

Is the Intellectual Capital Accounting Just a Management Fashion?

Dr. Franko Milost

*Faculty of Management – Department of Accounting
University of Primorska
Koper / SLOVENIA*

Abstract

Intellectual capital (IC) can be defined as intangible assets which allow a company to survive among its competitors. However, some questions still remain open. Thus we should define the elements of IC, establish how to determine the value of individual elements and their relations, and determine how the value of IC affects a company's book value. Since there are no appropriate answers to these questions, two further steps are suggested. The first one is to replace the term "IC" with the term "employees" and the second one is to evaluate employees in financial terms. Namely, not only human capital but also relational capital and structural capital are the results of the employees' work. Therefore, an employee's departure from a company also reduces the value of the other elements of IC.

Keywords:

IC, intangible assets, employees, book value, market value, measurement, valuation.

1. INTRODUCTION

During the last decades of the 20th century, the share of knowledge included in the total costs of products and services have grown very fast. It has become obvious that even the most modern equipment and tangible assets did not guarantee a company's survival among its competitors, neither it could guarantee a competitive edge. However, both can be assured by intangible assets, namely IC.

In recent years, the concept of IC has been a major topic of numerous discussions. However, the concept is related to some questions that still lack appropriate answers.

The article pleads Human resource accounting (Accounting for people) approach which "can be defined as the process of identifying, measuring and communicating information about human resources to decision makers" (Flamholtz 1974, 44). This approach is frequently emasculated as a consequence of the power and influence wielded by the accountancy profession, identified as a key agent of capital (more in Roslender and Stevenson, 2009).

In the first part of this article the concept of IC and stages of IC research are discussed. The main part of the article is focused on the four open questions, namely how to define the elements of IC, how to determine the value of individual elements and their relations, and how the value of IC affects a company's book value. In conclusion, some suggestions in terms of future discussions in this context are offered.

2. THE CONCEPT OF IC AND STAGES OF IC RESEARCH

Firstly, we should ask ourselves where the term IC is derived from and what it means. One possible definition is that (Edvinsson, 2013) "IC is derived insights about Head value, future earnings capabilities, based on Human Capital, as well as Organisational, Structural and Relational capital."

The literature, however, provides various definitions of IC. For example, Edvinsson and Malone (1997, 44) define it as the possession of the knowledge, applied experience, information technology, customer relationships, and professional skills that provide a company with a competitive edge in the market. Brooking (1998, 12) defines it as combined intangible assets that enable a company to function. Stewart (1997, xx) defines it as intellectual material that can be used to produce wealth □ as collective brainpower, the sum of everything everybody in a company knows that gives it a competitive edge. Further, Roos et al. (2000, 19) define IC as the sum of company members' knowledge and practical translations of this knowledge (such as trademarks, patents and brands, customer relationships, and processes). Harrison and Sullivan (2000, 34) define it as knowledge that can be converted into profit. Lev (2001, 5) defines it as a non-physical and non-financial claim to future benefits. Rastogi (2003, 228) defines it as the holistic capability of an enterprise to create value through its knowledge resources and similar. Based on the above, it is obvious that IC can be defined as intangible assets that allow a company to survive among its competitors.

Various authors use various terms for IC, such as "invisible assets" (Itami, 1987), "core competencies" (Hamel and Prahalad, 1990), "intangible resources" (Haanes and Lowendahl, 1997), "intangible assets" (Sveiby, 1997), and similar.

There are supposed to be three in IC research. According to Petty and Guthrie (2000, 155) the first stage is “focused on consciousness raising activities that strive to communicate the importance of recognising and understanding the potential of intellectual capital in creating and managing a sustainable competitive advantage. The aim of the first stage was to render the invisible visible by creating a discourse that all could engage in”. According to Dumay and Garanina (2013, 11) this stage was characterised by the use of “grand theories” to create awareness of IC concepts; these theories are misleading because they cannot be proved empirically. An example of such a theory is the concept of “market-to-book ratios” (Stewart, 1997).

