
CHARACTERISTICS OF INTANGIBLE ASSETS AS OBJECT OF ACCOUNTING AND SPECIFICITIES DETERMINATION OF ITS VALUATION



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Анотація. The article discusses the accounting treatment for intangible assets. The authors note that intangible assets are the result of economic and technological development. On this basis, the classification of economic eras according to the relationship between the use of tangible and intangible assets has been considered. The article also highlights the main criteria for intangible assets, namely legal and economic. The authors note that intangible assets are a group of balance sheets, in which the intellectual resources of the new economy could be reflected. It is noted that UNAS 8 “Intangible Assets” does not contain a certain part of the sections that are reflected in IAS 38 “Intangible Assets”, in particular, separate acquisitions of an asset and acquisitions as part of the business association, acquisitions through government grants, etc. Accounting systems and items relating to intangible assets are considered. Intangible assets, and especially intellectual capital, are considered to be an important source of capital deepening in European countries, albeit with significant differences among countries. It is noted that one of the biggest challenges in accounting for intangible assets is their valuation and, according to certain requirements of the legislation, the entity may revalue at fair value at the balance sheet date but if there is no active market, the revaluation may be carried out on the basis of an expert assessment of the subject of the evaluation activity. The authors maintain that the prestige or importance of intangible objects can be assessed by expert judgment, as many factors constrain the implementation of the exceptional features or properties specific to these objects. The authors discussed various methods for intangible asset valuation and the priorities for applying expert valuation approaches to intangible assets and intellectual property objects in foreign practice. The article also deals with statistical data on the value of intangible assets in the balance sheets of Ukrainian enterprises.

Ключові слова: intangible assets, intellectual capital, accounting, valuation methods, accounting standards.

Introduction.

In the context of the market environment in Ukraine, innovative activities play an increasingly important role for enterprises in the agrarian sphere. The creation and introduction of new ideas and technologies guarantee the financial stability of enterprises and the realization of future economic benefits. Both external and internal factors in the development of the country's society and economy have led to the emergence of a new accounting object – “intangible assets”, which gives the enterprise long-term rights and advantages.

The market environment and technology development, which depend on the creation of software products for the processing of economic transactions and their registration, have contributed to the significant spread of digitalization in accounting processes. Sectors such as the Internet and software, technology, and IT are highly dependent on intangible assets.

Analysis of recent researches and publications.

The issues of intangible assets were highlighted and analyzed in the writings of renowned economists: Y. V. Velykyi, N. H. Vyhovska, S. F. Holova, L. V. Gutsalenko, V. M. Dyba, I. M. Drohobyttskyi, V. M. Zhuk, P. O. Kutsyk, I. M. Lepetan, O. O. Lyakhovets, Z. P. Plysa, I. B. Sadovska, Kh. I. Skopa, M. F. Van Bred and others.

The purpose of the article is to investigate the characteristics of intangible assets as an object of accounting and the specificity of their valuation, taking into account national and international standards.

Materials and methods of research.

The following cognition techniques were used: induction and deduction, comparison and generalization, grouping, scientific cognition, and so on.

Results of the research and their discussion.

Intangible assets are created and purchased by the enterprises themselves, which has a significant impact on asset composition. The increasing share of intangible assets in the total structure poses the challenge for managing and controlling them rationally. Intangible assets are a vulnerable position in the accounting system, and their valuation first needs to be determined to what extent they will be used in the production process. They have economic benefits now and in the future.

There is no longer any doubt about the paradigm of the centrality of intangible assets in the modern world. The main driver for such processes is intellectual evolution, which has shifted the focus from the application of limited material resources to the use of unlimited intangible assets and has led to a change in the methodological approach to enterprise asset structure.

The two directions of fundamental development, economic and technological, have fundamentally changed the enterprise structure and have put intangible assets as the main potential of the value of the business, as shown in Figure 1 [1, p. 12].

Different approaches to definitions of intangible assets can be found in the economic and legal literature. Therefore, we consider it appropriate to single out its main legal and economic criteria when classifying an object as an intangible asset (Fig. 2).

