

## INTELLECTUAL CAPITAL MANAGEMENT – A POSSIBLE APPROACH

Luminita Maria Gogan  
Politehnica University Timisoara, Romania  
gogan\_maria@yahoo.com

Cristina Borca  
Politehnica University Timisoara, Romania  
cristina\_borca1@yahoo.com

Frank Rennung  
Politehnica University Timisoara, Romania  
frankrennung@gmail.com

Roxana Sîrbu  
Politehnica University Timisoara, Romania  
roxana.oarza@yahoo.com

### **Abstract:**

In recent years, the idea of managing intellectual capital in organization has gained popularity among both in academia and in business environment. The idea that current annual financial statements do not allow efficient management it appears to be widely accepted nowadays, since they do not capture a wide range of intangibles that are seen as the fundamental determinants of firms' success. Therefore it is necessary that the intellectual capital to be used more effectively for the company to achieve sustainable competitive advantage. Despite the growing importance of intellectual capital management, the lack of ability of information systems to identify, measure and control intangible assets in order to increase the efficiency of their management and to improve their financial performance, can result in the loss of company because the managers do not but identified or exploited intangible assets. To the help of managers come proposed models for managing intellectual capital developed, mainly by scientists from the Nordic countries. The purpose of this paper is to develop a new model of intellectual capital management focuses on renewing and maximising the enterprise-wide value of intellectual assets.

*Keywords: intellectual capital, sustainable competitive advantage, intellectual capital management, model*

# 1. INTRODUCTION

As intellectual capital gained ground against tangible assets has been widely accepted that it is the new fundamental basis of competition: it is the most essential factor in the creation of economic value and competitive advantage. Currently, intellectual capital in its various forms is the most important resource for all types of company. When intellectual capital has become the primary driver of sustainable competitive advantage in today's economy, different researchers in the intellectual capital management field they proposed a variety of models of managing intellectual capital in order to help managers in managing intellectual capital that exists within their companies (Pienaar & Du Toit, 2009, pp. 121-137). However, while there is a great deal of research reporting the models for managing intellectual capital, there are only a few models showing steps to make. The overall objective of the research is divided into three research questions that have different perspectives on the same phenomenon: the description of the concept of intellectual capital management, the importance of intellectual capital management and existing models for managing intellectual capital. The research questions are studied through literature and propose a new model for intellectual capital management, which by applying it in practice getting the final results sustainable competitive advantage. The proposed model attempts to overcome the limitations of conventional models are used to explain, measure, and manage organizational competitiveness, without taking into account maintaining leading position. The most important contribution of the research is the description of how to apply intellectual capital management in a company without any intellectual capital management model.

## 2. INTELLECTUAL CAPITAL MANAGEMENT - LITERATURE REVIEW

### 2.1. Defining intellectual capital management

In an era sudden changes, success depends very much on the organization's ability to manage intangible assets that exist in the company in an efficient manner. Thus, managers need to know the concepts which operate intellectual capital. In their help come various researchers which propose a lot of definitions related to intellectual capital management. By examining the various definitions of literature, the authors present the evolution of the concept of intellectual capital since 1997 and until now, Table 1. It can be seen that the definitions involve common and different imperatives. Most definitions integrate three emerging constructions: value creation, extracting value and maximizing the value. So, all definitions show a positive relationship between intellectual capital and competitive advantage. Intellectual capital management offers managers a way to turn the phrase "people are the most important assets" from words into reality (Senyucel, 2009).

**Table 1:** Definitions of intellectual capital management (ICM)

Authors	Year	Definition
J.A. Nickerson and B.S. Silverman	1997	"ICM involves 'the establishment of monitoring, measurement and management practices that secure intellectual assets for use by the company and that scan the environment for competitive threats to/opportunities for these intellectual assets'" (Nickerson & Silverman, 1997, pp. 320-331).
P. Sullivan	1999	"ICM to be about balancing and aligning the IC of the company with the company's vision" (Sullivan, 1999, pp. 132-143).
B. Marr and G. Schiuma	2001	"ICM consists of four activities: defining the key knowledge assets, identifying the key knowledge processes, planning actions for developing the processes, and finally implementing the actions and monitoring the resulting improvement in the knowledge assets" (Marr & Schiuma, 2001).
Meritum	2002	"ICM including three phases: the identification of strategic intellectual assets and activities related to them, measuring them, and monitoring their development" (Meritum, 2002).
B. Marr, O. Gupta, S. Pike and	2003	"ICM is a series of actions that occur within the