In the second stage, the focus is on approaches to measuring, managing and reporting IC came to the fore and gathering evidence in support of this further development (Petty and Guthrie 2000, 156). In this stage, the impact of IC on value creation and financial performance is investigated. During the first and second stage, a common terminology of IC is developed and different approaches to defining IC are introduced, IC is defined and the difference between IC and intangible assets is explained (Dumay and Garanina, 2013).

However, the emerging third stage is characterised by research which critically examines IC in practice and discusses managerial implications of using IC in managing a company (Guthrie et al., 2012). They say that “the third stage was starting to gain considerable impetus and it will be interesting to observe how it will develop over the coming years”. Dumay and Garanina (2013, 20) conclude that “if researchers and practitioners continue with the second stage ICR ideologies and incrementally improve or invent new frameworks and models there is no doubt they will make some progress towards understanding and implementing IC practices. However, these changes will most likely be marginal at best because it seems unlikely someone will invent a new balanced scorecard or improve substantially on the current plethora of frameworks and models available”. Their conclusion is obviously not very optimistic.

3. OPEN QUESTIONS OF THE CONCEPT OF IC

IC seems to be a very popular topic in professional circles. Some questions have agitated both theoreticians and practitioners for more than two decades and many writings have been published on this topic recently. However, although there have been numerous fruitful discussions on the topic, some questions related to the concept of IC still remain open. The following may be questioned:

- (1) What are the elements of IC?
 - (2) How should the value of each element be defined?
 - (3) What are the relations among the elements?
 - (4) How does the value of IC affect a company's book value?
- Let's take a detailed look of these questions.

Elements of IC

The literature gives various definitions of IC in light of its elements. Stewart (1997, 253), for example, defines it as the sum of human capital and structural capital. The author distinguishes between the IC that goes home at night (human capital) and that which remains in the company (structural capital). In addition, he defines structural capital as the sum of relational capital and organisational capital. Edvinsson and Sullivan (1996, 358-359), Edvinsson and Malone (1997, 11) and the Swedish Skandia insurance company (The Trade and Industry 1998, chapter 3, 11) define it in the same manner.

Petrash (1996, 366) defines it as the sum of human capital, relational capital and structural capital. He defines human capital as the knowledge, experience, competencies, skills, and know-how of the people in a company. Relational capital comprises the external relationships of a company (i.e. customer loyalty, goodwill, supplier relations), while structural capital comprises a company's capability to meet market requirements (i.e. patents) as well as the knowledge embedded in a company's organisation, processes, and culture. This definition is also used by Lynn (1998, 14) as well as in SMAC (1998, 13) and FMAC (1999, 6) studies.

Brooking (1996, 13) defines IC as the sum of human capital, relational capital, structural capital, and intellectual property rights. She defines human capital and relational capital similar to Petrash, however, she defines structural capital not only as the capital embedded in a company's organisation, processes and culture, but also in intellectual property rights (patents, licenses, trademarks, etc.).

Chen et al. (2004, 202) define IC as the sum of human, structural, innovation, and customer capital.

Apparently, there is no single definition of the elements of IC. In addition, the literature on IC lacks answers to some other important questions. Therefore, we can ask whether the elements of IC are the same for all companies. If the answer is negative, we can further ask what factors influence different elements.

Defining the value of the elements of IC

There are several studies on valuating the elements of IC. It should be emphasized that in all cases the non-monetary approach of valuation is employed. In accordance with the accounting standards intangible assets are only those that meet the criteria for their recognition in financial statements and are as such expressed in monetary term (Jerman et al. 2010).

Chen et al. (2004), for example, designed a measurement model and a qualitative index of IC. Ordóñez de Pablos (2004) defines the value of structural capital as knowledge value embedded in organisational processes, structures, technologies, policies, and culture, etc. Her two-phase research includes eight companies from four countries (one Austrian company, three Danish, three Spanish, and one Swedish). The purpose of the first phase was the building of a template for an IC report on a company's structural capital. The second phase provided an IC report for all eight companies. The research findings showed that internal benefits manifested in better management are not the only favourable outcome of IC measurement.

There are also other approaches as to how to value IC. Liebowitz and Suen (2000), for example, discuss some known measurement parameters of IC and their limitations.

