Chapter XII

Applying a Core Competence Approach in Virtual Enterprise Formation

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The process of core competencies identification has been incorporated by the enterprises within strategic planning. The virtual enterprise, which is a form of cooperation between enterprises, is one of the most benefited with this new process, mainly in its formation stage. The identified core competencies, which are deployed in products, process and technology, may support a more agile gathering of the virtual enterprise partners. This chapter presents a method to identify core competencies, supported by a practical case of successful virtual enterprise formation, where the method was applied and validated.

INTRODUCTION

In recent years, many articles have been written describing an innovative way of organizing enterprises with the objective to exploit business opportunities in a cooperative manner: the virtual enterprises. Many definitions and approaches of virtual enterprise can be found; however, the following characteristics are common in most of the articles:
- Enterprise cooperation
- Distributed control and coordination
- Use of information technology
- Gathering of core competencies

While the three prime characteristics are well known, the latter still lacks concrete definition. Therefore, if the objective in a virtual enterprise is the gathering of core competencies from different enterprises, then it is necessary to know in advance all their existing competencies. However, if the enterprises barely know each other or even do not know at all, there is a prior necessity to expose such competencies to each other.

In fact, a nonexistence of a stable definition about what are competencies and mainly a standard format to represent them is perceived, and can be searched and gathered through other enterprises. The concept of competence is still steady in a strategic level, strongly surrounded by vagueness. Javidan (1998) also states that literature on core competencies does not provide an organizational process for identifying core competence. All steps that an enterprise should take in order to use core competencies effectively are rarely mentioned by the researchers.

The gathering of core competencies is a requirement to achieve an agile virtual enterprise formation, but it is not standardized yet. Therefore, a critical area can be identified as spoiling the success of the virtual enterprise organizational model.

This chapter describes a model to be applied in virtual enterprise formation based on core competencies. It also describes practical results obtained within a virtual organization, a stable network in which the primary aim, according to its established processes, is to facilitate virtual enterprise formation by gathering small and medium enterprises that are already members of a virtual industry cluster.

A method to support virtual enterprise formation is also presented, describing steps to identify potential constituent skills as an explicit representation of core competencies. To validate the method it follows an example of application. Primarily, the process of VE formation is described.

VIRTUAL ENTERPRISE FORMATION

VEs are mainly based on the integration of competencies among independent enterprises providing a product or a service (Sieber, 1997). The proposal of forming VEs shows by itself an advantage because of their capability of quick market response in a saturation environment, changing the manufacturing profile for a customer-focused standard instead of a producer one (Reithofer & Näger, 1997).

Analyzing the context of small and medium enterprises (SMEs), many small high-technology enterprises failed due to the lack of technical as well as management competencies. In general, virtual enterprises (VEs) and their form of organization based on cooperation can be assumed as adequate to fulfil these deficiencies and support the formation of high-technology-based enterprises (Eversheim et al., 1996a).

Few models in the literature represent an adequate virtual enterprise formation process, which is considered just through the abstract view. When practical steps to implement this process are described by models, the responsible entities to perform related tasks are not considered with enough level of detail. Therefore, the model

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