Intellectual Capital Measurement: The Yes and No

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Abstract:

There has been increasing interest in measuring the value of intellectual capital to a company. Publications (Bontis, 1996; Roos, Roos, Dragonetti, & Edvinsson, 1998; Stewart, 1997), intense research studies (Bontis, 1998; Bontis, 1999; Covin & Stivers, 1997), and conferences have provided continuing dialogue and evolvement of practices to determine methods and indicators of component influences. Corporate and academic professionals alike share this interest and are seeking new ways to understand the value and application of intellectual capital in the organization. It is noteworthy in itself that academics and business professionals generally recognize that today's management is focused primarily on leveraging intangible assets of a company (Itami, 1987).

Key Words: Intellectual capital – Methods and indicators – value and application – intangible assets and evaluation methods.

Perceived as the most important intangible asset of a company, intellectual capital helps managers to affect valuable changes and ensures success for their organization. This points to the need, however, for practical methods of understanding, developing, and increasing the management of the company's intangible assets (Nonaka & Takeuchi, 1995). Supporters of intellectual capital are critics of the traditional balance sheet. They argue that the company's standard financial summaries do not account effectively for intangible factors. Some have started to measure intangibles in their accounting reports, providing several reasons for doing so (Ernst & Young, 1997; Reich, 1992).

Several knowledge-intensive companies have market values that exceed their equity capital (a determinant of their book or net worth). This suggests an associated capital assignment of hidden values. An assignment of that difference, as previously stated, to intellectual capital creates a greater association of intangible than tangible capital to those firms. There is accordingly a growing interest in how companies measure and manage their intangible capital and assets, including the intellectual. While accounting bodies are still determining how such assets should be reported, there are several companies, including the CIBC, Ernst & Young, The Skandia Group,

The Intellectual Capital Management Group (ICMG), and others, which have already developed organizational measures and are using them in their goal-setting and management practices. Thus, a departure from the artifices of intelligence to systems thinking about the role of the "knowledge worker" (Bontis, 1999, l) helps in the emergence of an initial determinant of value association through capital adjustments to company performance (Chun Wei, 1998). The available literature and accounting research on the topic have not yet indicated whether there is an optimal mix of people, technology and physical capital to achieve Organizational Effectiveness in terms of profitability and sustainability

Skandia (1994) and Ernst and Young (1997) emphasize the static properties of knowledge (*inventions, ideas, computer programs, and patents*) as intellectual capital. Edvinson et al (1997) also included human resources (human capital), but emphasized that “it is to the advantage of the knowledge firm to transform the innovations produced by its human resources into intellectual assets, over which the firm can assert rights of ownership”. One major task of management therefore is to transform human resources into intellectual assets.

Effective purpose is related to resource management through an understanding of resources for effective employment and utility to contingencies of operations. Intellectual capital as a design relates to both Structural capital (systems, procedures, and processes) and Individual capital

(intellect and labor). Utilitarian knowledge of the employment of human capital is not enough and therefore there is an urgent need for practical experience, knowledge and understanding to combine to increase the efficiency of application, and accordingly, to stabilize the value of management as a resource to an organization.

Although many frameworks for IC have been developed, firms and their accountants cannot measure IC easily. The value of a lab, for instance, includes its scientists' ability to make new discoveries in the future. Can that be valued? What is the value of the lab? The CFO can state how big the company's payroll is, but cannot estimate the replacement cost of employees' skills, much less whether they are appreciating or depreciating. (Stewart, 1997, p.58) A company usually does ICD on a voluntary basis. Voluntary disclosure is defined as follows: an item of information is considered as discretionary whenever it goes beyond the compulsory information for shareholders. In addition, in order to publicize compulsory information, other information must be provided to the shareholders on demand. Whether its nature be qualitative, financial or anything else, voluntary disclosure covers all data which concern both the subsidiaries and the group itself. (Depoers, 2000)

Bontis and Fitz-enz, J (2002) states that "intellectual capital is strategically important to organizations and that there may be some favorable factors associated with voluntary IC disclosure, such as lower borrowing costs, higher valuations, and decreased information asymmetry". For example, when companies disclose more IC, their transparency level increases, and shareholders can estimate the companies' risk more accurately. As a result, borrowing costs are reduced. On the other hand, for technology oriented companies that do not report some of their IC, investors will not have a clear view of their potential value.