Further, Guthrie (2001) presents achievements in the area of measuring and reporting IC, and suggests some new areas of further investigations.

M'Pherson and Pike (2001) present an approach for measuring IC in hotel organisations and think about the possibilities of enhancing the value in it.

Chen (2003) points out that there have been many different schemes presented with regard to measuring IC in recent years. However, in his opinion, the measured values of IC based on such schemes do not affect a company's market value or its business strategies, which is the greatest deficiency of these models. He proposes game theory to measure IC.

Rodgers (2003) tries to classify the elements of IC in order to present them with other items in classic financial statements.

Andriessen (2004) tries to establish the reasons for valuating or measuring IC and to suggest reliable methods.

Kannan and Aulbur (2004) made an overview of the known methods of measuring IC and their disadvantages. They present a method by which a company's employees, processes and technology are related to social and financial measures.

The above-mentioned trials of valuating IC could be a good ground for further investigation in this area, although the reliability of such results is not easy to test in practice. However, I am also of the opinion that the designed methods underestimate the value of an employee or group of employees within a company.

Of course, there are also other opinions. Andriessen (2001, 205), for example, states: "...some practitioners have the tendency to treat intangibles the same way we treat tangible assets, by trying to force them into the double-entry bookkeeping system. They forget that the very nature of intangibles contradicts the ground philosophy of this system."

Based on the above mentioned, it is obvious that Andriessen is of the opinion that it makes no sense to value some elements of IC, which further means that it is not reasonable to value all IC. The most important reason for such a conviction seems to lie in the fact that such evaluation is very demanding and is a highly professional task to tackle. The question is if we should cease the research only because the goal cannot be easily reached. However, Dumay and Rooney (2011, 352) conclude that it is possible to effectively implement IC practices without using concrete IC measures.

Relations among the elements of IC

Once we define the elements of IC, we should ourselves what the relations among individual elements are and how to define them. Some authors are of the opinion that the difference between a company's market and book value equals its IC value. Pike et al. (after Andriessen, 2004, 234) are of the opinion that all the resources of a company combine and interact with each other. They argue that the equation: market value = book value + intellectual capital value is incorrect because the variables are not separable as required by the equation.

It is obvious that there is no linear relationship between the elements of IC. A low value of any element of IC lowers the value of other elements, since it jeopardizes the function of an organisation as a unit. However, the authors do not provide any alternative suggestion to explain the nature of the relations among the elements of IC, and whether these relations are the same in all companies. Moreover, they do not question whether all elements are equally important for a company, and if not, what element is the most important. There have been some trials to answer the above questions, but the reliability of the results is difficult to test in practice. Chen et al. (2004), for example, found a remarkable relationship between the IC elements. Obviously, there are still some questions that lack appropriate answers in the area of relations among the elements of IC.

There are also other opinions, e.g., Andriessen (2001, 207) states: "It is always a combination of intangible assets that makes a company unique and successful. And this is where the classification schemes of IC fail. By separating human capital from structural capital, customer capital from organisational capital, innovation capital from process capital, we lose track of the correlation and synergy between the categories. It is the synergy between intangibles that creates uniqueness and wealth, not the individual assets."

Apparently, Andriessen believes that IC should be treated as a unit.

However, Dumay (2012, 4) suggests that "managers should strive to better understand the possible causal relationships between their people, processes and stakeholders (human, structural and relational capital) rather than adopting someone else's mousetrap". This is also a suggestion of "dynamic" approach (Meritum 2002) which assumes that none of the IC components alone are sufficient for successful performance and that they

need to be combined to generate value. Therefore, IC becomes a phenomenon of interactions, transformations and complementarities which cannot be understood merely by focusing on resources, but also on processes, rules, activities and relations (Giuliani 2013, 129). This dynamic approach investigates the relations between IC components and the relations among IC and financial performance (Cuganesan 2005, Cuganesan and Dumay 2009, Marr et al. 2004). In fact, this view is very similar to suggestions given in the conclusion of this article.

The affect of IC value on a company's book value

A company's book value is the value of its shareholders' equity, while the market value of a company equals the number of shares times the price per share. As the market value of a successful company may exceed its book value by several times, there is a gap between the two.