G. Roos		organization aimed at creating and extracting value” (Marr et al., 2003, pp. 771-781).
J.M. Viedma	2004	“ICM consists of the strategic planning and implementation activities related to intangibles, and its explicit goal is the improvement of the companies’ value creation capacities” (Viedma, 2004, pp.13-23).
K. Jelcic	2007	“ICM means focusing all organization activities towards the future - strengthening the firm abilities, while initiating an action plan to eliminate weaknesses, and in such way continuously improving business operation” (Jelcic, 2007).
P. Kujansivu	2008	“ICM include the identification, measurement, valuation, acquisition, and reporting of intellectual capital” (Kujansivu, 2008, pp 249–256).
L. M. Gogan and D. C. Duran	2014	“ICM is a cyclic and continuous process that is coordinating the activities to identify, evaluate, and initiate action plan and report intangible assets in order to achieve sustainable competitive advantage” (Gogan & Duran, 2014, pp.57-64).

Source: Author contribution

## 2.2. The roles of the intellectual capital management

In the current economy more and more managers combat the financial crisis, trying to find all kinds of solutions to increase company value and intellectual capital management is of major importance, even vital for certain companies. This new era of technology, new inventions and innovation has a great impact on the strategies, objectives and goals of many companies; so many researchers in economics see intellectual capital as a reliable source of increasing the value of companies. The literature shows in many papers the importance of intellectual capital management in organizations (eg. Kianto et al., 2013, pp 112-122; Mitchell, 2010; Sánchez et al., 2000, pp. 312 – 328). In this regard, Ulrich (1998) identified several reasons why intellectual capital management is important:

- Intellectual capital management is implemented across hierarchical levels and increases understanding about the functioning of an organization. The manager receives a feedback about what is happening in operational activities. This leads to improved coordination gaps and future goals, favoring the adoption of permanent decisions.
- In the management process is defined the most important factors in creating value, making it possible to find a common language to avoid misunderstandings and promotes constructive discuss.
- The processes and procedures established in the management of intellectual capital are an important starting point for layout and process improvement.
- The demand for knowledge worker in a growing service economy is on the rise (entities linked to human capital), creating synergy and striving for innovative atmosphere.
- Learning and innovation become increasingly important in the new economy
- The first line become increasingly important in relation to customer value (entities linked to networks), so is intended to know customer needs allowing better orientation towards added value and competitive advantages.
- Knowing the strengths and weaknesses of the firm creates transparency and trust between employees, organizational units and functions.

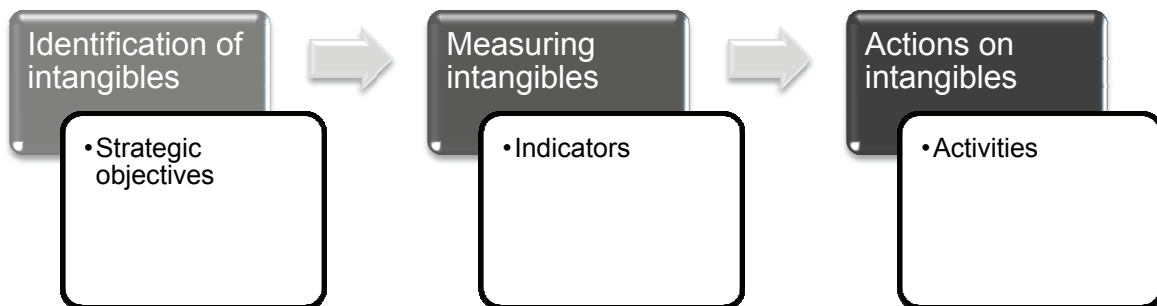
## 3. BRIEF OVERVIEW OF THE EXISTING MODELS OF INTELLECTUAL CAPITAL MANAGEMENT

In this chapter is present different approaches made by researchers in the field of intellectual capital management with the purpose to illustrate how intellectual capital can be managed within the organization. Offering a conceptual view, the models suggest management activities that help to promote the value of intellectual capital to enhance competitive advantage and generate wealth. The most important models in intellectual capital management are:

