# Intellectual Capital and Valuation: Challenges in the Voluntary Disclosure of Value Drivers

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**ABSTRACT**

Many commentators have identified the pivotal role of intellectual capital in the valuation of firms and the determination of their future earnings. Innovation in voluntary disclosure of intellectual capital lead by European firms, such as Celemi and Skandia, has generated a plethora of new reporting frameworks such as the Balanced Scorecard. However, there has been little support by the accounting profession to recognise the value of intellectual capital or adopt a common disclosure framework. There has also been very little progress by firms in extending their voluntary reporting frameworks, beyond just rhetoric, and attempting to quantify their intellectual capital. This paper will critically evaluate the challenges faced by firms in disclosing the elements and value of their intellectual capital to the market.

**Keywords**: intellectual capital, valuation, reporting, voluntary disclosure

## THE IMPORTANCE OF INTELLECTUAL CAPITAL

There is increasing evidence that the drivers of value creation in modern competitive environments lie in a firm's intellectual capital rather than its physical and financial capital. Studies of listed companies consistently find significant gaps between the accounting book value of organisations and their market value (Cuganesan et al., 2006). Analysis made publicly available by the consulting firm Accenture indicates that, for knowledge intensive firms, tangible assets and resources typically comprise between fifteen and twenty-five percent of company value (Ballow et al., 2004). The same study also finds that, across the majority of listed companies in the United States, expectations of future growth value (as opposed to current earnings) comprise almost sixty percent of current company value. Adopting a formal framework to facilitate intellectual capital reporting is a way for firms to explicitly identify, audit and manage intangible sources of value creation and communicate these both internally and externally.

## WHAT IS INTELLECTUAL CAPITAL

The Organisation for Economic Co-operation and Development (OECD, 1999) describes 'intellectual capital' as the economic value of two categories of intangible assets of a company: (a) organisational ("structural") capital; and (b) human capital. Petty and Cuganesan (2005) assert that the term 'intellectual capital' is often treated as being synonymous with 'intangible assets'. The definition offered by the OECD, however, distinguishes the two by locating intellectual capital as a subset of, rather than the same as, the overall intangible asset base of a firm.

Over time, a broad consensus has developed that intellectual capital can be characterised in terms of a tripartite model comprising human capital, external capital and internal capital components (Edvinsson and Malone, 1997; Stewart, 1997; Sveiby, 1997), where:

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| human capital | refers to the skills/competences, training and education, and experience and value characteristics of an organisation's workforce; |
| external capital | comprises relationships with customers and suppliers, brand names, trademarks and reputation; and |
| internal capital | refers to the knowledge embedded in organisational structures and processes, and includes patents, research and development, technology and systems. |

While there is a legal requirement for firms to disclose in their financial statements on certain types of purchased intangible assets (AASB 138 – Intangible Assets), firms are currently not required by accounting standards or by law to report on most of their intellectual capital, however they may voluntarily elect to disclose such information.

## THE MOTIVATION TO DISCLOSE INTELLECTUAL CAPITAL

There are a number of incentives that may accrue to firms who chose to voluntarily disclose intellectual capital. Petty (2003) identifies that the predominate incentive for firms to disclose their intellectual capital is to 'render the invisible visible' (Cooper and Sherer, 1984)

in line with the axiom 'what gets measured gets managed' (Stewart, 1997). This supposes that if intellectual capital is not reported, there is a risk that it is not receiving sufficient attention from management and other stakeholders (Guthrie and Petty, 2000), potentially diluting firm value.

Other evidence suggests that capital markets respond favourably towards a firm who reports on their intellectual capital (Garcia-Ayuso, 2003; Lev 1999, 2001). It is posited that reporting on intellectual capital may attempt to resolve uncertainty about the firm, thereby improving the stock price (Edvinsson and Malone, 1997; Stewart,1997) and leading to a reduction in volatility of stock prices, a decrease in firm cost of capital, and an increase in intrinsic value (Garcia-Ayuso, 2002). Lev (1999) suggests there is a positive correlation between intellectual capital disclosure and market capitalisation which is also likely to be a key motivator for listed firms to voluntarily adopt disclosure of intellectual capital. More broadly, several other theories might also explain why companies choose to report voluntarily on their intellectual capital, including legitimacy theory (Suchman, 1995) and institutional theory (Sethi, 1979).

