



# Commentary

## The relevance of intellectual capital disclosure: a paradox?

Intellectual  
capital  
disclosure

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**Abstract** *Many firms have started disclosing information on intellectual capital. Financial analysts, however, ask for more disclosure related to strategy and often find intellectual capital statement less relevant. Drawing on results from a study of disclosure of information on intellectual capital in Danish initial public offering (IPO) prospectuses, this commentary argues that the perceived irrelevance of intellectual capital is somewhat paradoxical since intellectual capital reports and recent prospectuses share remarkable similarities with respect to the intellectual capital indicators disclosed. Further, the commentary argues that, for intellectual capital disclosure to be perceived as relevant from a capital market perspective, the information should be disclosed as an integral part of a framework illuminating the value creation processes of the firm. The emerging practice with respect to intellectual capital offers such a framework for disclosing the business model of the knowledge-based company.*

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### Introduction

Intellectual capital, as well as disclosure of information on intangibles and intellectual capital (IC), have in recent years gained importance. IC has increasingly been seen as an integral part of firms' value-creating processes (Cumby and Conrod, 2001; Sullivan, 2000) and several reports (e.g. Eustace, 2001; FASB, 2001; Upton, 2001) and researchers (e.g. Eccles *et al.*, 2001; Lev, 2000) have argued that the demand for external communication of IC is increasing as several companies base their competitive strength and thus the value of their company on know-how, patents, skilled employees and other intangibles. Actually, the supply of information has also been increasing in various reporting media (e.g. Bukh *et al.*, 2002; Williams, 2001). Corporations have disclosed an increasing amount of information but have most often, as remarked by Curtis (2000), left it up to the reader to extract whatever messages are needed. However, some firms, especially in the Nordic countries (Bukh *et al.*, 2001a; Mouritsen *et al.*, 2001a; Johansen *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.

It could be tempting to argue that corporate disclosure practices, at least in some countries, are moving in a direction where the capital markets'

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demand for information will be satisfied to a larger extent and where analysts would demand more companies to publish intellectual capital reports. However, when asking analysts this appears not to be the case. Drawing on results from a study of disclosure of information on intellectual capital in Danish IPO prospectuses (Bukh *et al.*, 2001a, 2002), this commentary will argue that the perceived irrelevance of intellectual capital is somewhat paradoxical since intellectual capital reports and recent prospectuses share remarkable similarities with respect to the intellectual capital indicators disclosed.

Further, the commentary will argue that, for intellectual capital disclosure to be perceived as relevant from a capital market perspective, the information should be disclosed as an integral part of a framework illuminating the value creation processes of the firm. This means that an intellectual capital report should communicate the management's understanding of strategy and value creation, and not only show indicators of general interest. An intellectual capital report cannot only be read by comparing indicators between firms because strategies and value creation models are likely to differ between firms. It also implies that disclosure of intellectual capital should be done in the framework of the firm's strategy for value creation, i.e. the value creation model should also be disclosed.

### **What is intellectual capital disclosure?**

In recent years, companies have become aware of the importance of managing external communication systematically with respect to intellectual capital. Various studies of investors' and analysts' requests for information indicate a substantial difference between the type of information found in companies' annual reports and the type of information demanded by the market (e.g. Eccles *et al.*, 2001; Eccles and Mavrinac, 1995). In general, companies, investors and analysts request more reliable information on, for example, managerial qualities, expertise, experience and integrity, customer relations and personnel competencies – all factors related to intellectual capital.

Empirical research on the disclosure of IC indicators tends mostly to focus on the value relevance of specific IC indicators, e.g. research and development expenses (Lev and Sougiannis, 1996) and it may even show how intangibles could be capitalized (e.g. Gu and Lev, 2001). (See Cañibano *et al.* (2000) who review a number of studies where the value relevance of other elements of IC, e.g. research and development expenses, advertising, patents, brands, customer satisfaction and human resources, is studied.)

Even though the precise definition of an intellectual capital report in the literature is connected with some ambiguousness, intellectual capital reports take another perspective since they report on the knowledge management activities and disclose indicators for intellectual capital on the basis of the managerial initiatives in the firms (cf. Mouritsen *et al.*, 2002). In practice, intellectual capital statements contain various financial and non-financial information, i.e. staff turnovers and job satisfaction, in-service training,

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turnover split on customers, customer satisfaction, precision of supply etc. (cf. Bukh *et al.*, 2001b; Mouritsen *et al.*, 2002, 2001b) as well as a substantial narrative part positioning the indicators within a strategic framework. (See Guthrie (2001) and Petty and Guthrie (2000) for an overview of the literature and approaches to measuring intellectual capital.)