Professional circles are convinced that the growing gap between book and market value must be bridged. Upton (2001, 60) states: "If accountants put all the assets and liabilities into financial statements, and they measured all those assets and liabilities in the right amounts, the shareholders' equity would equal market capitalization."

The above mentioned statement confirms the fact that a company's market value may be the result of numerous factors that are not necessarily linked with its successful business operations. Examples of these factors are: monetary policy (interest rate), tax policy (tax on profits), and similar.

The value of IC does not affect a company's book value. The reason for this lies in the fact that the value of IC is not disclosed. The above-mentioned methods of valuating IC are in fact measuring methods. Measuring gives no real values of individual elements of IC and therefore no real value of the total IC in a company. A precise definition of the terms "valuating" and "measuring" can be found in Andriessen (2004, 238).

Some authors are rather satisfied with the situation. Rutledge & White et al. (after Andriessen, 2004, 234) are of the opinion that it is not the objective of the balance sheet to estimate the market value of a company. Andriessen is of the same opinion. He states that not only there is no need to make book value equal to market value, above all it is also impossible (2001, 211).

The first part of the statement opens up some important questions. Firstly, what the real value of a company is: book value (it may be called "paper value") or market value (the price a prospective buyer of shares is ready to pay)? If book value is the real value of a company, does it mean that buyers of shares buy something that does not exist? Furthermore, if market price is the real price of a company, does it mean that our books of account and balance sheets are not credible? In that case we may ask ourselves: What is the purpose of a balance sheet or accounting in general, or what sense does it make to keep books of account and balance sheets if they give no real portrayal of a company's business operations in the past and no reliable information that enables decision-making in the future?

The second part of the statement says that it is not possible to bridge the gap between the book and market value of a company. It is obvious that bridging the book and market value of a company is a rather demanding job. However, if the goal is not easily reached, that is no reason to give in and not at least try to achieve it. Accounting professionals should meet the challenges and strive to find answers to all questions relevant to a company's business operations.

Other authors are of the opinion that the difference between a company's market and book value equals its IC value (e.g. Edvinsson & Malone, 1997, 12 and Sveiby, 1997, 18). Such a viewpoint is based on the concept of fair value. The latter is defined as a price that is acceptable to the knowledgeable parties (buyer and seller) in an arm's length transaction. It is presumed that both the seller and the buyer know what they are selling or buying and that the price is acceptable to both. It is obvious that neither of them is selling or buying something that does not exist.

However, Andriessen disagrees with the above and states: "Comparing the gap between market value and book value of companies with IC is like comparing the difference between an apple and an orange with banana." (2004, 234)

Dumay (2012, 6) agrees with Andriessen and identifies three weaknesses of market-to-book ratios as a representation of IC, as follows:

- a) the difference between market and book values cannot be entirely attributed to IC due to anomalies in historical cost accounting for assets;
- b) the continual fluctuation of share prices distorts the value of IC;
- c) the difference in value is a singular measure of IC that does not give a breakdown of the individual components of IC.

The author concludes that the concept of market-to-book ratios is just a concept with inherent flows.

However, the value of IC, regardless of its definition, is not disclosed and so does not affect a company's book value. There are currently no models for valuating individual elements of IC and thus also no model to value the total IC of a company. The existing models are models of measuring and not valuating IC.

There are also other open questions. One of them is the relationship between IC and financial performance. Riahi-Belkaoui (2003) examines this relationship using a sample of US multinational firms. The measure used for financial performance is value added. The author establishes that there is a positive relationship between

the variables. Likewise, Chen (2005) finds out that firms' IC has a positive impact on market value and financial performance and that may be an indicator of a future financial performance. On the other hand, Firer and Williams (2003) investigate the relation between the efficiency of the value added by the major components of a firm's resource base (physical capital, human capital and structural capital) and three traditional performance measures (profitability, productivity and market valuation). The empirical findings suggest that physical capital remains the most significant underlying resource of corporate performance. However, Dumay (2012) concludes that empirical and case evidence is inconclusive and far from achieving a solid scientific consensus. Is it, therefore, the IC accounting just a management fashion? (see Fincham and Roslender, 2003).

