# ICBS Intellectual Capital Benchmarking System: A Practical Methodology for Successful Strategy Formulation in the Knowledge Economy

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**Abstract:** The advent of the knowledge economy fundamentally changes the way to create wealth. According to new theoretical foundations (Resource Based View, Dynamic Capabilities and Knowledge Based View) key strategic knowledge or Intellectual Capital has become the fundamental driver of wealth creation. A revision of the literature concludes that business excellence has always been due to good strategy formulation and superior strategy implementation. In order to achieve business excellence in the knowledge economy context substantial efforts have been made to improve the process of strategy implementation and some of them have produced relevant frameworks and methodologies, such as Balanced Scorecard and InCaS (Intellectual Capital Statement. Made in Europe). Nevertheless, fewer efforts have been made in the process of strategy formulation and, in practice, the SWOT analysis still is the most well known existing framework. However, in a world where customer preferences are volatile and the identity of customers and the technologies for serving them are changing, a market-focused strategy may not provide the stability and constancy of direction needed as a foundation for long term strategy. When the external environment is in a state of flux, the firm itself, in terms of its bundle of resources and capabilities, may be a much more stable basis on which to define its identity. Hence, a definition of the firm in terms of what it is capable of doing may offer a more durable basis for strategy than a definition based upon the needs the business seeks to satisfy. Consequently, the SWOT analysis methodology can't cope with the new external environment requirements and a kind of improved or extended SWOT analysis is needed. ICBS (Intellectual Capital Benchmarking System) is the output of a practical research on extended or improved SWOT analysis, a framework that knowledge economy requires for successful strategy formulation. ICBS is a new management method that allows companies to perform a competitiveness strategy check-up of their business models. For that purpose, ICBS benchmarks their core innovation and operations intellectual capital against the world class competitors in their sector.

**Keywords**: strategic management, core competencies, ICBS-Intellectual Capital Benchmarking System, intellectual capital, extended SWOT analysis

## 1. Introduction

We live in a time of great opportunities where creativity and innovation has led to competences and technologies that have allowed many great advances in almost every aspect of our lives. The opportunities arise in a new economic landscape where change and uncertainty is constant, and the firm's focus should be on identifying and exploring these opportunities. Organizations facing uncertain, changing, or ambiguous market conditions need to be able to learn and make effective use of intellectual capital factors.

The main features of this new economy involve major systemic changes: new forms of competition between global competitors; temporary rather than continuous competitive advantages; vertiginous pace of change; and ever-shorter life-cycles for products and services (Hitt et al., 2002). Those trends are changing the competitive structure of markets in such a way that the effectiveness of traditional sources of advantage is



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blurred. A new paradigm emerged in which knowledge, itself, became a critical factor of production (Adams and Oleksak, 2010), specifically, knowledge related to identifying and exploiting new ways to establish sustainable competitive advantages. In response, new models of business are emerging where the value chain have their hard nucleus in the creation, dissemination, application and leverage of intellectual resources.

Structural changes transform the traditional business frameworks into insufficient and incomplete tools for developing a strategy. Traditional frameworks such as the BCG matrix, the Porter's Five Forces and the SWOT analysis have had a lasting influence on strategic management and have been especially valuable for managers to develop and implement long-term strategy for organizations so as to build and sustain competitive advantage. However, those frameworks are becoming insufficient because they do not take into account the dynamics of global markets. As most of models were developed in an era of stable markets, they also lack the perspective of intangibles.

To be able to create value within this new economic landscape, we need to rethink our established notions regarding value creation process and strategy formulation - in short we need to change our recipes for success. The value creation process is now based on the ability of firms to generate and exploit new forms of knowledge, and the most important contribution management needs to make is similarly to increase the productivity of knowledge work and the knowledge worker (Drucker, 1999). It is imperative for firms to focus on strategic management processes concerned with creating long-term value from intellectual capital.

One of the main challenges for the knowledge economy is how to use SWOT analysis efficiently and effectively in a context of permanent changes. Extended SWOT analysis is seen as a framework for formulating strategies at business level in an efficient and effective way to achieve success in the new context in which the main features are: (i) the importance of knowledge as the main source of sustainable competitive advantage; and (ii) the world-wide hyper-competition. The challenge is to move SWOT analysis away from the generalities of "strengths", "weaknesses", "opportunities", and "threats" to more concrete factors and characteristics appropriate to the new reality. A specific methodology and information system framework – Intellectual Capital Benchmarking System (ICBS)–, focused on the value chain activities of both the operations and innovation processes, is developed.

Deploying scarce resources to create superior value when dealing with the innovation process is a very different task from that involved when dealing with the operations process. To create value the two processes require particular resources and different core knowledge. For this reason, the ICBS has a specific methodology and information system framework for each of the processes (Viedma and Cabrita, 2012). The first is the Innovation Intellectual Capital Benchmarking System (IICBS) which is mainly focused on the value chain activities of the innovation process. The second is the Operations Intellectual Capital Benchmarking System (OICBS) which refers to the value chain activities of the operations process.

This paper explores the theoretical foundations behind the process of strategy formulation in the context of knowledge economy. It starts by addressing the value creation process as a function of intangibles. Drawing on the activity-based view and the resource-based view, we discuss the theories and concepts that support the application of the Extended SWOT analysis as a framework designed to accomplish the dynamics of the knowledge economy. The concepts of business intelligence and strategic competitive benchmarking are also discussed as key components of the ICBS model. It is concluded that: (i) in order to achieve entrepreneurial excellence the process of strategy formulation is the key one, because it is closely related with effectiveness; (ii) among different intellectual capital methodologies and tools, ICBS is the only relevant for successful strategy formulation, for gaining and sustaining competitive advantages.