Some of the most extensive experiences with intellectual capital reporting are probably found in Denmark where the Danish Agency for Development of Trade and Industry in collaboration with researchers and 17 Danish firms initiated a project in 1998 where all the firms published annual intellectual capital reports (Bukh *et al.*, 2001a,b; Mouritsen *et al.*, 2001a, 2002). The aim of the project was to develop a set of guidelines for the development and publication of intellectual capital statements. The guideline (Danish Agency for Trade and Industry, 2001) was published in November 2000 and by 2002 it has been followed more or less by around 100 Danish organisations and firms including large firms quoted on the stock exchange.

### **IPO prospectuses read as reports on intellectual capital**

Since it was part of the Agency's original motivation, when initiating this project, to develop a tool that could facilitate small and medium-sized firms' access to financing, a focus group meeting with representatives for large banks and financial institutions was arranged in 1999. The aim of this meeting was to discuss the capital market's need for intellectual capital disclosure. The general impression from the meeting was that intellectual capital statements as well as the information they disclosed were not perceived as being relevant by the capital market actors. While this, according to Eccles *et al.* (2001), could be interpreted as if the analysts were reluctant to share their private information gained from private disclosure meetings with private investors, another possibility emerged: the capital market actors focused too much on specific indicators that could be compared across the very different firms which at that time had published intellectual capital statements, instead of focusing on the interconnectedness of the indicators and the story of value creation conveyed in the reports.

Based on the contradictory findings indicating that the capital markets need information on intellectual capital while the actors of the same market refuse this fact, a study of the disclosure of intellectual capital in Danish IPO prospectuses was conducted (see Bukh *et al.* (2001a, 2002) for details). While the disclosure within the context of an annual report intends to deliver a general view of the company's historical performance, the prospectus illustrates the company's perspectives and anticipated financial capabilities. Hence, an analysis of disclosure in prospectuses could provide insight into the function of intellectual capital statements with respect to the capital market's valuation of intellectual capital, since an admission to listing on the stock exchange offers an opportunity to study the process behind the market's assessment of a company's value, i.e. which information is disclosed for the purpose of a fair market valuation. Thus, the prospectus indicates which type of information is

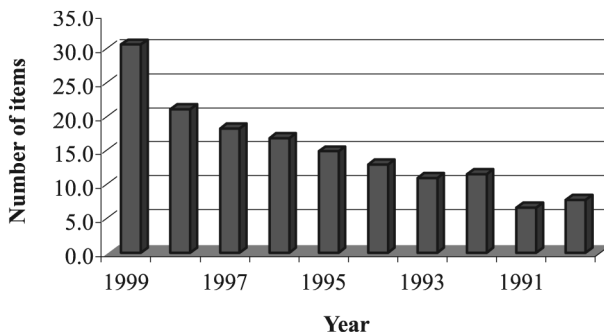
selected by a company and its advisers for the best possible visualisation of the company's value creation potential in relation to investors and analysts because the prospectus intends to prove continued growth and increased shareholder wealth.

*Disclosure of intellectual capital in Danish prospectuses*

When unit trusts etc. are excluded, a total of 57 firms went public in Denmark from 1990 to 1999. Bukh *et al.* (2002) report the results from the study of the disclosure of intellectual capital indicators in these prospectuses using a disclosure index (cf. Marston and Shrides, 1991) consisting of 78 items to quantify and measure the amount of information regarding intellectual capital. This research method basically consists of a calculation of the number of information items contained in a given report based on a predefined list. Information items, such as distribution of turnover on geographical segments, number of patents, results of research on staff satisfaction, are indicated "items". Thus, the quantity rather than the quality of information is in focus. The items in the index were included based on the literature on intellectual capital (e.g. Sveiby 1997; Edvinsson and Mallone 1997) as well as on experiences from the Danish companies that had published intellectual capital reports at that time.

The results of the study are summarised in Figure 1, which clearly shows that the amount of information has increased significantly within all categories. The most recent prospectuses were mainly issued by companies within IT, biotech, R&D etc., which partly accounts for the increase in disclosure. But still, there is a remarkable amount of disclosure of intellectual capital indicators in the prospectuses.

Taking into consideration that prospectuses are likely to report on factors considered important for the company's ability to generate value and thus the prospectus can be emphasised as a "role" model for future reporting, as companies are more open and future-oriented in their reporting when confronted with an initial public offering (Beattie, 1999), the perceived



**Figure 1.**  
Average number of items disclosed per IPO prospectus

Source: Bukh *et al.* (2002)

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irrelevance of intellectual capital disclosure by capital market actors seems even more paradoxical.