4. WHAT ABOUT THE FUTURE?

Based on the above, it is obvious that the existing concept of IC seems to be related to four open questions or weaknesses. There is no common standpoint among professionals in this field as to what the elements of IC are, how to value them, and what the relationships among them are. Furthermore, since the value of the IC of a company is not disclosed (which is the fourth weakness), it is logical that it cannot affect the book value of a company. Roslender and Fincham (2001, 390) summarise the position: "...if we are to be successful in accounting for intellectual capital, we should not expect too much from the models of accounting that are most familiar to us".

This situation causes two difficulties, namely by preventing:

- a) the accounting services from playing an optimal role in a company;
- b) the directors from reasonably treating their most important element – the employees.

The accounting services have two most important tasks: the first one is related to the past, i.e. they need to reveal the past events of company's business operations, and the second one focuses on the future, i.e. they provide information that represents the basis for business decision-making. Knowing the value of goods is crucial for proper management and testing of the appropriateness of such management.

The above mentioned weaknesses of the concept of IC can be overcome by:

- a) replacing the term "IC" with the term "employees";
- b) evaluating the employees in financial terms.

Replacing the term "IC" with the term "employees" is based on the assumption that not only human capital, but also relational capital and structural capital are the result of the employees' work. An employee's departure from a company also reduces the value of the other elements of IC. An employee who leaves a company can "steal" the buyers, suppliers and business secrets of the company. Additionally, the departure of an employee may jeopardize the organisational structure of a company (its function and further development).

This definition of the concept of employees may eliminate the first and the third weaknesses of the concept of IC.

Therefore, as discussed above, there are only two remaining weaknesses of the concept of IC, namely the problem of valuating its elements and the influence of their value on a company's book value. Replacing the term "IC" with the term "employees" gives an opportunity to eliminate these weaknesses by evaluating a company's employees in financial terms.

There are numerous methods available to evaluate employees. The majority of them were designed in the sixties or seventies of the 20th century. Some of them are non-monetary, others monetary. Among the most popular non-monetary models are:

- a) the Michigan model (Likert et al., 1969);
- b) Flamholtz's model (1972);
- c) Ogan's model (1976).

The value of non-monetary models should not be underestimated; however, monetary models are of greater importance. The value of particular goods can be disclosed among assets only after determining their value financially. The following are the most popular monetary models:

- a) the Capitalization of historical costs model (Likert, 1967);
- b) the Opportunity cost model (Hekimian and Jones, 1967);
- c) the Discounted wages and salaries model (Lev and Schwartz, 1971);
- d) the Replacement cost model (Flamholtz, 1973);
- e) the Dynamic model (Milost, 2007).

There have been many writings on the advantages and disadvantages of the above mentioned monetary models. Nevertheless, they could represent a solid ground for further research in this field.

REFERENCES

- Andriessen, D. (2001) "Weightless wealth: four modifications to standard IC theory", *Journal of Intellectual Capital*, 2(3), pp. 204-214.
- Andriessen, D. (2004) "IC valuation and measurement: classifying the state of the art", *Journal of Intellectual Capital*, 5(2), pp. 230-242.
- Brooking, A. (1996) *"Intellectual Capital"*, International Thomson Business Press, London.

