

COMPARATIVE STUDIES ON THE DISCLOSURE OF INFORMATION ABOUT INTELLECTUAL CAPITAL IN FINANCIAL REPORTS OF ENTITIES IN DIFFERENT PARTS OF THE WORLD

**Cristina Gabriela COSMULESE (LELIUC), c.gabrielacosmulese@gmail.com
PhD student at Stefan cel Mare University of Suceava, Romania**

***Abstract.** There is a significant discrepancy between estimating the company's book value and its market value. In this scenario, standardization bodies come down to the need of developing new guidelines for the recognition, valuation and reporting of intangible assets. This article presents a comprehensive review of the literature, paying particular careful to empirical studies that would aid standard-setting bodies and decision-makers to demonstrate that intangibles are among the key determinants of the firm's financial position.*

As a result of the development of this practical example, we have concluded that, especially at the microeconomic level, the lack of consistent procedures or standards related to the reporting of intangible assets leads to the confusion and dissipation of "invisible" resources and at the national economy level the confusion is created because the value of the entities can not be assessed in the absence of any regulation to this effect. We believe that the implementation of a universally accepted microeconomic framework is not impossible, but not easy, due to the barriers and limitations of the traditional accounting system.

Keywords: intangible assets, international standards, disclosure, intellectual capital

JEL: M 41, M 16

Introduction

At the current stage of economic development, businesses gain market advantages not only because of the availability of an adequate material base and qualified staff, but also by using innovative technologies that are an effective tool for increasing return on production. Many organizations have started to make significant investments in areas that were not previously distributed. In addition to traditional assets such as patents and licenses, new ones have emerged - websites, databases, software and computer systems, trademarks and brands, loyal customer lists, and more. Intangible assets are becoming more and more firm in the day-to-day life of the company and are increasingly reflected in its financial statements.

The identification of intangible assets has attracted researchers from around the world and, as a consequence, many methods have been developed in the literature to quantify intangible assets. The large number of methods is probably the result of the fact that research on intangible assets and intellectual capital originated from the wishes of practitioners to create and develop sophisticated measurement tools and methods, which has made great progress.

In Kaplan and Norton (1992), Sveiby (2002), which developed a scoreboard model: the Balanced Scorecard; Annie Brooking (1996), who developed three methods of assessing intellectual capital recognized in the audit: cost-based approach, market approach and income approach; Sveiby (1997), who developed the intangible asset monitor; Edvinsson and Malone in 1997 suggested a method of preparing the annual investment of intellectual capital - Intellectual Capital Annual Report; In all of the above-mentioned works, over 30 different methods of quantification of intangible assets are identified. Therefore methods / models like Skandia Navigator, Balanced Scorecard, Intangible Asset Monitor, Value Creation Index, or Value Creation Pyramid are some of these frameworks among others that develop intellectual capital from the perspective of its assessment and reporting.

This paper is based on various empirical studies by researchers around the world who have analyzed the issue of quantification of intangible assets.

Some prospects go beyond simple accounting measures and consider that expenditure incurred as investment should be valued in line with return on investment (Mates, Cosmulese, Anisie, 2016, p. 68). Thus, Intellectual Capital (IC) and Knowledge Management (KM), based on the management of intangible assets, have become a factor of differentiation and competitiveness, the concept of intellectual capital being most often used in the literature when referring to intangible

assets . Considering the importance of this intangible element, more and more authors have attempted to describe and analyze the impact on the evolution of a firm's business, the studies conducted not taking into account the nature of the core business (from credit institutions and economic entities operating in different markets, to public, sanitary, educational institutions, etc.)

In his paper, Yahaya, (2009) argues that the Balanced Scorecard model would have inspired the development and implementation of other existing models in the field, the model being considered an illustration of "best practice" in accounting. Moreover, the author considers it not only a tool for measuring intangible resources but also a communication tool that provides insight into the process of creating added value in the future. According to the model and implicitly to the other measurement frameworks that it inspired, what matters in an economic entity are not just financial aspects, but also non-financial ones such as employee skills or customer relationships.

The conceptual framework of intangible assets by IAS 38

In accounting, disclosure is an important part of the communication process between entities and external users, especially investors. Entities present their results to users of information through the most common reporting type: financial reporting, in particular annual reports.

A more transparent representation of intangible assets in the current balance sheet is currently possible due to IAS / IFRS (notably IAS 38 "Intangible Assets", IFRS 3 "Business Combinations" and IAS 36 "Assets Depreciation," IFRS 13, "Fair Value"), some of which suffer major changes over time. International Accounting Standard IAS 38 - Intangible assets, paragraph 8, defines an intangible asset as "an identifiable non-monetary asset without a physical financial asset".