## 2. Theoretical foundation

In the context of global economy, entrepreneurial excellence is related to the ability to achieve and sustain competitive advantages by building long-term value from intellectual capital identified as a set of intangibles with potential to create value. Business excellence depends on soundly formulated strategy (business formula) and effectively implemented strategy (business recipe) based on core competencies, core capabilities and intellectual capital, as illustrated in Figure 1.

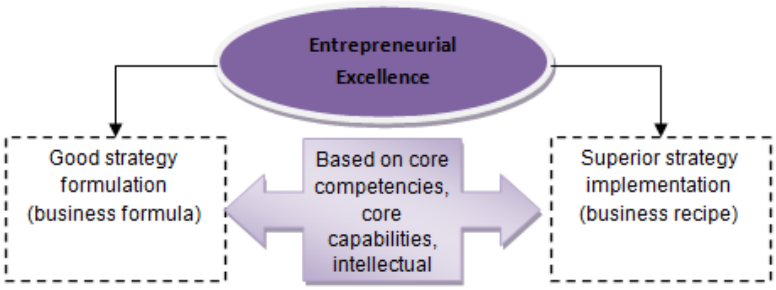



**Figure 1:** Entrepreneurial excellence in the knowledge economy

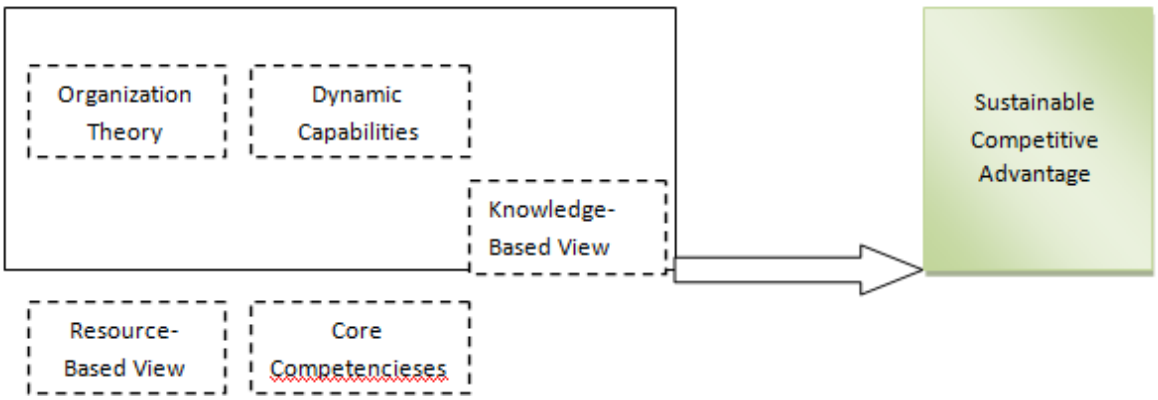
In order to create value, the ingredients (resources, competencies and capabilities) in the business formula must be transformed into products and/or services that deliver business recipe.

This set of intangibles or intellectual capital creates value when its components are combined and put into action and degrades when they remain unused (Roos, 2005). These value drivers are bundled together, and the interactions between them are varied, complex and dynamic making difficult to demonstrate the cause and effects relationships and its linkage to value outcomes. This perspective goes beyond the traditional value chain to other more complex ways of creating value mainly based on intangibles.

### 2.1 Value creation based on intangibles

Value creation process is always linked to the capacity to build sustainable competitive advantages. In order to achieve sustainable success, which is the primary goal of strategic management, companies should build up a competitive advantage vis-a-vis its rival companies. Competitive advantage comes from the company's ability to create value for its customers and to capture part of this value in form of profits. At the micro level, discussions seeking to explain sustainable competitive advantages have focused on the industrial organization theory (Porter, 1985), the resource-based view (Wernerfelt, 1984), dynamic capabilities (Teece *et al*. 1997), core competencies (Prahalad and Hamel, 1990), and knowledge-based view (Sveiby, 2001). Figure 2 illustrates the theoretical foundations that support the sustainable competitive advantage at a micro level.

**Figure 2.** Sustainable competitive advantage: Theoretical Foundations



The industrial organization (IO) economic approach dominated thinking in the strategic management field from the 1960s to 1980s, focusing on the link between strategy and external environment. Examples of this focus are Porter's (1985) analysis of industry structure and competitive positioning. In this context, company should search for a favourable competitive position in an industry and the strategy should seek to establish a profitable and sustainable position against the competing forces in such industry.

The resource-based view (RBV) describes conditions under which unique or distinctive resources possessed by a firm are a source of sustained competitive advantage (Barney, 1991). However, Black and Boal (1994) argue that resource-based analysis is only helpful if it can identify resources that will lead to future competitive advantage. As mentioned by Knott (2009), from a practice perspective, the key challenge in relation to a firm's resources and competence is how managers can evaluate and hence intervene in the relationship between these resources and the performance of the firm. The author purposes a concrete set of practices that relate to firms' dynamic capability to manage resources and competence.

A competence is a way to put into practice some knowledge in a specific context. Prahalad and Hamel (1990) defined competences as the collective learning that gives firms the ability to deploy their resources productively. More recently, the dynamic capabilities concept has evolved as a dynamic version of the resource-based view that suits rapidly evolving environments. Teece *et al*. (1997) defined dynamic capability as a firm's ability to integrate, build, and reconfigure competence.