## THE EMERGENCE OF VOLUNTARY REPORTING

The voluntary reporting activities of several European firms have spearheaded a rethink of traditional financial accounting practice and disclosure. In 1994, a Swedish consulting firm, Celemi, pioneered a new approach to annual reporting by including in its annual report an 'Intangible Assets Monitor' (Sveiby, 1997). In substance, the monitor is designed to report on Celemi's stock of intellectual capital and to show how this intellectual capital wealth is enhanced or diminished over time. Around the same time, another Nordic firm in the financial services sector, Skandia, also began reporting on its intellectual capital. Skandia's 'Navigator' reporting system is the product of work into valuing the knowledge capital of Skandia that originally commenced in 1991 (Roy, 1999; Edvinsson and Stenfelt, 1999).

Both Celemi and Skandia became celebrated entities within some sectors of the business community that believe there is a need for companies to measure and report on intellectual capital (Brooking, 1996). Interestingly, the professional community of accountants – arguably the group that should be most active in overseeing new reporting initiatives - has been somewhat slow to recognise the importance of the new European reporting model (Barth et al, 2001). The language of management is increasingly non-financial, yet accountants persist in reporting using metrics that are solely financial (Guthrie, Petty & Ricceri, 2005).

Some commentators are arguing that organisations need to go beyond the accepted practice of disclosing financial performance metrics to start reporting non-financial indicators as well, claiming this will enable a more balanced approach to the evaluation of intellectual capital (Ittner and Larcker, 1998), and a better understanding and improved transparency about drivers of firm performance.

## INTELLECTUAL CAPITAL REPORTING FRAMEWORKS

In response, the field of intellectual capital has received significant professional and academic interest. Specifically, a plethora of intellectual capital measurement and reporting models have been developed by academics, consultants and practitioners.[1]

[1] As an indication of the rapid growth in the field, an article by Sveiby (2004) identifies 28 different models for the management and measurement of IC.

Popular models used to construct reports on intellectual capital include Kaplan and Norton's Balanced Scorecard (Kaplan and Norton, 1992), Karl-Erik Sveiby's Intangible Assets Monitor (Sveiby, 1997) and Skandia's Value Scheme (Edvinsson and Malone, 1997). Each of these reporting frameworks will be briefly discussed below.

**Balanced Scorecard**

The Balanced Scorecard views business unit performance from four perspectives: financial, customer, internal business process, and, learning and growth. All four perspectives combined provide an understanding of the vision and strategy of the business unit. Each perspective is articulated by identifying the core activities that influence most positively the value created for the business unit. The Balanced Scorecard attempts to broaden the focus of managers encouraging them to look beyond short-term financial information towards other intangible items that are implicated in the value generation process.

**Intangible Assets Monitor (IAM)**

Similar to the Balanced Scorecard, Karl Erik Sveiby's (1997) Intangible Assets Monitor (IAM) reports on qualitative and other information related to a firm's intellectual capital. Working from the purely financial reporting perspective adopted by most firms, the IAM aims to present a more complete and realistic account of company performance and future business potential. Sveiby classifies intangibles into three parts: internal capital, external capital, and employee competence. Internal capital includes the organisational structure, legal parameters, manual systems, research and development, and software. External capital includes brands, and customer and supplier relationships. Employee competence includes education and training of the professional staff who are the principal generators of revenue.

Within Sveiby's IAM reporting framework, individual attributes relating to each of the three parts of a firm's intellectual capital are reported upon using measures that indicate an improvement or decline in the 'value' of the attribute from one period to the next.

**Skandia Value Scheme (SVS)**

The Skandia Value Scheme (Edvinsson and Malone, 1997) offers a conceptual understanding of how Skandia views the relationship between intellectual capital and financial (traditional accounting) capital in determining the market value of the firm. Market value is seen as the product of financial capital and intellectual capital, which in turn comprises human capital, structural capital, customer capital, organisational capital, innovation capital and process capital.

These three popular frameworks incorporate different elements in the foundations of the valuations. For example: The Balanced Scorecard focuses on internal processes, customers, learning & growth, and a financial perspective; the IAM focuses on internal capital, external capital and competence of personnel; while the Skandia Value Scheme attempts to measure human capital, structural capital and organisational capital. What is apparent is there is little consistency between these models.