Omission of intangible asset information and implicitly intellectual capital may have a negative impact on the quality of shareholders' decisions or may lead to significant misstatements in the reporting of annual financial statements.

Intangible assets are a special category of long-term assets that, in the absence of a concrete form, can bring economic benefits tangible to society.

Controversial discussions about the capitalization of intangible investments are found all over the accounting literature. International accounting standards are concerned about this issue and generally require recognition of several intellectual capital items in the annual financial statements. If investors and analysts already collect money information about intangible assets in financial reports and find useful information then the need to supplement this information of voluntary disclosure of intellectual capital will decrease. Consequently, there should be an association between the recognized intangible assets and the voluntary disclosure of intellectual capital.

The biggest difficulty in accounting for intangible assets is the solution to the dilemma, therefore we consider international accounting standards (IAS / IFRS) is trying to answer the questions of figure 1, by providing a detailed guide on accounting for intangible assets at all stages of the accounting process, be it:

IAS 38

recognition and initial measurement of intangible assets, including those obtained through the merger of enterprises and created by the company itself

choice of accounting model after recognition of an intangible asset in the balance sheet - at initial or revalued amount

determination of useful life and damping

cessation of use and withdrawal of intangible assets

disclosure of intangible assets in financial statements

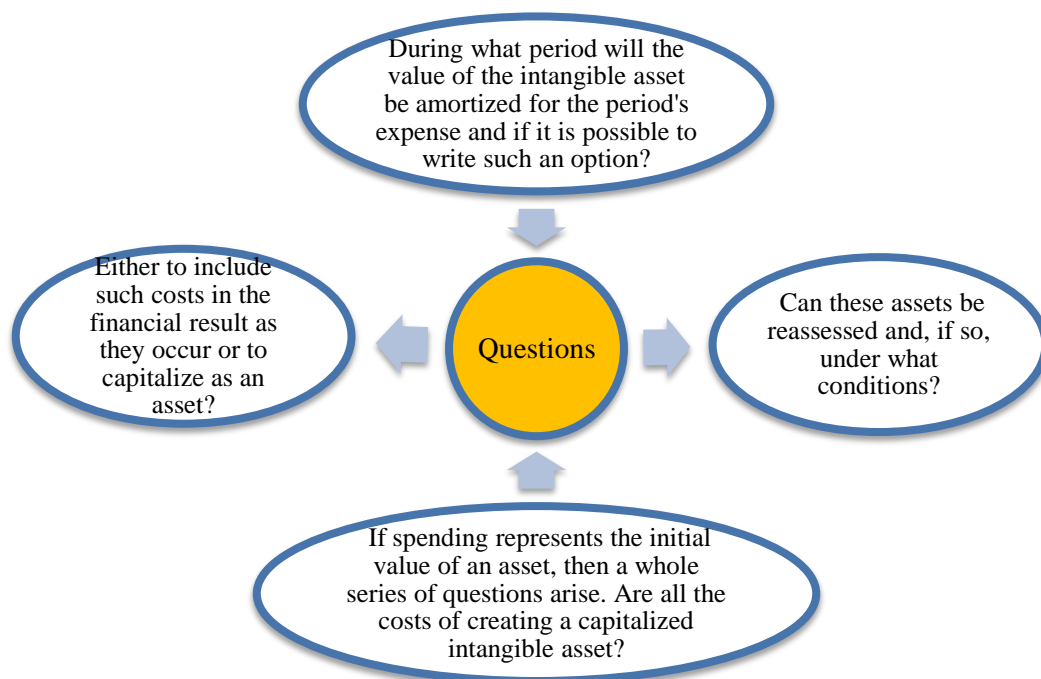


Figure 1. Difficulties in accounting for intangible assets

Source: Own elaboration

Content analysis as a method of measuring the disclosure of information about intellectual capital

In order to allow a better understanding of intangible asset reporting, it is essential to study the relationship between corporate attributes and intangible asset disclosure practices. Based on this objective, several studies have been conducted in the past to identify factors that influence the reporting of intangible asset information. This was another evolution in the literature of disclosing intangible assets. A picture of the empirical studies analyzed for this study is presented below in figure no. 2.

Intangible assets have become an integral part of the value creation process for any entity, this process requiring good external communication to various stakeholders such as shareholders, investors, tax authorities etc. Several studies have been conducted over time in different parts of the world to examine the magnitude of intangible asset reporting.

