ABSTRACT: Rigidity of the financial reporting model in contemporary business conditions the era of the “knowledge economy” influenced the creation of significant differences between the market and book values of companies. Characteristic of enterprises in the “new” economy is the high share of knowledge and other intellectual resources in the structure of total assets, which are at the same time the basic source of competitiveness of enterprises. Given the changing habits of consumers who are inclined to buy products on the market that identify a high degree of “embedded” knowledge, companies base their business on investing in R&D and investing in various types of intellectual property and protecting them. Due to certain limitations of financial reporting when identifying and measuring intellectual resources in an enterprise, users of financial statements are unable to get a realistic picture of the value of assets and the corresponding investments when it comes to certain types of intangible assets. Blurred financial reality can lead to irrational decisions, stagnation in business and major financial crashes, which is often the practice of large companies listed on the world stock market due to the overestimation/undervaluation of their book value. The aim of this paper is to explain the treatment of intangible assets through international accounting standards concerning the identification, recognition and measurement of intellectual resources and intangible assets, to analyze their limitations and to point out possible directions for their further development in order to provide reliable and credible reporting on assets and capital of economic entities.

Keywords: Intangible asset, International accounting standards, Intellectual capital.

1. INTRODUCTION

The process of globalization, market liberalization, technological and technological progress and the development of communication and information technology have influenced the creation of a “new” era in the economic sense, the so-called “knowledge economy”. In a “new” economy, knowledge gains primacy over traditional factors of production such as means of labor, physical resources, land, and capital. The main source of competitive advantage of the company in the modern economic environment are products and services that are the result of specific knowledge and abilities of employees and, due to their nature, customers are easily identified and accepted in the market. Consequently, in a knowledge economy, entities build their competitive advantage on knowledge and intellectual resources, which results in a high proportion of them in the relative structure of the enterprise’s business assets. Knowledge is an inexhaustible resource and if effectively managed in this sensitive category the limits of market success are almost non-existent. Accordingly, at the very beginning of the 21st century, there was a significant increase in the share of intangible assets in the structure of financial statements of world-renowned companies. This trend is particularly characteristic of companies belonging to the pharmaceutical industry and the IT sector, although an increase in R&D has also been observed in all other industries. For example, Amazon has invested most in R&D in 2018 with about $ 22.6 billion, while Alphabet, Volkswagen, Samsung and Intel represent the other leading companies in the world in R&D investment.

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Figure 1. Tangible versus Intangible assets comparison in five biggest companies

Figure 1. demonstrates the increase in the importance of intangible assets over the material presentation of the most successful companies over time.

The basic role of financial statements is reflected in the true and reliable presentation of the financial position and earning capacity of business entities. Innovation of products, services, business processes and continuous learning and development are becoming the ultimatum for success in the modern economic environment (Al-Ali, 2003), which is evidenced by the positive trend in terms of the participation of intangible assets, in the assets of world-renowned companies over time. In the conditions of the „new economy”, characterized by intensive use of intangible resources and a high share of them in the relative structure of business assets of the company, due to the lack of relevant information on certain categories of intangible assets and intellectual capital, the problem of unreliable reporting to external users of financial statements arises and thus get a clear insight into the real value of the company. The problem arises in the balance sheet coverage of these items of intangible assets, which is why often the gaps between the market and book values of listed companies are explained by the limitations and inability of adequate financial reporting on certain existing elements of intangible assets in organizations. The International Accounting Standards Board (IASB) addresses this one financial reporting problem through International Accounting Standard (IAS) 38 - Intangible Assets. Intangible assets are also processed through SFAS 142 (Statement of Financial Accounting Standards No. 142 - Goodwill and Other Intangible Assets) and also covered by SFAS 141 (Statement of Financial Accounting Standards No. 141 - Business Combinations) belonging to the group of Anglo-Saxon generally accepted accounting standards.
2. INTELLECTUAL CAPITAL AS A PART OF INTANGIBLE ASSETS

