

3rd GLOBAL CONFERENCE on BUSINESS, ECONOMICS, MANAGEMENT and TOURISM,
26-28 November 2015, Rome, Italy

Connotations Regarding Accounting Recognition of Intangibles in the Company's Performance

Tatiana Danescu^{a*}, Raluca Sandru^b

^a“ PhD Univ. Prof., Petru Maior” University of Tirgu Mures, 1 Nicolae Iorga Street, 540088, Tirgu Mures, ROMANIA

^b“ PhD. Univ. Assist., Petru Maior” University of Tirgu Mures, 1 Nicolae Iorga Street, 540088, Tirgu Mures, ROMANIA

Abstract

Nowadays the managers, investors and shareholders are seeking to identify the value sources of an economic entity in order to spot the most suitable destination for their investments. The context of the „new economy” concept stresses the importance of the intangibles assets that becomes greater and greater. Also, many international studies pointed out that performance and growth of the economic entities are driven by the intangibles assets owned, such as software, human capital, organizational structure, R&D investment. In spite of the increasing level of importance of these assets, many of them are not reported in the financial statements, are difficult trying to identify and also difficult to assess, but the endeavor should not be abandoned. This article is intended to show the way the intangibles assets are reported in financial statement of the Romanian economic entities and how they lead performance, growth and value for these companies.

© 2016 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license

(<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Peer-review under responsibility of the Organizing Committee of BEMTUR- 2015

Keywords: intellectual capital, human capital, value of an economic entity, performance

1. Tangible and intangible assets vs. tangible and intangible resources

Intangible resources, such as research-development expenses, innovations, the entity's network, employee skills, etc., are the foundation of the competitive advantage which sustains high-level, long-term performance of the

* Tatiana Danescu. Tel.: 40 0265 219034.

E-mail address: tatiana.danescu@gmail.com, avram_co@yahoo.com

economic entity. According to Danescu and Spatacean (2009), current and potential investors, as well as other parties interested in the evolution of an economic entity, are more interested about the information on the resources which determine competitive advantage. For this, we consider that financial situations and public information companies reveal should have as much data on these future-benefit generating assets as possible.

In the early nineties, a new concept started to emerge, in the literature and practice, about the importance of assets, especially intangible assets owned by economic entities. In particular, 'movement of intangibles', which received focus from managers, investors and those able to convey national laws and regulations. The value of intangible assets for the entities value and their performance started being acknowledged. Therefore, in the beginning of the 21st century, the importance of intangibles as a value and growth-generating factor was accepted by economists, investors and managers. (Lev and Daum, 2004)

Nowadays, there is a re-focusing of the economic development, from industry to knowledge. Industry-based economy used to emphasize owning tangible assets, while knowledge economy considers intangible assets a crucial resource for economic entities, as well as a key factor for competitive advantage, economic success and generating value for companies. (Lev, Canibano and Marr, 2005)

However, the value of the economic entity must be seen as the economic concept of "production function", according to which the entity's economic performance is generated by using three major classes of assets: physical, financial and intangible. (Gu and Lev, 2003).

We consider, the most important determinant of value creation in developed economies is formed by elements of economic entities often related to intangible, generated by them such as: staff expertise, quality of processes, computer programs, patents, brands, customer information, distribution channels, structure and organizational culture etc. These, in their capacity as intangible resources, are a significant source in obtaining economic performance, especially in entities whose business is more knowledge - intensive, without minimizing the role of possessing tangible assets.

Therefore, it should be stressed that resources are physical or virtual items of limited availability, by the possession and management of which future economic benefits can accrue. As regards to the economic entity or business, owned resources signify the entirety of elements whose allocation in employed activities according to the scope of activity must be efficient and completed with a management tool. (Danescu et al. (2011) Currently, when artificial intelligence and the internet put their mark on any economic activity, many modern authors understand that, in determining the created value, not only physical assets and financial capital must be considered, but also intellectual capital. (Gigante and Previati, 2010).

