
SCBS SOCIAL CAPITAL BENCHMARKING SYSTEM

Profiting from Social Capital when building network organizations.

Author. Josep María Viedma Marti.

*Professor of Business Administration at the UPC
Polytechnic University of Catalonia and
President of Intellectual Capital Management Systems.*

**5th World Congress on Intellectual Capital
DeGroot Business School – McMaster University
January 16 - 18, 2002**

Email address: icms.viedma@terra.es; jose.m.viedma@upc.es

SCBS SOCIAL CAPITAL BENCHMARKING SYSTEM
Profiting from Social Capital when building network organisations.
José María Viedma

Keywords: *Social capital, intellectual capital, clusters, benchmarking, resources and capabilities.*

Abstract. *In knowledge economy, companies and organisations build sustainable competitive advantages not only relying on their internal intellectual capital but also on the intellectual capital of other companies, organisations and institutions and specifically on those of the cluster (Porter, 1990), microcluster or territory where the company is located. This kind of intellectual capital, basically external and of a relational nature is one of the main constituents of the networked organisation and (will be called) from now on Social Capital (Nahapiet & Ghoshal, 1998) because it is embedded in the social fabric (texture) of the nearby environment.*

SCBS (Social Capital Benchmarking System) is both a new management method and a new management tool, that identifies, audits and benchmarks the resources and capabilities of the social capital, existing in alternative cluster locations that are necessary in order to develop the specific network organisation that each particular business model requires. The system has been successfully piloted in five European enterprises.

INTRODUCTION.

Resource based view (Barney, 1991, 1999; Grant, 1991, 1998; Teece, 1997) stresses that in turbulent times and in times of quick changes in technology and in customer and industry needs, sustainable competitive advantages are mainly due to the company resources and capabilities or being more specific to the core capabilities that are in practice, equivalent to the core competencies or to intellectual capital. In search of sustainable competitive advantages, some models have been developed in recent times. These models manage intellectual capital of the two value chains; that is to say, the operations value chain and the innovation value chain. The better known, are: Skandia Navigator (Leif and Malone, 1997), Intangible Assets Monitor (Sveiby, 1997) and Balanced Scorecard (Kaplan and Norton, 1994). They all consider strategy (vision, mission and objectives) as the main reference and human capital, structural capital and relational capital as the aggregates to manage. Other models also focus on strategy as the main reference, but instead of considering the three types of capital that we have mentioned before, they manage only core competencies or core capabilities. My models Intellectual Capital Benchmarking System (Viedma, 2001 a) and Innovation Capabilities Benchmarking System (Viedma, 2001 b) are among this second group, as well as Daniel Andriessen's Value Explorer Model (Andriessen, 2001).

Nevertheless, in knowledge economy, companies and organizations build sustainable competitive advantages not only relying on their internal intellectual capital, but also on the intellectual capital of other companies, organizations and institutions and specifically on those of the cluster (Porter, 1990 a), microcluster or territory where the company is located. This kind of intellectual capital,

basically external and of a relational nature, is one of the main constituents of the networked organization and (will be called) from now on Social Capital (Nahapiet & Ghoshal, 1998) because it is embedded in the social fabric (texture) of the nearby environment.

The present models of intellectual capital are focused on the value chain internal intellectual capital and do not take into account this social capital when building and managing networked organizations that intend to achieve sustainable competitive advantages. This paper is trying to fill up this gap by developing SCBS a new social capital model that complements the existing intellectual capital models.

THEORETICAL BACKGROUND.

Recent strategy theorists suggest that intangible resources and in particular core competencies and relationships, are the most important critical drivers of sustainable competitive advantages. Nevertheless, in strategy management there still coexist two relevant perspectives for understanding how firms deploy scarce resources to create superior value (Haanes, 2000): The resource-based view and the activity-based view. (Porter, 1980, 1985, 1996). Both are complementary. The resource-based view focuses on what the firm has, whereas the activity-based view focuses on what the firm has.

The first part of this theoretical background, named firm resources and capabilities, is mainly based on the resource-based view and focuses on the crucial role of internal core competencies and core capabilities. The second part of the same theoretical background named cluster resources and capabilities, is mainly based on the activity-based view, and focuses on profiting from external core competencies or capabilities (the ones that belong to other companies, organizations or institutions mostly located within the cluster or territory) when building the value chain, the value constellation or the networked organization.

Firm Resources and Capabilities.

Considering strategy as a unifying theme that gives coherence and direction to the actions and decisions of an individual or organization, strategy has a fundamental role in success. In accordance with Grant (1998 a) a key common ingredient in all business success stories is the presence of a soundly formulated and effectively implemented strategy. Grant (1998 b) also considers 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: “Who are our customers?” and “Which of their needs are we seeking to serve?”. Nevertheless, 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 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 (Quinn, 1992 a) .

All this reasoning leads to the fundamental role of resources and capabilities in strategy formulation for entrepreneurial success when there are quick changes in technology and in customer and industry needs. Concerning the term resources there is a basic distinction between tangible and intangible (Itami, 1987). Tangible resources are concrete, tractable and easy to identify and evaluate. They include the financial assets and the physical assets, that are identified and valued in the firm’s financial statements, such as Capital, factories, machines, raw material and land. Intangible resources are generally more difficult to transfer than tangible ones, as the value of intangibles resources is difficult to evaluate and measure. Intangible resources include skills, knowledge, relationships, motivation, culture, technology and competencies. Resources are not usually productive on their own. It is the collaboration of different resources within a team and for a specific purpose that make the most productive task. Although, all above mentioned tangible and intangible resources may be scarce and represent the input to create economic value, competencies have received in recent strategy literature particular attention as potential sources of sustained competitive advantage. 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 the firm’s knowledge, routines and organizational culture. But still amid competencies, some authors and in particular Prahalad and Hamel (1990), have distinguished what they call “core competencies” as those fundamental to firm performance and strategy. Core competencies, according to Hamel and Prahalad, are those that make a disproportionate contribution to ultimate customer value, or to the efficiency with which that value is delivered, and provide a basis for entering new markets. (Hamel, 1992). Nevertheless we will use in the remaining part of this paper another “core competencies” definition that considers them of a unique bundle of intangible assets which are the roots of firm, sustainable, competitive advantages (Andriessen, 2001).