- Meritum Model;
- Wissensbilanz Model

The *Meritum model* is the result of research conducted by a group of specialists from a number of European countries, established by the European Union. This model urges Europe to adopt a series of urgent measures to stimulate organizations and start to establish guidelines for managing intellectual capital. The objective of this model is to increase management efficiency and help organizations in the production and disclosure of timely, relevant and comparable information that allow shareholders to effectively estimate the benefits and risks of future investment opportunities (Figure 1). Meritum model contains three main stages approach (Meritum, 2005, p. 16):

**Figure 1:** Meritum model

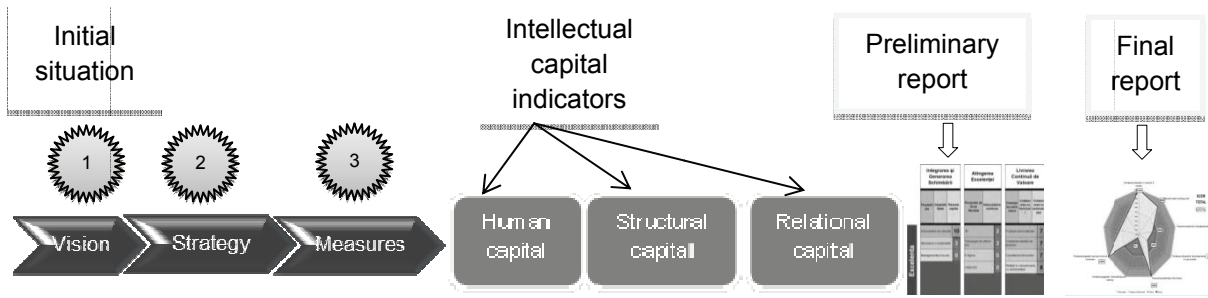


Source: Meritum, 2005, p. 16

- Identification of intangibles - this stage has as a starting point the vision for the company, which is a guide to mission and strategic objectives. The company must identify the intangibles that are critical to strategic objectives. Identified intangibles are the main factors in creating value. Companies need to be careful so intangibles situation and the actions to be undertaken to maintain and improve these intangible. The result of the identification process is a list of the intangibles vital organization, providing an accurate picture of existing intangibles to be developed in the future.
- Measuring intangibles - this stage involves the delineation of specific indicators (general features specific to an industry or a company) to be used as a tool to measure representative of the various intangibles that have been identified. These indicators must have certain characteristics to be considered useful (comparable achievable, objective, reliable, verifiable and feasible).
- Actions on intangibles - includes assessing the effects of previous investments in intangible assets. The organization should conduct a SWOT analysis of existing activities. Following the evaluation, new activities related intangibles can be developed and implemented in the end. At this stage, the organization must assess its effects on both internal users and external users over.

The *Wissensbilanz model* is the guide of managing intellectual capital developed by the Federal Ministry of Economics and Labour in Germany. The model was developed in 2004 and is addressed to small and medium enterprises, as well as other forms of organisation which have a comparable structure. The guide aims to provide help managers in managing intellectual capital by providing advice on the principles and methods useful for the development of intellectual capital statements (Figure 2). The model provides a framework for adaptation and adoption by various organizations. When applying the model, organizations must explicitly formulate organizational objectives relevant to obtaining performance. The guide is prepared in six steps with four stages:

**Figure 2:** Wissensbilanz model



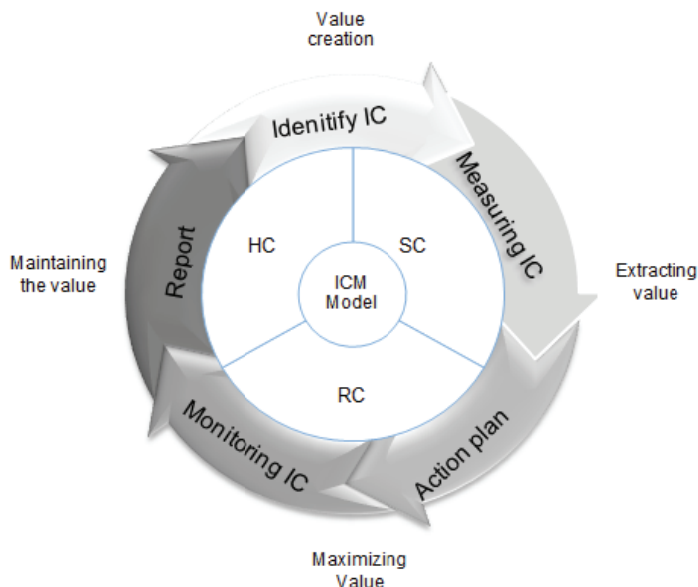
Source: Edvinsson & Kivikas, 2007, p. 376

