

## INTELLECTUAL CAPITAL: A CRITICAL APPROACH ON DEFINITIONS AND CATEGORIZATION

Diana GIOACASI\*

**Abstract:** *Intellectual capital has become the leading resource for creating economic value and there are an important number of publications focused on this area of research. In spite of the interest for this area of research, the existence of different terms regarding intellectual capital makes the process of definition and classification difficult. The purpose of this study is to analyze the concepts related to intellectual capital by establishing the connections and correlations between the terms in order to make the term of intellectual capital fully understandable and also to explain how the components of intellectual capital can be structured.*

*The analysis of intellectual capital definitions is significant because it is a first step in intangible factors understanding, having implications on the company pattern of knowledge evaluation.*

*Of all the terms analyzed, intangible assets allows a clear definition of its meaning, its components and thus provides insight into ways of assessing the knowledge of an entity.*

**Keywords:** intellectual capital; intangible assets; knowledge management; intangible resources

**JEL classification:** M14; M41; D23; D83

### Introduction

Intellectual capital is considered the most important resource of enterprise in order to provide financial health and value for business partners. In today's economy, knowledge of an enterprise is a vital resource for economic growth and value creation for business partners. The interest in this area of research manifested by large number of papers, empirical studies has determined the development of many terms that define the term of intellectual capital.

Despite the interest in intellectual capital, one can meet gaps in the use of concepts, with negative consequences on identifying components and assessment methods. Empirical studies use different concepts to express knowledge of the entity: intangible, intangible assets, intangible capital, intangible resources, intellectual capital and intellectual property.

In essence, these terms express the non-financial factors of knowledge-based enterprise, which can be measured and whose impact can be found in the value of a company. Accordingly, these terms are used similarly or differently to express the same concept depending on area and field research.

From a financial perspective, intellectual capital is the difference between market value and book value of an organization. This view is largely fought, because the market value of an organization suffers the influence of several factors that cannot be assimilated to the intellectual

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\* Ph.D. Student, Alexandru Ioan Cuza University of Iasi, e-mail: dianagioacasi@yahoo.com

capital and on the other hand, the book value suffers both the influence of accounting system and international accounting standards.

The objective of this paper is to analyze both definitions of the intellectual capital and the manner of structuring its elements so they can be identified concept best defined and quantified, for only a precise knowledge of a phenomenon allows to identify its components, quantitative variables and assessments.

This work is a documentation platform for future research on assessment models of enterprise intangible knowledge. In evaluating concepts relating to intellectual capital, we took into account several aspects:

- Researcher field of activity, aiming to identify either a managerial perspective by establishing the component elements and the manner of organization in creating value for enterprise or an accounting perspective which is based on recognition criteria established by international accounting standards and accounting evaluation elements of intellectual capital.

- The scope of the concept used.

- Type of definition. Some definitions are conceptual by nature, others are based on the simple recognition of knowledge, while others focus on of the intellectual capital components.

Similar to many of the defining terms of the intellectual capital, there are a myriad of classifications of the intellectual capital. In some empirical studies, intellectual capital is classified according to the methods of assessment, while others classifies by their economic performance. This article aims to provide a correlation between concepts and major components in order to identify similarities and differences between the terms of manifestation of the intellectual capital.

## **1. Definition of intellectual capital**

Most researchers use the concept of intellectual capital for expressing intangibles. In empirical studies, the term intangible or intellectual capital refers to knowledge of an enterprise. The concept of intellectual capital was attributed to John K Galbraith (1969). Porta and Olivier (2006) surveyed for identification and classification of intellectual capital for groups of companies, while Choong (2008) conducted an extensive analysis of various categories of definitions and classifications of intangible assets in order to create a common body of elements. Choong (2008) has classified intellectual capital into three main components: human capital, organizational capital (structural) and relational capital.

One of the most succinct definition of intellectual capital is provided by Sveiby (1997): "useful package of knowledge." It exists and also includes: organizational processes, patents, employee skills, information about customers, suppliers and business partners. Through this components elements, Brookings (1997) establishes that intellectual capital includes assets based on market knowledge, knowledge of human capital, intellectual property and technology enterprise. In terms of their object, intellectual capital is defined by Nahapiet and Ghospal (1998) as "knowledge and social skills knowledge of the community", while Harrison and Sullivan (2000) talk about a "knowledge-based capital companies"

Another concept used in defining intangible knowledge is intangible intellectual property. Intellectual property consists of patents, copyrights, trademarks which are easier to value than other tangible assets and they are also implies a legal right to use for the property or owner.

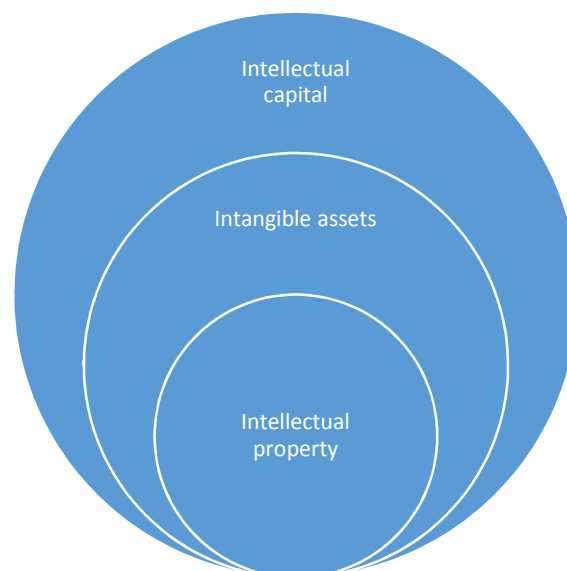
Smith (1994) defines intellectual property as "intangible assets are all items of business, additional working capital and tangible assets. They are elements, which after working capital and tangible assets, allowing an organization to function and contribute to an enterprise value", while Grandstrand (1999) defines as "quality directly related to creativity and knowledge". Compared with intellectual capital, defined as knowledge determined of enterprise value, intellectual property is a well-defined concept, providing a clear vision on components elements and it is a legal right of the entity that allows its identification in the book value.