Changing economic conditions and entering a new economic era, in which knowledge and innovation are the main sources of creating and maintaining competitive advantage, there is a problem of explicit presentation and reporting of intangible resources, which certainly contribute to the profitability of enterprises and are not included in the balance sheet. In this sense, a new concept of „intellectual capital” has been identified, which represents that part of the intangible assets that an enterprise owns, and which significantly influences the growth of the enterprise’s market value, but is not presented in the balance sheet. The end of the 20th and the beginning of the 21st century, in economic terms, was marked by an upward and fast-growing trend of establishing a „knowledge-based enterprise” whose name implies entities that use their specific knowledge, expertise and innovations as the main source of competitiveness in the market. Characteristic of this type of enterprise is a very small share of tangible assets in relation to the significant share of intangible assets in the total assets of the enterprise. Due to their property structure, the problem of significant gap between market and book value is even more pronounced. A critical problem is the inability of the accounting system of an enterprise to reliably and credibly identify, measure and control individual segments of intangible assets and thus cannot be disclosed by the balance sheet, thereby „hiding” a portion of the invisible (intangible) assets of the enterprise. For this reason, it is often said that intellectual capital is that part of assets that are largely unaccounted for and that does not include tangible assets, financial assets and intangible assets (Krstic, 2014). According to Moore and Graig (2008), the value of intellectual capital is expressed as the difference between the market value and the book value of the enterprise:

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\text{Intellectual Capital Value (Intellectual Resources as Balance Sheet Unspecified Intellectual Property)} = \text{Market Value of Assets} - \text{The book value of the balance sheet assets of an enterprise}
\]

To date, a number of intellectual capital concepts have been developed to explain this category. One of the more well-known is Sveiby’s concept, which divides intellectual „invisible” resources into three groups: human competence, internal structure and external structure. These three groups are invisible on the balance sheet, whereby the internal structure means information systems, management, patents, concepts, organizational culture, and the external structure builds the image of the company, product brand, publicity.

As the basis of the financial system there is a fear and aversion to financing „knowledge enterprises” in order to further develop their intangible assets, and due to the inability to „balance the embodiment” of invisible intellectual resources Sveiby (1997) considered that such organizations are mostly self-funded because of the difference between their market and book value, which he called „invisible share capital.”

The relationship between tangible and intangible resources in knowledge-based enterprises is illustrated in Figure 2.

As intangible investments and intellectual capital are characterized as a crucial resource of modern companies in the era of „knowledge economy”, to this day, certain doubts remain during their balance sheet coverage. It is considered that the intangible investments of companies in the modern economy reflect the future competitive advantages of organizations, and their balance sheet coverage is of key importance.
3. ACCOUNTING INTEGRATION OF INTANGIBLE ASSETS ACCORDING TO IAS 38

The purpose of this standard is to define the process of accounting for intangible assets, provided that the said non-monetary assets are not subject to any other International Accounting Standard. IAS 38 requires an entity to recognize an intangible investment if and only if certain criteria are met. This standard also specifies the way in which the carrying amount of intangible assets should be measured and requires some disclosures about intangible assets.

Intangible asset is an identifiable non-monetary asset without physical substance. An asset is a resource that is controlled by the entity as a result of past events (for example, purchase or self-creation) and from which future economic benefits (cash inflows or other assets) are expected (IAS 38.8). The IASB under intangible assets includes the following categorized items and is illustrated in the Table 1.

Intangible assets can also be classified according to the following criteria (SRRS, 2007):
- the manner of acquisition, intangible assets acquired internally and intangible assets acquired through the purchase of others,
- identifiable, intangible assets that can be viewed separately from an enterprise, which can be leased or exchanged, and inseparable assets from an entity such as goodwill,
- exchange opportunities, monetizable assets that can be acquired and sold independently of the enterprise, and non-cash assets that cannot be sold or redeemed independently of the enterprise, and
- the expected period of use, assets with a defined period of use and assets without a defined period of use.
In order to increase intangible assets, businesses often invest resources or create liabilities. For example, they invest in the R&D process to create new products, improve technological processes, or provide more efficient and innovative services in order to create added value that customers are willing to pay. However, often the relevant acquisition costs cannot be recognized as part of the value of the intangible resources, although incurred to obtain them are already identified as an expense in the period in which they are incurred. Even certain forms of intangible assets cannot be recognized individually as such because they do not satisfy one or more of the prerequisites they entail (IAS 38,10):

- the ability to identify,
- control over the resource, and
- the existence of future economic benefits from the same.