At the same time we will use the terms “core competencies” and “core capabilities” interchangeably. We will also consider that the term intellectual capital is equivalent to core competencies and core capabilities. In doing so, we adhere to Patrick H. Sullivan (2000) who defines intellectual capital as knowledge that can be converted into profits or knowledge that produces value.

Figure 1 tries to summarize what has been said till now on firm resources and capabilities and Figure 2 shows which are the main possible intangible assets within a core competence (Andriessen, 2001).

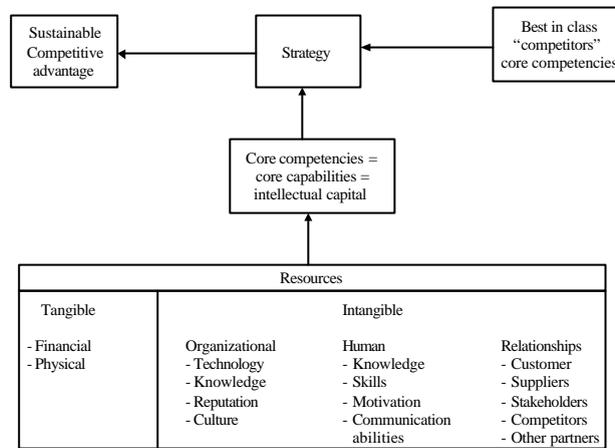


Figure 1 Firm resources and capabilities

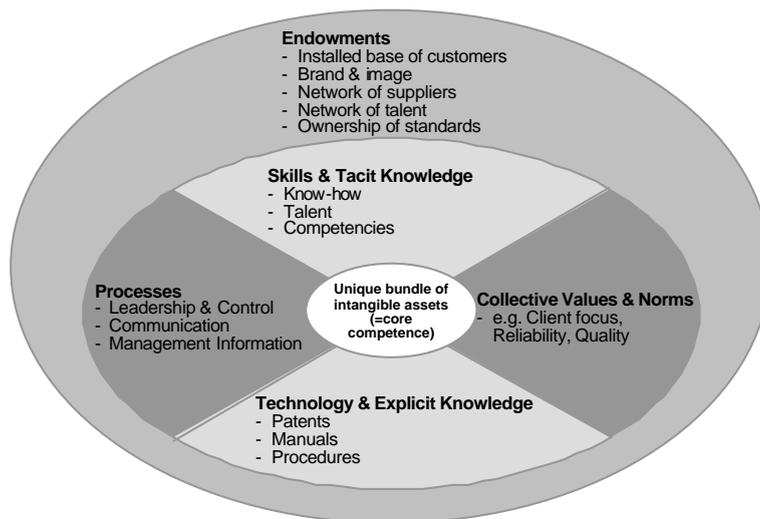


Figure 2 (Andriessen, 2001) A core competence as a unique bundle of intangible assets

Cluster Resources and Capabilities.

As a matter of fact, in knowledge economy, companies and organizations build sustainable competitive advantages not only relying on their internal core competencies but also on the core competencies of other companies, organizations and institutions and specifically on those of the cluster (Porter, 1990), microcluster or territory, where the company is located.

One of the pioneering scientific efforts on establishing the maxims for long term dominance through core competencies was done by Quinn J. B. (1992 b) in his influential book “Intelligent Enterprise”. Some key excerpts of this book are the following:

- “Intellectual and service activities now occupy the critical spots in most companies value chains, regardless of whether the company is in the services or the manufacturing sector.
- If one is not “best in world” at a critical activity, the company is sacrificing competitive advantage by performing that activity internally or with its existing technique. This dictates that managers consider each activity in their value chain on a “make or buy” basis.
- Each company should focus its strategy investments and management attention on those core competencies –usually intellectual or service activities- where it can achieve and maintain “best in world” status, i.e., a significant long-term competitive advantage.
- The scale, specialized capabilities, and efficiency of outside service entities have so changed industry boundaries and supplier capabilities that they have substantially diminished the desirability of much vertical integration”.

Intelligent enterprise presented as a new paradigm for a new era, in order to build sustainable competitive advantages concentrates on building and exploring core activities and core competencies and relying on the capabilities of external suppliers for other activities considered non strategic and non core.

But at the same time, when building internal core competencies, an intelligent enterprise needs the cooperation of other companies, organizations and institutions resources and capabilities as shown in figure 1. More and more firms must turn to partnering –often with their rivals- to melt the right resources and capabilities for pursuing new opportunities. Even though few managers are accustomed to working with undefined boundaries between collaboration and competition, the need to take advantage of unfamiliar skills and capabilities coming from interdependent networks of

alliances and cooperation agreements is a “sine qua non” condition for building proprietary core capabilities that can lead to sustainable competitive advantages (Doz Y.L., 1998).

These arguments give way to the following figure number 3 where the intelligent enterprise network is drawn or outlined.