Globalization has increased the amount of scattered and distributed information which resides in different location of the organization, distributed to different individuals and transferred. Technology and science are providing more and more inventions and innovations leading to information becoming obsolete faster. This necessitates the sharing of expertise and knowledge in an organized and coordinated way.

The shift from industrialized economies and natural resources to intellectual capital has forced executives to re-examine the role of knowledge which plays in business and how is it used. The management of knowledge has increasingly surfaced to become an organization's leveraging mechanism, providing an important competitive edge. These days it is vitally important to manage knowledge, generally referred to as 'Knowledge Management' (KM).

When examining the available literature on the topic, it is clear that KM as a field of study has an array of understandings and definitions, which obviously lead to some confusion. A general understanding of KM, for example, is the collection of processes that govern the creation, dissemination, and utilization of knowledge to fulfill organization objectives (Kippenberger, 1998). While this definition can be regarded as a relatively concise understanding of a process attaining a specific outcome, a more comprehensive view on KM is obviously required for the purpose of the present study. The key purpose of KM is thus seen as supporting continuous learning within the organization in order to improve its ability to cope with constant changes in the market. Consequently KM is seen as an intentional approach aimed at eliciting required knowledge from knowledgeable people, sharing it with appropriate people at the right time and using that knowledge into action to improve organizational performance.

A closer look reveals that the systems and processes in support of KM have been established in which information technology (IT) systems have seemingly advanced further than the Human Resource (HR) systems and processes. At the outset information technology overshadowed HR in respect of KM in the organization, it is considered as a

sole driver. Many organizations wrongly believed that new knowledge would emerge by investing in advanced IT systems and equipment. In spite of huge sums of money being spent on IT systems and infrastructure, an insignificant correlation between organizations IT expenditure and its financial performance was found. (Davenport, 2000). The reason for this is a general disregard of the human side of the information equation in most IT programmes. More specifically, IT programmes "take little account of what information people want or need and how they use it" (Davenport, 2000, p. 9). Experience has since proved that knowledge is created via the interaction of humans using certain tools or mediums. This newly created knowledge is subsequently added to the existing pool of knowledge in support of the organization's growth and learning capability. According to Browne, M.W., and Cudek, R.

The concepts of knowledge management are essentially people-focused and technology enabled, not technology driven. Information technology or information systems should therefore not be drivers of knowledge management in an organization but they only play a supportive role. (132)

It goes almost without saying that if an organization could be positioned to unleash the intellectual capital already in its midst, its position would be strengthened substantially.

Our success is highly dependent upon our ability to effectively harness and manage our intellectual capital. The assets connected with the minds of our employees gain value each time that they are used. We have to leverage knowledge management as a bridge to the future. Specifically, the importance of IC is emphasized in:

- ✓ The revolution in information technology and the information society;
- ✓ The rising importance of knowledge and the knowledge based economy;
- ✓ The changing patterns of interpersonal activities and the network society;
- ✓ The emergence of innovation and creativity as the principal determinant of competitiveness.

The researchers have not indicated whether there is an optimal mix of people, technology and physical capital to achieve organizational effectiveness in terms of profitability and sustainability. Currently information about the companies' IC is conveyed through discursive meetings in company's documents and on its websites. This gives only limited information for judging the company's assets, performance and capabilities. IC information allows the investors to assess better the companies' future wealth creation capabilities and globally there is also an increasing demand of greater transparency in the market place and prompt disclosure of IT is often sought after.

