

## Intangible assets in industrial enterprises of Ukraine: The problem of recognition in financial reporting

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**Słowa kluczowe:** rachunkowość, prawa własności, prawa własności intelektualnej, wartości niematerialne i prawne, polityki rządu i rozporządzenie

**Abstract:** The article examines the essence and types of intangible assets, conditions of recognition by national and international accounting standards, a list of objects of intangible assets, which are currently not recognized by Ukrainian enterprises. In the research conditions of intangible assets were also examined; recording on the balance sheet, in particular a possibility of their identification, potential future economic benefits and restricting access of counterparties to these benefits, and reliable estimation of the object.

**Abstrakt:** Obecny stan tworzenia i rozpoznawania wartości niematerialnych przez ukraińskie firmy nie jest istotny dla rzeczywistej oceny aktywów spółek w bilansie. Zgodnie z krajowymi standardami rachunkowości, udział aktywów niematerialnych w spółkach ukraińskiego przemysłu jest nieznaczny i nie zapewnia wystarczającego poziomu innowacyjnego rozwoju. Ponadto krajowe przepisy znacznie ogranicza proces uznawania aktywów niematerialnych stworzonych przez przedsiębiorstwa.

### Introduction

The current state of formation and recognition of intangible assets by Ukrainian companies is not relevant to the real estimation of companies' assets on balance sheet. According to the national accounting standards, the share of intangible assets in the companies of Ukrainian industry is insignificant and does not provide sufficient level of innovative development. Also, national legislation significantly restricts a process of recognition of created intangible assets by companies themselves.

## 1. Economic content and recognition of intangible assets created by enterprises

Long-term claims and benefits are usually given to a company by means of intangible assets. The most common are as follows: the right of enjoyment of assets such as rent and lease of land; the right to implement certain activities, which require patenting and licensing; exclusive rights to use certain formulas, technologies or appearance.

The mentioned rights are long-term investments which a company usually makes by cash or in exchange for other assets. Their use provides benefits that can increase income, reduce production costs, allow the company to take a definite market place and better promote products.

The problems of intangible assets' identification and recognition do not arise upon acquisition of intangible assets for cash or in exchange for other assets. It is much more difficult, and sometimes impossible, to identify the intangible assets created by a company itself. Due to the fact that internally generated intangible assets of the company are difficult to identify and evaluate, they often do not become the objects of financial accounting and are not recorded as assets in general.

Such intangible assets as quality control, buyers' reliability, trade secret, highly skilled workers, scientific research and other have not hitherto been recorded on the balance sheet, although many foreign authors consider it appropriate to give them adequate assessment and share in the assets.

As regards the necessity to record intangible assets on the balance sheet, views of individual scientists are diametrically opposed. For example, Australian professor Raymond Chambers proves that intangible assets are evaluated and can be used only in combination with tangible ones, and therefore they should be regarded as a residual benefit that remains after deducting the value of all tangible assets. According to the author, intangible assets cannot be separated from the company and evaluated in the current monetary terms, therefore they should be written off immediately after the acquisition.<sup>1</sup>

This statement is doubtful for the following reasons:

1. certain types of intangible assets (trademarks and trade names, copyrights) are not always accurately assessed, but often are offered as the object of sale;
2. a number of physical assets, including equipment for mining, will bring future economic benefits only if the company purchased intangible asset — the right to use natural resources.

The lack of such right makes it impossible to extract natural resources and equipment may not be used for other purposes, because it loses value and depreciates.

In the aggregate knowledge, relationships, skills, abilities, experience of workers, that are used with a purpose to get surplus value and wealth are interpreted as

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<sup>1</sup> R.J. Chambers, *Accounting, Evaluation and Economic Behavior*. Englewood Cliffs, New York 1986, p. 398.

“intellectual capital,” “goodwill,” “brand,” “internally generated goodwill,” “goodwill created by a company,” “perfect capital,” “productive power of capital” in modern economic literature. As a result, these factors are the subject of several studies not only by representatives of the accountancy profession, but also by the economists.