The knowledge-based view (KBV) is sometimes considered an extension of the resource-based view. The KBV of the firm suggests that the primary rationale for the firm is the creation and application of knowledge (Grant, 1996; Spender, 1996). Within the KBV, the organization is seen as an institution for integrating knowledge, the critical input in production, and the primary source of value. All human productivity is knowledge dependent, machines are simply embodiments of knowledge (Grant, 1996) and organizational capabilities are based on knowledge. Knowledge is then a resource that forms the foundation of the company's capabilities (Marr *et al*., 2004). Hence value creation process in the context of knowledge economy is directly linked to the intelligence, the speed, and the agility that comes from a host of latent intangibles which represent a reservoir of potential talent and innovation that provides a source of competitive advantage. This suggests that the value generated is a function of the way in which resources are managed. This means that having a resource is not enough to create value. In order to create or leverage value, the resources have to be deployed effectively and efficiently.

Sveiby (2001) argues that the key to value creation lies with the effectiveness of knowledge transfers and conversions. Carlucci *et al*., (2004) state that the generated value is the result of an organization's ability to manage its business process and the effectiveness and efficiency of performing organizational processes are based on organizational competencies. Knowledge assets interact with each other to create competencies and capabilities, and it is often these interactions that provide a competitive advantage because they make these assets difficult for competitor to replicate (Barney, 1991; Teece *et al*., 1997; Marr, 2005). Value is then created through complex dynamic exchanges between tangibles (goods and money) and intangibles (cognition processes, intelligence and emotions) where individuals, groups or organisations engage in a value network by converting what they know, both individually and collectively, into tangible and intangible value.

## 2.2 Formulating business strategies

While there are several perspectives in the management field, there is one that is vital for organization success. That is the strategic perspective. As Drucker (1954:352-3) says: "The important decision [or those] decisions that really matter, are strategic."

Strategy formulation process mainly deals with effectiveness, or choosing the right things to do. Drucker (1977) adverts that the pertinent question is not how to do things right but how to find the right things to do, and then concentrate resources and efforts on them. Formulating the right questions demands that

organizations understand which resources, capabilities and competencies they need in order to gain and sustain the competitive advantage. At the same time, to be successful or to be excellent, organizations need to know what their competitive advantage is. Making good decisions are based on strategies well formulated. The crux of strategy formulation is to define a strategy that makes the best use of the organization's resources, competencies and capabilities.

### 2.3 Resources, competencies and capabilities

Resources are inputs into the production process and they can be tangible or intangible assets (Itami, 1987) that a firm controls and can use to conceive of or implement strategies (Barney and Hesterly, 2006). The resource-based view (RBV) of the firm argues that sustainable competitive advantage requires unique and inimitable resources (Barney, 1991). Intangible resources can include skills, human assets, information and organizational assets, and relational and reputational assets. These all represent what a firm has. Another class of intangible resource is capabilities or competences that represent what a firm does (Hill *et al*., 2007). Capabilities may be understood as the way resources, talents and processes are combined and used (Teece *et al.,* 1997). Prahalad and Hamel (1990) defined competencies as the collective learning that gives firms the ability to deploy their resources productively. Competencies are the means by which a firm deploys resources in a characteristic manner in order to compete (Haanes, 2000). Thus, professional competencies integrate professional skills and knowledge, and organizational competencies include a firm's knowledge, routines, and culture. Prahalad and Hamel (1990), have distinguished particular competencies, which they call "core competencies", as being fundamental to the firm's performance and strategy. "Core competencies", according to these authors, are those that make a disproportionate contribution to ultimate customer value, or to the efficiency with which that value is delivered. Core competencies thus provide a basis for entering new markets (Prahalad and Hamel, 1990:81). The authors put the cumulative development of specific competencies at the centre of the agenda of corporate strategy because "the real sources of advantage are to be found in management's ability to consolidate corporate-wide technologies and production skills into competencies that empower individual businesses to adapt quickly to changing opportunities". Hence, the sustainable competitive advantage of firms resides not in their products, but in their core competencies. Furthermore, those core competencies feed into more than one product, which, in turn, feed into more than one business unit.

Teece *et al*. (1997) defined dynamic capability as a firm's ability to integrate, build, and reconfigure competence. It is the heterogeneity of skills and capabilities available from its resources that gives each firm its uniqueness (Penrose, 1959).

In describing how organizations create and leverage competitive advantage, the literature focuses on what the firm has, but not less important is what the firm does with what it has. Resources that the RBV evaluates can be tangible or intangible assets that a firm controls and can use to formulate or implement strategies. Intangible resources can include skills, human assets, organizational assets, information and relational assets. These all represent what the firm has. Another class of intangible resources is capabilities or competences that represent what a firm does (Hill *et al.,* 2007). Collis and Montgomery (2008, p. 142) note that the RBV inextricably links a company's internal capabilities (what it does well) and its external environment (what the market demands and what competitors offer). In strategy management, two relevant perspectives still coexist in understanding how firms deploy scarce resources to create superior value (Haanes, 2000). These two perspectives are the resource-based view and the activity-based view (Porter, 1985, 1996). The two are complementary. The resource-based view focuses on what the firm *has*, whereas the activity-based view focuses on what the firm *does,* as depicted in Figure 3.