Scientists argue that the demand for financial reporting and disclosure of information arises from the asymmetry of information and agency costs between the company's managers and external investors. In addition, even in an efficient capital market, managers still have more accurate and

reliable information about the future of their companies compared to external investors. Studies also show that the failure of company managers to voluntarily disclose information negatively affects the perception of financial statements (Bloomfield and Libby 1996).

Guthrie and Petty (2000) conducted a content analysis of the annual reports of the top 20 Australian listed companies to determine the level of intellectual capital disclosure. For the classification of information, the authors started using the intellectual capital theory developed by Sveiby (1997). Using this theory, the authors found that external capital is the most reported category of intellectual capital within the sample. It has also been noticed that although it seems to be an awareness of the importance of intellectual capital, however, reporting practices were far from systematic. Moreover, there was no established and mutually accepted framework for reporting on intellectual capital.

Brennan (2001) conducted a similar study of 11 technology companies listed on the Irish scholarship. The annual reports of these firms were analyzed using the intellectual capital framework of Guthrie and Petty (2000). A comparison was made between market values and those of listed companies. With the exception of two of the 11 listed companies, significant differences were found between market value and book value, suggesting that Irish listed companies based on knowledge had a substantial level of intangible assets. According to Brennan, these assets were not fully mentioned in the annual reports, or they were expressed in a form that is too qualitative, with external capital being the category of intangible assets most often disclosed.

Subsequently, Bozzolan et al (2003) examined the voluntary intellectual capital reporting of 30 Italian non-financial corporations for 2001. The sample was randomly selected on two markets on the Italian stock exchange. The first group includes hi-tech companies, while the second group included companies from traditional industries. This study was modeled after Guthrie and Petty (2000), using the same intellectual capital framework with a slight change. Researchers found that, as in previous studies on intellectual capital reporting, the amount and attributes revealed were largely external capital. The authors claimed that the degree of disclosure of intellectual capital was determined, at least in part, by the type of industry and market capitalization.

For the first time, in 2003, Bontis conducted content analyzes on the annual reports of 10,000 Canadian companies using an electronic database (Compact D: Cancorp Plus). A list of 39 intellectual intellectual capital terms was sought to be present in the annual report using a computer word search program. In the course of this study, a small number of intellectual capital terms (7 out of 39) were reported in their annual reports.

Steenkamp (2007) examined volunteer volume reporting in the top 30 New Zealand listed companies (with market capitalization). The annual reports of the sampled companies for the year 2004 were analyzed. This author also used content analysis for collecting intellectual capital data. The results of this study dishonored previous research, as the author noticed that New Zealand firms showed a high level of intellectual capital reporting. The most reported category of intellectual capital was human capital, and the most reported element of intellectual capital was the employees.

Ali and others (2008) examined the annual reports of 22 companies listed on the Dhaka stock exchange in 2005-06 to determine the degree of intellectual capital disclosure by Bangladesh companies. The results showed a low level of intellectual capital reporting Internal capital represented the largest category of intangible assets. Researchers also found that most of the intellectual capital reports were qualitative rather than quantitative.

By reviewing the studies presented above, we can state that studies on the extent of intellectual capital disclosure have been conducted globally. For all but one (Bontis, 2003), the sample size was less than or equal to 70. Guthrie and Petty (2000) pioneered the use of Sveiby's intellectual capital framework to determine the degree of disclosure. Brennan (2001), Bozzolan et al. (2003), Goh & Lim (2004), Abeysekera & Guthrie (2005), Oliveras & Kasperskaya 2005, Sujun & Abeysekera 2009) they followed him using a similar frame.

In addition, despite the different criteria for firm selection and unit of measurement in content analysis, Australian studies (Guthrie & Petty, 2000); Ireland (Brennan, 2001); Italy

(Bozzolan et al., 2003); South Africa (April and others, 2003); Malaysia (Goh & Lim, 2004); Sri Lanka (Abeysekera & Guthrie, 2005); Spain (Oliveras & Kasperskaya, 2005); New Zealand (Wong & Gardner, 2004) has consistently shown that foreign capital was the category of the most frequently reported intangible assets. Most researchers found that disclosures were low and that they were also in a qualitative form, except for 2007, after which the shift to quantitative and high-level presentations was observed (Sujan & Abeysekera, 2007, Steenkamp, 2007).

