Foreword: Intellectual capital and company's value creation dynamics

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Abstract: Although the strategic and management literature has dedicated great attention on the role and relevance of intangible and cognitive resources for company competitiveness, there is still a lack of consideration on an in-depth investigation of the links and relationships between Intellectual Capital (IC) and company's value creation. This is a significant shortcoming since companies are not interested in managing IC for itself, but rather than in the value they can get from explicitly and formally addressing the assessment and management of IC. For this reason the investigation of how IC sustains and drives company's value creation dynamics is a key issue to be addressed. IC contributes both to define the value of a company and to support the organisation performance improvements towards the achievement of company's strategic value propositions. In this introduction to the special issue we develop some conceptual interpretations to investigate the position of IC in the company's value creation dynamics.

Keywords: Intellectual Capital; IC; value creation; dynamics; performance improvement; knowledge assets.

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1 Introduction

In today's fast changing and complex economy, one of the fundamental managerial issues is the understanding of the organisation's value creation dynamics and particularly of the company's key value drivers, *i.e.*, the strategic assets underpinning company's competitiveness and wealth creation. Where does organisation's ability to create value reside? What are the critical success factors at the basis of business performance improvements? How can managers increase the value of an organisation as well as its ability to create value? These are some of the fundamental questions that need to be addressed in order to better understand how organisations can sustain their value creation dynamics and most importantly can contribute to growth and wealth creation.

Traditionally, key assets for competitive advantages are financial capital and physical resources. These resources still represent and will continue to stand for important factors of competitiveness. However, in the last decades, companies facing the turbulent, dynamic and fast changing competitive scenario, have realised that today the most important factors of production are intangible and knowledge-based.

The development of new knowledge intensive businesses and the lack of success of those companies, mainly relaying on traditional assets, to comply with the new markets rules, have showed the strategic relevance of intangible and knowledge assets.

New strategic management theories, such as the Resource-Based View (Barney, 1991; Collins and Montgomery, 1995; Drucker, 1993; Penrose, 1959; Peteraf, 1993; Rumelt, 1984; Wernerfelt, 1984), the Competence-Based View (Davenport and Prusak, 1998; Prahalad and Hamel, 1990) and the Knowledge-Based View (Grant, 1996; Sveiby, 2001), have argued that a company's sustainable competitive advantage results from the possession of resources that are hard to transfer and accumulate, inimitable, not substitutable, tacit in nature, synergistic (Barney, 1991; Rumelt, 1984; Teece *et al*., 1997; Wernerfelt, 1984) and not consumable because of their use (Davenport and Prusak, 1998). More specifically, they stress that a company strategically differentiates from its rivals both by the imperfect imitability and substitutability of its specific resources and by the ways of combining and deploying those resources (Amit and Schoemaker, 1993; Grant, 1996; Prahalad and Hamel, 1990; Teece *et al*., 1997). Consequently, intangible and knowledge resources have been recognised in today's economy as key sources of company's competitive advantage (Amit and Schoemaker, 1993; Grant, 1991; Hitt *et al*., 2001) and only acquiring, stocking, deploying and continuously nurturing those resources a company can achieve and maintain its competitive advantage.

The concept of Intellectual Capital (IC) has recently emerged as a way of describing the organisation's strategic intellectual and knowledge-based resources. The scholars' attention seems to be today focused on two main approaches of analysis which can be defined as the asset-based and the dynamic-based approach. The first tends to analyse the IC in accordance with a static perspective and proposes approaches and models for the assessment of intangible and cognitive resources of a firm. While, the second attributes relevance to the dynamic nature of intangible and cognitive resources and recognises in the dynamic interactions and relationships of the IC constituents the source of company's capabilities and competencies. Both approaches hold a fundamental role to better understand the value creation dynamics of a company and the relevance played by the measurement and management of IC for improving the capacity of an organisation system to growth and generate wealth.