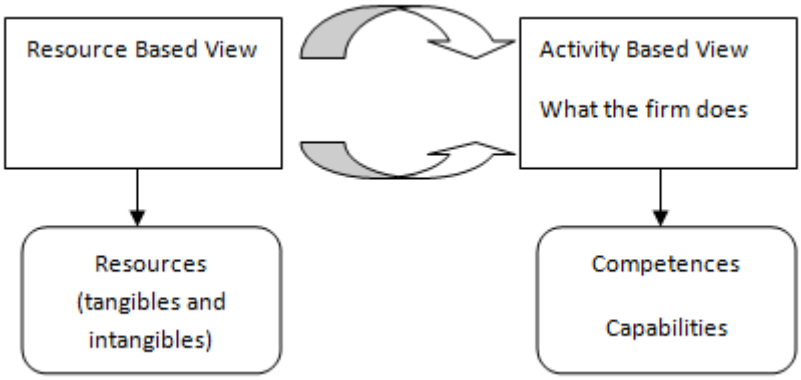



**Figure 3:** The basis of competitive advantage: complementary perspectives

### 2.4 The resource-based view (RBV)

The focus of resource-based view is on the relationship between firm resources and firm performance. Following the seminal work of Penrose (1959), the RBV of the firm proposes that firms consist of bundles of productive resources and that different firms possess different bundles of these resources in competitive environments. Distinct types of resources including tangible assets, intangible assets and skills have been identified as underlying the distinctive or core competences of a firm (Prahalad and Hamel, 1990). These core competences can only achieve sustainable competitive advantage when underlying resources are valuable, rare, cannot be imitated, and have no substitutes (Barney, 1991).

In accordance with Grant (1998), a key common ingredient in all business success stories is the presence of a soundly formulated and effectively implemented strategy. Grant (1998) has stated that the starting point for the formulation of strategy must be some statement of the firm's identity and purpose. This generally takes the form of a mission statement that answers the question: 'What is our business?'. Traditionally, firms have defined their business in terms of the market they serve by asking: 'Who are our customers?' and 'Which of their needs are we seeking to serve?' Nevertheless, in a volatile world in which the identity of customers, their preferences, and the technologies for serving them are all changing, a market-focused strategy might not provide the stability and constancy of direction required as a foundation for long-term strategy. When the external environment is in state of flux, the firm itself, in terms of its bundle of resources and capabilities, might be a much more stable basis upon which to define a sense of identity. Hence, a definition of the firm in terms of what it is capable of doing might offer a more durable strategic basis than a definition based upon the needs which the business seeks to satisfy (Quinn, 1992).

The above discussion points to the fundamental role of resources, capabilities and competencies in strategy formulation for entrepreneurial success in an environment of rapid change in technology and in the needs of customers and industry. Figure 3 summarizes the above discussion on resources, capabilities and core competencies.

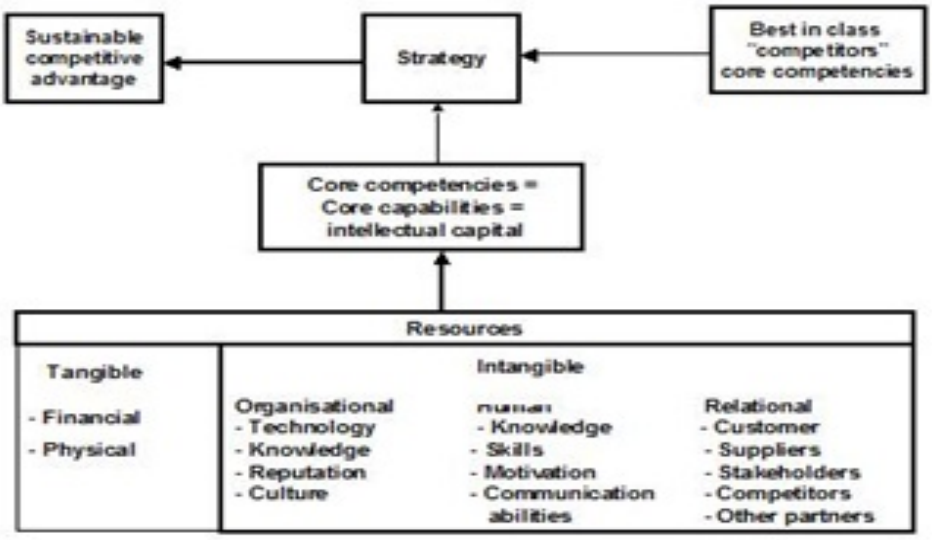
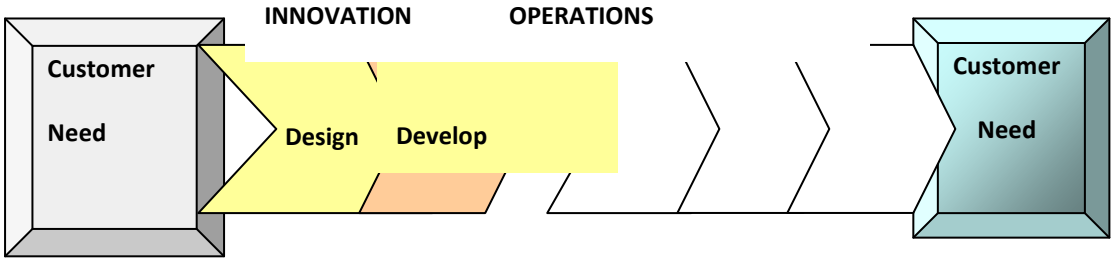



**Figure 3:** Resources and capabilities of a firm

## 2.5 The activity-based view (ABV)

The activity-based view has mainly been concerned with seeing firms as value chains that create value by transforming a set of inputs into more refined output (Porter 1985, 1996). Nevertheless, to be more specific, we need to consider how value is created in the internal business process value chain. The business process value chain can be divided into major processes: (i) the innovation process; and (ii) the operations process.