The condition that a particular type of intangible asset can be separately identified is, among other things, differentiated from goodwill. Whether it is internally generated or acquired goodwill, it is very difficult to separate certain forms of intangible assets as a separate entity in accounting terms, subject to the balancing requirements listed above. For example, patents, licenses, concessions, issuing rights, pollution permits and similar forms of property that are protected by law are clearly stated on balance sheet, however the problem arises when the balance sheet needs to be expressed, for example additional skills and quality of a particular team within the organization, sophisticated management skills, a portfolio of good customer / supplier relationships; such forms of intangible assets are already recognized as internally generated goodwill, and „their value is determined by the difference between the entity’s market and book value.” (Zhang, 2013).

Source: www.brandfinance.com/Uploads/pdfs/Global%20Intangible%20Tracker%202006.pdf
In order for a property to be identifiable, at least one of the following conditions (IAS 38,12) is required:

- separable, that is, when it can be separated or separated from an entity and sold, transferred, licensed, leased or exchanged, either individually or in conjunction with a related contract, identifiable asset or liability, whether or not the entity intends to do so; or
- arises under contractual or other legal rights, whether those rights are transferable or separable from the entity or from other rights or obligations.

Resource control, as a significant segment of intangible asset balancing, implies that an organization is capable of controlling the future economic benefits of a particular intangible resource, which is usually achieved by the existence of appropriate legal rights. Otherwise, it is difficult to successfully control the financial flows of a given asset and it is even more complicated to limit access to competitors by the same. For example, an enterprise has a specific portfolio of customers and makes significant efforts over time to earn their loyalty, while there is no right promised by law that the entity will protect its very significant intangible resource and manage to control their loyalty. The fact is that the organization has a real economic benefit from this intangible investment but the condition for controlling it is not fulfilled and cannot be included in the balance sheet. Benefits that cannot be disputed from this type of intangible asset and which, due to imbalances that lead to a gap in market and book values, can be controlled to some extent in the form of transaction. Depending on the amount of transaction exchanges, valuation and balance sheet presentation may be made to a certain extent, which will certainly reduce the market and book value discrepancy.

The future economic benefit of any resource in an enterprise may not necessarily be construed as a cash inflow in the form of income from the sale of a product or the provision of a service through a given asset. Intangible assets are characterized by the fact that their possession has the effect of reducing production costs, shortening the time to produce products / services, increase productivity, or by restricting their intellectual property rights to competitors in the business.

The most important issue for users of financial statement information is to comply with the basic accounting principles and principles (truthfulness, reliability, credibility...) in creating them. If the process of recognition and measurement of all items in the company is adequately implemented, then the market value will correspond to the book value. Due to the lack of physical substance of intangible assets, the process of recognition and measurement of intangible assets is considered to be very delicate. Therefore, it is necessary to define precisely the criteria for recognition and measurement of intangible assets.

Under IAS 38, intangible assets are recognized if it is determined that the entity has the ability to identify it, control it, and if it is certain that it will benefit from future economic benefits. One of the crucial conditions for the recognition of intangible assets is the ability of an entity to reliably determine its cost. In accordance with IAS 38 (24), intangible assets are initially measured at cost. Due to its characteristics, most of the intangible assets do not usually require additional costs in terms of replacement and maintenance, as is the case with equipment and buildings. However, when there are subsequent expenditures, they are very difficult to attribute to the value of intangible assets and are treated as expenses in the income statement. Subsequent expenditures in connection with trademarks (“brands”), impressions, publishing titles, customer lists and items similar in content (whether externally acquired or internally generated) are always recognized in profit or loss as incurred. Such expenditures are indistinguishable from
enterprise-wide development expenditures (IAS 38, 63-64). The justification for this treatment lies in the fact that it is very difficult for such expenditures to meet the definition and criteria for balancing them as part of the assets of the balance sheet, so according to expectations of future economic benefits, these expenditures are categorized as expenses and classified in the income statement for the period in which created.

The measurement of separately acquired intangible assets is made using reasonable assumptions and taking into account the pervasive economic conditions. The act of purchasing a particular intangible asset is proof that management expects future economic benefits from the intangible asset, and one of the conditions for balancing intangible assets is thus fulfilled. As regards vesting, the cost of separately acquired assets includes (IAS 38,27):

- purchase prices, including import duties and taxes on non-refundable turnover, after deduction of trade discounts and rebates;
- any directly attributable costs of preparing the property for its intended use.

