Research and knowledge interaction
Guidelines for intellectual capital reporting
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Abstract This paper discusses the differences and complementarities of the two guidelines for managing, measuring and reporting intellectual capital (IC) that has been developed by the Meritum research group and the Danish Ministry of Science, Technology and Innovation, respectively. IC is closely related to knowledge management and the guidelines describe how to identify a company’s knowledge management strategy including the identification of its objectives, initiatives and results in the formation, application and development of the company’s knowledge resources. The guidelines also show how to measure IC and communicate the strategy to the stakeholders. The paper outlines the common background for the guidelines, the content of the guidelines and concludes after a comparison with a discussion of the need for research in the area and improvement of future guidelines.

Introduction
Intellectual capital (IC) as well as disclosure of information on IC – or intangibles – has in recent years gained importance. Firms, especially in the Nordic countries (Bukh et al., 2001; Mouritsen et al., 2001b; Johanson et al., 2001a,b), have started developing IC reports supplementing the traditional annual report. These reports accentuate the role of IC in relation to value creation and communicate how knowledge resources are managed in the firms within a strategic framework.

According to practice as well as the recently developed guidelines (Meritum 2002; DMSTI, 2003) for IC reporting an IC statement is an integral part of knowledge management. It identifies the company’s knowledge management strategy including the identification of its objectives, initiatives and results in the formation, application and development of the company’s knowledge resources. It also communicates this strategy to the stakeholders.

Several reports (e.g. Eustace, 2001; GRI, 2002; Upton, 2001; Blair and Wallman, 2001) have called for improved disclosure of intangibles and the
development of new reporting models. This challenge has been addressed both by attempts to develop sustainability reporting guidelines on economic, environmental and social performance (GRI, 2002), in the 1990s by methodologies like the balanced scorecard (Kaplan and Norton, 1996, 2001), the service-profit-chain (Heskett et al., 1996) and the intangible asset monitor (Sveiby, 1997a,b) and recently by specific guidelines for reporting of IC and intangibles (Meritum, 2002; DMSTI, 2003).

This paper will describe the common background for the two guidelines for IC reporting that have been developed in Europe during the last couple of years. The first is the one developed in the six-nation research project named “Measuring and reporting intangibles to understand and improve innovation management” (Meritum, 2002) which was supported by the European Commission (EC) and the second is developed by the Danish Ministry of Science, Technology and Innovation (DMSTI, 2003) with the involvement of researchers who also participated in Meritum project.

The paper will focus on the similarities as well as differences of the two guidelines and how they complement each other and how more research in the area is needed. Further, the paper will discuss the various aspects of the future development of reporting guidelines.

In the next section the common background for the development of the two guidelines is introduced. Then follow two sections where the Meritum guideline and the Danish guideline are described and the two guidelines are compared in the next section. The last section discusses possible future developments with respect to guidelines for IC reporting and concludes the paper.

Why guidelines for IC reporting?
The disclosure of information by companies has in recent years experienced increased attention due to factors such as globalisation and integration of capital markets, increased mobility of monetary and actual goods, growing competition and new dominant industries as well as the development within IT and the Internet. Further an increasing number of companies base their competitive strength and thus the value of their company on know-how, patents, skilled employees and other intangibles.

Various studies of investors and analysts’ request for information indicate a substantial difference between the information found in companies’ annual reports and the type of information demanded by the market (Eccles et al., 2001; Eccles and Mavrinac, 1995). This information gap is partly due to an increased request for more non-financial information regarding intangibles. We recognise the fact that this information gap also can be due to a lack of a generally accepted reporting framework for structuring the non-financial information.

In the middle of the 1990s, a number of OECD conferences were held to encourage attention to accounting for intangibles (Liyanage et al., 2002). The OECD initiatives were based on the notion that intangibles appear to be
increasingly important. However, the importance of intangibles exceeded the current ability to recognise, measure and report them, which might cause confusion and failures to invest in capital markets.