2 Linking intellectual capital to value within a company

In order to identify and analyse the intangible and knowledge resources underpinning company competitiveness a number of definitions, classifications and measurement techniques have been proposed in recent years. In particular, in the strategic management studies, it is possible to also into a number of alternative and overlapping conceptual constructs, such as invisible assets (Itami and Roehl, 1987), intangible assets (see, *e.g.*, Hall, 1992; 1993), intangible elements (see, *e.g.*, Carmeli and Tishler, 2004), knowledge assets (see, *e.g.*, Spender and Grant, 1996; Teece, 1998; Winter, 1987), knowledge-based resources (see, *e.g.*, Wiklund and Sheperd, 2003) as well as social capital (see, *e.g.*, Inkpen and Tsang, 2005; Nahapiet and Ghoshal, 1998; Yli-Renko *et al.*, 2001), human capital (see, *e.g.*, Hitt *et al.*, 2001), and so on. Today, there is a widespread tendency to use these concepts as interchangeable, with definitions ambiguous as well as a juxtaposition of their meanings. Although, the different definitions represent an attempt to disclose the same reality, they focus the attention on diverse facets and characteristics of organisations' resources.

In the last years, the concept of IC has emerged as a key interpretative category to analyse the knowledge and/or intangible resources of a firm. It represents a conceptualisation that, through a more holistic and manageable construct, allows to better answer to the managers' need to have an operative notion of firm's cognitive and intangible resources. In particular, IC appears as an umbrella concept embracing the whole features and dimensions of intangible and knowledge resources. It allows to group and represent the overall intangible assets that are not included in the traditional balance sheets as well as allows to assess the differences between the market value and the book value of today's knowledge intensive firms.

The notion of IC represents a key concept to understand and evaluate those intangible and knowledge dimensions of an organisation which have been traditionally disregarded by accounting and financial statements of a company (Brooking, 1996; Bounfour, 2000; Hall, 1992; 1993; Harrison and Sullivan, 2000; Roos *et al.*, 1997). At first, it has been popularised by practitioners looking for a conceptualisation to handle the difficult and evasive notion of organisational knowledge. In particular, the pioneer approach of Skandia to the assessment of its IC has promoted the diffusion of the concept in the management literature. In Skandia the IC was initially defined as "the possession of knowledge, applied experience, organisational technology, customer relationships, and professions skills that provides Skandia AFS with a competitive edge in the market" (Edvinsson, 1997, p.368). As stressed by Roos (1998) the managerial appeal of the concept of IC is related to its easy application in the business and also to the relevance which attributes to the strategy as the starting point for any effort.

We assume that the IC can be employed as a key construct to investigate the value of a company in accordance with two main perspectives. On one hand, the evaluation of the IC allows to better understand the company's value. In today's knowledge economy characterised by the success of knowledge intensive firms and by the dematerialisation of operations, the company's value can be metaphorically associated to an iceberg. The value which can be seen and measured through the tangible components represents only a small part of the overall value of a company which is hidden under the surface of the organisation intangible and knowledge assets. Assessing the IC brings to the surface that part of company's value traditionally not disclosed in the balance sheet. On the other hand, the disclosure, assessment and management of IC represents a fundamental managerial mechanism to better understand the company's value creation dynamics in order to support and drive continuous business performance improvements.

The two above perspectives, linking the IC to the concept of value within an organisation, correspond to different and complementary understandings of the position of IC in the company's value creation dynamics. Intellectual capital components, like any other traditional organisational resource, are important when they incorporate value and/or provide either a support or a means for generating value.

3 The value creation dynamics of intellectual capital

The IC, standing for those organisational resources that are intangible in nature and important for company competitiveness, represents the overall organisation resources that contribute to define the value of a company in the market. Through the disclosure of the IC a company can provide financial analysts as well as investors with useful information both for a better allocation of financial capital and for a more appropriate evaluation of the company in the market. According to this view a number of managerial models for the IC evaluation have been developed (Edvinsson and Malone, 1997; Edvinsson and Sullivan, 1996; Hudson, 1993; Lev, 2001; Roos *et al.*, 1997; Sveiby, 1997). These models, although in an implicit way, adopt a resource-based approach and share the basic hypothesis that organisational resources can be distinguished between tangible resources – easy to evaluate economically – and intangible resources – more difficult to evaluate. Therefore, focusing mainly on the tangible nature of resources, they tend to disregard the cognitive nature of the organisational assets and, as a result, generally they do not include, in the categories of IC, those physical resources embodying strategic knowledge.