The innovation process is made up of product design and product development, whereas the operations process is made up of manufacturing, marketing, and post-sale service. Figure 5 illustrates the business process value chain.




**Source**: Adapted from Kaplan and Norton (1996)

**Figure 5:** Business process value chain

The traditional perspective has focused on the operations process. According to the short-term view, value creation begins with the receipt of an order from an existing customer for an existing product or service, and ends with the delivery of the product to the customer (Kaplan and Norton, 1996). In this case, value is created through operations core competencies.

However, viewed from the perspective of the innovation process, value creation is a long-term process which, for many companies, is a more powerful driver of future financial performance than the short-term operations process. This view requires an organization to create entirely new products and services that will meet the emerging needs of current and future customers. For many companies, their ability to manage successfully a

multi-year product-development process, or to develop a capability to reach entirely new categories of customers, can be more critical for future economic success than managing existing operations efficiently, consistently, and responsively. Value is thus created through innovation core capabilities. Specifically, innovation value chain is about to translate competencies into new processes, products and services, and, where necessary, develop new competencies.

Then, building core competencies is not done in a vacuum, but is done in the business process value chain in which resources are deployed in a characteristic manner in order to compete. The RBV and the ABV are therefore complementary. Taken together, they explain the process of creating value and securing a sustainable competitive advantage.

## 3. Building the intellectual capital benchmarking system (ICBS)

As previously noted, in our times the RBV and the ABV are the fundamental cornerstones that determine company competitiveness. The RBV stresses that, in turbulent times sustainable competitive advantages are mainly due to the intangible resources of a company or, more specifically, to core competencies (which are, in practice, equivalent to core knowledge). However, resources *per se* do not create value, and because the RBV focuses only on what the firm *has*, this view does not, in isolation, adequately explain *how* to deploy scarce resources to create superior value. In this sense, the ABV is a necessary complementary perspective which focuses on what the firm *does*, and takes into account that value creation results from the activities to which the resources are applied. If core knowledge is the key strategic asset, improving existing core knowledge and building new core knowledge are fundamental tasks. Building and improving core knowledge require organizational learning capabilities, including the appropriate learning structures and information systems.

World-wide industry hyper-competition has ensured that, in order to remain competitive, organizations need not only to protect their interests but also to expand their interests. They need to out-innovate their competitors. For doing this, business intelligence and strategic competitive benchmarking have become essential learning tools. That valuable knowledge can be obtained only from: *(i)* a business intelligent process that gathers, processes, interprets and communicates the economic, social, technical and political information needed in the decision-making process; and *(ii)* a strategic benchmarking process that provides a systematic and frequent comparison with the world-class processes and core competencies of competitors in the same business segments. Organisations are now competing on the basis of core knowledge and core competencies. Opportunities and threats come mainly from competitors who offer the best in the same industry segment.

### 3.1 Business intelligence and strategic competitive benchmarking

Competitive intelligence helps organization to identify threats in the external environments capable of impacting negatively on the future of the company, and identify new opportunities for the organization, leading to innovation and ultimately benefiting the competitive status of the organization. The objective of competitive benchmarking is to identify specific information about the competitor's products, processes and business results and then make comparisons with those of the own organisation. Competitive benchmarking is also useful in positioning the organisation's products, services and processes relative to the marketplace. When we move from competitive benchmarking, to strategic competitive benchmarking (Watson, 1993) we mainly focus on core activities, core competences and specially core knowledge (Figure 6). This suggests that the SWOT analysis should move away from the generalities of "strengths", "weaknesses", "opportunities", and "threats" to more concrete factors and characteristics appropriate to the new reality.