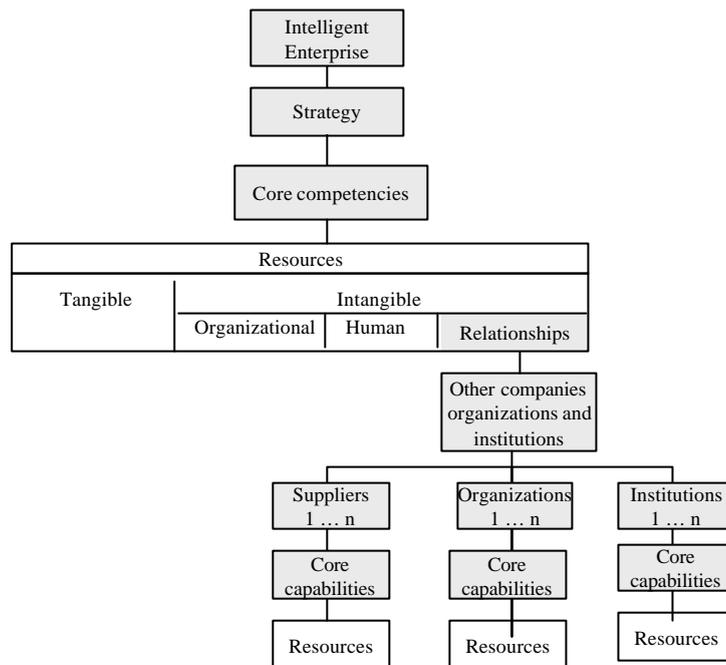


Figure 3 Intelligent enterprise network

Having seen the importance of suppliers and other partners capabilities in order to build the network organization of the intelligent enterprise, we will discuss the role of the cluster, microcluster or territory when constructing the above mentioned network organization. There is extensive literature on clustering of competitive industries but there is at the same time, a common denominator in that literature (e.g. Porter, 1990 a; Harrison, 1994; Priore, 1984). These common features become evident from the following excerpts:

“A distinction has to be drawn between those parts of corporate activity where spatial proximity is important and those where it is not. The view of writers... who have studied this, is that commercial (sales, strategic, or financial) and basic scientific networks can work well at a long distance.

However, dealing with practical, production-related issues, such as designing software or making product adjustments or applications, tend to be geographically a clustering phenomenon. Trust is built between lower managers, and the networks that they build are kept going for as long as possible until they are destroyed by mergers and acquisitions”. (Cooke, 1993).

“Competitors in many internationally successful industries and often entire clusters of industries are frequently located in a single town or region within a nation. The vast majority of Italy’s woolen textile producers, for example, are located in two towns. While geographic concentration of Italian industries is widely recognized however, what is less understood is how prevalent the phenomenon is”. (Porter, 1990 b).

“Concentrations of domestic rivals are frequently surrounded by suppliers, and located in areas with concentrations of particularly sophisticated and significant customers. The city or region becomes a unique environment for competing in the industry. The information flow, visibility and mutual reinforcement within such a locale give meaning to Alfred Marshall’s insightful observation that in some places, an industry is in the air”. (Porter, 1990 c).

“Silicon Valley is [now] best viewed as an American variant of the industrial districts of Europe’s technologically dynamic regional economies in which networks of specialist producers both compete and cooperate in response to fast changing global markets. In these districts, technical skill and competence are widely diffused, small and medium sized firms achieve external economies through complex supplier and subcontracting relations, and the region (not the firm) is the locus of production. The result is a decentralized system which is more flexible than the traditional, vertically-integrated corporation”.

“While these firms serve global markets and collaborate extensively with foreign suppliers, their key relationships tend to be local”. Harrison Bennett (1994 b).

From these three excerpts and from the above mentioned literature it is possible to conclude that location matters when a competitive enterprise builds a set of different relationships in a world where vertical integration is practically disappearing, and location matters because first class competitors in an industry segment are always clustered in cities and regions together with other competitors, suppliers, customers and other related industries and institutions. In addition, clustering facilitates through personal contacts, the access to tacit knowledge that is the key

ingredient of other companies, organizations and institutions core capabilities, and the one that guarantees long-term sustainable competitive advantages. Nevertheless, relationships can be divided into two groups. In the first there are the ones inside the cluster and in the second there are the ones outside the cluster. The proportion between the two groups varies depending on the industry segment and the specific strategies of the different companies, but the main bulk of relationships is always inside the cluster. All that it has been said is illustrated in figure N° 4.