Consultants and researchers proposed new models for measuring and reporting intangibles: The invisible balance sheet (Sveiby, 1997a), balanced scorecard (Kaplan and Norton, 1996) and IC (Stewart, 1997; Edvinsson and Malone, 1997) just to mention a few. Also firms, at least in Northern Europe and US, started to develop models for measuring, managing and reporting intangibles (see Johanson et al., 2001a,b; Larsen et al., 1999).

As a reaction to a number of the issues brought up by governments, intermediate organisations, researchers, consultants and practitioners (Liyanage et al., 2002), a grant application to the EC regarding the importance of intangibles was prepared in 1997 and the project which was named “Measuring intangibles to understand and improve innovation management” (Meritum) was started in 1998.

At the same time the Danish Agency for Development of Trade and Industry decided to organise a project regarding IC reporting in collaboration with researchers and 17 Danish firms. The agency – in an act of national industrial policy to promote knowledge society – wished to develop a set of guidelines for the development and publication of IC statements.

The Meritum guideline
The project was organised around four themes: (1) Classification of a guideline for managing and reporting intangibles. All activities were performed in each of the participating six countries (Denmark, Finland, France, Norway, Spain and Sweden). The project engaged at least 40 researchers from nine different universities and research organisations[1]. The work could be summarised as follows (Meritum, 2002):

- Classification: in the 1990s there was no common classification of intangibles. Almost every author or firm classified intangibles in a different way although certain elements appeared to be important in most frameworks. A useful classification was devised (neither exclusive nor exhaustive) classifying intangibles into human, structure and relational capital.

- Management control: one of the main findings here was that there was a difference with respect to the experience of measuring, reporting and managing intangibles in different participating countries. Experienced firms were comparably easy to find in Denmark and Sweden but not in Spain and France. Another important conclusion was the very close relationship between measurement and reporting on the one hand and management on the other because measurement without further action is useless.
• Capital market: the analysis conducted under this activity support the general idea that intangibles are relevant for financial market. Based on econometric analysis, it was found that both R&D and qualitative human resources were related to the value of the companies. Case studies also support this evidence.

• Guideline: the last part of the Meritum project was the proposal of a guideline for managing and reporting on intangibles. The guideline was built on the knowledge acquired from the three earlier projects and was subject to a number of Delphi rounds comprising representatives from European firms, policy-makers, standard setting bodies, accounting and auditing firms, labour organisations, etc. These representatives found the guideline to be basically complete, useful and feasible even if the guideline still needed to be further developed.

The Meritum guideline is divided into three sections: In the conceptual framework the basic concepts like intangible resources, IC, human capital, structural capital and relational capital are defined. In the second section, which concerns the management of intangibles the strong and obvious relationship between measurement and reporting and management is addressed in two ways:

(1) A proposition regarding different steps (formulating the vision of the firm, identifying critical intangibles, and measuring the critical intangibles) that need to be followed by the firms when developing an intangible management system.

(2) A proposition regarding a number of supporting processes that are essential to ensure the transformation of measurement and reporting into managerial action.

These processes have been recognised in those firms with significant IC experience investigated in the Meritum project.

The last section contains an IC report model. The different elements that should be included in the IC-report are described. These are:

• vision of the firm,
• summary of intangible resources and activities, and
• a system of indicators.

Since the Meritum guidelines were neither known outside the inner circle nor as well developed as they need to be, the work by the involved researchers was continued in another EC project, E*KNOW-NET, started in September 2001 with the main objective of creating an European research and communication arena on intangibles. This general objective is divided into three specific objectives:
Create a virtual network among a set of excellence centres on intangible research and existing and potential users of information and knowledge on IC by networking main European and International bodies in this field.

Make the results obtained in the Meritum projects available to a larger number interested parties and investigate possibilities to improve the guidelines.

Promote discussion with the users in order to define both the research agenda that might better help policy and decision making process and to explore the new training needs at European level with regard to the measurement, reporting and management of intangibles.