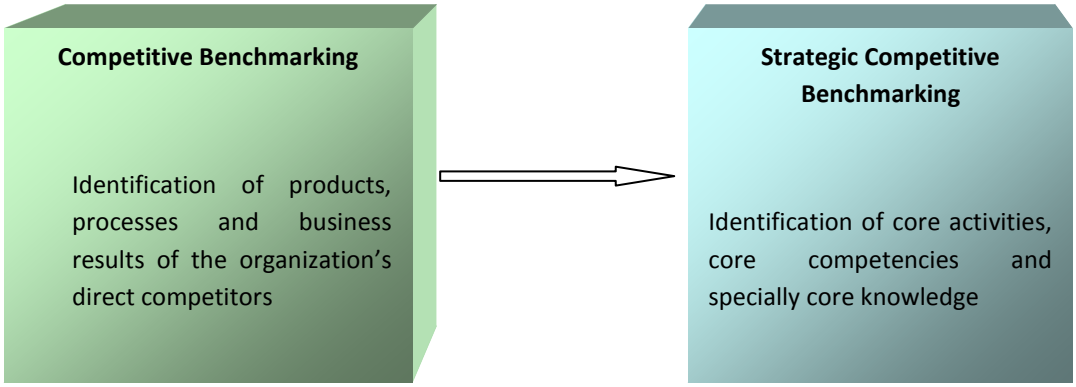



**Figure 6**: Moving from competitive benchmarking to strategic competitive benchmarking

### 3.2 The Extended SWOT Analysis

Fahy and Smithee (1999) agree the RBV of the firm helps to overcome some of the frequently cited problems of the SWOT framework**.** Amit and Schoemaker (1993:35) state that "the resource-based perspective complements the industry analysis framework". Roos (2005) presents a theoretical approach that seeks to integrate the competitive forces and the resource-based paradigms of competitive advantage. Strategic development process based on the competitive forces paradigm starts by looking at the relative position of a firm in a specific industry, i.e. we first consider the firm's environment, and then we try to assess what strategy is the one that maximize the firm's performance. By contrast, the RBV can be seen as an "inside-out" process of strategy formulation. We start by looking at what resources the firm possesses, and then we assess their potential for value generation and end up by defining a strategy. In short, the RBV of the firm provides a conceptually grounded framework for assessing strengths and weaknesses and enables strengths or weaknesses to be examined in terms of the criteria for establishing sustainable competitive advantage.

Further to the discussion above, the SWOT analysis framework moves from A to B as shown in Figure 7. In effect, there is a change from simple SWOT analysis to an extended SWOT analysis.

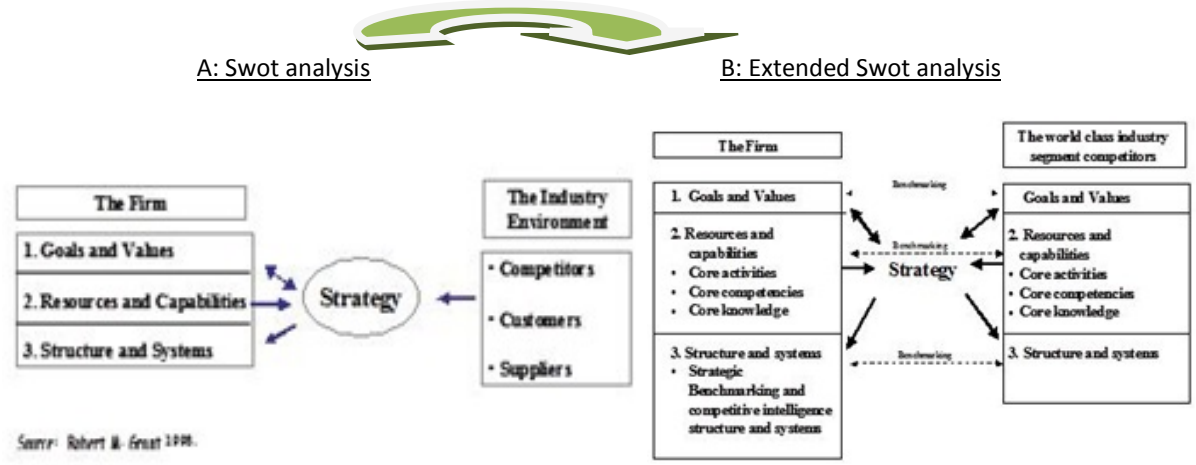



**Figure 7:** Evolution of SWOT analysis

The Extended SWOT analysis gives us the main factors to consider when seeking strategies that leading to entrepreneurial excellence. The main factors of the extended SWOT analysis also determine the information system required to measure and manage those factors. In other words, the main factors produce the Intellectual Capital Benchmarking System (ICBS), an intellectual capital strategic management information system framework developed by Viedma (2004). Nevertheless, as previously noted, strategy formulation in dynamic environments, even those mainly based on core capabilities, has different features when dealing with

the innovation process than when dealing with the operations process. Core capabilities can be very different in the two processes.

The innovation process points to new products and services through the innovation value chain in which innovation capabilities are basic and fundamental. Core capabilities represent a potential and, therefore, cannot contribute to competitiveness unless they are successfully translated into new processes, products and services. This is the role of innovation management. The Innovation Intellectual Capital Benchmarking System (IICBS) has a specific system for the innovation process. The operations process, which produces ordinary products and services through the systematic and repetitive operations value chain, also requires core competencies and core capabilities to be competitive. However, these competencies and capabilities will probably be of a different nature from the ones mentioned above in the discussion of the innovation process. ICBS also has a specific process for the operations value – the Operations Intellectual Capital Benchmarking System (OICBS). Figure 8 illustrates the business process broken down into two constituent parts, and the specific methodologies and information systems that correspond to each of the constituent parts.

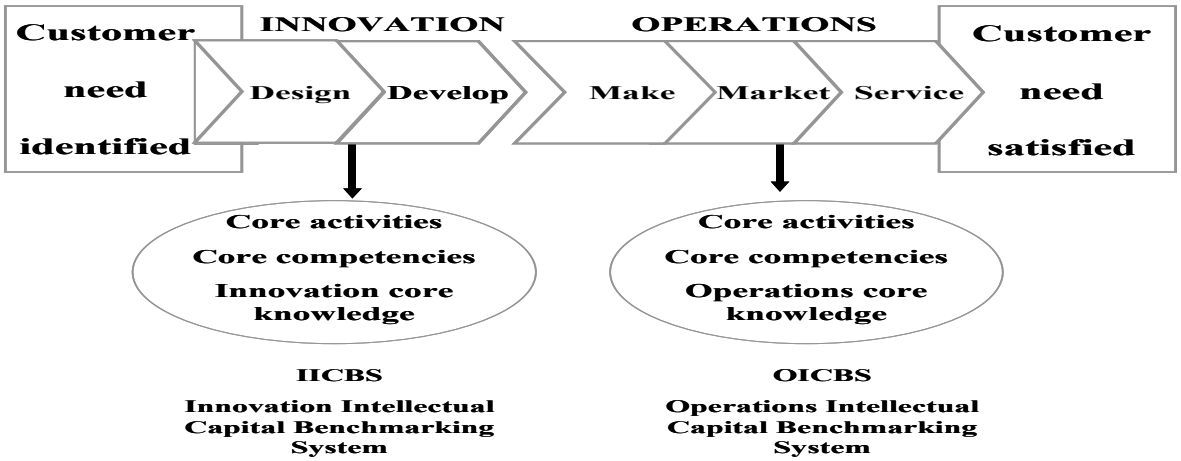



**Figure 8:** Business process value chain

In summary, the general model of the ICBS can be divided into two partial models. The first, the IICBS, refers to innovation core activities and core knowledge, whereas the second, the OICBS, refers to operations core activities and core knowledge.

