

Competency Concept in VO Breeding Environments

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INTRODUCTION

In order to acquire more business opportunities, by adapting to new and changing market conditions, organizations face many strategic and operational challenges; one of them is related to identification and management of their competencies. Broadly speaking, competency management is the way in which organizations coordinate and manage the competencies of the corporation, groups, and individuals. It has the primary objective to identify and continuously maintain competencies, according to the objectives of the corporation. A competency is a way to put into the practice some knowledge, know-how, and also attitudes, inside a specific context. Identification of competencies has been well recognized as a key element for the achievement of company goals, complimenting core business processes, customer relationships, and financial issues; integration of all these elements will reflect as an increase in company's competitiveness (Hamel & Prahalad, 1994; Norton & Kaplan, 1996).

However, achieving competitiveness in a company requires, besides specialized processes, also the integration of other competencies. Sometimes, and especially in small and medium enterprises (SMEs), these competencies are difficult to find in one single organization, so the joint of competencies of different SMEs increase the possibility of individual success. The supporting processes for integrating several competen-

cies in companies, especially on emerging collaborative organizations, is then a key element. Current collaborative businesses address such competency integration through the use of new ways of cooperative networks, appearing as enablers to facilitate the approaching and development of business opportunities (Afsarmanesh & Camarinha-Matos, 2005). The virtual organization breeding environment (VBE) is one of those conceptions, which groups a pool of organizations (members) and their related support institutions that have both the potential and the interest to cooperate with each other, through the establishment of a long-term based cooperation agreement (Camarinha-Matos & Afsarmanesh, 2004).

The VBE appears as an infrastructure's provider for creation of virtual organisations (VO), which is defined by Camarinha-Matos, Afsarmanesh, and Ollus (2005) as "temporally alliances of organisations that come together to share skills or core competencies and resources in order to better respond to business/collaboration opportunities and produce value-added products and services, and whose cooperation is supported by computer networks" (p. 6). Such cooperation is then understood as a win/win relationship to increase individual performances for each partner, induced by the collaborative growth. In that perspective, cooperation is considered as a central element of competencies development process.

In this sense, the VBE organisational model requires an efficient and effective method for identification and creation of competencies. Competency definition is then, considered a core process for the VBE because it supports the identification of the enterprises that will participate in the development of a specific collaborative opportunity. A description of organisational competencies in a VBE in terms of processes, practices, associated partners, and resources, is presented in this paper in order to prompt the partner search and selection activities to functionally integrate VOs.

It is important to mention that topics presented in this paper related to the definition and structure of competencies in a VBE are part of partial results of the ECOLEAD project (www.ecolead.org), which is funded under the FP6 Programme of the European Commission.

BACKGROUND

A broad number of definitions about competencies in industry have been developed aiming to describe theoretical models, model organization's competencies to put them into the practice, and generate approaches to create, sustain, and develop new competencies. The concept of competences became highly fashionable in the 1990s. Prahalad and Hamel (1990) defined core competencies as the "collective learning in the organization, especially how to coordinate diverse production skills and integrate multiple streams of technologies" (p. 82).

Verdin and Williamson (1994) stated that by "linking and understanding of the competitive environment with the concept of core competences, practitioners can determine where to transfer competences within their organizations and identify opportunities for profitable diversification" (p. 12).

Competencies are more than the traits of individuals: Gallon, Stillman, and Coates (1995) defined core competencies as "aggregation of capabilities, where synergy that is created has sustainable value and broad applicability" (p. 82). That synergy needs to be sustained in the face of potential competition and, as in the case of engines, must not be specific to one product or market. So according to this definition, core competencies are harmonized and intentional constructions.

Coyne, Hall, and Clifford (1997) did not diverge much from these concepts and defined core competence

as "a combination of complementary skills and knowledge bases embedded in a group or team that results in the ability to execute one or more critical processes to a world class standard". Two ideas are very important here. Skills and knowledge are complementary, and when taken together they make it possible to provide a superior product.

One of most important studies, contributing to depict the organizational structure of companies was provided by Javidan (1998) who described the core competence hierarchy as follows:

- **Resources** "are the inputs into the organization's value chain, categorized into three groups of "physical (technological) resources such as plant, equipment, location and assets; human resources such as manpower, management team, training and experience; and organizational resources such as culture and reputation" (p. 62). Resources are the first level in the core competence hierarchy.
 - **Capabilities** "refer to the corporation's ability to exploit its resources; they consist of a series of business processes and routines that manage the interaction among its resources. Capabilities are functionally based; they are resident in a particular function, e.g., marketing capabilities, production capabilities, distribution and logistics capabilities, among others" (p. 62). Capabilities are the second level in the core competence hierarchy.
 - **Competencies** represent a "cross-functional integration and coordination of capabilities. In a multi-business corporation, competencies are a set of skills and know-how housed in a SBU (Strategic Business Unit)" (p. 62). Competencies are the third level in the core competence hierarchy.
- Core Competencies** represent cross SBU (Strategic Business Unit) boundaries; they result from the interaction among different SBUs' competencies. "Core competencies are skills and areas of knowledge that are shared across business units and result from integration and harmonization of SBU competencies. A core competency is a collection of competencies that are widespread in the corporation" (p. 62). Core competencies are the final level in the core competence hierarchy.

Nevertheless, it is important to mention the lack of existent literature about collective competencies

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