A French economist Jean-Baptiste Say defines the following three factors of production, which are the sources of national income and, in particular, profit: capital, land and labour.<sup>2</sup> A famous British economist Marshall in the early twentieth century added to them a fourth — entrepreneurship.<sup>3</sup>

The fourth factor of production and its role in the profit was more accurately identified by an American economist Joseph Schumpeter. The scientist believed that the main source of income was the implementation of “new combinations” by an entrepreneur on engineering and technology, creation of new products, development of new sources of raw materials, etc.<sup>4</sup>

A modern Ukrainian economist Stepan Panchyshyn deems that “in addition to labour, natural resources and capital, a vital factor in economic growth is technology, which also includes research and engineering development, management and entrepreneurship.”

Thus, according to the view of representatives of analytical economy, intellectual capital refers to the resources (assets) of firm that do not correspond with costs in accounting. This means that these assets bring a firm some extra benefits.

We cannot fully agree with this statement, as firms spend money on recruitment and training of staff, market research, marketing, development and introduction of new technologies, organization and restructuring of production, etc. However, according to the requirements of accounting standards and the basis of accounting practice, these costs are not capitalized for the recognition of an asset as the process of prediction and estimation of the size of future economic benefits and the timing of receipt of their application is difficult. Therefore, not all existing intangible assets are recorded on the balance sheets of firms in Ukraine.

According to the data of the Ministry of Industrial Policy of Ukraine, the share of intangible assets in industrial companies is insignificant (Figure 1).

As it is shown in Figure 1, the share of intangible assets as part of fixed assets varies from 0.01% in light industry to 29.69% in aircraft industry in 2010. All other fixed assets of these industries are capital assets. The share of intangible assets increased by 11.5% on average in 2008–2010. However, according to companies’ balance sheets, a decrease in the value of intangible assets is observed in some industries. Thus, the value of intangible assets in scientific and technical innovations’ support decreased from 18.45% in 2008 to 0.74% in 2010.

Also, intangible assets experienced some changes even in the structure (Figure 2).

<sup>2</sup> S.V. Mochernyy, *Ekonomichna teoriya*, Kyiv 2003, p. 124.

<sup>3</sup> A. Marshall, *Pryntsypy ekonomichnoyi nauky*, Kyiv 2001, p. 54.

<sup>4</sup> Y.A. Shumpeter, *Kapitalizm, sotsializm i demokratiya*, Kyiv 1995, p. 119.

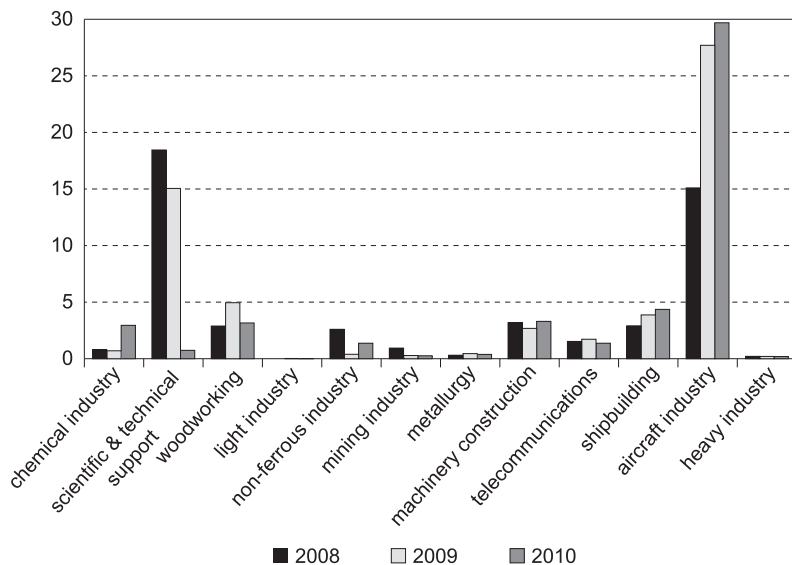


Fig. 1. The share of intangible assets in industries of Ukraine, % (2008–2010)

Source: The Ministry of Industrial Policy of Ukraine.