In studies devoted to the valuation of the company, which show the usefulness or significance of information on intellectual capital, various methods of research and measurement of intellectual capital are used. Namely: market research based on events; various interviews; surveys and experiments with the capital of market participants; analytics of reports of companies or in another way, the method of content analysis (Abhayawansa and Guthrie 2010). Although each of these research methods provides a unique opportunity to understand the types of information of intellectual capital, the content analysis of financial reports has been particularly popular.

Disclosure of information about the company's intellectual capital has an impact on the company's value, and since intangible assets, which include intellectual resources, primarily affect the added market value, it can be concluded that disclosure of intellectual capital information will affect the market value added . (P. Astolfi, A. ZheniKatsavan and L. Paugam 2013).

Frank Schiemann, Kai Richter, Thomas Günther, (2015) analyzes the voluntary disclosure of 264 investor conference presentations and "roadshow" presentations of German companies DAX 30 in the years 2001, 2003, 2005 and 2007. Authors apply regression models to analyze the association between the recognition of intangible assets and the voluntary disclosure of intellectual capital and the control of other determinants of voluntary disclosure. The authors note that the extent of recognized intangible assets is significantly and negatively associated with the quantity and quality of the voluntary disclosure of intellectual capital. The authors point out that this association is mainly determined by the goodwill accounting.

According to Castila –Polo and Gallardo-Vázquez (2016)- "in the search for the different benefits of a socially responsible attitude, organizations can increase their human capital, seek technological factors that increase their structural capital and improve their relationships with external stakeholders, which will affect and increase their relational capital, namely, to obtain social intangibles".

As a result of the analysis of studies aimed at disclosing information on intellectual capital, the author compiled schematically in a figure the summary of the research results (figure 2).