To develop business, economic entities must continuously exchange ideas, information, experiences and services, and profitability objectives cannot be achieved through organizational capacity other than by possession of intangible assets. Even tangible asset value of the company is given by the existence of intangible assets, such as technology-embedded products, brand products, and presenting their creative and artistic content. (Smith, 2002)

Stewart argues that the priority in owning assets is no longer holding tangible assets, but companies now seek to accumulate as many intangible assets. In the literature, intangible capital appears as: intangible assets, term used mainly by accountants; related experience or knowledge assets, a term used mainly by economists and intellectual capital, phrase generally used in management and law. (Fenyves, Toth and Tarnoczi, 2010)

Intangible assets or intangibles are defined by the International Financial Reporting Standards as assets that can be easily identified, non-monetary and intangible that are designed to be used in production, supply of goods or services, lease or management to bring future economic benefits to the entity holding them.

Some authors argue that intangible assets are divided into seven categories: brand capital, intellectual capital, structural capital, customer capital, relations with suppliers, goodwill and other. The category "other" refers to relational benefits from government relations and non-competitiveness clauses (Ruth, 2000). This, viewed in terms of recognition accounting rules are intangible resources, as they do not fulfill an essential criterion for recognition to be considered assets by accounting, namely, at present, they cannot be assigned a credible value.

Baruch Lev (1999), in an interview with Alan Webber, says it's very difficult to identify a comprehensive definition of intangible assets. They can be grouped into four categories thus revealing their defining characteristics: assets related to innovation, such as research and development expenses; entity's brand assets that determine the price of products and services of that company to be higher than other companies'; structural assets, for example, new ways to develop business; franchises.

After going through the literature, we find a multitude of generic definitions for intellectual capital and intangible assets. The intellectual capital can be defined by some authors as having the knowledge, experience, staff, organizational technology, employee skills. Most often, intangible assets and intellectual capital are used simultaneously in articles, being interchangeable.

However, we note that the term “intangibles” in foreign literature, or “intangibles assets”, in Romanian literature, is used mainly when defining intangible assets that determine future benefits for the economic entity and are recognized as assets in the financial statements.

Intellectual capital is a group of knowledge assets belonging to an organization and significantly contributing to improving the competitive position of that organization by adding value to all stakeholders. (Marr and Schiuma, 2001)

We believe that there is no universal definition of intellectual capital. Intellectual capital is divided into several categories, depending on intangible assets referred to. The most common approach, shows the intellectual capital grouped into the following main components: human capital, structural capital and relational capital. (Shakin and Barajas, 2014)

Other authors present intellectual capital only in terms of human and structural capital. The human is: the combination of knowledge, skills, experience and individual capabilities of the entity's employees; combination of four factors: genetic inheritance, education, experience and attitude towards life and business; competence, attitude and intellectual abilities of employees. Structural capital is the infrastructure that supports the human factor and encourages it to create and share knowledge. From the shareholders' perspective, the capital can be owned and sold and may include: data, strategies, entity rules, etc. (Diez, M. L. Ochoa and Santidrian, 2010)

Another approach to grouping intellectual capital shows the following vision: an independent component of intellectual capital, dependent component and complementary assets that may be internal or external.

Gigante and Previati (2010) give us interesting definitions which reveal, in a simple and meaningful way, the difference between intellectual capital components:

- human capital is knowledge that employees can take with them when they leave work: education, work experience, particular experiences, productivity, and communication skills;
- structural capital is all that remains in the entity after the employees left, with reference to knowledge: philosophy of management, organizational culture, information system, materials and textbooks, administrative staff;
- relationship capital: external relations of the entity: brand, market reputation, customers, distribution channels, franchises, collaborations, etc.

We can, also, define of intellectual capital is the ability to assess its components. Thus, there are 3 types of intangible assets which form the intellectual capital: intellectual property (patents, trademarks, copyrights and royalties), separately-identifiable intangible assets (know-how, networks, databases, processes etc.) and inseparable intangible assets - goodwill. (Lagrost, Martin, Dubois and Quazzotti, 2010)

I noticed that the literature uses a different term with the intellectual capital and intangible assets: knowledge or knowledge capital. Most often, we come across this concept as having the same meaning as intellectual capital, forming all intangible resources of an economic entity. However, structural capital is also described as organizational capital, both having the same meaning. In the literature, the terms intangibles, intangible assets, intellectual capital and knowledge/knowledge assets are terms used interchangeably, but most often intangible assets are presented as intellectual property entities (accounted assets such as copyrights, patents etc.).