### **How should intellectual capital be disclosed?**

The results from the study of IPO prospectuses indicate that the information disclosed in intellectual capital reports is very similar to the information needed by capital market actors according to research in that area. Still, this is not how the actors perceive it.

While there could be many explanations for this “lack of understanding”, I will argue in this commentary that, for intellectual capital disclosure to be perceived as relevant from a capital market perspective, the information should be disclosed as an integral part of a framework illuminating the value creation processes of the firm. This means that an intellectual capital report should communicate the management’s understanding of strategy and value creation, and not only show indicators of general interest. An intellectual capital report cannot only be read by comparing indicators between firms because strategies and value creation models are likely to differ between firms. It also implies that disclosure of intellectual capital should be done in the framework of the firm’s strategy for value creation, i.e. the value creation model should also be disclosed.

Within the strategy literature such a framework for disclosure is offered by the concept of business models. Although business models have been intimately connected with e-business, the concept as such has been given a much more general meaning in recent management literature, where Joan Magretta sees business models as “stories that explain how enterprises work” (Magretta, 2002, p. 4). Business models show not only how the firm makes money but also how, by answering the fundamental questions: “Who is the customer? And what does the customer value?” (Magretta, 2002, p. 4). Further, a basic idea of the business model concept is that it should spell out what the unique value proposition of the firm is and how it should be implemented. For the customers the value creation could be related to “solving a problem, improving performance or reducing risk and cost” (Sandberg, 2002, p. 4), which might require specific value configurations (cf. Sweet, 2001) including relationships to suppliers, access to technologies, insight into the users’ needs etc.

The main point here is that value creation based on knowledge resources, i.e. intellectual capital, should be brought forward and that new value creation models should be linked with an understanding of who the customers are, what they need and how value is created for the customers. When uniqueness, and hence competitive advantage from a management point of view, are to be found in the development and implementation of the business model, it becomes natural to take this as a starting-point for structuring disclosure of intellectual capital.

If firms only disclose intellectual capital indicators without disclosing the business model that explains the interconnectedness of the indicators and why the bundle of indicators is relevant for understanding the firms’ strategy for value creation, then the analysts must do the interpretation. Currently, only limited research-based insight into how this reading and interpretation are

conducted exists and it is very likely that this understanding of firms' value creation would be facilitated if companies disclosed information on intellectual capital as an integral part of strategy disclosure.

### **Concluding remarks**

The incorporation of information about intellectual capital in IPO prospectuses indicates that companies and their advisers believe this type of information is important in the capital market's assessment of the value of the company. The amount of information on intellectual capital has been increasing in the last decade corresponding to the literature on external communication which is of the belief that companies with major intangible values – e.g. highly-educated staff, R&D, patents etc. – have to publish sophisticated and varied non-financial information in order to reduce the information gap. This effort offers an opportunity for investors to gain an impression of these companies' future potential for growth. The increase of information about intangibles contributes to the reduction of uncertainty, which is reflected in lower risk premium and, thereby, a more accurate valuation of the company.

While disclosure of information on intangibles has been increasing there are no clear signs that investors' and analysts' demand for information has been met. 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 cited above is awash with well-developed arguments for better disclosure and empirical studies documenting this need, without much perceived improvement in general disclosure practice.

Experiences from Danish firms issuing intellectual capital reports (cf. Bukh *et al.*, 2001a,b; Mouritsen *et al.*, 2001a,b,c, 2002) show that intellectual capital is not only about intellectual capital 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. intellectual capital, 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 intellectual capital reports, as argued in Mouritsen *et al.* (2001c), are not to be read simply by analyzing the indicators and imposing an explanatory model linking the elements in a causal relationship. As there is more to an intellectual capital report than just the numbers, the reading is different from 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 firms' disclosure of intellectual capital difficult.

In order to say something more specific about the motives behind the disclosure of intellectual information in annual reports, prospectuses as well as intellectual capital statements and how this information will form the basis of the markets' assessment of the company, it is necessary to involve the analysts and investors themselves. This can be approached in several ways.

One starting-point could be to analyse the information content in analysts' reports. These could probably give a better idea of the analysts' perception of important information. It could then, although still by quantitative terms, be analysed 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 media, 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 is qualitative studies of analysts' and investors' perception of the importance of disclosure of intellectual capital. Studies of this nature will to a greater degree clarify aspects such as interconnectedness between intellectual capital and company strategy, and why intellectual capital 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 take its departure in 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.

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