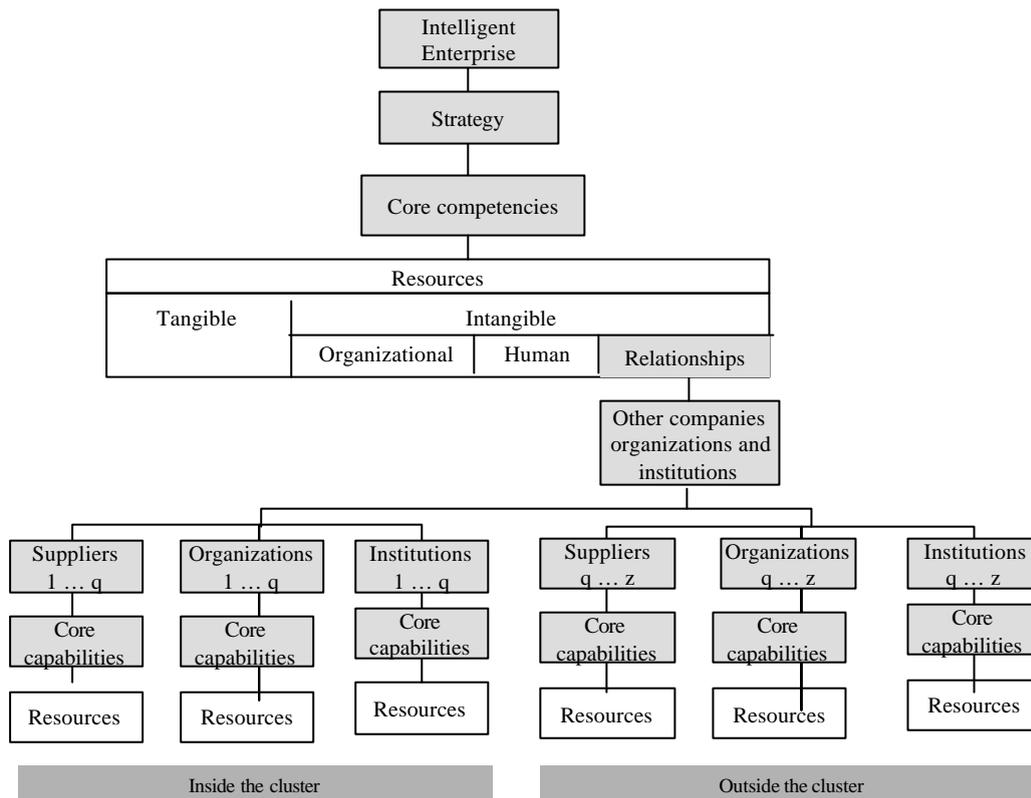


Figure 4 Network structure. Inside and outside the cluster.

SOCIAL CAPITAL AS AN IMPORTANT CONSTITUENT OF THE NETWORK ORGANIZATION.

As it has been said in the introduction to this paper, knowledge economy companies and organizations build sustainable competitive advantages, not only relying on their intellectual capital (core competencies), but also on the intellectual capital (core competencies) of other companies, organizations and institutions and specifically on those of the cluster, microcluster or territory where the company is located. This kind of intellectual capital, basically external and of a relational nature, is one of the main constituents of the networked organization and (will be called) from now

on Social Capital. Nevertheless, the concept of networked organization is a very large one and includes different, new organizational options. Some authors (Harrison, 1994 c) distinguish four types of production networks; the craft-type industries, the small firm-led industrial districts, the geographically clustered big firm –led production systems and the strategic alliances production networks. We will not focus on the particularities of these types of networks, and on those of other types of networks, such as starburst, federal or spider web forms. For the purpose of this paper a network organization is the one that in order to build internal core competencies (intellectual capital) extensively uses, through cooperation agreements, other companies, organizations and institutions core competencies (intellectual capital).

With reference to the concept of social capital there are many definitions, but we show preference to that of Nahapiet and Ghoshal (1998). They literally state: “The sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit. Social capital thus comprises both the network and the assets that may be mobilized through that network”.

In a more simplistic way, we say that social capital is the sum of the resources and capabilities that belong to the network of organizations that the intelligent enterprise has built in order to successfully compete.

SOCIAL CAPITAL AS THE MAIN SOURCE OF CLUSTER SUSTAINABLE COMPETITIVE ADVANTAGE.

As it has been said in theoretical background paragraph, dealing with clusters resources and capabilities, the relationships with the companies, organizations and institutions that belong to the cluster, are privileged relationships because they are the only ones capable of transmitting the tacit knowledge that is embedded in core competencies and core capabilities. Hence the importance of clusters located in a specific city, region or territory. Relationships with other companies and organizations outside the cluster location usually only transmit explicit knowledge, that is less relevant to the process of gaining and sustaining competitive advantages. In that sense, social capital belonging to the cluster’s outside network, will be rated lower than the social capital inside the network.

PROFITING FROM EXISTING SOCIAL CAPITAL WHEN BUILDING NETWORK ORGANIZATIONS: THE NEED TO BENCHMARK.

When the Intelligent Enterprise is focusing on core competencies (intellectual capital) and core activities and strongly specializes on those core competencies and activities, all the other activities and the development of other competencies are left to the companies of the network and specially to the ones inside the cluster-city, the cluster-region or the cluster territory. In that context, it is crucial to choose the right cluster among the different possible cluster options, because the cluster will be the foundation of the network construction. Hence, the importance of an accurate evaluation of different clusters options considering in any case as the starting point, the strategy, the business model and the industry segment of the intelligent enterprise. Figure 5 draws this process.

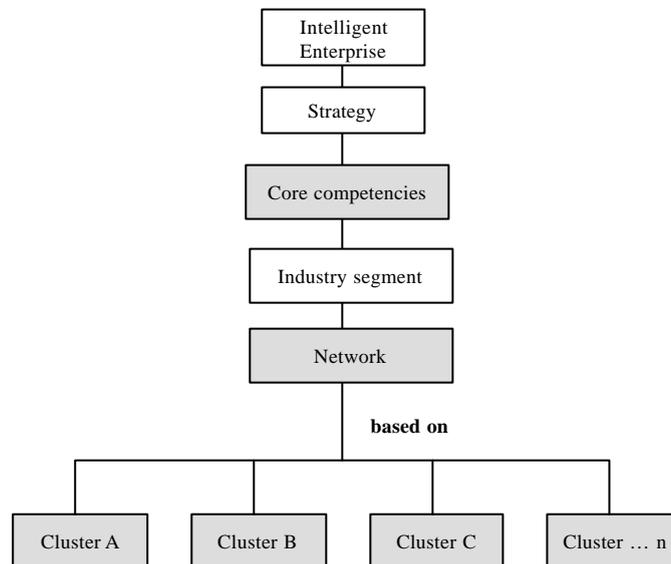


Figure 5. Choosing the best cluster.

In fact, once the business model and specially the industry segment is very well defined, it is essential to focus on the best cluster-location in the world, where the most competitive and excellent companies of the industry segment are located. The best cluster in the world will be the reference model and we will need to benchmark any optional alternative cluster location against the best cluster in the world. In consequence, benchmarking in a systematic way is an unavoidable practice if profiting from existing social capital becomes a strategy priority of the intelligent enterprise.

BUILDING THE SCBS GENERAL FRAMEWORK.