It is difficult to find a definition and measurement of intellectual capital is difficult because it is a complex concept whose content and significance has been widely debated in the literature. However, the researchers consider as definitions the following variations of the idea: intellectual capital is an intangible source of an economic entity that adds value to that company, consisting of human, relational and structural capital.

We believe and herein use the term intellectual capital to represent intangible assets as a whole, both those in the financial statements and those "invisible" to the people outside the economic entity. We align to the idea presented by Brooking, whereby intellectual capital is a combination of all intangible assets in which the entity operates. (Brookings, 1996)

2. Intellectual capital and entity's performance

For the global economy, intellectual capital research is an important contribution to clarifying and full understanding of competitiveness. We also consider the value of intellectual capital owned by economic entities as representative of the skills and potential future growth of the business itself.

Accounting and management control system must move forward to another reporting model and identify activities and processes that determine value creation for shareholders. Thus, Lev presents "value chain entity" that divides intellectual capital, determinant of value creation in three categories corresponding to the three stages (Lev and Daum, 2004):

- discovery and learning: internal renewal, acquisition of skills, communication relations;
- implementation: intellectual, technological feasibility, the internet;
- marketing: customer, performance, prospects for growth.

However, in terms of intellectual capital, it is considered important for the economic entity to develop a concept (part of organizational infrastructure) covering all sources of value creation, of the above, and to adapt it to the market and technological developments. Intellectual capital, as a result, will increase productivity, profit and shareholder value. (Lev and Daum, 2004)

Technology, brand name, reputation, corporate culture, customer information, represent precious intellectual capital to the competitive strength of economic entities. These "invisible" resources are often the only successful power source for successful entities. To maintain a high level in terms of performance, entities must hold a large amount of intellectual capital. (Villalonga, 2004)

"Investing in intelligence", the essential component of intellectual capital is the main indicator of well-being of an economic entity. Human capital, as defined, generates major impacts on business performance. (Pop and Fat, 2013)

Knowledge resources' map shows active knowledge as intellectual capital, which is divided into (Marr and Schiuma, 2001): stakeholders resources: stakeholder relations and human capital; structural resources: physical infrastructure and virtual infrastructure, including culture, practices and routines, and intellectual property.

The above-mentioned structural resources above, are the main determinant of (Riahi - Belkaoui, 2002):

- entity's capacity and growth;
- how resources are engaged in activities, so as to generate new products and services;
- new physical technologies;
- new strategic resources.

Based on this idea, Belkaoui tested the relationship between intellectual capital, seen primarily as structural resource, and future performance of the entity, measured as net value added that was created. The test results argue that these intangible assets are a real source for wealth creation and net value added is a relevant measure of wealth creation. Intellectual capital can be a vector, a determinant of overall performance and a determining factor in creating shareholder value.

3. Accounting recognition of intellectual capital

Regarding the accounting recognition of human capital, the economic entity should consider as 'asset' only part of it, i.e. those assets that can be identified, determine future economic benefits and are controlled by the entity. Recognition, reporting and evaluation of intangible assets in Romania have the following regulations:

- OMF no. 1802/2014: Regulates the treatment for the accounting recognition of intangible assets in individual financial statements of companies in Romania.
- IAS 38 – Intangible assets: Regulates the accounting treatment of recognition of intangible assets in financial statements.
- IFRS 3 – Mergers: Prescribes the accounting treatment for intangible assets that can be segregated and have their origin in contractual rights or other legal rights, as well as intangible assets that meet the segregation character of the definition.
- GN 4 – Evaluation of intangible assets: Concentrates on explaining the approaches, principles and different values that should be taken into consideration when evaluating intangible assets.

