

# Chapter 44

## Intellectual Capital and Knowledge Management

Gil Ariely

*University of Westminster, UK and Interdisciplinary Center Herzliya, Israel*

*Category: Theoretical Aspects of Knowledge Management*

### INTRODUCTION

Knowledge management (KM) and intellectual capital (IC) are not one and the same, and although some overlap is apparent, the relationship is far from trivial and requires exploration. Some intellectual capital such as brand is not knowledge, and some knowledge that cannot be transformed into value is not intellectual capital.

This article illustrates the paradigm of IC and its measurement, focusing then on tensions in the relationship of KM and IC and their origins.

Sullivan (2000) moves us toward the understanding of KM as *value creation* in all its aspects, vs. IC, or ICM (IC management), as *value extraction* (thus, measurement, accountability, explicability, etc.). He defines intellectual capital very briefly as “knowledge that can be converted into profit” (p. 192), implying that some quantification of the value of knowledge is required.

### BACKGROUND

The history and development of intellectual capital and intellectual-capital management somewhat correlate to that of knowledge management, and it seems superfluous to elaborate on the practicality of intellectual capital, where practice was preliminary to theory. The IC movement is a paradigm derived from a practical need: to bridge the apparent gap between the firm’s books and the classic accounting vehicle, and the actual market value. According to Petty and Guthrie (2000):

*[t]he intellectual capital movement is undeniably grounded in practice (Roos et al., 1997; Larsen et al., 1999; Mouritsen, 1998). The development of intellectual capital reports, for instance, can be traced back to the desire for individuals working with or within businesses to improve their understanding of what comprised the value of the business so as to manage better those things that generate value. (Sveiby, 1997; Edvinsson & Malone, 1997; Johanson et al., 1999)*

They also say (p. 158; see also the definition of IC in “Key Terms”), “Often, the term ‘intel-

DOI: 10.4018/978-1-59904-931-1.ch044

lectual capital' is treated as being synonymous with 'intangible assets.'"

The paradigm of IC is established rather commonly in the literature as divided into three sub-domains: human capital, organizational capital, and customer capital (or human capital, structural capital, and relational capital; Bontis, 2002; Edvinsson & Malone, 1997; Stewart, 1997; Sullivan, 1998). This division is meaningful toward measurement, a focal point of the IC movement.

### **IC Measurement and Models**

Valery Kanevsky and Tom Housel write, "Understanding how to accelerate the conversion of knowledge into money is the real challenge in the information age" (as cited in Von Krogh, Roos, & Kleine, 1998, p. 269). Tracking that process of conversion into value leads to measurement. Roos, Roos, Edvinsson, and Dragonetti (1998) emphasize that the definition of intellectual capital must be clear and measurable: In order to manage intellectual capital, it must be measured.

However, the measurement of knowledge assets triggers both great interest and great skepticism. Indeed, the measurement of IC is still being experimented with various models.

One of the ultimate goals of measuring intellectual capital is its proper acknowledgement and reporting, similar to the more familiar accounting and reporting system of tangible assets in firms. The perspective of the stocks and flows forms of knowledge (following the resource-based view of the firm) inspired a comparison to familiar forms of accounting reporting. According to Bontis, Dragonetti, Jacobsen, and Roos (1999):

*In a way, the identification of stocks creates a series of still photos of the company's intangible resources, whereas the flows provide the animation. Adding a flow perspective to the stock perspective is akin to adding a profit and loss statement to a balance sheet in accounting. The two perspectives combined (or the two reporting tools, in the case*

*of accounting) provide much more information than any single one alone.*

Indeed, Lev (2000a, 2000b) says, "Accounting's 500 year exceptional durability is being severely tested...a major contributor to such asymmetries are the archaic accounting rules which treat most investments in knowledge as regular expenses."

As to the principle behind actually calculating intellectual capital, Mouritsen, Bukh, Larsen, and Johansen (2002, p. 11) say, "Authors such as Edvinsson and Malone, and Stewart suggest that intellectual capital is a combination of human, structural and customer capital, whose worth can be identified by subtracting the firm's book value from its market value."

Although measuring IC is recognized to be crucial, frameworks have not yet reached statutory recognition as paradigms, thus allowing us but a sample and flavour of some available models and tools implemented toward the metrics of "intangibles" within the scope of this article. This is not due to the lack of models, but to the lack of standards. Further literature reviews of the tools elaborate beyond the scope this theatre allows (Bontis et al., 1999).

According to Petty and Guthrie (2000), "it is the limitations of the existing financial reporting system for capital markets and other stakeholders [that] have motivated an evolving dialogue on finding new ways to measure and report on a company's intellectual capital." The product of this dialogue is a plethora of new measurement approaches that all have the aim, to a greater or lesser extent, of synthesising the financial and non-financial value-generating aspects of the company into one external report. Principal among the new reporting models are the intangible asset monitor (Sveiby, 1988; 1997; Celemi, 1998); the balanced scorecard (Kaplan and Norton, 1992; 1996); the Skandia value scheme (Edvinsson and Malone, 1997; Edvinsson, 1997); and the intellectual capital accounts (DATI, 1998).

9 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/intellectual-capital-knowledge-management/48995](http://www.igi-global.com/chapter/intellectual-capital-knowledge-management/48995)

## Related Content

---

### Four Express Service Cooperation Modes for B2C E-Commerce: Models and Analysis

Ningning Wang, Xi Cheng and Qinglong Gou (2015). *International Journal of Knowledge-Based Organizations* (pp. 1-18).

[www.irma-international.org/article/four-express-service-cooperation-modes-for-b2c-e-commerce/133148](http://www.irma-international.org/article/four-express-service-cooperation-modes-for-b2c-e-commerce/133148)

### From the "Analogue Divide" to the "Hybrid Divide": The Internet Does Not Ensure Equality of Access to Information in Science

Franz Barjak (2006). *New Infrastructures for Knowledge Production: Understanding E-Science* (pp. 233-245).

[www.irma-international.org/chapter/analogue-divide-hybrid-divide/27294](http://www.irma-international.org/chapter/analogue-divide-hybrid-divide/27294)

### Know-CoM: Decentralized Knowledge Management Systems for Cooperating Die- and Mold-Making SMEs

Florian Bayer, Rafael Enparantza, Ronald Maier, Franz Obermair and Bernhard Schmiedinger (2005). *Case Studies in Knowledge Management* (pp. 186-210).

[www.irma-international.org/chapter/know-com-decentralized-knowledge-management/6172](http://www.irma-international.org/chapter/know-com-decentralized-knowledge-management/6172)

### Knowledge Transfer and Use as Predictors of Law Firm Performance: Nigerian Lawyer's Perspectives

Ismail Olatunji Adeyemi, Waliyah Omotayo Uzamot and Fatima Modupe Temim (2022). *International Journal of Knowledge Management* (pp. 1-17).

[www.irma-international.org/article/knowledge-transfer-and-use-as-predictors-of-law-firm-performance/291097](http://www.irma-international.org/article/knowledge-transfer-and-use-as-predictors-of-law-firm-performance/291097)

### Effects of Knowledge Management Implementation in Hospitals: An Exploratory Study in Taiwan

Wen-Jang ("Kenny") Jih, Cheng-Hsui Chen and Ying-Hsiou Chen (2006). *International Journal of Knowledge Management* (pp. 1-20).

[www.irma-international.org/article/effects-knowledge-management-implementation-hospitals/2684](http://www.irma-international.org/article/effects-knowledge-management-implementation-hospitals/2684)