The Danish guideline

The first version of the Danish guideline (DATI, 2001) was developed on the basis of experiences from 17 Danish firms as one of the government’s initiatives to encourage the transition of Danish companies from the industrial society to the knowledge society. Besides the explicit aim to develop a guideline the project the research part of the project was concerned with how IC is stabilised, made productive and potent, and becomes a central key to the firm’s construction of itself. Rather than assuming that there is a linear relationship between measuring, reporting and managing IC, this relationship was studied on the basis of Danish firms attempting to construct IC statements over a period of three years (see Bukh et al., 2001; Mouritsen et al., 2001a,b).

The first guideline, which was published in Danish in 2000, was in 2001-2002 tested by 80 Danish firms in a follow-up project organised by the Danish Ministry of Science, Technology and Innovation. This group of firms included both public and private sector organisations and firms of all sizes including several large companies listed on the stock exchange. Based on the experiences from those firms a revised guideline was published in Danish in December 2002 and later translated into English (DMSTI, 2003).

The Danish guideline focuses on the preparation of IC statements for external publication. It does not offer special directions as to how to read, analyse or compare IC statements although it is stipulated that it may of course also be useful to users of such statements to know the principles of their composition. According to the Danish guideline for IC statements (DMSTI, 2003) an IC statement consists of four elements that together express the company’s knowledge management. The four elements link users of the company’s goods or services with the company’s need for knowledge resources. They include the acknowledgement of the need for knowledge management, a set of initiatives to improve knowledge management and a set of indicators to define, measure and following up initiatives.

The first element is a knowledge narrative that expresses the company’s ambition to increase the value a user receives from a company’s goods or
services. This value is called the use value, and a set of knowledge resources is needed to create it. The knowledge narrative shows which types of knowledge resources are required to create the use value the company wants to supply. This ambition establishes a narrative because it merges the user’s and the company’s knowledge resources into a whole.

The second element is a set of management challenges, which highlight the knowledge resources that need to be strengthened through in-house development or sourced externally. This can be achieved by intensifying co-operation with innovative customers, by developing greater expertise in specific fields or by acquiring better insight into the company’s control processes. Management challenges such as these have a certain degree of permanence over time. They usually do not change every year as they are closely linked to the knowledge narrative and therefore to the individual knowledge resources within the company.

The third element is a set of initiatives that can be started to do something about the management challenges. The initiatives are concerned with how to compose, develop and procure knowledge resources and how to monitor their extent and effects. Finally, the fourth element is a set of indicators, which make it possible to follow up whether the initiatives have been launched or whether the management challenges are being met. Indicators make initiatives visible by making them measurable.

These four elements together represent the analysis of the company’s knowledge management. It is important to emphasise that these elements are interrelated: The indicators show how initiatives are launched and put into effect. The initiatives formalise the problems identified as management challenges. The challenges single out what has to be done if knowledge resources are to be developed. The knowledge narrative also sums up, communicates and re-orientates what the company’s skills and capacity do or must do for consumers, and which knowledge resources are needed within the company. Once fully completed, the analysis can be presented in the IC statement.

**Important differences between the guidelines**

The Meritum guideline and the Danish guideline have been developed in parallel. They are similar in the way that each of them is supposed to be a management tool used to generate value in a company as well as a tool to communicate to employees, customers, partners and investors how a company generates value for them. There are many more similarities but we shall now rather highlight some of the main differences. The aim of emphasizing the differences is to help identifying a future research agenda regarding IC guidelines.

Both of the guidelines are based on the theoretical assumption of looking upon the firm as a knowledge-based system. However, the Danish proposal is
more developed in the sense that IC statements are a part of companies’ knowledge management strategy as well as a device for communicating knowledge management’s objectives, initiatives and results. Thus, knowledge management is the linking pin between the guideline and the theory of the firm.

Presumably, both guidelines share the insight that companies’ need to develop their knowledge resources, i.e. their employees, customers, processes and technologies. Thus, they both raise a demand for firms to manage the part of their resources that deals with knowledge broadly defined and employ the best tools and methods to support and structure knowledge management. The Danish guideline is however more oriented towards a specific methodology while the Meritum guideline in more broad terms outlines the new competitive agenda characterised by increased importance of intangibles. In this light the Danish guideline can be seen as a more detailed implementation of the general principles in the Meritum guideline.