The present models of intellectual capital are focused on the value chain internal intellectual capital and do not take into account social capital when building and managing networked organizations that intend to achieve sustainable competitive advantages. This paper attempts to fill up this gap by developing SCBS, a new social capital model that complements the existing intellectual capital models. However SCBS (Social Capital Benchmarking System) is also a new management method and a new management tool that allows a specific company to benchmark the resources and capabilities of the cluster where the company is located, against the resources and capabilities of the best cluster in the world, in order to successfully develop the business activity of the specific company. It is a framework built around the key factors and criteria that determine clusters competitiveness in the context of global market.

SCBS framework draws inspiration from the Michael E. Porter determinants of national advantage (Porter, 1990d). The factors considered are: a) Resources and capabilities b) Demand c) Suppliers and other related industries d) Firms strategy, culture and structure e) Competitors f) Government. SCBS identifies the relevant factors and criteria that allow the best network construction for a specific business activity.

Figure 6 illustrates the general framework.

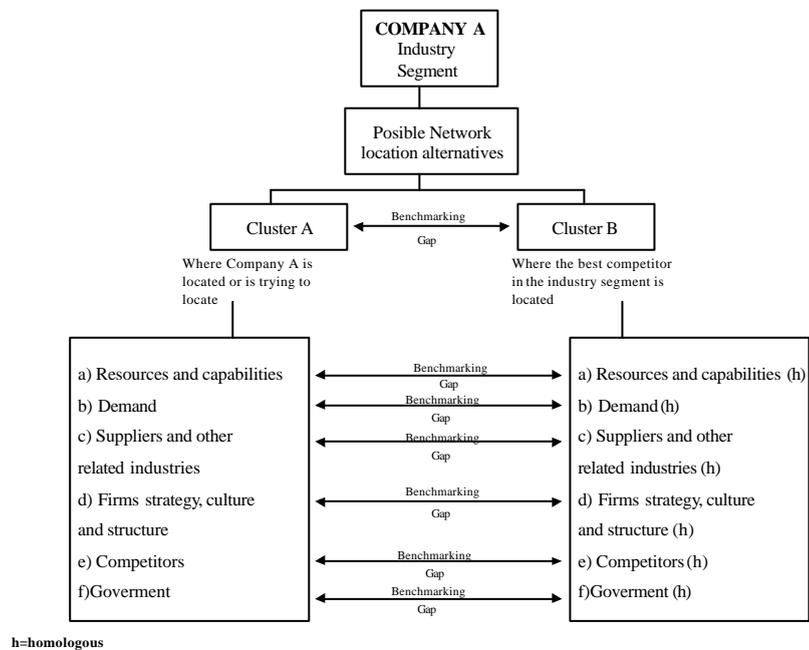


Figure 6. SCBS general framework.

Another way to illustrate the key factors of SCBS framework is given in figure 7.

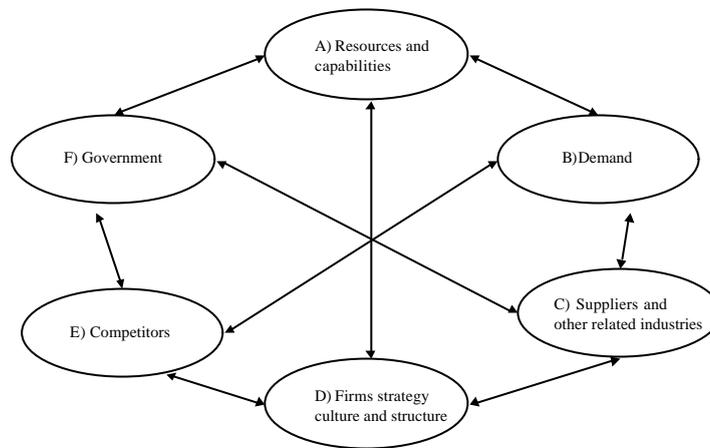


Figure 7. Factors of SCBS framework.

The definition and the content of each particular factor are:

- a) **Resources and capabilities**: Cluster position in different resources and capabilities such as physical resources (land, water, mineral, timber deposits, fishing grounds, hydroelectric power, climate, location) human resources (quantity, skills and cost of personnel) financial resources (amount and cost of capital available in the different forms) knowledge resources (scientific and technical knowledge that reside in universities, research institutes, private research facilities, business and scientific literature, etc.) and infrastructure (type, quality and user cost of available infrastructure such as transportation system, mail and parcel delivery, communications system, telecommunications system, health care, housing stock, cultural institutions, etc.)
- b) **Demand**: Refers to home demand for the products and services of the industry segment. The three main attributes of home demand are: the nature and composition of buyer needs, the size and pattern of growth of home demand, and the quality and sophistication of home demand when compared with international standards. The last attribute fosters cluster's firm innovation.
- c) **Suppliers and other related industries**: Refers to suppliers and other related industries that are internationally competitive. Home base first class suppliers are key in the process of outsourcing but specially in the process of improving, upgrading and innovation. The presence in the cluster of competitive related industries gives cluster's firms the possibility to share value chain activities in technology development,

manufacturing, distribution, marketing and service. All this improves firm's core competencies and creates new ones.

- d) Firms strategy, culture and structure: Refers to the conditions in the cluster and specifically in the industry segment, that determine how companies are created, organized and managed. This factor also includes the cultural context in which firms develop their activities.
- e) Competitors: Refers to domestic rivalry within the cluster. There is a close association between vigorous domestic rivalry and the creation of sustainable competitive advantages in an industry segment. Having world class competitors at home fosters imagination, creativity and innovation. It is a challenging situation that encourages the process of learning in order to surpass the best in class competitors.
- f) Government: government influences the five other determinants of cluster competitive advantages that have been described above. In this case we refer not only to the national government but also to the local government. The influence on the other factors can be direct or indirect and what it is more important, they can be either positive or negative. On the role of government, Porter M.E. (1990 d) asserts: "Factor conditions are affected through subsidies, policies toward the capital markets, policies toward education, and the like. Government's role in shaping local demand conditions is often more subtle. Government bodies establish local product standards or regulations that mandate or influence buyer needs. Government is also often a mayor buyer of many products in a nation....Government can shape the circumstances of related and supporting industries in countless other ways... Government policy also influences firm strategy, structure and rivalry, through such devices as capital market regulations, tax policy and antitrust laws".

