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## **Foreword: state-of-the-art and challenges for intellectual capital measuring and reporting**

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**Abstract:** Measuring and reporting Intellectual Capital (IC) is a key task for companies. If they do not know what resources they have, how can they manage them in an efficient way? Back in 1994, the Swedish insurance company Skandia published the first IC report ever published. Since that year many companies have started to be interested in IC measuring and reporting. However, only a few have really made the strategic step of measuring and reporting knowledge-based resources. What can be learned from the experience of companies who decided to report their IC?

**Keywords:** competitiveness; intellectual capital report; guidelines; measurement; transparency.

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The literature of Intellectual Capital (IC) emerged in the mid-1990s with the publications of Leif Edvinsson and Karl-Erik Sveiby. In 1994, the first IC statement ever published in the world came to light. This publication represented an important milestone in the field of IC. At that time the attention of the academic and corporate world centred on this pioneering company and the IC statement that it produced. The great expectation generated by this innovative report resulted in a small group of European companies beginning to prepare and publish this type of statement in 1998. These included the Danish companies Carl Bro, Cowi and Systematic, the Spanish companies BBVA, Bankinter and Unión Fenosa, and the Swedish company Celemi (Lytras and Ordóñez, 2008).

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In 2000, the Danish Agency for Trade and Industry (DATI) published the document *Intellectual Capital Statement – Towards a Guideline*, which represented an initial effort with respect to developing directives for quantifying IC and preparing IC statements using the results of these quantifications. Later, in 2001 and 2003, the DATI published a series of new directives for the preparation of IC statements.

Two years later, NORDIKA (Nordic Project for the Measurement of Intellectual Capital) – published *Intellectual Capital: Managing and Statement*. The report aimed to give companies an overview of the vast number of possibilities open to them for using IC reports to manage and report their IC. It gave priority to practical knowledge to be used for application. The report was targeted at staff who would be in charge of initiating the IC process. In 2002 MERITUM also published its own directives, namely *Guidelines for Managing and Reporting on Intangibles*. Another important EU project on IC is called Policy-Making, Reporting and Measurement, Intangibles, Skills Development and Management (PRISM). It is a multidisciplinary European initiative aimed at gaining a deeper understanding of the issues surrounding the management and measurement of intangibles in today's competitive environment.

Since 2003 the Bundesministerium has been prototyping with excellent success a project called Wissensbilanz. Japan has also shown interest in IC measuring. The Ministry of Economics, Trade and Industry (METI) in Japan has also been involved in prototyping for several years now. They introduced a guideline in 2005. Five of the largest Japanese companies are now publishing intellectual assets-based management reports. The guideline, compiled by METI, aims to help corporations (managers) that prepare intellectual assets-based management reports and those who assess it. Based

on the examination of the Subcommittee on Management and Intellectual Assets, New Growth Policy Committee, Industrial Structure Council, it provides a guide for information disclosure concerning intellectual assets-based management.

As the new economical value is in the longitude, *i.e.*, lateral dimensions, instead of vertical dimensions, we have to develop more lateral, benchmarking, accounting of the value creation potential of intangibles (Edvinsson, 2002). We have to acknowledge such new intangible indicators and get the accountants to audit those, as well as annual reports to present the transparency of such IC, to be able to navigate these new organisational value creations. One of the recent, most refined IC reports, following very much the experiences from Edvinsson's prototype IC reporting at Skandia, was presented in 2002 by Alexander Welzl, then at Seibersdorf Research Center, and his IC pioneering colleagues in Austria, among others Dr. Manfred Bornemann.

The *Intellectual Capital Statement Made in Germany Project* – with which Leif Edvinsson as well as Mart Kivikas and his colleagues worked – provided a report on a method for IC statements for Germany based on international experiences. It includes 14 prototypical IC statements as best practice examples in representative German SMEs from different regions and sectors. The German approach to prepare the IC report (the 'Wissenbilanz') includes four milestones: Milestone I: Why? Initial situation, What? Intellectual Capital, How good? Evaluation; Milestone II: How much? Indicators; Milestone III: Who? Communication; and finally, Milestone IV: How? Management. This statement proposes an interdependency network among the components of IC. All the factors of human capital, relational capital and structural capital are knots within an interdependency network.

In 2002 the Austrian Ministry for Education, Science and Culture issued the new university law (Universities Act, 2002), according to which all Austrian universities have to publish IC reports from 2006. In particular, the Universities Act (2002) states:

"Each university shall submit an intellectual capital report for the past calendar year to the Minister, by way of the university council, by 30 April of each year. This shall, as a minimum, present in itemised form: (1) the university's activities, social goals and self-imposed objectives and strategies; (2) its intellectual capital, broken down into human, structural and relationship capital; (3) the processes set out in the performance agreement, including their outputs and impacts."

In 2003, Austria implemented a law requiring all universities and colleges to publish a knowledge capital report annually, showing knowledge goals, knowledge processes and knowledge indicators. Among the very first prototypes, one was done by the University of Kremz, Austria. In Sweden a similar first prototype has now been launched by the Center for Molecular Medicine (CMM) at Karolinska.