Prospects of accounting development: the young researcher's view

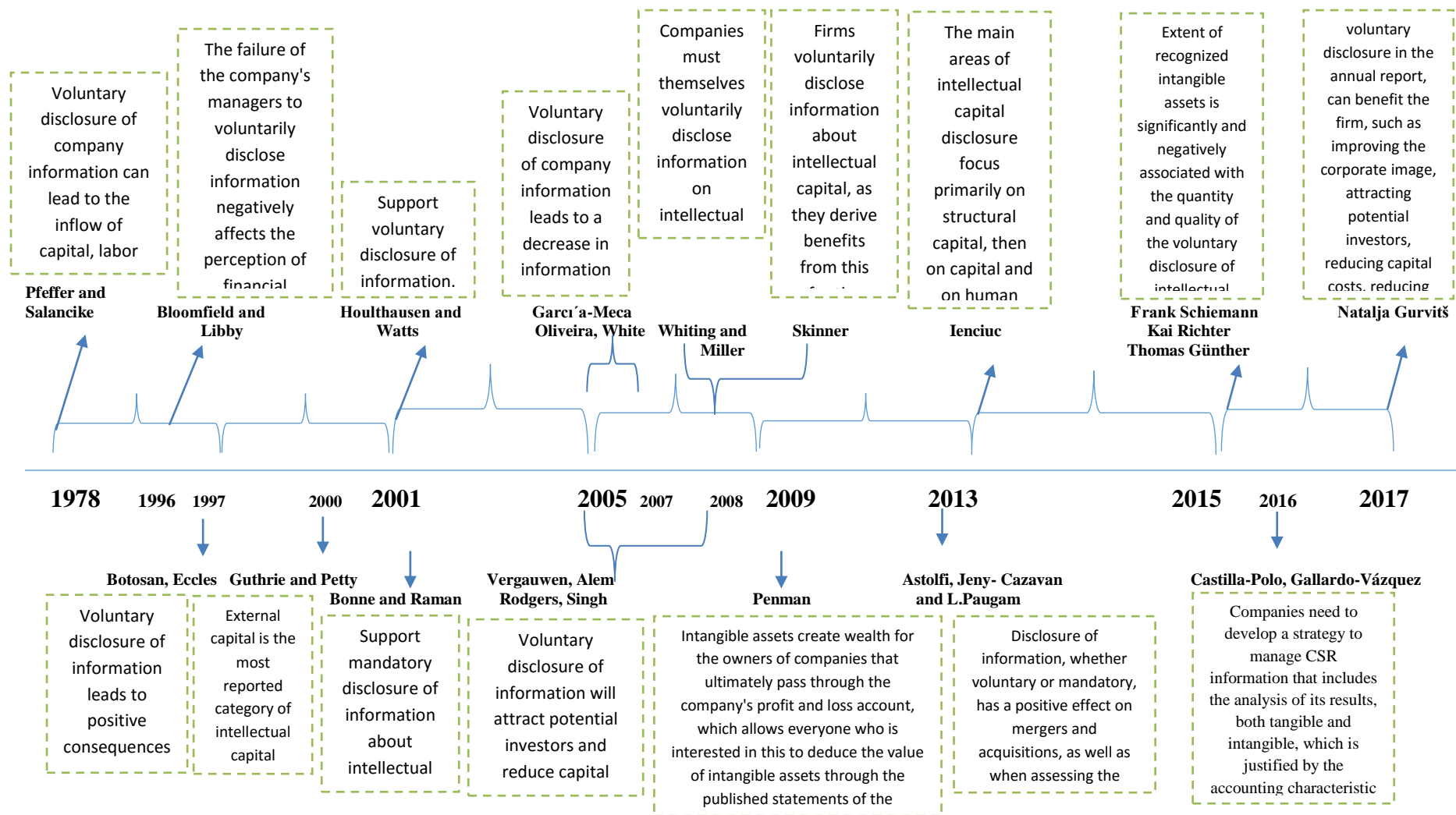


Figure 2. Empirical studies of the level of disclosure of intellectual capital

Source: Compiled by the author

Conclusions

We can assert that different models and theories of intellectual capital represent a generalization of the cost-factor management practice in some companies. In scientific research circles, the problems of determining intellectual capital are covered by different representatives, but until now there has not been a generally accepted approach to the definition of this concept. As a rule, they all rely on a structural description of the elements of intellectual capital.

We note that although all developed reporting frameworks have shortcomings and can not be generally accepted, they are an important step in the scientific field that can offer proposals and solutions to build a valid general framework, given that the reporting of intellectual capital, even in a reduced manner, highlights the importance it has in the economic life of an entity.

Following the development of this practical example, we concluded that, especially at a microeconomic level, the lack of consistent procedures or standards related to the reporting of human capital leads to the confusion and dissipation of "invisible" resources, and confusion is created at the level of the national economy because the value of the entities can not be appreciated in the conditions in which there is no regulation established in this respect. We believe that the implementation of a universally accepted microeconomic framework is not impossible, but not easy, due to the barriers and limitations of the traditional accounting system.

References

1. Ali, M.M., Khan, M.H.U.Z. and Fatima, J.K. (2008), "Intellectual capital reporting practices: evidence from Bangladesh", *Dhaka University Journal of Business Studies*, Vol. 29 No. 1, pp. 23-45.
2. Bhasin, M. And Shaikh, J.M. – „Intellectual capital disclosures in the annual reports: a comparative study of the Indian and Australian IT-corporations”, *International Journal of Managerial and Financial Accounting* · January 2011, , Vol. 3, No. 4, pp.379–402
3. Bloomfield, R. (1996), *Quotes, Prices, and Estimates in a Laboratory Market*. *The Journal of Finance*, 51: 1791–1808. doi:10.1111/j.1540-6261.1996.tb05226.x
4. Boone, Jeff P. and Raman, K. K., *On R&D Capitalization and Value Relevance* (Fall 2001). *Journal of Accounting and Public Policy*, Vol. 20, No. 3, 2001. Available at SSRN: <https://ssrn.com/abstract=2471115>
5. Botosan, C. (1997). 'Disclosure level and the cost of equity capital'. *The Accounting Review*, 72:323-349
6. Bozzolan et. al (2003), S., Favotto, F. dan Ricceri, F., (2003). "Italian Annual Intellectual Capital Disclosure: An Empirical Analysis". *Journal of Intellectual Capital*, 4 (4) : 543-558.
7. Brennan, N. (2001), "Reporting intellectual capital in annual reports: evidence from Ireland", *Accounting, Auditing & Accountability Journal*, Vol. 14 No. 4, pp. 423-36.
8. Cosmulese C., G. – "Countries with the most valuable brands that makes them the most intangible countries", *EJAFA*, Volume V/2017, pp. 35-45, ISSN 2344-102X
9. Cosmulese C.G., Grosu V., Hlaciuc E., (2017) "Intangible assets with a high degree of difficulty in estimating their value", *Ecoforum*, Volume 6, Issue 3(13), 2017
10. Cosmulese C.G., Grosu V., Hlaciuc E., (2017) -Definitions Attributed To Goodwill In The Economic Literature And Conceptual Delimitations Regarding The Way Of Valuation And Exposure Of This Patrimonial Component In The Balance Sheet, *Ecoforum*, Volume 6, Issue 3(13), 2017
11. Cosmulese –Leliuc C., G., Mateş D., Laurentiu Anisie L. -Particulars on approaches and methods used to value intangibles assets, *Management Strategies*, Editura Independența Economică, Pitești Anul IX, nr. IV (33) / 2016, pp. 28-39, ISSN 2392 – 8123
12. Eccles JS, Barber B, Jozefowicz D. 1998a.- Linking gender to educational, occupational, and recreational choices: applying the Eccles et al. model of achievement-related choices. In *Sexism and Stereotypes in Modern Society: The Gender Science of Janet Taylor Spence*, ed. WB Swann, JH Langlois, LA Gilbert, pp. 153–92. Washington, DC: Am. Psychol. Assoc.