- Brooking, A. (1998) *"Intellectual Capital: Core Asset for the Third Millennium Enterprise"*, International Thomson Business Press, London.
- Chen, J., Zhu, Z., Xie, H.Y. (2004) "Measuring intellectual capital: a new model and empirical study", *Journal of Intellectual Capital*, 5(1), pp. 195-212.
- Chen, M., C. (2005). "An empirical investigation on the relationship between intellectual capital and firms' market value and financial performance", *Journal of Intellectual Capital*, 6(2), pp. 159-176.
- Chen, S. (2003) "Valuing intellectual capital using game theory", *Journal of Intellectual Capital*, 4(2), pp. 191-201.
- Cuganesan, S. (2005) "Intellectual capital-in-action and value creation, a case study of knowledge transformation in an innovation process", *Journal of Intellectual Capital*, 6(3), pp. 357-373.
- Cuganesan, S., Dumay, J. (2009) "Reflecting on the production of intellectual capital visualisations", *Accounting, Auditing & Accountability Journal*, 22(8), pp. 1161-1186.
- Dumay, J. (2012) "Grand theories as barriers to using IC concepts", *Journal of Intellectual Capital*, 13(1), pp. 1, 4-15.
- Dumay, J., & Garanina, T. (2013) "Intellectual capital research: A critical examination of the third stage", *Journal of Intellectual Capital*, 14(1), pp. 10-25.
- Dumay, J., Rooney, J. (2011) "Measuring for managing: An IC practice case study", *Journal of Intellectual Capital*, 12(3), pp. 344-355.
- Edvinsson, L. (2013) "IC 21 – Reflections from 21 Years of IC Practice and Theory" *Journal of Intellectual Capital*, 14(1), pp. 163-172.
- Edvinsson, L., Malone, M.S. (1997) *"Intellectual Capital: Realizing your Company's True Value by Finding Its Hidden Roots"*, HarperCollins Publishers Inc., New York.
- Edvinsson, L., Sullivan, P. (1996) "Developing a Model for Managing Intellectual Capital", *European Management Journal*, 14(4), pp. 356-364.
- Financial and Management Accounting Committee, FMAC, (1999) *"The Measurement and Management of Intellectual Capital: An Introduction"*.
- Fincham, R., Roslender, R. (2003) "Intellectual capital accounting as a management fashion: a review and a critique", *European Accounting Review*, 12(4), pp. 781-795.
- Firer, S., Williams, S. M. (2003) "Intellectual capital and traditional measures of corporate performance" *Journal of Intellectual Capital*, 4(3), pp. 348-360.
- Flamholtz, E.G. (1974) "Human resource accounting: a review of theory and research", *Journal of Management Studies*, 11(1), pp. 44-61.
- Flamholtz, E.G. (1973) "Human resource accounting: measuring positional replacement costs", *Human Resource Management*, 12, pp. 8-16.
- Flamholtz, E.G. (1972) "Toward a theory of human resource value in formal organisations", *The Accounting Review*, 47, pp. 666-678.
- Giuliani, M. (2013) "Not all sunshine and roses: discovering intellectual liabilities in action", *Journal of Intellectual Capital*, 14(1), pp. 127-144.
- Guthrie, J., Ricceri, F., Dumay, J. (2012) "Reflections and projections: A decade of intellectual capital accounting research", *British Accounting Review*, 44(2), pp. 68-92.
- Guthrie, J. (2001) "The management, measurement and the reporting of intellectual capital", *Journal of Intellectual Capital*, 2(1), pp. 27-41.
- Haanes, K., Lowendahl, B. (1997) *"The Unit of Activity: Towards an Alternative to the Style"*, John Wiley & Sons, New York.
- Hamel, G., Prahalad, C.K. (1990) "The Core Competence of the Corporation", *Harvard Business Review*, 68(3), pp. 79-91.
- Harrison, S., Sullivan P. H. (2000) "Profiting from Intellectual Capital: Learning from Leading Companies", *Journal of Intellectual Capital*, 1(1), pp. 33-46.
- Hekimian, J.S., Jones, C.H. (1967) "Put people on your balance sheet", *Harvard Business Review*, 45, January/February, pp. 105-113.
- Itami, H. (1987) *"Mobilizing Invisible Assets"*, Harvard University Press, Cambridge, London.
- Jerman, M., Kavcic, S., Kavcic, B. (2010) "The significance of intangibles: a comparative analysis between Croatia, Slovenia, Czech Republic, Germany and USA" *Economic research*, 23(2), pp. 60-69.
- Kannan, G., Aubur, W.G. (2004) "Intellectual Capital: Measurement effectiveness", *Journal of Intellectual Capital*, 5(3), pp. 389-413.
- Lev, B., Schwartz, A. (1971) "On the use of the economic concept of human capital in financial statements", *The Accounting Review*, 49, pp. 103-112.
- Lev, B. (2001) *"Intangibles: Management, Measurement and Reporting"*, Brookings Institution Press, Washington D. C.
- Liebowitz, J., Suen, C.Y. (2000) "Developing knowledge management metrics for measuring intellectual capital", *Journal of Intellectual Capital*, 1(1), pp. 54-67.
- Likert, R. (1967) *"The Human Organization: It's Management and Value"*, McGraw-Hill, New York, NY.
- Likert, R., Bowers, D.G., Norman, R.M. (1969) "How to increase the firm's lead time in recognizing and dealing with problems of managing its human organization", *Michigan Business Review*, January, pp. 12-17.
- Lynn, B. (1998) "Intellectual Capital – Key to Value Added Success in the Next Millennium", *The Society of Management Accountants of Canada*, CMA Magazine.
- Marr, B., Schiuma, G., Nelly, A. (2004) "The dynamics of value creation: mapping your intellectual performance drivers", *Journal of Intellectual Capital*, 5(2), pp. 224-229.
- Meritum (2002) *"Proyecto Meritum: Guidelines for Managing and Reporting Intangibles"*, Madrid.
- Milost, F. (2007) "A dynamic monetary model for evaluating employees", *Journal of Intellectual Capital*, 8(1), pp. 124-38.
- M'Pherson, P.K., Pike, S. (2001) "Accounting, empirical measurement and intellectual capital", *Journal of Intellectual Capital*, 2(3), pp. 246-60.