At the same time, we present the components of intangible assets with regulations the company take into account for recognition and financial reporting, and the evaluation of these assets to reflect the correct image as shown by the value of an economic entity:

- OMF no. 1802/2014: Foundation expenses - Development expenditure - Concessions, patents, licenses, trademarks, rights and similar assets, if they were acquired for consideration - Goodwill, since it was acquired for consideration - Other intangible assets - Advances and intangible assets in progress.
- IAS 38 – Intangible assets: Software - Patents - Copyright - Movies - Client Lists - Rights regarding mortgage - Licenses - Import quotas - Franchise - Relations with customers and suppliers - Market share - Marketing Rights.
- IFRS 3 – Mergers: Intangible assets related to marketing; Customer related intangible assets; Intangible assets from the artistic field; Intangible assets such as contractual; Intangible assets such as technological.
- GN 4 – Evaluation of intangible assets: Rights (Lease contracts - Distribution agreements - Employment contracts - Conventions - Financing agreements - Supply contracts - Licenses / permits /authorizations - Certificates / attestations - Franchise agreements); Relations (Trained workforce - Relationships with consumers and dealers); Intangible assets grouped (goodwill); Intellectual property - Inventions - Copyright - Trademarks - Used Technology (formulas, recipes, specifications, databases, trade secrets, know-how, customer lists, etc.) - Research projects – ongoing development.

As we can see, for the purpose of evaluation, GN4 considers several elements of intangible assets. Thus, we must remember the continuous controversy between accountants and appraisers, obviously supported by regulations in force, on the definition and inclusion of intangible assets. Evaluators emphasize, for example, the importance of employees for the overall value of an economic entity, fighting for their inclusion in the assets, although the accounting and financial reporting standards consider them expenses.

4. Study case

Our research focuses on the study of economic entities listed on BSE, Class I and II, lending institutions excluded (different from the rest of the economic entities because of their particularities); the envisaged timeframe is 2006-2013. We must point out that the data for 2013 was collected from preliminary financial statements submitted by entities on the BSE website.

Preparation of financial statements for the timeframe of 2006-2013, may be phased as follows for entities we studied:

- 2006-2011 financial statements based on accounting regulations compliant with European directives: from 2006 to 2009, OMPF 1752/2005 was applied, then replaced by OMPF 3055/200928;
- 2007-2011 economic entities in question have the option to produce a second set of financial statements for their needs, based OMPF 1121/2006; in regards to state institutions, however, entities shall prepare financial statements in conformity with European directives ;
- 2012-2013: In 2012, they prepare financial statements in conformity with EU directives which they restate and from 2013 must draw just situations compliant with IFRS for their own information needs and well as for the relationship with the state.

In this study we analyze the comparative evolution of intangible assets and the value of an economic entity in the period 2006-2011, for sample entities defined above.

In order to quantify intangible assets, we used information presented in financial statements of entities in question. Economic entities accounting purpose is to provide information on the realities of the activities necessary for all those interested in making decisions related to the relationship with that entity. The role of accounting is performed via financial statements reveals which summarize the financial position of that entity (Danescu, 2003).

Thus, we calculated the value of intangible assets in two ways: as actual value in the financial statements (IN = value of intangible assets) and the added value of intellectual capital coefficient (VAIC).

Looking at the value of a company in terms of performance, easily identifiable by all those interested, we consider the market-to-book value (M_B_V) the item that quantified the value of an economic entity in our analysis.

$$M_{B_{Vit}} = \frac{MV_{it}}{BV_{it}} \quad (1)$$

M_B_Vit = market to book value of entity I for year t;
 $MVit$ = market value of the entity i for the t year;
 $BVit$ = book value of equity of the entity i for the t year;

$$INit = \frac{INit}{BVit} \quad (2)$$

$INit$ = accounting value of intangible assets for the economic entity i, in year t
 $BVit$ = book value of equity of the entity i for the t year
 Where, $i = 1, 2 \dots 32$, the entity; $t = 1, 2 \dots 8$, the year of reference.

Our study results show a low value of intangible assets reported in the financial statements for the whole period study. These issues confirm that intangible assets created internally as well as client lists, some systems etc. are not recognized as to be accounted for.