At the same time each one of the six factors is broken down into a set of different criteria and each criterion is evaluated through questionnaires.

The operating system of the SCBS is the following: Company A, that belongs to a specific industry segment, once defined its core competencies needs to assess which cluster location is the best in order to build its network organization. If the company is located in cluster A, or is trying to locate in cluster A, cluster B where the best competitors within the industry segment are located, may be a better cluster location. Evaluation of the two possible locations is done through the factors SCBS model.

This model assesses social capital and physical and financial capital because the three types of capital always go together and because access to physical and financial capital is always done because of social capital. The assessment process is done through the extensive use of factors, criteria and questionnaires.

The six factors of the SCBS, model, individually and as a system, create the context in which firms are born and compete. Firms gain competitive advantage in industries when their home base affords better ongoing information and insight into product and process needs. Firms gain competitive advantage when the goals of owners, managers and employers support intense commitment and sustained investment. Ultimately, territories succeed in particular industries because their home environment is the most dynamic and the most challenging, and stimulates and prods firms to upgrade and widen their advantages over time (Porter, 1990 d).

FROM THE GENERAL TO THE SPECIFIC SCBS FRAMEWORK .

The SCBS general framework that we have already described in building the SCBS general framework paragraph is a general framework that can be used to generate the specific SCBS framework suitable to a specific firm strategy, to a specific business model and to a specific industry segment.

The SCBS general framework consist of 6 factors and each factor is composed of an array of criteria and each criterion has one or several questionnaires aiming at the criteria evaluation.

We customize the SCBS general framework to a specific industry segment, by choosing and weighing up, among criteria and questionnaires, the ones that best suit the specifications of a given industry segment.

When filling in the questionnaires, the benchmarking teams are able to evaluate the relevant criteria of an industry segment cluster and among them the relevant criteria that make up the cluster social capital.

Given that a large part of the information (above all, on the cluster of the best competitor) may not be known precisely, all questions in all the SCBS questionnaires have a “response precision” box, that indicates the accuracy of each particular answer.

By integrating the results of the response precision boxes the SCBS framework also permits us, to measure the degree of reliability of the benchmarking and its constituent parts, to establish plans for systematically improving information acquisition and to set up an intelligence team in the company.

The following figure number 8 illustrates the process described above.

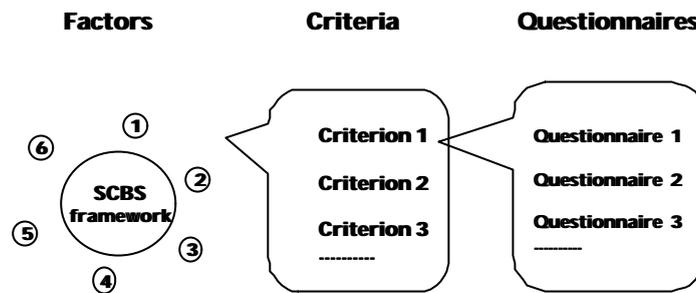


Figure 8. Specific SCBS framework.

THE KEY ROLE OF SOCIAL CAPITAL BENCHMARKING IN THE FRAMEWORK CONSTRUCTION.

As it has been said before, SCBS is both a new management method and a new management tool that enables a specific company to benchmark the resources and capabilities of the cluster where the company is located, against the resources and capabilities of the best cluster in the world in order to successfully develop the business activity of that specific company. At the same, time because the tool supplies relevant information on clusters social capital, the tool may be also labeled as an information system or even better, as a decision support system.

Nevertheless, SCBS not only benchmarks core capabilities but also the resources underlying and make such capabilities possible. In other words, SCBS benchmarks social capital and physical and financial capital as well.

The 6 factors framework is used for moving from the general framework(general context) to the specific framework (specific industry segment).

We customize the general framework through two types of variables: the criteria and the questionnaires and through a benchmarking process that covers the activities of two clusters, the one where our company is located or is trying to locate and the one where the best competitor in the industry segment is located.

The process of cluster benchmarking allows us to determine the specific competitiveness factors and criteria which are relevant in a cluster industry segment. These factors and criteria may also be termed key cluster competitiveness drivers.

The questionnaires that are directly derived from the criteria allow us to evaluate and benchmark the alternative cluster locations that a company has in a specific industry segment in order to build the best possible network. For better comprehension of the above, see figure 9.