However, from managerial point of view the relevance of the analysis of IC is related to the understanding of the mechanisms at the basis of company's value creation dynamics. Companies need to understand how knowledge assets interact to build core competencies, dynamic capabilities and gain competitive advantage, and how by managing IC, it is possible to improve organisations' value creation dynamics. Using a knowledge-based approach, it is possible to analyse the organisational resources in terms of knowledge embodied by them. This involves that the strategic relevance of organisational resources is related to their role as cognitive components. In other words, an organisation's resource is important when it provides and/or contributes to define company's capabilities. This is also coherent with an economic and management perspective, which considers relevant a knowledge asset only if it drives company value. Differently from the philosophical and scientific knowledge looking for the truth, an organisation valuable knowledge is a resource that works and its goal is company's business performances which provide competitive advantage (Demarest, 1997). The adoption of a knowledge-based perspective involves that an assessment of organisation's knowledge resources has to take into account both tangible and intangible resources embodying knowledge. In this regards, although a lot of intangible resources correspond to knowledge resources, it seems not correct to assume that all knowledge resources have to be necessary intangible, and, on the contrary, that all intangible resources can be considered knowledge resources. Moreover, it is through the interaction between tangible and intangible resources that a knowledge-creating company is fulfilled.

Adopting a knowledge-based approach the IC components can be interpreted as organisation's resource made of or incorporating knowledge which provides an ability to carry out a process or an activity aimed to create and/or deliver value. Accordingly, an organisation's IC represents the overall knowledge assets that are attributed to an organisation and most significantly drive organisation's value creation mechanisms for targeted company key stakeholders. This equals to adopt a stakeholder value-approach, which assumes that the value generated by a company corresponds to the level of stakeholders' satisfaction. Then organisation's IC, whatever form and/or nature presents, is relevant only if it can contribute to satisfy company's stakeholders wants, needs and expectations.

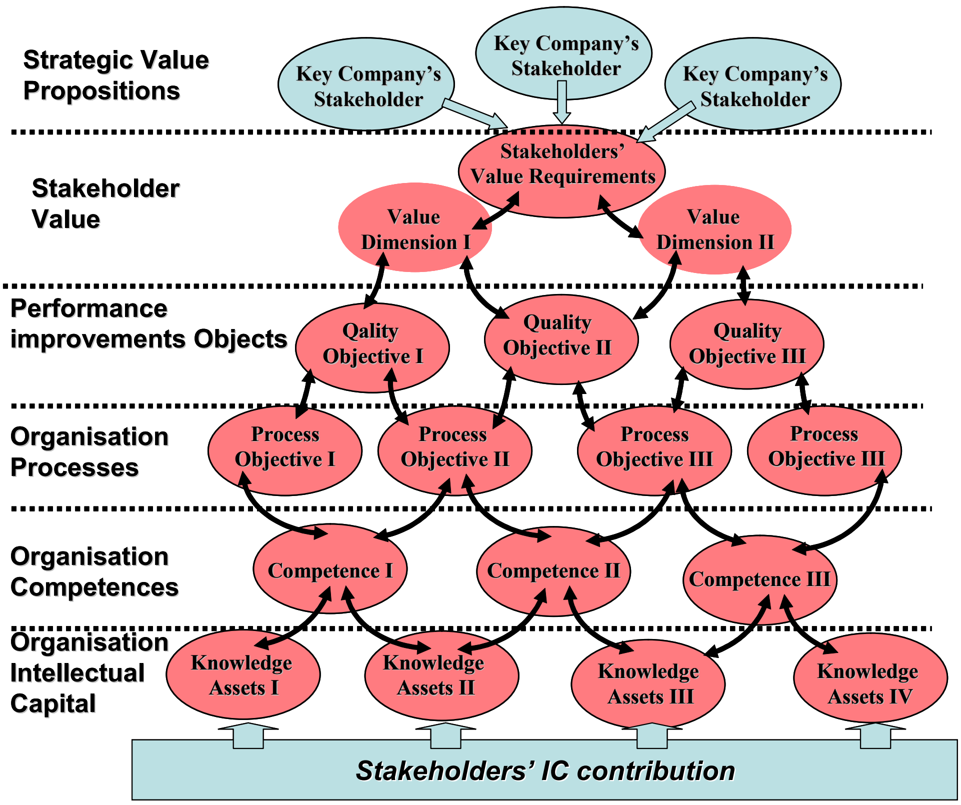
For a company, each time, on the base of its specific business context and strategic priorities, it is possible to distinguish different key stakeholders, such as customers, investors and knowledge workers, with related wants and needs. Therefore, the company value creation means, first and foremost, to define the value propositions aimed to satisfy directly and/or indirectly its key stakeholders. Then, in order to deliver the value propositions a company needs to manage its business and organisation performances. For this reason managers have to pay attention and being able to manage organisation key business processes and functions. But in order to effectively manage organisation business processes, a company needs to acquire, develop and nurture a set of organisation competences which are rooted into the company's IC. Then, the IC dynamics and management is at the heart of a company business performance improvement, since the development, deployment, exploitation and acquisition of knowledge assets affect the growth of organisational competencies and, particularly, of core capabilities. This in turn drives the effectiveness and efficiency of organisational processes and consequently the company's ability to generate value.