Financial statements of these entities reveals a larger volume of intangibles for 2012, maintained also in 2013. Corroborating the observation with the fact that, since 2012, economic entities considered in this study must prepare financial statements under IFRS, makes us explain this growth in terms of accounting registration of these assets.

Observing the evolution of M_V_B , we conclude that the studied companies created value for the shareholders since 2006 till 2008 and destroyed value for the shareholders between 2009 and 2013. That means that in 2006-2008 the market value was bigger than the book value of the equity and for 2009-2013, the book value of equity exceeds the market value.

Comparative evolution of IN and M_B_V reinforces the fact that the market value of an entity is determined by intangible assets not recognized in the financial statements.

Our study look forward to see the relationship between the value of an economic entity and the added value of intellectual capital coefficient (VAIC) for 2006-2011.

VAIC variable analysis indicates positive values for the sample studied and has approximately constant values for 2006-2011. A turnaround in the evolution can be observed in 2012-2013, when maximum values of this variable are registered.

$$M_{BVit} = \frac{MVit}{BVit} \quad (3)$$

M_B_Vit = market to book value of entity I for year t;
 $MVit$ = market value of the entity i for the t year;
 $BVit$ = book value of equity of the entity i for the t year;

$$VAICit = \frac{VAit}{CAit} + \frac{VAit}{CUit} + \frac{CSit}{VAit} \quad (4)$$

Where, i = economic entity, $1, 2 \dots 32$;

t = year of reference;

$VAICit$ = intellectual capital value-added coefficient for the entity in year t.

$CAit$ = capital assets = net accounting assets or own capital for entity I in year t;

$CUit$ = human capital for entity i in year t (wages + social costs);

$CSit$ = structural capital for entity i in year t;

$CSit = VAit - CUit$;

$VAit = Pexplit + Csalit + Amortit + Depreciereait$

Where, $VAit$ = value added for entity i, year t;

$Pexplit$ = exploitation profit of entity i in year t;

$Csalit$ = employee costs or human capital (wages and social costs);

$Amortit$ = accounting value of amortization;

$Depreciereait$ = accounting value of depreciation for entity i in year t.

Our comparative evolution of VAIC and M_V_B reveals the fact that VAIC does not determine the evolution of market to book value. That means that *the market value is not induced only by the values recorded in the financial statements. So, all those interested in an economic entity should seek information beyond the recorded ones.*

5. Conclusions

Given those expressed by Gu and Lev (2003), we think important to distinguish between intangible resources and intangible assets shown in accounting.

Also, we believe that intellectual capital resources are an explanatory factor of an economic entity value and of its performance.

Economic performance is determined by the value of intangible resources, most of them not registered in accounting. The assumption that intellectual capital or knowledge is valuable in the development of Romanian economic entities, is confirmed. However, we consider that measuring intellectual capital is of great interest, both for managers - helps in tangible and intangible resource allocation decisions, as well as shareholders, investors seeking information about long-term performance of economic entities.

The arguments we have put forward could be considered determinant factors in reanalyzing the rules underlying the accounting recognition of intangible resources, bringing new changes to the financial reporting framework applicable accounting playback position and financial performance of organizations. This is because parties interested in the value of an economic entity require as much information as possible on intangible assets and thus their detailed reporting in the financial statements of the company would add to stakeholders' awareness.

The authors argue that current knowledge assets and their determinants fail the recognition test. Legislative authorities have not yet developed an adequate system of reporting them to provide investors and all stakeholders the information necessary for investment and credit decision-making.

The absence of detailed information about intellectual capital thus has consequences, both for investors and for the entity, in general. However I noticed that international and European economic guided by research in intangible resources, volunteered information about intellectual capital they own, just to help those who want to invest or to know the performance of entities.

Thus, it is appropriate to point out some aspects that we believe to be important in the development of norms and standards relating to intangible assets to convert "invisible" value of the entity to "visible value":

- capitalization expenses such as expenditure on research, advertising, recruitment and training, i.e. the transformation of these operating expenses in non-movable assets;
- considering company employees as assets, because they are considered current operating expenses, when in fact, they are investments made by the entity in order to bring future benefits, thus representing one of the most important resources of the entity;
- accounting internal audit as an investment and not as a current operating expense etc.