**LACK OF CONSISTENCY BETWEEN REPORTING MODELS**

Guthrie and Petty (2000) conducted a cross-sectional content-analysis study of intellectual reporting practices across Australia's 20 largest firms and found that intellectual

capital was not reported within a consistent framework, when reported at all. Their study concluded that there is no established and mutually agreed framework for reporting intellectual capital by large Australian companies or from the accounting profession. This lack of consistency in reporting frameworks by Australian firms presents a challenge for organisations considering embarking on intellectual capital reporting.

> The biggest challenge by far is establishing a consensus about the need to report, what to report, and how to report it. Much of what has been done in the field to date has intuitive appeal, but is this enough to attract and convince the critical mass within the accounting profession which is necessary if any real change is to occur? (Guthrie, 1999, p. 4)

In similar international studies, Bontis (2003) found insignificant reporting of intellectual capital from an analysis of 10,000 annual reports in Canada, and other studies utilising content analysis methods have found corresponding low levels of intellectual capital reporting (Brennan, 2001; April et al. 2003; Ordonez de Pablos, 2003) confirming that this is not a phenomenon unique to the Australian reporting landscape.

Without a consensus as to the need to report and other related issues, there is little hope that the reporting of intellectual capital will become standardised without intervention by regulators (Guthrie and Petty, 2000). If and when consensus is reached, then the next major challenge is either to refine the reporting models in use or to develop new models.

This absence of a standardised framework is clearly and obstacle for many firms considering disclosing their intellectual capital. Also, without consistency in the methods used to disclose intellectual capital, any attempts to value it will likely be met with considerable scepticism.

## NO BASIS FOR VALUATION OF INTELLECTUAL CAPITAL

In a recent study by Guthrie, Petty and Ricceri (2006) content analysis was again used to scrutinise the disclosure of firms in both Australia and Hong Kong over a five-year period. The results showed that nearly every instance of intellectual capital reporting involved expression in ‘discursive rather than numerical terms’.

> What is lacking is a clear attempt to translate the rhetoric of intellectual capital reporting into benchmark measures that enable the performance of a firm in managing intellectual capital to be assessed in a systematic fashion. This is to some extent understandable given the difficulty involved in trying to quantify what is, in many instances, essentially a qualitative item (Guthrie et al. 2006, p. 268).

The low incidence of quantitative disclosures of intellectual capital seems to confirm the view that firms are unable to assign dollar values to intellectual capital, implying that the reporting frameworks are neither: (a) rigorous enough to be used for measurement; or (b) do not have sufficient utility to allow users to conduct meaningful comparisons between firms.

## CHALLENGES IN DISCLOSURE OF INTELLECTUAL CAPITAL

With commentators such as Ballow et al. (2004) advocating the pivotal role of intellectual capital in driving firm value and influencing share price, and Lev (1999) identifying the possible link between the reporting of intellectual capital and market

capitalisation, one would presume that intellectual capital reporting would have been fervently adopted by firms, especially listed firms.

However, the practice of intellectual capital reporting has not been universally adopted. This resistance or lethargy would suggest that many firms may face significant challenges in identifying and disclosing the elements and value of their intellectual capital to the market.

The literature suggests that the greatest obstacles for firms wishing to adopt intellectual capital reporting are: (a) the lack of consistency in methodologies for disclosure; and (b) difficulties in assigning meaningful and reliable quantitative values to identifiable intellectual capital. While these obstacles persist, it is likely that few firms will see any of the 'promised' benefits accruing to them as a reward for their efforts in extending their voluntary disclosures.

## CONCLUSION

The important challenge ahead is not the adoption by more firms of voluntary disclosure in an attempt to create a critical mass, but rather consensus by stakeholders of the type of disclosures that they believe will be meaningful. Once this hurdle is overcome, and there is a greater standardisation of intellectual capital identification and reporting in an unambiguous quantitative non-discursive format, then the next step of the valuation of intellectual capital can be reliably straddled by firms. This pathway will ensure a higher degree of utility to stakeholders; and, uniformity in disclosure practices, will allow a reliable comparison of intellectual capital values between firms.

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