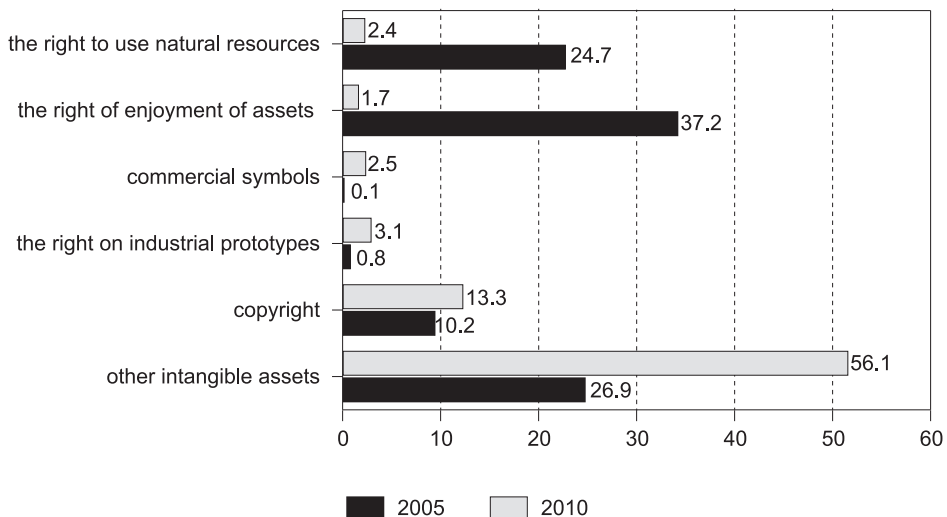


Fig. 2. The structure of intangible assets on companies' balance sheets, % (2005–2010)

Source: State Statistics Committee of Ukraine.

The share of “intellectual” intangible assets significantly decreased from 2.3% in 2008 to 0.85% — in 2010. The availability of “intellectual” intangible assets affirms the state of innovative development of the industry, the availability of

high-end technologies increases a quality of industrial products and decrease in production costs essentially impacts on products' competitiveness.

At the same time, the share of the right to use natural resources has significantly increased — from 2.4% in 2008 to 24.7% — in 2010 (Figure 2). However, this dynamics is not supposed to be a positive trend. The point is that increasing the value of this right means increasing extracting those natural resources which evidently causes the decline in technological contribution to Ukrainian industry. It also causes environmental depletion.

It should be underlined that balance sheets of companies in Ukraine contain only those intangible assets that meet the requirements of recognition by the national accounting standards, in particular NAS 8 "Intangible assets."

## 2. Grouping of intangible assets of a firm

It should be noted that part of the intellectual capital is still recognized. This includes trademarks, brands or trade names, copyrights, patents, trade secrets, know-how, etc., subject to appropriate assessment and registration (if there exists a dedicated registration authority).

In most cases the following components of intellectual capital are not recognized:

- a) unique development strategy of the firm, which enables it to get maximum profits considering internal and external operating conditions;
- b) the relationship of the firm with employees, suppliers, customers that are not covered by contractual obligations: reliability, consistency, accuracy, honesty, loyalty, creativity;
- c) the optimal organizational structure that enables to reveal the benefits of business and make savings in its scope;
- d) unregistered trademarks or trade names (brands), copyrights, patents, trade secrets, know-how;
- e) the secret presales marketing that provides successful promotion of products on the market;
- f) the availability of market share.

In the approaches to the grouping of intellectual capital, in general we agree with other researchers, but consider it appropriate to distinguish organizational capital in addition to the human and technological, which allows the efficient use of the first two components.

Grouping of intangible assets of companies by a possibility to identify is illustrated in Figure 3 and Figure 4.