The two models have a similar structure and they work in a similar way, but there is a fundamental difference. The IICBS model refers to the core activities and core knowledge of the different projects that make up the innovation process. In contrast, the OICBS model refers to the core activities and core knowledge of the different business units that make up the operations process.

This paper describes only the IICBS. However, the structure and function of the OICBS can be easily deduced because the systems are very similar and work in an analogous fashion.

## 4. (IICBS) Innovation intellectual capital benchmarking system general framework

Using the metaphor of a tree, we can consider the company that performs innovation activities as a new tree in which the visible part (that is to say, the trunk, the branches, and the fruits) corresponds to the tangible assets of the innovative company (see Figure 9). The invisible part of the tree (the roots of the tree below ground) corresponds to the intangible assets of the innovative company. The two parts – tangible and intangible – are inseparable. The roots of the tree send the sap through the trunk and the branches to the fruits. In a similar way, knowledge and its aggregates – competencies, capabilities, and intellectual capital – make up that flows from the roots to the new processes, and thus to the new products and services.

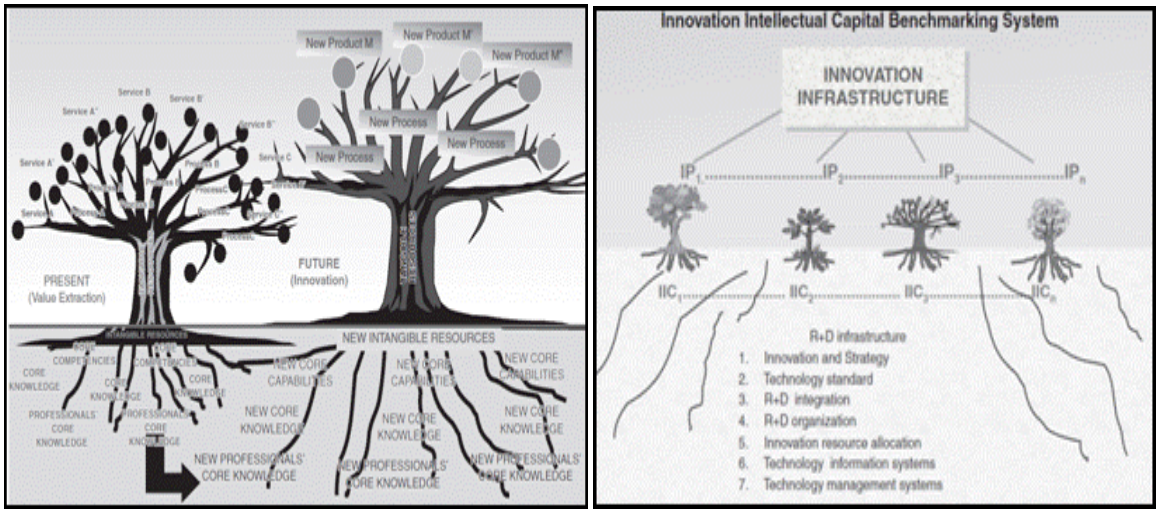



**Figure 9:** Innovation tree and innovation infrastructure

In addition, the company has at its disposal a common intangible innovation infrastructure that is shared by all the project units. This infrastructure corresponds to the fertile soil in which all the company trees are planted. This fertile soil nourishes the roots (core knowledge) of each individual innovation company tree. The assessment process is carried out in a two-fold fashion as depicted in the flowchart of Figure 10. On one side, we take as reference benchmarks the innovative project objectives and goals (Company A); on the other side, we take as a reference benchmark the equivalent innovative project of the best world competitor (Company B). The flowchart shows that, within each company innovation tree (project unit), an analysis can be made, successively, on the fruits (new products and services), the branches (new processes), and the roots (new core competencies and professional core competencies). In addition, the overall soil fertility (innovation infrastructure) can be analysed.

In analysing each particular tree (i.e. each individual project unit), we use the innovation value chain as an analysis tool. We argue that it is a useful approach because it helps to identify the interrelationships between innovative products and innovation capabilities. If products with a closer fit to firm competencies tend to be more successful, in turn, the effect that new product projects have on the firm's competencies is a crucial issue to be observed in the trajectory of firm's renewal and development.

All of the above mentioned analyses have the ultimate purpose of discovering, in each of the flowchart steps or phrases, the new core knowledge and new core technologies that are the prime reason for sustainable competitive advantages.