The relevance of the IC in driving company's value creation dynamics can be summarised in Figure 1. It shows the cause-effect relationships linking the knowledge assets, *i.e.*, the IC components, with the development of organisation competencies, which drive the improvement of organisation's business and operation processes, which in turn allows to achieve the strategic company's objectives and to deliver the promised value propositions. Finally, it is relevant to highlight that most of an organisation's IC is provided and generated by stakeholders. Then, for a company it is important not only to analyse the key strategic stakeholder from the perspective of value creation, but also in terms of IC contribution. In Figure 1 it is depicted the Knowledge Asset Value Creation Map which provides a descriptive explanation of the role and relevance of IC in the value creation dynamics of a company.

Although the Knowledge Asset Value Creation Map allows to highlight the relevance of IC in company's value creation dynamics, it is important to remark that it provides only a simplistic view of the value creation mechanisms and particularly of the way how knowledge assets interact each other and with other organisational resources.

Knowledge assets operate as bundles of resources. In this regard great attention has been paid by several scholars on the relevance of the way organisations combine resources, sustaining that IC components contribute to create value not only by themselves but by their dynamic interactions (*e.g.*, Dierickx and Cool, 1989; Penrose, 1959; Roos *et al.*, 1997; Teece *et al.*, 1997). Knowledge assets are not static but dynamically interact with each other to be transformed into value (Teece *et al.*, 1997). Then managers need to better understand how taking into account the interdependencies among knowledge assets in combining them to create value. Carmeli and Tishler (2004) underline that the "interaction amongst elements is complementary in that the value of one element is increased by the presence of other elements" (p.1261). The same authors argue that intangible resources have a positive effect on organisational performance and, particularly, the interactions among knowledge resources enhance organisational performances. But the contribution of IC to performance improvement is strictly related to its management. In fact, as stated by Lev and Daum (2004) "intangible assets by themselves neither create value nor generate value…they need efficient support and enhancement systems, otherwise the value of intangible assets dissipates much quicker that of physical assets" (p.7). In other words, levering IC for value creation greatly depends on its continuous development and management (Davenport and Prusak, 1998; Jordan and Jones, 1997; Nonaka, 1991; Sveiby, 2001; Teece, 2000).

Figure 1 Value creation dynamics of intellectual capital – the knowledge asset value creation map



4 Special issue papers

Kianto sheds light on the interpretation of the dynamic nature of IC. Her starting point is that, in the management literature, there is a growing interest to analyse from both a theoretical and an empirical perspective the concept of IC dynamics. However, few authors provide an explicit definition of the dynamic nature of IC. This can represent a significant shortcoming, since already the field of IC appears characterised by a multidisciplinary approach and consequently by the use of diverse and interchangeable definitions, approaches and frameworks which have not generated a common language and understanding. The need of defining a common interpretative platform of the IC-related concepts and frameworks is critical for both theory and practice. An IC theory of the firm requires to define properly and unambiguously the fundamental concepts and hypothesis at the basis of the interpretations and descriptions of the organisation's resources. While from practical point of view, practitioners, even if enjoy to develop their own slogans and buzzwords, need clear conceptual guidelines to better develop and apply their consultant tools and actions. Kianto analysing the various interpretations and theoretical background of dynamic IC identifies three main distinct explanations of the dynamic dimension of IC: as value creation process, as activities and as change capabilities. The paper provides a useful theoretical platform for understanding the meaning of IC dynamics and offers a roadmap for future research.