Intangible asset concept was introduced in strategic management by Rich Hall (1989, 1992). Intangible assets are the result of past events and have three main characteristics: they have no physical form, are capable of generating future economic benefits and are legally protected by a right of use. Accounting standard IAS 38 establishes conditions in which intangible assets can be recognized in financial statements. An asset must be identifiable, controlled by the entity and differentiated from enterprise goodwill. Intangible asset is an asset interpreted as an asset without material substance.

Itami (1991) defines intangible assets from an accounting perspective, as follows "invisible assets that include a myriad of activities such as technology, customer confidence, brand, corporate culture and management ability" and Bouteiller (2000) defines them as follows "assets are the result past events with three characteristics: they have no physical form, are capable of generating future economic benefits and are legally protected". On the other hand, Hall (1992) defines intangible assets in terms of impact on enterprise performance, calling it «crucial values that transform productive resources into value added activities".

In Figure 1, is presented the relationship between concepts of the intellectual capital, identifying intellectual capital, intangible assets and intellectual property. With a similar meaning of concept of intellectual capital, intangible terms are also used, intangible resources, which expresses a company's intangible knowledge, with no existing criteria or clear line recognition of its components. Compared with intellectual capital, intangible assets define identifiable knowledge of the enterprise, controllable and perfect evaluable. Evaluation of the two concepts allows a performance analysis of a company from two perspectives: a managerial perspective that includes all the value generators elements to without quantifying them and an accounting perspective, which aims to identify the entity values to quantify them.

**Figure 1 - Interdependencies between the concepts of intellectual capital**



Source: authors' elaboration

## 2. Classification of intellectual capital

In the process of classification the intellectual capital components, most classifications follow the following structure: human capital, relational capital and structural capital (Edvinsson and Malone, 1997; Green and Ryan, 2005; Sveiby, 1997). This structure belongs to Sveiby (1997), who first made a classification of intellectual capital from an un-accounting perspective, classification which is classified as: employee competence, internal structure and external structure of organization. Pre-meet rankings follow the structure done by Sveiby, distinctions consisting in the terms used.

In the light of the concept used, one can identify several classifications. IASB (2004) classifies intangible assets into marketing knowledge, human resources, brands, copyrights, franchises,

licenses, operating rights, trade secrets and trademarks. From this point of view, it identifies a classification of intangible assets in terms of the criteria for recognition of international accounting standards. Itami (1993) done a similar classification, classifying invisible assets in technology, consumer confidence, brand, corporate culture and management skills.

Human capital represents the individual skills, knowledge, talent and experience of both employees and managers. Human capital is considered the most important asset of the enterprise, as is a permanent source of creativity and innovation (Bontis, 1998, Brookings, 1996, Edvinsson and Malone, 1999; Stewart, 1999). It is also considered the most risky, because does not belong to the company, but to each employee, as part of the organization (Edvinsson, 1997).

Relational capital includes all the resources involved in the relationship between the entity and its partners (customers, investors, suppliers) and all the knowledge embedded in external relations. Elements of the relational capital are: market share, profitability, customer relationship with business partners, etc.

Structural capital refers to the internal structure of the organization, processes and procedures. It includes patents, organizational processes, strategic and administrative technologies. (Edvinsson and Malone, 1997). Fundamentally, structural capital refers to the internal organization that supports human capital to create value for organization and financial health. (Edvinsson and Malone, 1997; Sveiby, 1997). Other opinions say that is a combination of organizational culture, organizational processes, information systems and intellectual property. Elements that made structural capital are: technology, inventions, databases, culture, hardware, software, patents, trademarks and systems, etc.

## **Conclusions**

This study provides information about intellectual capital terminology both in terms of capital accounting and managerial perspective. In evaluating these terms, it is important that intangibles to be well understood in order to demarcate the area of activity of each term for determining correlations and interdependencies between them and identifying the concept of better defined and quantified for evaluating performance through the impact of intangible factors.

It is noted that all terms used in defining the concept of intellectual capital express the same aspect: invisible knowledge of an entity. In terms of compensation between terms, the concept of intellectual capital is the broadest in scope, including in its area of action, all terms stated, without providing information for quantification the intangible knowledge of an enterprise, while intellectual

property is component part of intangible assets, easily quantifiable, by recognizing a legal right to use them.

In terms of research area, we make a differentiation between accountants scientists and un-accountants researchers based on the terms they use as follows: accountants uses the concept of intangible assets and intellectual property on the basis of recognition of assets, while management specialists uses the concept of intellectual capital or intangible resources. In terms regarding manner of expression of the definition given, I can say that some definitions are conceptual, others follow the structure of intellectual capital, while others relate to matters related to the objectives and role in the expression intangible value and performance of an enterprise.

In essence, intellectual capital can be classified into three essential components: human capital, organizational capital or internal structure of the organization with partners. Although using different terminology, most researchers accept Sveiby's classification, admitting that intangibles can be grouped into three broad categories: employee skills, capital structure determined by the organization's internal and external relations of the organization.

From the analysis of essential terms expressing the concept of intellectual capital, we concluded that intangible assets are best defined in terms of area extension and allow a clear evaluation of major components and performance impact and value of an enterprise, which includes its use in a future research.

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