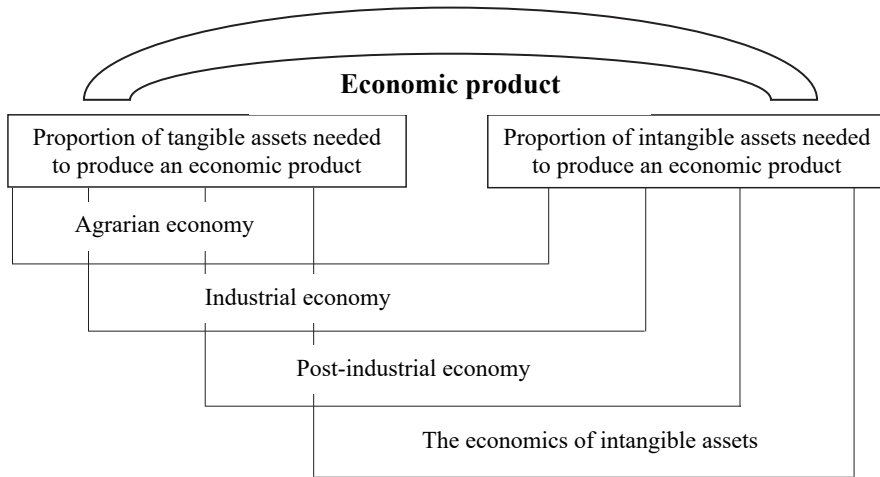


Fig. 1. Classification of economic eras by use of tangible and intangible assets

Source: [1, p. 13].

Thus, the distinction and understanding to which the criterion of an intangible asset applies, make it possible to determine its nature and identity for the enterprise. From the legal point of view, the acquisition of intellectual activity rights is recognized only for compliance with the requirements of the legal regime, and their recognition is confirmed only by the existing legal documents. And the economic – undoubtedly affect the economic benefits.

Nowadays, it is almost impossible to produce complete and reliable information on business processes without data on intan-

gible assets. Intangible assets are widely used and their proper treatment should therefore be the focus of the accounting profession.

Intangible assets are a group of balance sheets, in which the intellectual resources of the new economy could be reflected. This record area has been the subject of much debate at every stage of its development. At the same time, current accounting standards in this area do not reflect modern requirements and approaches and provide little assurance on intangible assets in the accounting records, which are used by enterprises when creating products.

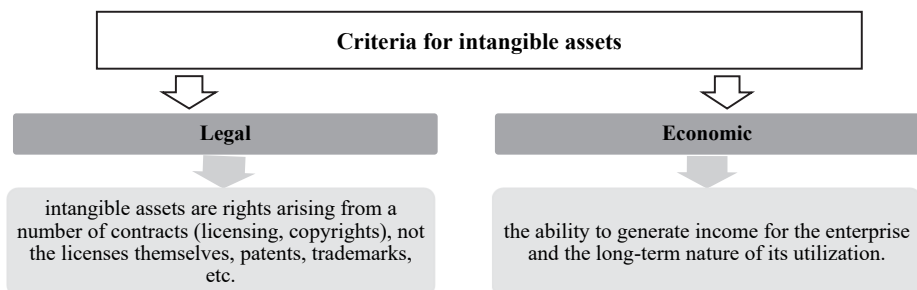


Fig. 2. Key criteria for intangible assets

Source: compiled by the authors.

UNAS 8 “Intangible Assets” does not contain a certain part of the sections that are reflected in IAS 38 “Intangible Assets”, in particular, separate acquisitions of an asset and acquisitions as part of a business association, acquisitions through government grants, internally generated goodwill and intangible assets, valuation after recognition: cost model and revaluation model, intangible assets with defined useful lives, revision of estimated useful lives, period review and depreciation method [2].

In doing so, each standard has its advantages and disadvantages, where the specificities of each standard system should be considered, in particular GAAP, IAS, BOP, and SOA UNAS (Fig. 3).

Intangible assets, and especially intellectual capital, are an important source of deepening capital in Europe-

an countries, albeit with significant differences among countries. GDP in the EU-27 area is 5.5 % higher if certain expenditure categories that were still considered current expenditures are classified as investments in intangible assets. Intangible capital investment markedly improves company profitability, given the wage gap, and increases returns in intangible capital-intensive countries.