- First stage - is the intellectual capital statement in its simplest form. The three steps are necessary to achieve this stage. The first step is to evaluate the initial situation relating to intangible assets, the company's strategy and business. The second step is to recognition intellectual capital, ie identify the processes that generate performance and the factors that influence intellectual capital. The third step is to evaluate of intellectual capital and meaning self-assessment method in order to get a quick overview of the strengths and weaknesses of intellectual capital that exist in the organization.
- Stage two - its objective is to propose relevant indicators that are measurable in the form of numbers or dates by those skilled in the field of intellectual capital.
- Stage three - preliminary report, which describes the most important information relating to intellectual capital in a structured form.
- Stage four – is seen as the presentation of full intellectual capital statement. In this final report integrates correlation analyzes and assessments that provide information about how it will take until measures taken will lead to organizational performance.

#### 4. INTELLECTUAL CAPITAL MANAGEMENT MODEL – A NEW APPROACH

In the desire to occupy a leading position in the market is necessary to implement management practices that generate sustainable competitive advantage. In order to improve existing models proposed a new model of managing intellectual capital and associated methodology that aims to help managers in managing intellectual capital in order to be leaders in the market (Figure 3). The proposed model aims to identify, describe, measure and report on intellectual wealth from a more comprehensive perspective resulting exploitation of intangible assets of organizations. This model is based on five steps:

**Figure 3:** A new model of intellectual capital management



Source: Author contribution

- Identify intellectual capital - is a step in that intangible resources are determined and described that may have an impact on organizational competitiveness. They can be identified at the organizational level, department level or at the individual level. As tools for collecting data on intangible assets (human capital - HC, structural capital - SC and relational capital - RC) can be used online questionnaires, focus groups or interviews. This step is executed by a person skilled in the art called internal auditor. This step is aimed at creating value for the company.
- Measuring intellectual capital - this phase is started after existing intangible resources within the company, department or individual level have been identified and are considered vital to obtain competitive advantage. The measurement is made for each intangible asset to see the extent of its implementation in the company. Measuring intellectual capital aims at extracting the value created.
- Action plan - This step involves finding ways to improve the results obtained in the step of measuring intellectual capital. Starting the action plan is a proposal process and determining the correct option strategy involving the implementation of corrective actions and reduces the risks associated intellectual capital. The effectiveness of this step contributes to achieving the organization's objectives and maximizes the value created.
- Monitoring of intellectual capital - once the action plan has been implemented, the aim is achieved if the targets set by the manager. The purpose of this step is to maintain the value created.
- Report - in this step, the measurement intellectual capital results are presented to the manager (total score), creating an overview of the value created for the organization of these intangible assets.

## 5. . CONCLUSIONS

In essence, the power of an organization to achieve wealth lies not in equipment, machinery and other capital goods that they possess, but it exists in distinct knowledge, the power to clarify various issues, and offer a unique response. Given the changing role of intangible assets in modern organization, Alvin Toffler and Heidi Toffler believe that as long as backward sectors of industry investors still consider traditional tangible assets - plants, equipment, stocks, as critical, investors from IT sectors and fastest growing is based on factors totally different to sustain investments (Toffler & Toffler, 2007, pp. 253-286). As a result, the profit of the organization is primarily the consequence of the good relations it has with its employees, suppliers, customers and even its competitors. Intellectual capital management enables identification of effectiveness with which the company has developed intangible and tangible resources. Directions are closely related to the organization's strategic logic and therefore the type of resources and changes that are fundamental to creating value within the organization and hence competitive advantage. A further contribution of the research is to test and validate the model of intellectual capital management in small and medium enterprises.

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