We are witnessing a new phase in economic development that is characterized by continuous innovation. This intangible value called IC has created an economic environment which is unfavorable and the organizations have to cope today. This continuous innovation is possible only by means of knowledge that reside in people and in their relations that contribute a new type of intangible value.

Initial studies about IC concentrated mostly on identifying its components but lately many researchers have turned their applications to economic and business implications. This new era presents significant challenges for reporting and accounting for IC by organizations. The various constraints for research in this area till now are:

- ✓ Reluctance to calculate and measure IC.
- ✓ Non availability of data format for assembling information for effective decision-making by management.
- ✓ Lack of well-designed indicators (Sveiby)

In this connection attention must be drawn to Sveiby's observation as to why companies do not report these measurements. The first is that it seems pointless; that management is not aware of how they can be used to monitor operations. The second is the fear that such indicators might give too much away. Lastly, "no rigorous theoretical model for this type of report exits" (Johnson, J, Griffeth, R.W., and Griffin, M).

Information technology has become available for all firms independent of their size and is offering various tools that can be used to raise both efficiency and productivity. Along with this development, communication facilities have improved vastly. There are technologies and innovations such as Internet, which offer an instant access to the information sources around the world. Restricted national markets are fading away and firms are confronted with fierce global competition. In contemporary world, the speed of business operations has notably increased. Information, knowledge and personal skills are emphasized; patents, trademarks and copyrights are needed to protect ownership. The proportion of corporate value stemming from intangible assets has increased substantially.

Thus intellectual capital holds far-reaching implications for the accounting profession, which should seize the opportunity to help measure and audit what makes companies valuable. Rather than the historical and (supposedly) objective approach that has characterized financial reporting to date, valuation of intellectual capital will require immediate and imprecise measures. Can the accounting profession adapt? Is the doubt that looms large?

Valuing intellectual capital is undoubtedly fraught with risk (though not valuing it may prove even more risky if it means that accounting will increasingly lose relevance). Placing a monetary value on intangible assets creates the potential for abuse. Even well-intentioned, honorable companies are vulnerable to lawsuits for misrepresentation should their honest projections prove wrong.

Moreover, intellectual capital cries out for standardization, including a new auditing process and certified measurement. Helping companies' measure intellectual capital thus represents an important opportunity for accountants to shape their future. If accountants fail to take the initiative, management consultants and other professional service-providers are likely to fill the gap. The Wall street journal puts that in the following lines

...we have no accounting methodology for recognizing the value of investments in intangible assets. As companies accelerate spending on intangibles to capture global opportunities, earnings are being understated while returns on book equity and market-to- book and price /earnings ratios are being overstated. In other words current stock market valuations are more reasonable than they appear.

In intellectual capital, the accounting profession has an exciting opportunity to bring its talent and experience to bear on an issue that will affect business fundamentally. Thus in the current research accountants perceptions were given priority.

Accountants try to improve reporting systems by encouraging voluntary disclosure in financial documents of the information needed by investors and creditors. Nevertheless, the accounting definition of an asset does not apply to IC items (Phillip and Frits, 2005), since they cannot easily be valued monetarily. Additionally, Phillip and Frits (2005) also described other problems related to voluntary disclosures such as drawbacks to transparency, regulatory barriers, and auditor conservatism. A difficulty with increased transparency is that it is increasingly impossible to measure the costs of releasing strategic information to competitors, as competitors can easily obtain the information from the annual report to develop rival strategies. Secondly, regulatory barriers

suggest that auditors need to determine the consistency of IC reported in financial reports.

The European Federation of Financial Analysts Societies (EFFAS) recommends that organizations need to produce IC reports consistently over time, since the public needs to have consistent historical series in order to follow the development of certain relevant issues over time. However, auditors find that it is difficult to maintain this consistency of IC disclosure. Lastly, auditor conservatism suggests that auditors bear the least amount of risk when they audit financial statements according to regulations. Although there are drawbacks (transparency, regulatory barriers, and auditor conservatism) and a lack of accounting standards for IC disclosure, these problems do not entirely discourage organizations from reporting their IC. However, the following are the grey areas which need to be addressed effectively,

1. How do the accountants and persons involved in the reporting process consider intellectual capital when valuing a company?
2. How do accountants and persons involved in the reporting process determine the value of the contributions of the various intellectual capital components to the overall valuation of a company?