Lerro and Carlucci's conceptual paper investigates, on the basis of a structured literature review, the concept of IC within regions and local production systems. In today's economy highly characterised by an internationalisation of companies and by a globalisation of the markets, not only firms but also regions and local economic and production areas are reflecting on what are the key value drivers for sustainable growth and wealth creation. This is resulted into a growing interest to translate from a micro-perspective to a meso- and macro-perspective the concepts, approaches and frameworks for assessing and managing IC. Many governments both at national and regional level are starting to implement policies and managerial actions regarding IC assessment and management. Lerro and Carlucci look at the role and the relevance of IC at regional level and provide a knowledge-based analysis of the IC components characterising regions.

Väisänen *et al.*'s paper discusses how investments in IC affect a company's productivity and profitability. The understanding of the links between IC and productivity as well as profitability represents a key issue for explaining the role and the relevance of IC in company's value creation dynamics. Furthermore, the increase of productivity represents for developed economies a critical problem to be addressed in order to sustain wealth creation. The authors through an examination of a large set of financial statement information covering a three-year period, regarding different industries as well as SMEs and large companies, show that even if the short-term impact of IC investments on productivity and profitability is negative, the investments in IC do yield benefits but they may come with a delay.

Stam's paper addresses the attention on the analysis of the sources of productivity. In particular, the author proposes a methodological and theoretical framework for measuring the knowledge drivers of productivity in order to give directions to knowledge management initiatives. The paper represents an important attempt to link the IC measurement with the knowledge management. The IC and knowledge management represent important facets of the same phenomena and need to be considered together since the IC assessment provides the information base to design and implement effective knowledge management initiatives aimed to support IC dynamics which in turns drive organisation performance improvements. The proposed method combines an economic and a process perspective on knowledge productivity and offer first empirical evidences of its application.

Huggins and Weir's paper presents the insights of a programme of public policy intervention designed to stimulate both the supply and demand for Intellectual Asset (IA) management amongst the SME community in Scotland. The relevance of IC for company's competitiveness is today widely acknowledged both in business and public arena. However, it is important to diffuse approaches and tools in order to make operative the management of IC. This is a particular critical issue for SMEs. The authors present an important Scotland experience of intervention concerning the development of a number of innovative management tools and instruments for SME use, aimed to support the identification, exploitation and management of IA. The findings provide interesting insights for policymakers as well as managers to undertake IA management initiatives within SMEs in order to generate, distribute, and use knowledge in ways that add value to the firm, and provide new opportunities to exploit.

Albino *et al.*'s paper focuses the attention on a particular intangible asset characterising local production systems: the proximity. Authors analyse the role of proximity in sustaining technology districts competitiveness and argue that proximity represents a communication system, enabling firms to carry out processes of external learning. The effects on the learning processes of three main dimensions of proximity, namely geographical, cognitive, and organisational are investigated. The paper provides a different and alternative perspective to the analysis of IC for value creation dynamics. In particular, it implicitly stresses the importance, in the IC literature, to start a debate focused on the identification and investigation of important IC dimensions for company and local development.

5 Conclusions and research implications

In the last years a rich and wide strategic and management literature focused on intangible and knowledge resources has been developed. It has focused the attention first on the role and relevance of intangible and cognitive resources for company competitiveness and afterwards on the approaches, frameworks and tools for the assessment and management of these resources. However, little attention has been paid on the investigation of the links and relationships between IC, *i.e.*, the overall intangible and knowledge resources of an organisation, and the value creation dynamics of a company. This is a significant shortcoming since the final goal of any organisation system is the creation of value.

With this special issue we are going to stimulate a more in-depth and explicit analysis of how IC contributes to create value for an organisation system and/or supports its value creation mechanisms. Firms are not interested in the management of IC for itself, but in the contribution to the value creation that they can get from deliberately address the assessment and management of IC.

There are a number of possible research streams related to IC and value creation. First, a better value-based interpretation of the firm is necessary, which overcoming the traditional shareholder value approach of the firm takes into account stakeholders and the emerging needs of today's socioeconomic scenario. This involves also an understanding of the role of IC and its management in the value creation dynamics of a firm. Moreover, empirical researches are needed with the aim to show the links and the relationships between IC and the organisation value creation objectives. Finally, it is of great relevance to disclosure the IC transformation and development mechanisms and their impacts on the capacity of organisation systems to create value.

This special issue provides some initial insights towards an IC-based view of company's value creation dynamics, we call for more attention and research on the investigation of the mechanisms linking IC to company's value creation dynamics.

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