Further, in the Meritum guideline IC management work is proposed to follow a straight-line process similar to a rational decision model. Applicants of the guideline are encouraged to identify intangibles that are critical for fulfilling the strategic objectives. The next step is the measurement of the critical intangibles followed by action based on the critical intangible indicators. However, studies of Swedish firms with several years of experience with measuring, reporting and managing intangibles indicate that the development of an IC system is to be considered as a long learning process based on trial and error (Johanson et al., 2001a,b) and always closely related to the long-term success of the firm.

The approach taken in Denmark has also been different. In the Danish project a number of firms were involved following a common analysis process which started by identifying what value the user gets from the product/services, i.e. use-value, next an analysis of what knowledge based resources, i.e. intangibles or competencies the company must possess. In that way the firms identified what knowledge-based assets the company must have, what is done to improve, develop and get these assets and what effects this has. These knowledge management activities are the basis for the individual firms’ IC report.

The importance of reporting is addressed in both the Meritum and the Danish guidelines but in the latter it is underlined that because IC reporting increases trustworthiness of management it is by itself a knowledge management activity.

The Danish guideline shows examples of indicators that have been used by the companies participating in the project whereas the Meritum guideline avoids such propositions. The very few indicators found in the Meritum guideline just serve a pedagogical purpose to show examples of how indicators could look like. One question in relation to this is whether a guideline should include a wide variety of indicators or not. Are the potential users of a guideline
interested in specific indicators or not? In a case study by Bjurström (2003) credit managers in a Swedish bank hold that the basic concepts and a useful theoretical anchoring is actually more useful as a managerial device than a list of indicators.

In the Danish guideline the interest is in the management of the firm’s knowledge resources to create value-in-use of the services and products by the firm for its customers. The Meritum guideline is more about value creation for the benefit of a broader stakeholder group. Value is being created through the development of the connectivity between the three different categories of IC (human capital, structural capital and relational capital respectively).

On a profound level, the choices made in the Danish guideline represents other epistemological assumptions than does the Meritum guideline. While the Meritum guideline strives to classify things, the Danish guideline aims at accounting for and provokes actions in order to discover the firms business and strategy. In other words, it might be justified to say that while the Meritum guideline reflects an “epistemology of possession”, the Danish guideline embraces an “epistemology of practice”, thus acknowledging knowing found in practice (Meritum, 2003)

Concluding remarks
In the late 1990s the OECD had the objective to propose guidelines for the external reporting of intangibles. This ambition has been taken over by Meritum and E*Know-Net and the Danish projects respectively. The objective is to develop a new language, which can help external parties like banks, policy makers, investors, financial analyst’s etc., to understand the IC process. Further, the ambition of the projects is to help firms to manage the IC process.

Because of the obvious information asymmetry between different interested parties regarding the importance of the IC process there is definitely a need for a new language – but is it ever possible to fully develop such a language? The Meritum, E*Know-Net and Danish work and their corresponding guideline proposals has been a successful start but will the final goal be reached? Many of the questions raised by the OECD in the 1990s (OECD, 1997) have been addressed but many others can still be raised; what is the basic aim of the guidelines – to improve firm efficiency or to improve quality of working life? How important is it to develop operationally well-defined indicators? Are the general concepts, the general framework, and the general language more important than the indicators? What steps need to be taken by governmental and international organisations to support the diffusion of a new guideline? Is there a need for mandatory guidelines or not? Is a global guideline possible when cultural differences between countries and firms are considered?

The work so far has helped us to increase understanding and communication around the IC-process. Financial analysts and investors as well as other stakeholders will demand more accountability and more stringent
disclosure. Identifying, measuring and valuing intangibles will as argued by Guthrie et al. (2002) become more important as this process develops. Users of financial statements will want more transparency. All this points to the desirability of having guidelines that facilitates managing, measuring and reporting IC. A coherent policy for the reporting of IC would enhance consistency and also help to discharge more comprehensively the stewardship responsibilities of management.

