

Chapter 29

Intellectual Capital Measurement

Lukasz Bryl

Poznan University of Economics and Business, Poland

ABSTRACT

The aim of the chapter is to present the current state of knowledge concerning intellectual capital (IC) and its measurement methods. Although IC may be estimated on the micro, macro, and industry level, this chapter deals with the IC measurement on the enterprise level explicitly. The first part of the chapter is concentrated on the introduction to the IC and its main forms. The second presents the most common IC measurement methods, and the third part is the analysis of controversies and usability of chosen methods.

INTRODUCTION

In the contemporary knowledge-based economy the importance of assets related to human, his knowledge and abilities is on the rise. Nowadays Intellectual capital (IC) and intangibles as wealth production factors take precedence compared to physical assets. Especially in the ICT industry, in which Intellectual capital has its origin, IC is perceived as the driver of innovation, growth and competitive advantage of the companies. Moreover in the ICT industry it is the Intellectual capital mostly responsible for the value creation. ICT is being created by Intellectual capital, while at the same time ICT enable efficient Intellectual capital management.

The aim of the article is to present the current state of knowledge concerning Intellectual capital and its measurement methods. Although IC may be identified and calculated on the micro, macro and industry level, this paper deals with the IC measurement on the enterprise level solely. First part of the article is concentrated on the introduction to the IC notion and its main forms, second presents the most common IC measurement methods, while the third part is the analysis of controversies and usability of chosen method to provide a general vision of IC measurement concept.

DOI: 10.4018/978-1-5225-7659-4.ch029

BACKGROUND

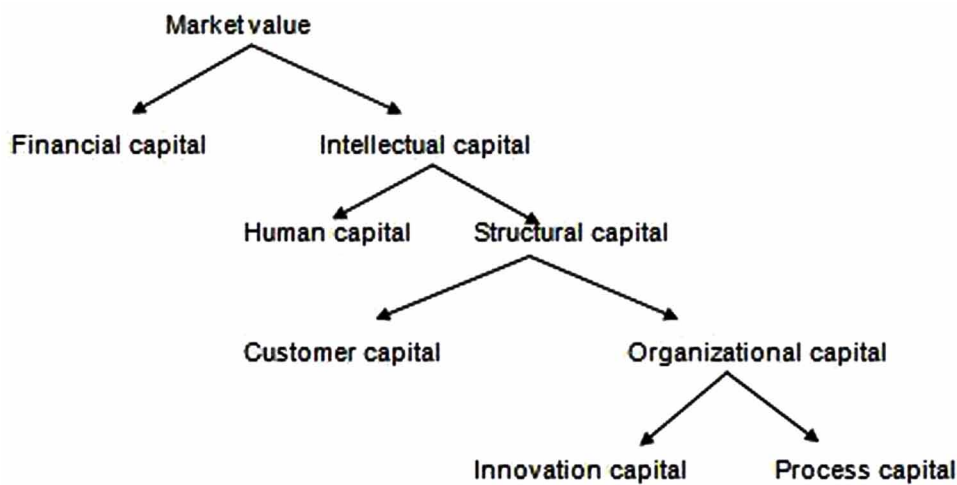
First use of the term *Intellectual capital* took place in 1958 when two financial analysts recognized as the most important element in the information technology companies their *Intellectual capital*. As a result of changes in the structure of economies in many countries, the term has become a subject of interest and study of a wider group of researchers.

Abeysekera (2006, pp. 61) recognizes Intellectual capital as a form of knowledge that is not posted in the traditional financial reporting. Brooking (1998, pp. 12) believes that Intellectual capital are combined intangible resources that allow organizations to function. Stowe (2001, pp. 86), in turn, argues that Intellectual capital is the ability to use the knowledge possessed by a person or a company to make better use of human and natural resources. In the discussion on the importance of Intellectual capital it is often emphasized that it may have a significant impact on achieving and maintaining a competitive advantage. Stewart (2003, pp. 32) considers the Intellectual capital as a sum of all knowledge the company staff has and what can provide a competitive advantage, manifested in market value which exceeds book value. Edvinsson and Malone (2001, pp. 17) argue that Intellectual capital may be recognized as the difference between the market value and the book value. Intellectual capital may include: patents, processes, people skills and experience, technologies, information about customers and suppliers (Stewart, 1997, pp. 71).

To sum up IC shall be perceived as intangible assets created by human and his knowledge that have not been entirely disclosed in the balance sheet but play a crucial role in the contemporary business environment in terms of enterprises competitive advantage. Moreover, there shall be stated the difference between the commonly used terms of: Intellectual capital and intangibles. IC is a broader notion than Intangibles - Intangibles shall be associated with these knowledge-based assets that can be reported and valued in the financial statements of the enterprises. In this sense Intangibles are part of IC.

Defining Intellectual capital is a complex activity, as it has several dimensions and may be presented in many ways. Figure 1 provides one of the most common and widely accepted classification of IC.

Figure 1. Forms of Intellectual capital (Edvinsson & Malone, 2001, p. 45)



11 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-measurement/215939

Related Content

Industrie 4.0 by Siemens: Steps Made Today

Diana Cozmiuc and Ioan Petrisor (2018). *Journal of Cases on Information Technology* (pp. 30-48).

www.irma-international.org/article/industrie-40-by-siemens/201198

Information Systems and Business Information Technology

Bernd Carsten Stahl (2004). *Responsible Management of Information Systems* (pp. 1-8).

www.irma-international.org/chapter/information-systems-business-information-technology/28441

Cloud ERP Systems for Small-and-Medium Enterprises: A Case Study in the Food Industry

Amir Hassan Zadeh, Bolaji Akinsola Akinyemi, Anand Jeyaraj and Hamed M. Zolbanin (2018). *Journal of Cases on Information Technology* (pp. 53-70).

www.irma-international.org/article/cloud-erp-systems-for-small-and-medium-enterprises/212624

From Research to Practice: Promising Insights from Computer Self-Efficacy

Atul Mitra, Rex Karsten and Dennis Schmidt (2014). *Inventive Approaches for Technology Integration and Information Resources Management* (pp. 83-96).

www.irma-international.org/chapter/from-research-to-practice/113177

Procurement and Outsourcing

Daniel M. Brandon (2006). *Project Management for Modern Information Systems* (pp. 248-273).

www.irma-international.org/chapter/procurement-outsourcing/28186