According to Figure 3 and 4, the list of intangible assets that are not recognized in financial accounting is considerably wider than the list of identified intangible assets. A prerequisite for the recognition of the first group of intangible assets is

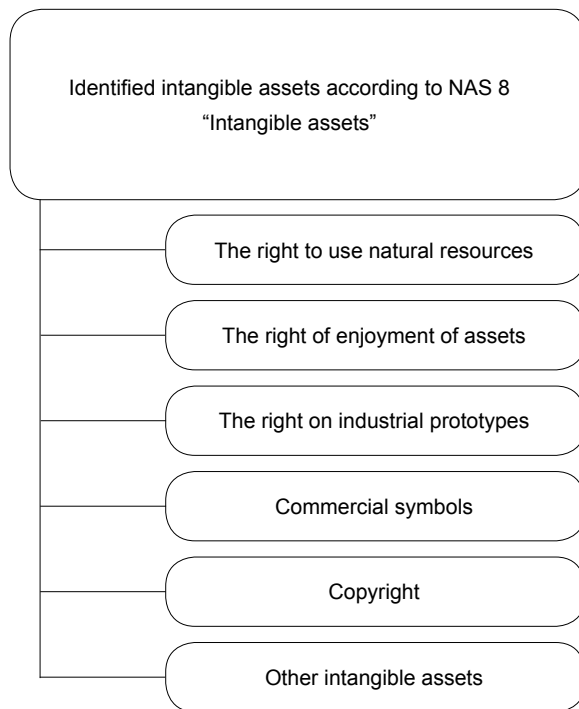


Fig. 3. Identified intangible assets according to national accounting standards in Ukraine

Source: National Accounting Standard 8 "Intangible assets."

the possibility of separation from the company, assessment, control of the future economic benefits that are expected to be obtained by using them, provided by legal registration rights (Figure 3).

According to the requirements of the National Accounting Standard 8 "Intangible assets," Ukrainian companies may record on the balance sheet such claims: the right to use natural resources, the right of enjoyment of assets, the right on industrial prototypes, commercial symbols, copyrights, other intangible assets, including capital investments in progress, made for the creation of intangible assets (Figure 3).

Calculation of the costs, which should include the amount of future economic benefits from the use of object, is expected to be achieved taking into account external random factors: the price established in the auction at the time of acquisition of rights, approved by the ministries or departments, rates and tariffs, etc. Features of the company, the state and quantity of tangible assets that will allow implementing the benefits of intangible assets, with legal registration in some cases are not considered (the right of enjoyment of assets, industrial

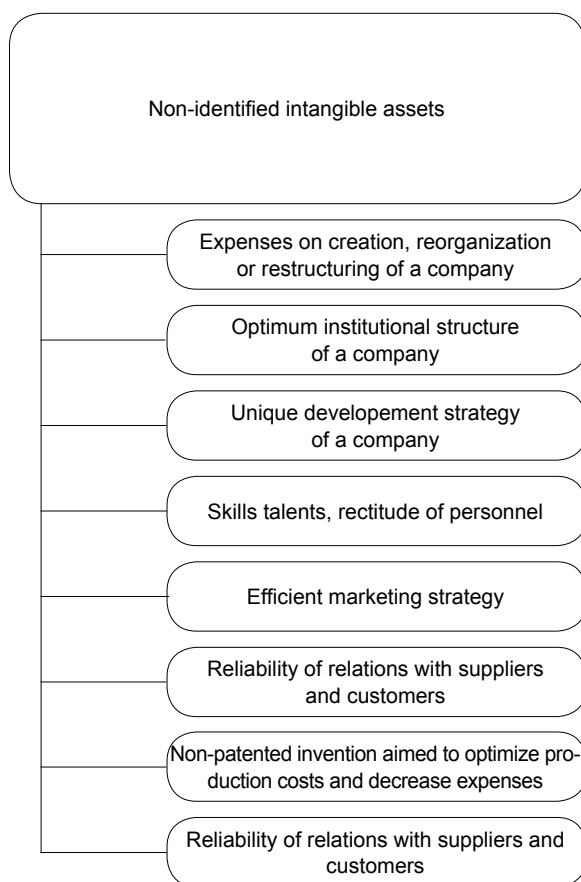


Fig. 4. Non-identified intangible assets in Ukraine  
Source: own elaboration.

prototypes). In case the features are taken into account, then it has a formal approach. Thus, while receiving the right to use natural resources, the company provides information about the availability of fixed assets and their value according to the financial accounting. The value of these assets is estimated without taking into consideration a connection of lifetime of objects with term of permits for exploration of minerals.