While disclosure of information on intangibles has been increasing in recent years there are no clear signs that investors’ and analysts’ demand for information have been met (Lim and Dallimore, 2002). Holland and Johanson (2003) propose that fund managers and analysts are ambivalent to corporate IC information. They identify a number of barriers on the market for IC information. These barriers are suggested to arise on both the supply (firms) and the demand (fund managers and analysts) side due to the nature of the IC information generated on the corporate supply side and due to knowledge, uncertainty, ownership and management problems faced by fund managers and analysts. The latter also have difficulties in understanding their own IC value creation processes, which was presumed to intensify their problems of processing company IC information. In addition, cultural pressures within analyst and fund manager communities are viewed as contributors to information barriers. Such problems are exacerbated by additional market induced problems of severe time constraints, a narrow shareholder wealth agenda, analyst biases and conflicts of interest.

Eccles et al. (2001, p. 189) conclude that managers “genuinely believe they try hard to give the market the information it wants. But most analysts and investors believe managers could try harder” and the literature floods with arguments for better disclosure and empirical studies documenting this need, without much perceived improvement in general disclosure practice.

Experiences from Danish firms issuing IC reports (see Bukh et al., 2001; Mouritsen et al., 2001a,b) show that, IC is not only about IC as separate categories or indicators. It is just as much about their complementarities, the productivity of one resource may improve by investments in another resource. Value creation based on knowledge resources, i.e. IC, is complicated and more research into how knowledge intensive companies create value, how knowledge-based business models work and how their functioning and value creation could be disclosed is needed.

What complicates things is that IC reports, as argued in Mouritsen et al. (2001c), are not to be read simply by analysing the indicators and imposing an explanatory model linking the elements in a causal relationship. As there is more to an IC report than just the numbers, the reading is different than reading a traditional financial statement and there are no traditional ways to read and interpret an IC report. This also makes the comparison of different firm’s disclosure of IC difficult.
In order to develop more practical guidelines for disclosing IC and how this information will form the basis of the markets’ assessment of the company, it is necessary to involve the stakeholders themselves. If IC statements are to supplement or augment the more traditional financial reporting as it is suggested in many recent reports and books (DiPiazza and Eccles, 2002; Eccles et al., 2001; Eustace, 2001; FASB, 2002; Upton, 2001) special attention has to be paid to the needs of the financial market. This means that analysts and investors must be engaged more closely in a dialogue with the researchers that develop the guidelines. This can be approached in several ways.

One starting point could be to analyse the information content in analyst reports. These could probably give a better idea of the analysts’ perception of important information. It could then be assessed (although quantitatively) as to whether the analysts weigh their recommendations on more or different types of information. However, this will leave us with a mere comparison of the information contained in various reporting media and still only in quantitative terms.

To uncover more than this, future research should be performed in a more qualitative manner. One option is to conduct case studies comparing the information content in the reporting medias, but this still does not help us obtain the views of the analysts and investors on these issues from the analysts and investors themselves. What could be a way forward are qualitative studies of analysts’ and investors’ perception of the importance of disclosure of IC. Studies of this nature will to a greater degree clarify aspects such as interconnectedness between IC and company strategy, and why IC is important in the value creation process in the specific context of the firm. If the perceived information gap actually mainly consists of an understanding gap between management and investors and analysts, a study like this could begin by determining how company management on the one side and the capital market participants on the other side perceive the company’s business model and communication on strategy and value creation.

Note
1. Copenhagen Business School; The Research Institute of the Finnish Economy, The Swedish School of Economics and Business Administration; Groupe HEC, Paris; Norwegian School of Management; Autonomous University of Madrid, and Stockholm University.

References


Global Reporting Initiative (GRI) (2002), *Sustainability Reporting Guidelines*, Boston, MA.