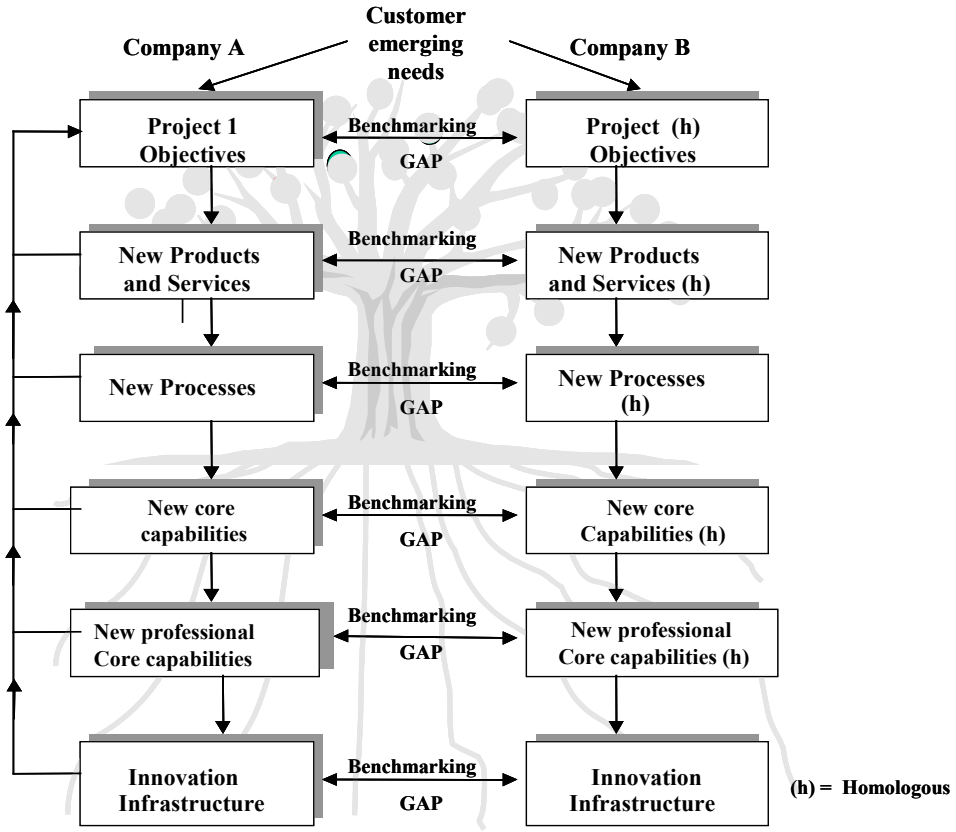



**Figure 10:** Innovation intellectual capital benchmarking system

In the same way, the methodology makes it possible to compare each specific tree (project unit) with the homologous tree of the best of the competition, thus facilitating the benchmarking of fruits (new products and services), branches (new processes), roots (new core competencies and professional core competencies), and soil fertility (innovation structure).

### 4.1 Implications for Managers

Senior managers effectively integrate the ICBS into the overall business strategy in a similar way they integrate other strategy-focused models. Nevertheless, in the particular case of the ICBS two new functions have to be performed: business intelligence and competitive benchmarking.

The main benefits from using ICBS are the following:

- Learning from one's betters to surpass one's own competitive position.
- Identifying the specific competitiveness factors that are relevant I a given business activity.
- Through the ICBS factors framework, enabling the identification, auditing and benchmarking of the core competencies or core knowledge that are the main sources of long term sustainable competitive advantages.
- When using ICBS in an orderly systematic and repetitive way we obtain competencies statements that complete financial balance sheets and lead companies to leverage core knowledge.
- Selecting in a systematic and organised way the necessary information for evaluating relevant factors, core knowledge, core competencies and key intellectual capital.
- Identifying the key areas in which in-depth benchmarking can be carried out in the future.

- Promoting organizational learning through assessment teams, benchmarking teams, and strategic teams
- Introducing a common language for company managers when dealing with intellectual capital
- Facilitating the work of the benchmarking and competitive intelligence team.

## 5. Conclusions

The theoretical foundations of wealth creation in the knowledge economy are mainly found at the micro level, specifically in the three well known following perspectives: the resource based view, the dynamic capabilities based view and more recently the knowledge based view.

Excellent company embraces innovation by constantly introducing change. Such innovations include new work structures – teams, networks, outsourcing; new work procedures – advanced technology, new manufacturing methods, information technology, quality management and process cycle time; human resource management strategies – constant training, recruiting the best talent and rewarding employees; and creating a work environment to spur innovation – encourage risk-taking behaviours and valuing experimentation.

In the knowledge economy, soundly formulated and effectively implemented strategies are still the main drivers of company success, and SWOT analysis still remains the most common approach for analysing business strategy. However, in the new context, classical SWOT analysis does not provide suitable guidance for building an effective strategic management information system. An extended SWOT analysis which takes into consideration the two main streams of modern strategic thought - the resource-based view and the activity-based view - is a more reliable foundation. ICBS draws inspiration from the extended SWOT analysis and builds a strategic management information system in which core knowledge is the key issue.

ICBS is a methodology and a framework for successful strategy formulation in the knowledge economy or, in other words, “the competitiveness strategy check-up for organizations in the knowledge economy”. It tries to substantially improve SWOT analysis and to fill in the existing gap in strategy formulation models and methodologies, allowing enterprises to evaluate their business models and their competitive advantages using as a reference for evaluation the world best in class competitors. For that specific purpose, ICBS relies on competitive benchmarking and competitive intelligence techniques. When using ICBS in a systematic and repetitive way we obtain ICBS scorecards and balance sheets that lead enterprises to better decision making helping to determine future goals, to innovate in their business models and to gain and sustain competitive advantages.

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