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SCBS Social Capital Benchmarking System

Profiting from Social Capital when Building Network Organisations

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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, 1990a], 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 and 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 or 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.

Keywords*:* Social capital, intellectual capital, clusters, benchmarking, resources and capabilities, knowledge management.
Category: H [Information Systems]

1 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, 1990a], 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 and 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.

2 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, et al 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 does.

The resource-based view focuses on the crucial role of internal core competencies and core capabilities and on the role of relationships that give access to other companies and organizations core competencies resources and capabilities. The activity-based view 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.

3 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] 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 Nahapier 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.

4 Social capital as the main source of cluster sustainable competitive advantage

As it has been said in the introduction, 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 that the social capital inside the network.

5 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 1 draws this process.

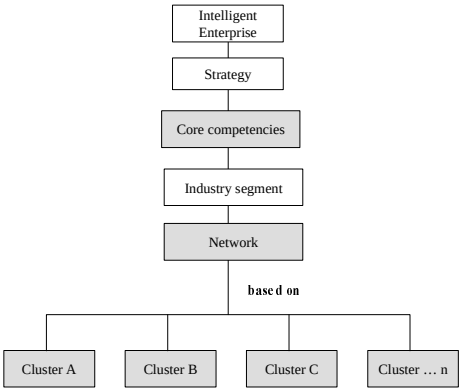


Figure 1: Choosing the best cluster

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.

6 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 attemps 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, 1990b]. 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 2 illustrates the general framework.

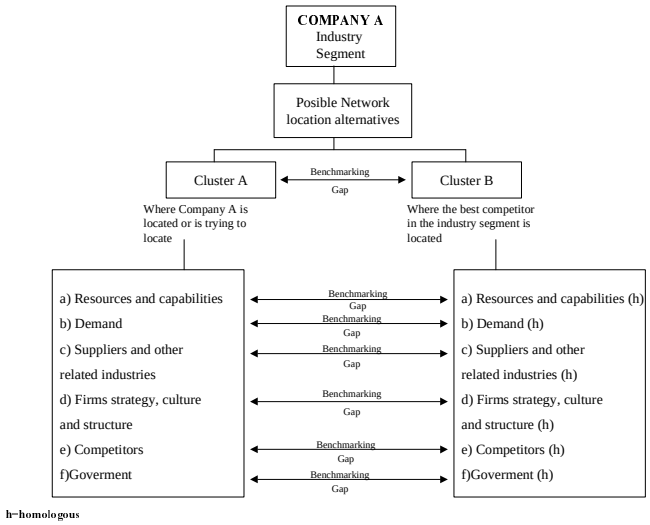


Figure 2: SCBS general framework

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. (1990b) 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, 1990b].

7 The SCBS balance sheets

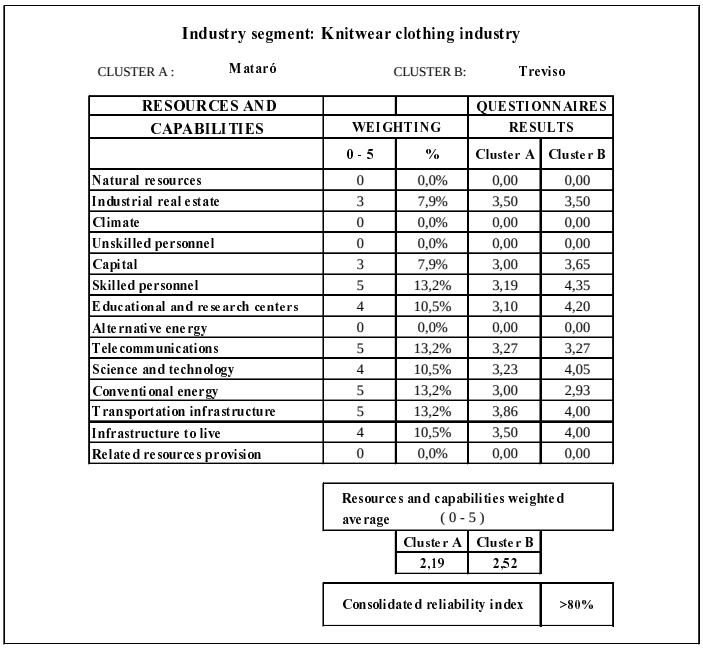
The processing of questionnaires corresponding to each of the cluster factors and criteria provides us with the social capital results and balance sheets. These results and balance sheets can be obtained for the whole social capital or for each particular factor. Some examples of balances and results are given below (figures 3 and 4):

Industry segment: Knitwear clothing industry

CLUSTER A : Mataró **CLUSTER B :** Treviso

Cluster A points - Cluster B points		Cluster B points - Cluster A points	
Assets			**Liabilities**
A) RESOURCES AND CAPABILITIES		**0,33**	A) RESOURCES AND CAPABILITIES
Capital		0,65	Capital
Skilled personnel		1,16	Skilled personnel
Educational and research centers		1,10	Educational and research centers
Science and technology		0,82	Science and technology
Conventional energy	0,07		Conventional energy
Transportation infrastructure		0,14	Transportation infrastructure
Infrastructure to live		0,50	Infrastructure to live
B) DEMAND		**0,80**	B) DEMAND
Demand segmentation		0,70	Demand segmentation
End user refinement		0,75	End user refinement
Pressure for innovation and upgrading		1,05	Pressure for innovation and up grading
Demand internationalisation		0,50	Demand internationalisation
C) SUPPLIERS&OTHER RELATED INDUSTRIES		**0,75**	C) SUPPLIERS&OTHER RELATED INDUSTRIES
Suppliers internationalization		1,50	Suppliers internationalization
Support sectors		0,50	Support sectors
Related industries outsourcing		0,32	Related industries outsourcing
Strategic networks		0,50	Strategic networks
D) FIRMS STRATEGY CULTURE&STRUCTURE		**0,71**	D) FIRMS STRATEGY CULTURE&STRUCTURE
Strategy objectives		0,50	Strategy objectives
Culture		0,31	Culture
Industry segment prestige		1,02	Industry segment prestige
Firms structure	0,02		Firms structure
Managers and workers		0,50	Managers and workers
E) COMPETITORS		**0,50**	E) COMPETITORS
F1) GOVERNMENT (direct intervention)		**0,34**	F1) GOVERNMENT (direct intervention)
F2) GOVERNMENT (indirect intervention)	**0,35**		F2) GOVERNMENT (indirect intervention)
Influence on resources and capabilities	0,02		Influence on resources and capabilities
Influence on demand	0,50		Influence on demand
Political factors	0,50		Political factors
Labour law	0,05		Labour law
Tax and commercial law	0,50		Tax and commercial law

Figure 3: Social Capital global assessment: Balance sheet



Industry segment: Knitwear clothing industry

CLUSTER A : Mataró CLUSTER B: Treviso

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%	3,00	3,65
Skilled personnel	5	13,2%	3,19	4,35
Educational and research centers	4	10,5%	3,10	4,20
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	4,05
Conventional energy	5	13,2%	3,00	2,93
Transportation infrastructure	5	13,2%	3,86	4,00
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
2,19	2,52

Consolidated reliability index	>80%

Figure 4: Partial assessment of Social Capital resources and capabilities

8 Benefits from using SCBS

Considering that SCBS 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.

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