The consequence of non-compliance of acquired rights with the expectation of future economic benefits amount and terms of its receipt by the company is that the value of intangible assets on the balance sheet may be inadequate on the date of initial recognition. Therefore, the calculation of expected benefits has to be done during the initial recognition of objects for the period of their revenues from

the effect of the interaction of material resources, external environment and the overall economic situation, etc.

So, while receiving the right to use natural resources, which allows conducting the development of mineral resources, the company recognizes an intangible asset in the amount of paid costs that are depreciated over the term of the permit. To clarify the value of acquired intangible assets, which allow the extraction of minerals, the following should be taken into account:

- the estimated amount of the deposit, which allows for its development within the permit (license);
- expected annual production capacity within existing businesses and opportunities for their support throughout the term of the license (the presence of special equipment, the conditions for the storage of raw materials or ore);
- existing opportunities for processing or sale of extracted raw materials and ore;
- the level of prices for raw materials (iron ore) and the dynamics of change;
- the cost of production volume, which is equal to the normal capacity;
- the market capacity of raw materials, ore or processed products;
- overall economic situation.

Considering the long term of the permit (10–15 years), a calculation of the expected benefits amount with sufficient accuracy can be difficult.

A significant gap exists between the cost of registration of industrial prototypes and expected benefits from them. The company pays the costs of registration authority for the registration and protection of the patented invention, which is not associated with the expectation of future economic benefits at all. If the costs of its creation were acknowledged earlier as research costs and were written off in the period of occurrence, then according to NAS 8, they cannot be reversed and recognized as an asset in the future.

More difficulty arises in the identification, assessment and recognition of intangible assets described in Figure 4.

The benefits from costs for the establishment or reorganization of the company and the term of its operation may be assessed only in the long term — 3–10 years.

A unique development strategy of a company (Figure 4) can be successfully implemented by optimal interaction with other unidentified assets that certify the availability of qualified management and responsible employees, reliable relationships with contractors, the success of marketing and promotional activities, technical improvements, etc.

Equally important components that enable to recognize and estimate intangible assets are shown in Figure 4: sufficient supply of relevant material resources and coordinated interaction. To benefit from the use of most of the intangibles the company must have the necessary software for manufacturing or commercial process, facilities, equipment, inventory and products or to purchase them at competitive prices.



### 3. The main factors that make the recognition of intangible assets complicated

The difficulty of recognizing the unidentified intangible assets is caused by a number of factors, the most important of which are shown in Figure 5.

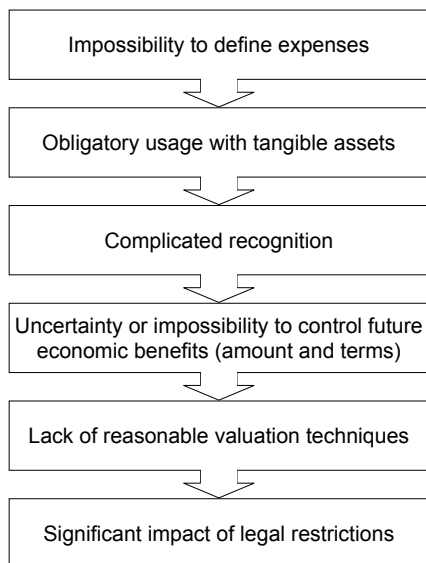


Fig. 5. The main factors that make the recognition of intangible assets complicated

Source: own elaboration.

Expenses for the formation or acquisition of unidentified intangible assets can be defined only for certain types. This applies to those of them that have been made for company's creation, its reorganization and restructuring, training, developing unpatented inventions, advertising. Traditionally, they are considered as costs that are opposed to current profits, so they are treated as unattractive investment in the classic accounting system. In fact, they are made for future economic benefits: the creation, reorganization and restructuring of the company must provide for the owners or administration the expected size gains, increased staff training will facilitate better performance of their duties; advertising costs increase sales volume. As regards development costs of other intangible assets: a unique development strategy, forming an optimal organizational structure, their isolation in modern accounting system is impossible.

