – has as object the soft sale, without the supplementary facilities (maintenance, adaptations, specific upgrades etc.);
- the maintenance contract – includes: data bases savings; data bases stocking; supplementary training for the employees; phone assistance; soft reconfigures for new modalities of work; applications reinstallations.

In both cases – sale or services – we have taxable operations, and the company emits the invoice with VAT.

The fiscal features appear in the case of EU acquisitions. The goods (software) sales from Romania to another state EU member, is considered "exempted operation with deductibility right" (the Ø VAT rate is applied on sale, so the company emits the invoice without VAT, with this mention, having the right of VAT deductibility for the related acquisitions). This procedure is available if the customer is a taxable person. If he's not, the operation will be taxable in Romania, and the company will emit the invoice with VAT. (Codul fiscal, 2013)

The software services performance from Romania to another country, EU member, is taxable or not, according to the performance place.

Thus, for services supplied on electronic way, the performance place is considered the customer headquarter, if this one is a taxable person. In this case, the performance is considered "nontaxable in Romania" (the company emits the invoice without VAT, with this mention).

If the customer is a nontaxable person, the performance place is considered the supplier headquarter, in Romania. In this case, the operation is taxable in Romania, and the company emits the invoice with VAT.

If the supply is for personalized software, on data supports, with licenses included in a license contract, the performance place is considered also the supplier headquarter, in Romania, and the operation is taxable (the company emits the invoice with VAT). (Codul fiscal, 2013)

7. Conclusions

In the conditions of the competitive economic development, the software products became an essential part of the informational system inside the big and small companies.

The market for IT products, and especially the software market are in a continue extention.

Romania has adopted a strategy according to the EU policy in the software area, based on competitiveness and knowledge.

In the companies accounting, the acknowledgement of software products, as intangible assets, according to their origin but also to their achievement stage, and the modality of amortization and adjustments registering, present specific features. Also, the software supply, in the country and in EU, presents fiscal aspects that must be considered by the legislation and also by the accounting experts who must know all these features.

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