However, valuing a company for its intangible assets is not an easy task, so the International Accounting Board under IAS 38 is trying to record an intangible asset that is closest to the market reality. This complexity arises from the difference between the market value calculation and the company’s accounting value.

Plekan believes that “the standardization of accounting and reporting, the standards for intangible asset valua-

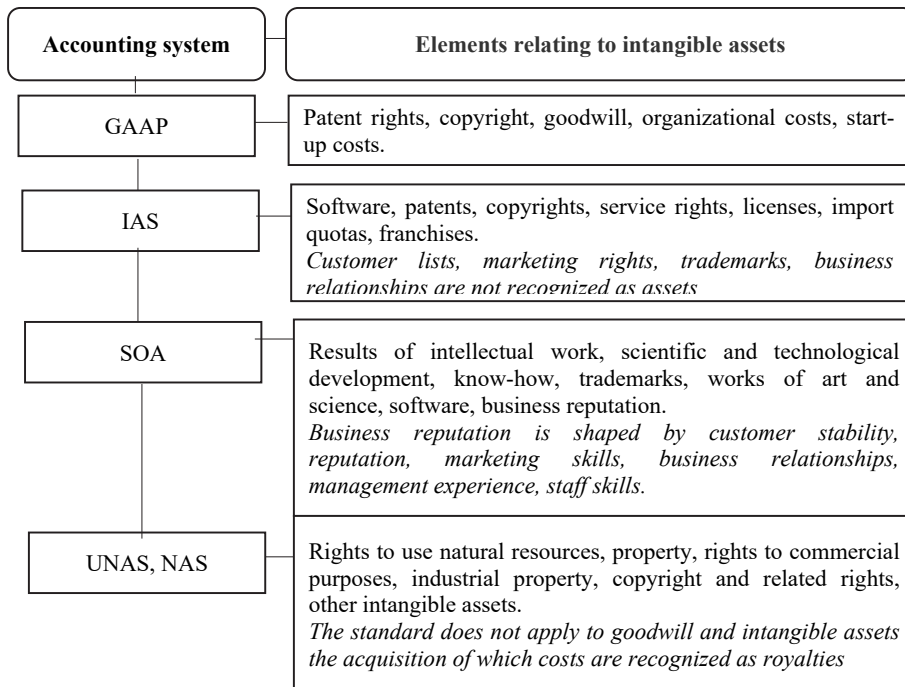


Fig. 3. Comparison of the different accounting systems for intangible assets

Source: [3].

tion for financial reporting purposes do not formalize the value of a significant portion of such items. The lack of estimation methodology does not allow to uniquely determine the place of this type of economic resources in the accounting process, it is formalized to present them in the public accounts of the enterprise, first of all, to introduce them in the balance sheet for balancing the market and balance value of the company" [4].

Intangible capital broadly describes the main innovative activities of private companies and is a source for future growth. According to Hannu Piekola, the most important part of intangible assets, encouraging and ensuring long-term productivity growth, should be considered a management activity, which is very difficult to define. Performance-based evaluation studies clearly show that traditional evaluation at the level of organizational costs is below the limits of the true value of investments. The productivity of these activities usually exceeds the corresponding wage costs; the combination of labor, intermediate products, and capital in the production of intangible capital increases the value added more than the expenses of associated costs [5].

Dyba noted that when the whole intangible is defined in general terms as "intangible objects – IO" (analog intangibles) their composition is generalized by three main groups.

1. Intangible assets (IA). An object is identified as an intangible asset if it has no tangible structure, is owned by the organization, can be separated from the organization for subsequent sale or other disposition, and is a source of future economic benefits.
2. Intangible resources (IR). The facilities do not have a physical structure controlled by the company, are the result of the organization's past

operations or costs, and are capable of bringing economic benefits to the organization in the future.

3. Intangible factors (IF). Informal and uncontrolled ability of a company to create new values giving it a competitive advantage [6, p. 191].