The difficulty of recognizing intangible assets is reinforced by the fact that they are used only in conjunction with tangible assets. In this regard, some researchers

hold the view that because the effective activity of the company increases, the total values of tangible and intangible assets are not recognized.

We cannot fully agree with these statements. Fixed assets are directly used for production (services) and are depreciated during continuous operation, becoming less productive and less expensive. However, when comparing the cost of a newly established and successfully operating other enterprise of the same industry in the long term, a positive difference in their evaluation will always be in favor of the one functioning before, despite the level of depreciation of assets of the latter. The difference between the estimation of both companies, which have the same number of units of similar natural assets, will be identified as intangible assets, the recognition of which will provide additional economic benefits.

A number of intangible assets is virtually impossible to separate from the company, although the benefits from their use are obvious. According to IFRS, the asset is separable if it can be leased, sold, exchanged or the specific future economic benefits related to it can be distributed.<sup>5</sup>

IAS 38 “Intangible Assets” enables recognition of an asset if it is possible to identify it in other ways, i.e. identifying the economic benefits that it can generate in combination with other (tangible) assets.

E.S. Hendriksen and M.F. van Breda suggest that intangible assets may be singled out from the company in case of the assignment of the appropriate account name,<sup>6</sup> which definitely extends the range of identifiable intangible assets.

An important problem concerning the recognition and evaluation of intangible assets, with the existence of which we agree, constitutes also the uncertainty of future economic benefits that the company expects from them and their period of receipt. Benefits can come in the form of increased revenues and cost savings due to the use of technology, knowledge and experience of employees, creativity, cost savings for the organization of business. Often the benefit received does not correlate with the costs actually incurred. Reorganization does not always provide an opportunity to obtain expected profits in the future; skilled workers can leave the company, etc.

It is sometimes impossible to accurately predict the possibility of benefit from the use of know-how through the emergence of more advanced technology in competition in the long run or due to the glut of these products, as a consequence of which the need for their production may fall. As regards copyright, the probability of obtaining future economic benefits from them in the long run is even more problematic to assess.

Recognition of intangible assets is largely affected by the legislation. For example, fees for licenses issued to companies in Ukraine for a long period (5 years or

<sup>5</sup> International Financial Reporting Standards, [www.ifrs.org/](http://www.ifrs.org/).

<sup>6</sup> E.S. Khendryksen, M.F. van Breda, *Teoriya bukhholderskoho ucheta*, per. s anhl. pod red. prof. Ya.V. Sokolova, Moscow 1997, p. 396.

more) are based on the specified amount for each year individually. Consequently, a license cannot be recognized as an intangible asset (being converted to current assets) and the amount of payment for it deducted from the costs in one reporting period.

A process of recognition of a certain kind of intangible assets by Ukrainian companies is complicated due to:

- impossibility to distinguish them from other company's assets;
- inaccurate estimation of their production costs;
- unpredictability of receiving future economic benefits (amount and terms);
- legal restrictions;
- lack of reasonable valuation techniques.

## Conclusions

As a result of the research conducted, obligatory conditions for recording intangible assets on balance sheet are: possibility to identify them; probability to receive future economic benefits from the use of assets in a definite long term; possibility to control the process of receiving future economic benefits and restriction of counterparty access to those benefits; possibility of reliable estimation of an asset in case company incurred expenses on it (it has been purchased or produced). Application of these conditions will provide a legal recognition and recording of all created intangible assets on the balance sheets of Ukrainian companies.

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### Summary

The article examines the economic content of intangible assets, in particular it defines such important factors of economic growth as: technology, which also includes research and engineering development, management and entrepreneurship. The terms of recording of intangible assets on the

balance sheets of companies in Ukraine are determined by the National Accounting Standard 8 “Intangible Assets.” Applying this standard limits the recognition of most of the intangible assets that are created by companies themselves: cost of reorganization, the optimal organizational structure, a unique development strategy, the availability of effective management and skilled workers, etc.

A process of recognition of certain types of intangible assets by Ukrainian companies is complicated due to: impossibility to distinguish them from other company’s assets; inaccurate estimation of their production costs; unpredictability of receiving future economic benefits (amount and terms); legal restrictions; lack of reasonable valuation techniques.