Such gaps in the existing literature in Svieby's observation point out the inadequacies of the companies in reporting and measuring IC. Bontis (2003) states that intellectual capital is strategically important to organizations and that there may be some favorable factors associated with voluntary 1C disclosure, such as lower borrowing costs, higher valuations, and decreased information asymmetry (Depoers, 2000). For example, when companies disclose more 1C, their transparency level increases, and shareholders can estimate the companies' risk more accurately. As a result, borrowing costs are reduced. On the other hand, for technology companies that do not report some of their 1C, investors will not have a clear view of their potential value.

Public awareness regarding the different components of intangible assets especially while valuing the shares of knowledge based industries is the need of the hour. Understanding such a type of intangible asset components enables an individual to successfully evaluate the value of the firm. However, only a handful of studies focus on this topic, more particularly about the persons in the valuation and reporting process with specific reference to quantitative aspects of the Intellectual Capital, such as Human Capital, Structural Capital and Customer Capital components

Knowledge is the important source of competitive advantage and organizations knowledge is not a new phenomenon- organizations have always depended on knowledge. The business environment has changed over the past decades in most of the developed countries and global trade has gradually changed sellers' market towards a buyers' market. Traditional assets are increasingly transient so is technical knowledge. There is improved access to information and knowledge most notably through the internet. The growing discrepancy between market value and book value of an organization is largely attributed to intellectual capital, the intangibles of the business that underpin future growth. Intellectual capital includes assets such as brands, customer relationships, patents, trademarks and, of course, knowledge.

Traditional accounting methods look backwards into the past and measure physical assets only. New methods must be established to measure intellectual capital. What will produce ongoing value in the business is knowledge in action, and the ability to support and turn hidden knowledge resources into actual knowledge assets. It is the human interaction that creates the two forms of strategic value, i.e. a personalized and codified understanding. Both are extremely important to the everyday business operation, but for a company to be truly knowledge based it needs to implement a strategy to convert tacit knowledge into something that is explicit and therefore positioned inside the business for

reuse. The transfer of tacit (or personalized) knowledge to the explicit (or codified) can only occur if the knowledge creation methodology maps the existing needs of the knowledge workers and the requirements of the business. The culture of the business needs to embrace the creation, transfer and reuse of their knowledge.

References:

1. Bontis, N. (1999), "Managing organizational knowledge by diagnosing intellectual capital: faming and advancing the state of the field", International Journal of Technology Management, Vol. 18, No. 5-8. P.123-6
2. Skandia (1994), Visualising Intellectual Capital in Scandia, Intellectual Supplement Tacit Knowledge: The Key to the Strategic Alignment of Intellectual Capital, Strategy & Leadership. P. 342
3. Edvinsson, L. & Malone, M.s, M.S, (1997). Intellectual capital; realizing your company's true value by finding its hidden brainpower. New York: Harper Business. P.367
4. Bontis, N. and Fitz-enz, J.(2002), "Intellectual capital ROI: a casual map of human capital and antecedents and consequents", Journal of Intellectual Capital, Vol.3 No.3.P.167
5. Davenport, T. and Prusak, L. (2000), Working Knowledge: How Organizations Manage What They Know, Harvard Business School Press, Boston, MA. P. 512
6. Browne, M.W., and Cudek, R. (1993). Alternative ways of assessing model fit. In K.A. P. 121
7. Johnson, J, Griffeth, R.W., and Griffin, M. (2000), "Factors discrimination functional and dysfunctional sales force turnover", Journal of Business Research, Vol. 18, No. 6. P.78