Since 2006 IC reporting has become mandatory for all Austrian universities. Back in 2002 the Austrian Ministry for Education, Science and Culture released a new university law for the reorganisation of all public Austrian universities. The ministry's goals were to enhance transparency, foster the management of intangible resources and set initiatives for performance orientation. As the European Commission (2006) states: "The IC statement should serve as a management instrument for the university as well as a communication instrument between universities and the Ministry" (p.35).

What is the current state-of-the-art in IC measuring and reporting? What can we learn from the experience of companies that currently measure and report their knowledge-based resources? To answer this question, we organised this special issue titled 'Intellectual capital measuring and reporting: lessons from some countries'. It is formed by six papers that address the experience of measuring and reporting intellectual capital in several countries and regions: Portugal, Africa, Australia, Indonesia and Spain.

In his paper 'IC and KM in a macroeconomic perspective: the Portuguese case', Tomé reviews the concepts of IC and Knowledge Management (KM) in relation to the historic evolution and to the present situation of the Portuguese economy. He argues that Portuguese economic history effectively began in 1974, with the instauration of a democratic regime. The tendency to invest in knowledge was intensified with the adhesion to the European Economic Community (EEC) in 1986. The successive governments tried to transform the preexisting low-skill equilibrium in a high-skill one. Even if the evolution is positive, Portugal is still considered to be one of the European countries with lower levels of IC. The author concludes that KM theories and concepts explain Portuguese history and its present situation particularly well.

The second paper of this special issue is titled 'Intellectual capital and real options: agency theory and the dynamics of R&D investments', by Andrikopoulos. This author states that the real-options approach to R&D investment can be expanded through the integration of explicit modelling for knowledge value dynamics as well as agency-theoretic analysis. The goal of his paper is to combine the market-related dynamics of the demand for R&D products with the firm-specific organisational dynamics of knowledge accumulation and value creation through knowledge. He introduces the knowledge-related significance of option pricing parameters and shows how these parameters affect investment policies and agency conflicts in R&D and IC decision making.

The third paper is titled 'Building the intellectual capital of African enterprises in a knowledge economy: impediments and requirements', by Tongo. African companies are not pioneers in terms of knowledge measurement and reporting; in fact, they lag behind in this regard. According to the author, Africa's management thinkers and practitioners are still saddled with the problem of how to manage the 'African social man' and not how to manage the 'African knowledgeable man'. The paper seeks to analyse the main obstacles for developing the IC in African enterprises. She asserts that the building of their intellectual capital is a prerequisite for their survival in a knowledge-based economy.

The next paper is titled 'Intellectual capital reporting media in an Australian industry', by Guthrie and Ward. It presents the results of an empirical content analysis of the IC reporting practices of companies within the Australian Food and Beverage Industry (AFBI). This paper differs from prior IC reports studies in that it focuses on the external reporting of a single industry: the AFBI. Furthermore, the paper studies IC reports across different reporting media, namely, annual reports and corporate websites. It concludes that consistent with prior studies on Intellectual Capital Report (ICR), the extent of reporting on IC items by the sample companies within the AFBI is low and most of the disclosures are declarative in nature. Additionally, large discrepancies were found between companies on the format of disclosure and the location of disclosures within the annual reports and websites. This lack of consistency in approach would make comparisons across companies difficult in this industry.

Sihotang and Winata, in their paper ‘Intellectual capital disclosures of technology-driven companies: evidence from Indonesia’, address the exploratory study on the IC disclosures of the top 22 Indonesian technology-driven companies during 2002–2004. They found that technology-driven companies in Indonesia do have IC assets. Among other interesting conclusions, the authors highlight the significant and positive correlation between market capitalisation and the level of IC disclosures, as well as between the number of annual report pages and the level of IC disclosures. Additionally, the study concludes that there is no significant correlation between the company’s age and the level of IC disclosures.

The last paper of the special issue is ‘Intangibles disclosure, market performance and business reputation – the case of Spain’ by Sáenz and Gómez. The authors analyse the degree of disclosure of information regarding the intangibles of Spanish companies listed on the stock exchange from an evolutionary point of view. Additionally they explore the reasons which lead companies towards greater transparency and the effects which this has on market share value and business reputation. Their study is focused on all kinds of annual reports issued by 43 listed Spanish companies which were examined for the period 2001–2003. The study indicates that information transparency regarding intangibles is clearly on the rise. Although no kind of significant link has been found between transparency and market share value, there is a positive and significant link between the degree of intangibles resources disclosure and corporate reputation.

Finally, before closing this foreword to the special issue, we would like to invite all our colleagues interested in IC measuring and reporting and in KM to attend two important events in 2008. The *1st Athens World Summit on The Knowledge Society* will be held in Athens, Greece, on 26–28 September 2008. There will be special tracks for these topics as well as Best Paper Awards.<sup>2</sup> Additionally the *Macao Summit 2008* (Macao, September 2008) will have special tracks on IC and KM.<sup>3</sup> See you in Athens and Macao!!

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### **Notes**

- 1 <http://www.sigsemis.org>
- 2 <http://knowledge-summit.org>
- 3 [www.macaosummit2008.com](http://www.macaosummit2008.com)