

PART 1

BIVEE Project Framing

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Business Innovation in Virtual Enterprise Environments

Virtual enterprises are temporary alliances of business organizations that come together sharing skills, knowledge, information and resources in order to better respond to business opportunities, and whose cooperation is supported by information technology (IT) platforms. This chapter is an introduction to business innovation in virtual enterprise environments.

1.1. Introduction

One of the most interesting aphorisms in innovation literature is, without doubt, “Change Or Die!”. Few people know that this sentence was actually an advertisement made by Electronic Design and was conceived in 1970; only in 2005 did it become the title, and the opening concept, of Alan Deutschman’s article “Change or Die” for the magazine Fast Company. In this article, talking about the contents of the previous IBM’s Global Innovation Outlook conference, Deutschman argued that science has shown that only one time out of nine, when faced with preventable conditions like heart attacks, are people able to change the environmental conditions and the style of their life.

Moving the point of view from people to companies, we realize that the situation is exactly the same: companies, too often, are very slow to react to changes in environmental conditions and, when the environment is related to their own market, the results could be fatal. History is full of situations in

which large companies have failed to change, although all the signs of a change in their target market were there, and consequently died.

So, the first thing, from a company's point of view when the market is going to change, is a willingness to change. In fact, as we know, willingness is a very important trait, but of course it is not enough. A company needs something else and this element is often what makes the difference between surviving and dying; this element is innovation.

In the literature, there are several definitions for the term "innovation", my favorite being: "innovation is the process of creating values from ideas" [TID 14].

The first concept we have to understand is that *innovation is a process*. It is not a spark that enlightens the dark minds of some business managers or engineers when they are closed in their office staring at the white ceiling. It is a process, with a beginning, with phases (or better "waves" as we will see later in this book), with owners, with stakeholders, with positive people and negative ones, with some organizational entities prepared to pay and others prepared to enjoy the success of a new product, a new service or a new way to do things in a better way. All of these actors work in a single body: the organization.

The innovation goal is not only, as it might seem at a superficial analysis, to earn more money; that is only a side effect and, actually, is related only to product or service innovation from a company point of view. In a more general vision, we can have different levels of innovation, from a company level to a system and social level.

From a company point of view, we can have an innovation based on new and advanced materials which can be used to improve the product and service performances. However, we can have an innovation based on a new kind of product (or a new market for existing ones) or the need to update the existing products in order to make them more attractive for the evolving market. In this case, of course, the main innovation goal is related to the company's money.

From the society point of view, however, we can have a radical innovation based on new general interest findings or inventions, such as steam power, ICT revolution and bio-technology. In this case, we can find new technologies or products that, regardless of their brand, could change the way we do some daily activities. For example, we can listen to music using

old vinyl records, usually only using very large devices, or we can use new portable devices with tens of hours of music inside and, in the near future, other kinds of portable devices with all the world's music directly available through streaming. When these types of innovation are more related to improving the quality of life of people, for instance a new green engine, we can say that the social impact of innovation is much more important for society than it is for the company that puts it on to the market.

1.2. Business innovation and virtual enterprises

Innovation is not an art, craft or skill, it is not an empirical practice or an engineering activity and it is not a creative vision. In fact, it is a manifold compound that includes all these ingredients and one more: knowledge. Knowledge is the real key factor that makes the difference between disorganized and theoretical innovation attempts and real business innovation strategies. People involved in innovation processes are well informed about company business strategies, products and services, the technologies involved, new market opportunities and other relevant technologies or methodologies recently discovered or just placed on the market.

Unfortunately, it is very difficult to have all of this knowledge in one team. Even in very large, smart and agile organizations, the covering of every aspect of the innovation process is a mirage or a myth. This is the reason why typical one-brand organizations (like companies) need to link themselves to more complex structures, in order to share their knowledge with other partners in a particular context and, on the other hand, to access other partners' knowledge, building a so-called virtual enterprise.

A virtual enterprise is a temporary alliance of business organizations that come together sharing skills, knowledge, information and resources in order to better respond to business opportunities, and whose cooperation is supported by IT platforms.

In this larger vision, related to virtual enterprises, business innovation could be described as a designed, managed transformation of some aspects of the enterprises involved aimed at a substantial improvement of the quality of products and services. This results in better production processes, cost reductions (and/or revenue increases), better staff satisfaction and better overall sustainability.

In this extended and more open and fertile environment, we will find many opportunities in which we can insert new ideas and insights directly coming from the virtual enterprise's knowledge.

First, we will discover new products or services for our usual market and, similarly, new potential markets for our current products and services catalog. This new range of prospective opportunities could be considered enough to say that the virtual enterprise has great potential, but this is only the beginning.

Sharing knowledge with partners also means the possibility of improving business production, and administrative processes; this is a very important topic because having more efficient processes directly means having fewer costs and often better quality.

At the same time, the company will have access to competencies, capabilities and skills not usually present into the employee headcount, this is a crucial aspect when in a situation a particular, and not easy to find, skill is requested.

Last but not least, the company will have access to technology directly offered by technological partners, with the best economic conditions and in a partnership model that, as everybody knows, is much more efficient than the classical customer–supplier relationship.

In such a supportive environment, there are great advantages not only for standard production projects, but also especially for innovation projects that can have great opportunities precisely because they were developed in a knowledge-based environment where every partner has access to information, the best practices, tools and platforms that allow the best selection of ideas in the described scenario and generate the best conditions for great innovation projects.

1.3. Bibliography

[TID 14] TIDD J., BESSANT J., *Strategic Innovation Management*, Wiley, 2014.