Yasyshena & Pylyavets consider the valuation of intangible assets as part of an enterprise's property to be one of the first and most important areas of IA analysis. They are of the view that the analysis in this area would provide a reasonably clear picture of the status of IA use in the activities of economic entities. The authors note that the accounting category of intangible assets has existed for about 20 years in the accounting and financial reporting of economic entities and have investigated the dynamics of IA in the activities of the largest food processing enterprises in the Vinnytsia region. In the analysis, the eight largest enterprises were selected and the intangible value on the balance sheet was proofed. The analysis showed that the value of intangible assets was increasing in almost all the enterprises studied [7].

According to the data of the State Statistical Service of Ukraine, we will carry out an analytical assessment of intangible asset value in the common currency of the balance sheets of Ukrainian enterprises (Table 1).

The information provided shows that the share of intellectual property products in the total fixed capital structure varies between 3–4 %, indicating that the recognition methodology is not perfect, identification, valuation of such assets at the state level and improvement of the current legislative framework for recording.

The peculiarity of intangible assets – their lack of physical qualities – poses problems in accounting for them: their value is difficult to estimate and their useful lives are often uncertain.

1. Reflection of intangible asset value in the balance sheets of Ukrainian enterprises (2016–2020)

| Indicator | 2016 | 2017 | 2018 | 2019 | 2020 (3 quarters) |
|--|---------|---------|---------|---------|----------------------|
| The gross fixed capital formation, total, UAH million | 368 691 | 470 327 | 628 296 | 716 187 | 360 412 |
| Intellectual property products, including | 11 207 | 15 106 | 20 044 | 20 681 | 14 858 |
| research and development | 4 361 | 5 805 | 9 264 | 10 182 | 7 518 |
| exploration and evaluation of mineral assets | 250 | 431 | 340 | 318 | 173 |
| computer software and databases | 6 342 | 8 361 | 9 847 | 9 013 | 6 288 |
| entertainment programs and original literary and artistic works | 254 | 509 | 593 | 1 168 | 879 |
| share of intellectual property products in total fixed capital formation | 3.04 % | 3.21 % | 3.19 % | 2.89 % | 4.12 % |

Source: [8].

Therefore, intangible asset valuation is a major challenge in the recognition of intangible assets. The complexity of the valuation of intangible assets arises from the fact that it is not feasible to develop a single universal valuation methodology, as each intangible asset should not only be original but the conditions for their practical use in the activities of different enterprises tend to be fundamentally different.

According to certain legal requirements, namely UNAS 8 “Intangible Assets” and the Methodological Recommendations on the Accounting of Intangible Assets, an enterprise can

revalue at the balance sheet date at the fair value of those intangible assets, for which there is an active market. However, if there is no active market, the revaluation may be based on the expert judgment of the evaluator.

World practice uses different methods for estimating intangible assets, the most common of which are: cost, market, and revenue (Fig. 4).

The lack of uniform terminology in regulations and the excessive pace at which changes are made to them lead to inconsistencies in the theoretical development of approaches to the expert valuation of intan-

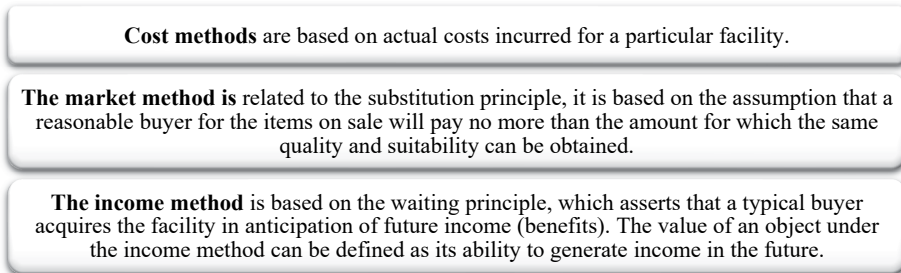


Fig. 4. World practice in intangible asset valuation

Source: compiled by the authors.