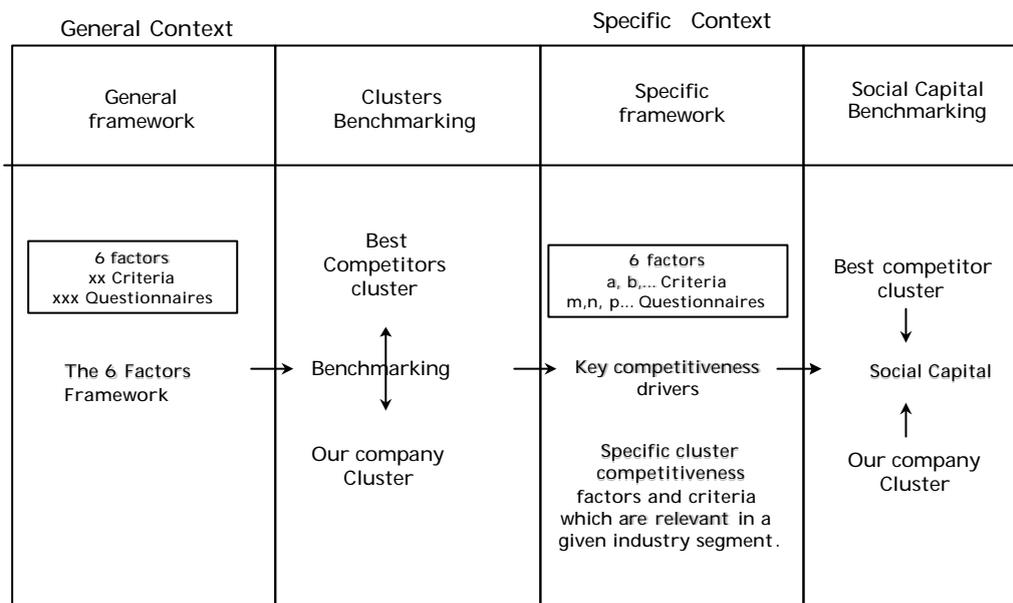


Figure 9. The role of Social Capital Benchmarking in the framework construction.

THE SCBS IMPLEMENTATION PROCESS.

The following elements are involved in putting the SCBS method into practice:

- a) A general database that contains all the possible criteria and questionnaires to be used. This means that each factor can be looked at in the greatest possible detail.
- b) A user-system interface that enables criteria and questionnaires to be adapted to the particularities of each company industry segment.
- c) The successive responses to the personalized questionnaires are used to create the specific database that contains all the information on the alternative cluster locations for a given industry segment.

- d) Specific software incorporating the factors, criteria, questionnaires and the theory and principles set out in theoretical Background paragraph, enables us to process the information contained in the specific database and to obtain a series of outputs in the form of social capital assessment results and balance sheets.

THE SCBS BALANCE SHEETS.

The processing of questionnaires corresponding to each of the cluster factors and criteria provides us with the social capital results and balance sheets. These results and balance sheets can be obtained for the whole social capital or for each particular factor. Some examples of balances and results are given below (figures 10 and 11):

INDUSTRY SEGMENT: PRINTING INDUSTRY.			
CLUSTER A :	Barcelona	CLUSTER B :	Madrid
Cluster A points - Cluster B points		Cluster B points - Cluster A points	
Assets		Liabilities	
A) RESOURCES AND CAPABILITIES 0,21429		A) RESOURCES AND CAPABILITIES	
Natural resources		Natural resources	
Industrial real estate		Industrial real estate	
Climate		Climate	
Unskilled personnel		Unskilled personnel	
Capital		Capital	
Skilled personnel		Skilled personnel	
Educational and research centers		Educational and research centers	
Alternative energy		Alternative energy	
Telecommunications		Telecommunications	
Science and technology		Science and technology	
Conventional energy 0,07143		Conventional energy	
Transportation infrastructure 1,95714		Transportation infrastructure	
Infrastructure to live		0,500 Infrastructure to live	
Related resources provision		Related resources provision	
B) DEMAND 0,13485		B) DEMAND	
Demand segmentation 0,225		Demand segmentation	
End user refinement		2nd user refinement	
Pressure for innovation and upgrading 0,250		Pressure for innovation and up grading	
Demand internationalisation		0,3333 Demand internationalisation	
C) SUPPLIERS AND OTHER RELATED INDUSTRIES 0,0625		C) SUPPLIERS AND OTHER RELATED INDUSTRIES	
Suppliers internationalization 0,1875		Suppliers internationalization	
Suppliers purchasing power		Suppliers purchasing power	
Support sectors		Support sectors	
Related industries outsourcing		Related industries outsourcing	
Strategic networks		Strategic networks	
D) FIRMS STRATEGY CULTURE AND STRUCTURE 0,12792		D) FIRMS STRATEGY CULTURE AND STRUCTURE	
Strategy objectives 0,02941		Strategy objectives	
Culture 0,83333		Culture	
Industry segment prestige 0,250		Industry segment prestige	
Firms structure		0,16667 Firms structure	
Managers and workers 0,09524		Managers and workers	
E) COMPETITORS 0,500		E) COMPETITORS	
F1) GOVERNMENT (direct intervention) 0,342		F1) GOVERNMENT (direct intervention)	
F2) GOVERNMENT (indirect intervention) 0,025		F2) GOVERNMENT (indirect intervention)	
Influence on resources and capabilities		Influence on resources and capabilities	
Influence on demand		Influence on demand	
Influence on related sectors		Influence on related sectors	
Influence on strategy		Influence on strategy	
Influence on competitors		Influence on competitors	

Figure 10. Social Capital global assessment: Balance sheet.

Industry segment: Printing Industry				
CLUSTER A : Barcelona		CLUSTER B: Madrid		
RESOURCES AND CAPABILITIES	WEIGHTING		QUESTIONNAIRES RESULTS	
	0 - 5	%	Cluster A	Cluster B
Natural resources	0	0,0%	0,00	0,00
Industrial real estate	3	7,9%	3,50	3,50
Climate	0	0,0%	0,00	0,00
Unskilled personnel	0	0,0%	0,00	0,00
Capital	3	7,9%	5,00	5,00
Skilled personnel	5	13,2%	3,19	3,19
Educational and research centers	4	10,5%	3,10	3,10
Alternative energy	0	0,0%	0,00	0,00
Telecommunications	5	13,2%	3,27	3,27
Science and technology	4	10,5%	3,23	3,23
Conventional energy	5	13,2%	3,00	2,93
Transportation infrastructure	5	13,2%	3,86	1,90
Infrastructure to live	4	10,5%	3,50	4,00
Related resources provision	0	0,0%	0,00	0,00

Resources and capabilities weighted average (0 - 5)	
Cluster A	Cluster B
2,35	2,39

Consolidated reliability index	>80%
--------------------------------	------

Figure 11. Partial assessment of Social Capital resources and capabilities.