Examples of directly attributable costs are (IAS 38,28):

- costs of remuneration of employees (defined in IAS 19) incurred directly in the process of bringing the assets to working condition;
- professional benefits incurred directly in the process of bringing the property to working condition;
- the cost of testing the proper functioning of the property.

Examples of expenditures that do not form part of the cost of an intangible asset are (IAS 38.29):

- the cost of introducing a new product or service (including the cost of advertising and promoting);
- the cost of running a business in a new location or with a new group of customers (including staff training costs), and
- administrative and other overheads.

These expenses incurred for the purpose of putting the intangible asset into operation are offset against the cost of the intangible assets, with all subsequent expenses if they are incurred in the future to be recorded as expenses in the period in which they were incurred without being attributable to the cost of intangible assets.

4. ACCOUNTING TREATMENT OF INTERNALLY GENERATED GOODWILL

The issue of reducing the difference between the entity’s market and book value is significantly affected by the accounting treatment of internally generated goodwill. Given that in a knowledge economy, competitive advantage stems from knowledge and innovation, companies around the world are investing heavily in the R&D sector. Therefore, the issue of accounting treatment of these investments under IAS 38 is highly debatable. Under this standard, internally generated goodwill is not recognized as an asset because it does not meet the requirements for recognition as intangible assets and the difference between market and book value does not represent the cost of the asset but is the result of a number of factors that affect the company internally and externally. However, a group of authors involved in the recognition of intangible assets (Lev, 1997; Sveiby, 1997; Moore & Graig, 2008) find that accounting treatment of intangible resources expenditures has the greatest impact on the difference in book value and market value. For
this reason, revised IAS 38 established requirements for the recognition of internally generated goodwill, defining and separating the process of internally generated goodwill into the research phase and the development phase. Expenditure that occurs in the exploration phase cannot be recognized as intangible assets under IAS 38 because there is still no prototype or invention that can be expected to generate future economic benefits, and therefore all expenditures related to this phase are accounted for as an expense in the period in which they occur. Examples of such expenditures are: the cost of acquiring new knowledge, trying to apply new ideas and knowledge, the cost of searching for new innovative materials, technological procedures, etc.

Intangible assets that may arise in the development phase are recognized as assets if the entity can prove the following (IAS 38,57):

- the technical feasibility of completing the intangible assets so that they will be available for use or sale;
- its intention to complete the intangible property and to use or sell it;
- your ability to use or sell intangible assets;
- how intangible assets will generate probable future economic benefits. Among other things, an entity may demonstrate the existence of a market for the product of intangible assets or the intangible assets themselves or, if used internally, the usability of the intangible assets;
- availability of adequate technical, financial and other resources to complete development and use or sale of intangible assets;
- its ability to reliably measure expenditure attributable to tangible assets during its development.

The reason for treating expenditures as a part of the value of intangible investments in the development phase is the existence of visible results from R&D activities, because the development phase is by its nature more advanced than the research phase. So, within the development phase we have projects, prototype and model development, pilot projects, testing of adapted devices, materials, test of new production processes, etc. Due to the possibility of their identification, control and expected positive economic effects as well as reliable measurement, the value at this stage is recognized as part of the cost of intangible assets.

5. CONCLUSION

The era of the knowledge economy has brought about a series of changes in the business of modern businesses. Knowledge and innovation have become strategic resources for businesses to compete. Therefore, the structure of the balance sheet assets also changed in favor of intangible assets. Traditional accounting systems have not been able to provide a complete and true picture of the state and changes in the assets and capital of the company, which is why significant differences between the market and book values of modern knowledge intensive companies have emerged. The problem of partial or total balance sheet non-recognition of intangible assets has provided a blurred picture to users of financial statement information, which has led to an undervaluation / overestimation of the value of listed companies. In order to remedy this problem, the IASB has succeeded in mitigating this gap somewhat by offering IAS 38-Intangible Assets from 2009 and providing some solutions to the balance sheet treatment of intangible resources. We are witnessing frequent and almost daily amendments, amendments and introduction of new acts that seek to resolve this open-ended issue.
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