2. Priorities for applying peer-review approaches to intangible assets and intellectual property objects in foreign practice

| Types of intangible assets and intellectual property | Applied first of all | Second priority | Rarely applied |
|--|----------------------|-----------------|----------------|
| Patents and technologies | Profitable | Market | Expensive |
| Commodity | Profitable | Market | Expensive |
| Copyright objects | Profitable | Market | Expensive |
| Skilled labor | Expensive | Profitable | Market |
| Management information software | Expensive | Market | Profitable |
| Software products | Profitable | Market | Expensive |
| Distribution networks | Expensive | Profitable | Market |
| Basic deposits | Profitable | Market | Expensive |
| Franchising rights | Profitable | Market | Expensive |
| Corporate practices and procedures | Expensive | Profitable | Market |

Source: [9, p. 25].

gible assets in foreign and domestic practice. In general, foreign authors consider priorities for approaches to intangible asset valuation, citing Smith & Parr "Valuation of Intellectual Property and Intangible Assets" 1994, which distinguishes between intangible assets and intellectual property objects (Table 2) [9, p. 24].

We support the view that the prestige or relevance of intangible objects can be assessed by expert judgment, as many factors constrain the implementation of the exceptional features or properties specific to these objects. It includes, in particular, the late invention, the high cost, the limited range of consumers, and insufficient legal protection. Therefore, experts use as the main criterion for the prestige of intangible objects the range of possible beneficial properties at three levels: international, national, and industry.

Conclusions and future perspectives.

The main criterion of the submitted information is the accuracy of the reporting information provided without distortion or falsification. Reliability is

achieved by complete primary, routine accounting and reporting, their mutual adequacy, substantial and exhaustive information, the application of international standards and the presentation of information at a reasonable cost for its collection and production. Each of these components has its meaning.

An analysis of the proportion of intangible assets in the total asset structure showed a minimum percentage of intangible assets held by enterprises. This is influenced by factors such as the lack of prudent legislation to account for intangible assets, the lack of an effective way to account for intangible assets, their correct presentation and valuation.

Intangible assets are one of the least researched categories in accounting, related to the peculiarities of economic nature and their valuation. However, intangible assets held by enterprises are factors for further innovative development and market competitiveness. The complexity of intangible asset valuation arises from: the diversity of intellectual property objects, each of which must be original under the law; the different types of proceeds (recognition) in the

enterprise; various forms of practical use in the enterprise. We believe that consideration of all the listed properties of intangible assets is possible when applying the expert valuation method.

Current research on the treatment of intangible assets includes discussions on how to effectively account for intangible assets, classify and accurately analyze intangible assets. All this requires further improvement and research.

References

1. Puzynia, N. Yu. (2013). Otsinka i upravlinnia nematerialnykh aktyvamy [Valuation and management of intangible assets]. Sankt-Peterburh: SPbHE. (in Russian).
2. Lepetan, I. M., & Lavrova, M. R. (2019). Vyznannia nematerialnykh aktyviv u oblikovii politytsi pidpriemstva [Recognition of intangible assets in enterprise accounting policy]. Efektyvna ekonomika, 12. doi: 10.32702/2307-2105-2019.12.63 (in Ukrainian)
3. Velykyi, Yu.V., & Liakhovets, O. O. (2013). Porivniialnyi analiz standartiv obliku nematerialnykh aktyviv v Ukraini ta zarubizhnykh krainakh [Comparative analysis of accounting of intangible assets standards in Ukraine and foreign countries]. Efektyvna ekonomika, 7. Retrieved from <http://www.economy.nayka.com.ua/?op=1&z=2157> (in Ukrainian).
4. Plekan, M. V. (2015). Problemni aspekty nematerialnykh aktyviv [Problematic aspects of intangible assets]. Naukovyi visnyk Uzhhorodskoho universytetu. Seriya: Ekonomika, 1(2), 112-115. Retrieved from [http://nbuv.gov.ua/UJRN/Nvuuec_2015_1\(2\)_26](http://nbuv.gov.ua/UJRN/Nvuuec_2015_1(2)_26) (in Ukrainian)
5. Hannu Piekola. (2011). Intangible Capital: the Key to Growth in Europe. Intereconomics, 4, 222-228. Retrieved from <https://www.intereconomics.eu/pdf-download/year/2011/number/4/article/intangible-capital-the-key-to-growth-in-europe.html>.
6. Dyba, V. M. (2018). Hnoseolohichni aspekty nematerialnykh aktyviv [Epistemological aspects of intangible assets.]. Stratehiia ekonomichnoho rozvytku Ukrainy, 42, 188-198. Retrieved from http://nbuv.gov.ua/UJRN/seru_2018_42_19 (in Ukrainian)
7. Yasysheva, V. V., & Pyliavets, V. M. (2020). Praktychni aspekty analizu vykorystannia nematerialnykh aktyviv u diialnosti pidpriemstv kharchovoi promyslovosti [Practical aspects of analysis of the intangible assets use in the activities of the food industry companies]. Problemy systemnoho pidkholdu v ekonomitsi, 1(2), 100-106. Retrieved from [http://nbuv.gov.ua/UJRN/PSPE_print_2020_1\(2\)_17](http://nbuv.gov.ua/UJRN/PSPE_print_2020_1(2)_17) (in Ukrainian)
8. Official website of the State Statistics Service of Ukraine. (2021). Retrieved from http://www.ukrstat.gov.ua/operativ/operativ2020/vvp/kkv_vvp/kkv_vvp_u/arh_vn_ok2020_u.htm.
9. Dyba, V. M. (2016). Metodolohichni osnovy otsinky nematerialnykh aktyviv korporatsii [Methodological bases of valuation of intangible assets of the corporation]. Ekonomichna nauka, 13, 23-28. (in Ukrainian)