- Ogan, P. (1976) "A human resource value model for professional service organizations", *The Accounting Review*, 51(2), pp. 316-320.
- Ordonez de Pablos, P. (2004) "Measuring and reporting structural capital: Lessons from European learning firms", *Journal of Intellectual Capital*, 5(4), pp. 629-647.
- Petrash, G. (1996) "Dow's Journey to a Knowledge Value Management Culture", *European Management Journal*, 14(4), pp. 365-373.
- Petty, R., Guthrie, J. (2000) "Intellectual capital literature review: Measurement, reporting and management", *Journal of Intellectual Capital*, 1(2), pp. 155-176.
- Rastogi, P.N. (2003) "The nature and role of IC: Rethinking the process of value creation and sustained enterprise growth", *Journal of Intellectual Capital*, 4(2), pp. 227-248.
- Riahi-Belkaoui, A. (2003) "Intellectual capital and firm performance of US multinational firms: A study on the resource-based and stakeholders views", *Journal of Intellectual Capital*, 4(2), pp. 215-226.
- Rodgers, W. (2003) "Measurement and reporting of knowledge-based assets", *Journal of Intellectual Capital*, 4(2), pp. 181-190.
- Roslender, R., Fincham, R. (2001) "Thinking critically about intellectual capital", *Accounting, Auditing & Accountability Journal*, 14(4), pp. 383-398.
- Roslender, R., Stevenson, J. (2009) "Accounting for People: A real step forward or more a case of wishing and hoping?", *Critical Perspectives on Accounting*, 20, pp. 855-869.
- Ross, J., Ross, G., Edvinsson, L., Dragonetti, N.C. (2000) "Intelektualni kapital: Krmarjenje po novem poslovnem svetu", Inštitut za intelektualni kapital, Ljubljana.
- Society of Management Accountants of Canada, SMAC, (1998) "The Management of Intellectual Capital: The Issues and the Practice", Issue Paper No. 16, The Society of Management Accountants of Canada, Hamilton.
- Stewart, T. (1997) "Intellectual Capital: The New Wealth of Organizations", Doubleday Dell Publishing Group Inc., New York.
- Sveiby, K.E. (1997) "The New Organizational Wealth: Managing & Measuring Knowledge-Based Assets", Berrett-Koehler Publishers, San Francisco.
- The Trade and Industry Development Council in The Danish Agency for Development of Trade and Industry, (1998) "Intellectual Capital Accounts – Reporting and managing intellectual capital", Elektronisk version ved Net Bureauet.
- Upton, W.S. (2001) "Business and Financial Reporting: Challenges from the New Economy", FASB, Norwalk, CT.