References

- Brooking, A., (1996). Intellectual capital: Core assets for third millennium enterprise. *Thomson Business Press*, London.
- Danescu, T., Prozan, M., Danescu, A.C., 2011. Internal control activities: Cause and effect of a good governance of accounting reportings and fiscal declarations, *Annals Universitatis Apulensis Series Oeconomica*, 13(2), 339-349.
- Danescu, T., Spatacean, I., O., (2009). Analytical Procedures Used In Financial Audit for the Valuation of Portfolio Performances – Case Of Financial Investment Companies. *Annals Universitatis Apulensis Series Oeconomica*, 11(1), 24-31.
- Danescu, T., (2003). Gestionarea financiara a afacerilor. *Dacia Cluj- Napoca*, 189.
- Diez, J. M., M. L. Ochoa, M. B., Santidrian, A., (2010). Intellectual capital in Spanish firms. *Journal of Intellectual capital* 11(3), 348-367.
- Gu, F., Lev, B., (2003). Intangible assets. Measurement, drivers, usefulness. Working Paper Boston University and New York University 5, 1-51. available at http://smgapps.bu.edu/smgnet/Personal/Faculty/Publication/pubUploads/Gu_Feng_05.pdf?wid=1482.
- Gigante, G., Previati, D. A., (2010). Intellectual capital and banking's performance. Some empirical evidence from Italian Banking System. In: Fiordelisi, F., Molineux, P. and Previati, D. (Eds), *New issues in financial institutions management*, Palgrave Macmillan studies in banking and financial institutions, *Palgrave*, 41-59.
- Fenyves, V., Toth, R., Tarnoczi, T., (2010). Intellectual capital valuation using Monte Carlo simulation, *The Annals of Oradea University I(1)*, 423-429.

- Lagrost, C., Martin, D., Dubois, C., Quazzotti, S., (2010). Intellectual property valuation: how to approach the selection of an appropriate valuation method. *Journal of Intellectual Capital* 11(4), 1469-1930.
- Lev, B., (1999). New math for a new economy (A. M. Webber, interviewer) available at: <http://www.fastcompany.com/38859/new-math-new-economy>.
- Lev, B., Daum, J. H., (2004). The dominance of intangible assets: consequences for enterprise management and corporate reporting. *Measuring business excellence* 8(1), 6-17.
- Lev, B., Canibano, L., Marr, B., (2005). An accounting perspective on intellectual capital. In: Marr, B. (Ed.). *Perspectives on intellectual capital. Multidisciplinary insights into management, measurement and reporting, Burlington, USA*, 1-14.
- Marr, B., Schiuma, G., (2001). Measuring and managing intellectual capital and knowledge assets in new economy organisations. In: Bourne, M. (Ed.), *Handbook of performance measurement*, London, 369-411
- Pop, F., and Fat, C., (2013). Quantitative and qualitative aspects regarding the analysis of the human resource of an economic entity, available at: http://conferinta2013.academiacomerciala.ro/_VOLCONF2013PDF/volumconferinta/QUANTITATIVE%20AND%20QUALITATIVE%20ASPECTS%20REGARDING%20THE%20ANALYSIS%20OF%20HUMAN%20RESOURCE.pdf.
- Riahi-Belkaoui, A., (2002). Intellectual capital and firm performance of U.S. multinational firms: a study of the resource-based and stakeholder views, available at <http://ssrn.com/abstract=365580>.
- Ruth, S., (2000). Intangible asset valuation: Mission possible. available at: www.reocities.com/.../kmvaluationpaper2.rtf.
- Shakina, E., Barajas, A., (2014). Value creation through intellectual capital in developed European markets. *Journal of Economics Studies* 41(2), 272-291.
- Smith, A. D., (2002). Measuring intangibles: The asset value of advertising. Durham, NC: *Duke University*, available at: <http://econ.duke.edu/uploads/assets/dje/2002/amandasmith.pdf>.
- Villalonga, B., (2004). Intangible resources, Tobin's q, and sustainability of performance differences. *Journal of Economic Behavior and Organization* 54, 205-230.