Л. В. Гуцаленко, А. М. Бельдій (2020). ОСОБЛИВОСТІ НЕМАТЕРІАЛЬНИХ АКТИВІВ, ЯК ОБ'ЄКТА ОБЛІКУ ТА СПЕЦИФІКИ ВИЗНАЧЕННЯ ЙОГО ВАРТІСНОЇ ОЦІНКИ. БІОЕКОНОМІКА ТА АГРАРНИЙ БІЗНЕС, 11(4): 51-59. <http://doi.org//10.31548/bioeconomy2020.04.006>

Анотація. У статті розглядається облікова категорія нематеріальних активів. Автори зазначають, що нематеріальні активи виникли внаслідок розвитку економічного та технологічного напрямів. На основі цього розглянута класифікація економічних епох залежно від співвідношення у використанні матеріальних і нематеріальних активів.

У статті також виділено основні критерії нематеріальних активів, а саме юридичні та економічні. Автори зазначають, що нематеріальні активи є тією групою балансових статей, у якій могли б знаходити відображення інтелектуальні ресурси нової економіки. Зазначається, що П(С)БО 8 «Нематеріальні активи» не містить певної частини розділів, що знайшли своє відображення в МСБО 38 «Нематеріальні активи», зокрема, окреме придбання активу та придбання як частини об'єднання бізнесу, придбання шляхом державного гранту тощо. Розглядаються системи обліку та елементи, що належать до нематеріальних активів. Вважається, що нематеріальні активи та особливо інтелектуальний капітал є важливим джерелом поглиблення капіталу в європейських країнах, хоча і зі значними різницями між країнами. Зазначається, що одним з найважливіх завдань в обліку нематеріальних активів є їх оцінка і згідно визначених вимог законодавства суб'єкт господарювання на дату балансу може здійснювати переоцінку за справедливою вартістю, але якщо активний ринок відсутній, то переоцінка може здійснюватися за експертною оцінкою суб'єкта оціночної діяльності. Автори притримуються того, що престижність чи значимість нематеріальних об'єктів, можна оцінити за допомогою експертного методу, оскільки існує багато чинників, що стримують реалізацію виняткових особливостей або властивостей, характерних для цих об'єктів. Авторами розглянуто різні методи для оцінки нематеріальних активів та пріоритети застосування підходів до експертної оцінки нематеріальних активів та об'єктів інтелектуальної власності у зарубіжній практиці. Також в статті розглядаються статистичні дані щодо вартості нематеріальних активів у балансах підприємств України.

Ключові слова: нематеріальні активи, інтелектуальний капітал, облік, методи оцінки, стандарти обліку.