BENEFITS FROM USING SCBS.

Considering that SBS identifies, audits and benchmarks the resources and capabilities or the social capital, existing in alternative cluster locations, that are necessary in order to develop the specific network organization that each particular business model or industry segment requires, the benefits from using SCBS are the following:

1. Identifying the world best cluster locations, where the intelligent enterprise is able to establish the necessary relationships, that each specific business model requires in order to build its network organization.
2. Identifying the specific external social capital factors and criteria which are relevant in a given business model or industry segment.
3. Through the SCBS factors framework enabling the identification, audit and benchmark of the social capital alternative cluster locations that are the source of sustainable relational competitive advantages.

4. When using SCBS in an orderly, systematic and repetitive way, we obtain social capital balance sheets that are future-oriented and complement and perfect finance and intellectual capital balance sheets, leading companies to leveraging social capital.
5. Selecting in a systematic and organized way the necessary information for evaluating relevant social capital factors and criteria.
6. Identifying the key areas in which in-depth benchmarking can be carried out in the future.
7. Promoting organizational learning through benchmarking teams, assessment teams, project teams and strategic teams.
8. Introducing a common language for company managers when dealing with social capital or external resources and capabilities.
9. Measuring the reliability concerning the relevant information and the progress of acquiring this information.
10. Facilitating the work of the benchmarking and competitive intelligence teams.
11. Facilitating the work of the knowledge and intellectual capital managers.
12. Giving SME's managers access to social capital management in a systematic and organized way.

REFERENCES

- Andriessen, D. (2001). Weightless Wealth. Paper for the 4th world congress on the management of intellectual capital. Mc Master University. January 17-19. Hamilton, Ontario, Canadá. Pp. 1-10.
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management* Vol.17 Num.1 Pp. 99-120.
- Barney, J. (1999). How a Firm's Capabilities Affect Boundary Decisions. *Sloan Management Review*. Spring Pp. 137-145.
- Cooke, P., Morgan K. (1993). The Network Paradigm: New Departures in Corporate and Regional Development. *Society and Space*. (October 1993). pag. 75 Pp. 553.
- Doz, Y.L., Hamel G. (1998). Alliance Advantage. Harvard Business School Press. Boston, Massachusetts, Pp. XIII-XVIII, 1-33.
- Grant, M. F. (1991). The resource-based Theory of Competitive Advantage: Implications for Strategy fomulation. *California Management Review* No.33 Pp.114-135.
- Grant, R. M. (1998 a). Contemporary Strategy Analysis, Blackwell Publishers Ltd., Oxford. U.K. Pp. 4-12.
- Grant, R. M. (1998 b). Contemporary Strategy Analysis, Blackwell Publishers Ltd., Oxford. U.K. Pp. 107.
- Haares, K. and Fjeldstad, O. (2000). *European Management Journal*. Vol. 18, N° 1, Pp. 52-54.
- Harrison, B. (1994 a). Lean and Mean. Basic Books. New York.
- Harrison, B. (1994 b). Lean and Mean. Basic books. New York. Pp. 108-109.
- Harrison, B. (1994 c). Lean and Mean. Basic books. New York. Pp. 134-135.
- Itami, H., Roehl T. (1987). Mobilizing Invisible Assets. Harvard University Press. Cambridge.
- Kaplan R. and Norton D. (1994). The Balanced Scorecard. Harvard Business School Press. Boston.
- Leif E. and Malone M. (1997). Intellectual Capital. Harper Business.
- Nahapiet, J. and Ghoshal, S. (1998). Social Capital, Intellectual Capital, and the organizational advantage. *Academy of Management Review*, 23 (2) Pp. 242-266.
- Piore, M. J. and Sabel, C.F. (1984). La segunda ruptura industrial. Alianza Editorial. Madrid.
- Porter, M. E. (1980) Competitive Strategy. Free Press. New York.
- Porter, M. E. (1985) Competitive Advantage. Free Press. New York.
- Porter, M. E. (1996) What is strategy?. *Harvard Business Review*. Nov-Dic, Pp.61-78.
- Porter, M.E. (1990 a). The Competitive Advantage of Nations. Free Press. New York.
- Porter, M.E. (1990 b). The competitive advantage of nations. Free Press. New York. Pp. 154-155.
- Porter, M.E. (1990 c). The competitive advantage of nations. Free Press. New York. Pp. 155-156.
- Porter, M.E. (1990 d). The competitive advantage of nations. Free Press. New York. Pp. 69-130.
- Prahalad, C.K. and Hamel G. (1990). The core competence of the corporation. *Harvard Business Review*. May-Jun. Pp.79-91.
- Prahalad, C.K. and Hamel G. (1992). *Harvard Business Review*. May-June. Pp. 164-165.
- Quinn, J. B. (1992 a). Intelligent Enterprise. The free press. New York. Pp. 31-59.
- Quinn, J.B. (1992 b). Intelligent Enterprise. The Free Press. New york Pp. 53-56.

SCBS Social Capital Benchmarking System

- Sullivan, H. P. (2000). Value-Driven Intellectual Capital. John Wiley & Sons Inc. New York. Pp. 3-18.
- Sveiby, K. E. (1997). The new organizational wealth. Berrett-Koehler Publishers, Inc.
- Teece, D. J., Pisano G. and Shuen A. (1997). Dynamic Capabilities and Strategic Management. Strategic Management Journal 18 (7) Pp. 509-533.
- Viedma (2001) ICBS Innovation Capability Benchmarking System. Paper for the 4th.World Congress on Intellectual Capital. Mc Master University. Hamilton, Ontario, Canadá.
- Viedma, J.M. (2001) ICBS Intellectual Capital Benchmarking System. Journal of Intellectual Capital . Vol. 2 No. 2.Pp. 148-164.