13. [Francisca Castilla-Polo](#), [Dolores GALLARDO-VÁZQUEZ](#), (2016) "The main topics of research on disclosures of intangible assets: a critical review", *Accounting, Auditing & Accountability Journal*, Vol. 29 Issue: 2, pp.323-356, <https://doi.org/10.1108/AAAJ-11-2014-1864y>.
14. Frank Schiemann, Kai Richter, Thomas Günther, (2015) "The relationship between recognised intangible assets and voluntary intellectual capital disclosure", *Journal of Applied Accounting Research*, Vol. 16 Issue: 2, pp.240-264, <https://doi.org/10.1108/JAAR-11-2012-0076>
15. Grosu V. - Evaluarea capitalului intelectual, Studii și cercetări privind impactul cercetării și inovării asupra progresului economic, volumul 4, Studii Post-Doctorale În Economie- Disertații Post-Doctorale, Editura Academiei Române, București, 2013, p.411, ISBN 978-973-27-2290-9, ISBN 978-973-27-2294-7
16. Holthausen, R., & Watts, R. (2001). The Relevance of the Value Relevance Literature for Financial Accounting Standard Setting. *Journal of Accounting and Economics*, vol 31, no 1.
17. Ienciu Nicoleta – Teza de doctorat Teorii și practici ale capitalului uman ca element tripartit al capitalului intelectual în sfera contabilității, p.18
18. Natalja Gurviš- Intellektuaalse Kapitali Avalikustamisest Nasdaq Omx Baltic Väärtpaberibörsi Ettevõtete Näitel, Tallinn 2017
19. Nick Bontis N.- "Intellectual Capital Disclosure in Canadian Corporations", *Journal of Human Resource Costing & Accounting*, 2003, Vol. 7 Issue: 1, pp.9-20, <https://doi.org/10.1108/eb029076>
20. Penman, S.H. (2009). Accounting for intangible assets: there is also an income statement. *Abacus*, 45:3, pp 358-371
21. Petty R., Guthrie J.- "Intellectual capital literature review: Measurement, reporting and management", *Journal of Intellectual Capital*, 2000, Vol. 1 Issue: 2, pp.155-176, <https://doi.org/10.1108/14691930010348731>
22. Rosalind H. Whiting, James C. Miller, (2008) "Voluntary disclosure of intellectual capital in New Zealand annual reports and the "hidden value"", *Journal of Human Resource Costing & Accounting*, Vol. 12 Issue: 1, pp.26-50, <https://doi.org/10.1108/14013380810872725>
23. Skinner, D. J. (2008). Accounting for intangibles – A critical review of policy recommendations. *Accounting and Business Research*, 38(3), 191–204..
24. Standardele Internaționale de Raportare Financiară, Editura CECCAR, 2015
25. Steenkamp, N. and Northcott, D. (2007), Content Analysis in Accounting Research: the Practical Challenges. *Australian Accounting Review*, 17: 12–25. doi:10.1111/j.1835-2561.2007.tb00332.x
26. Subhash Abhayawansa, James Guthrie, (2010) "Intellectual capital and the capital market: a review and synthesis", *Journal of Human Resource Costing & Accounting*, Vol. 14 Issue: 3, pp.196-226, <https://doi.org/10.1108/14013381011095472>
27. Sujan, A and Abeysekera, I, Intellectual capital reporting practices of the top Australian firms, *Australian Accounting Review*, 17 (42), 2007, 71-83
28. Vergauwen, P.G.M.C. and van Alem, F.J.C. (2005), "Annual report: IC disclosure in The Netherlands, France and Germany", *Journal of Intellectual Capital*, Vol. 6 No. 1, pp. 89-104.
29. Yahaya, A. (2009), Using Balanced Scorecard to assess performance of banks in Ghana, MBA thesis, Blekinge Institute of Technology